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Country profiles

Current and future income adequacy in old age in the EU

Joint report prepared by the Social Protection Committee (SPC) and the European Commission (DG EMPL)

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The 2021 Pension Adequacy Report: current and future income adequacy in old age in the EU

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[1] The European Social Policy Network: http://ec.europa.eu/social/main.jsp?catId=1135&langId=en

Table of Contents

BELGIUM

Highlights

- The poverty risk of people aged 65 or over has decreased by 5 percentage points (p.p.) over the last 10 years. The strengthening of social corrections such as the minimum pension and means-tested pension is likely to have contributed to this decline. However, the high share of retirees just above the poverty line means many remain vulnerable.
- The employment rate in the 55-64 age group has increased, reflecting reforms in the early retirement scheme. Nonetheless, employment rates in this age group remain low compared with the EU.[2]
- Single women face a higher poverty risk within the pension system. While women are the main beneficiaries of derived rights and social corrections, these corrections remain insufficient to compensate for the differences between men's and women's careers. Recent reforms have improved pension security for the self-employed, though they remain a vulnerable group.
- While some steps have been taken to align the rules in the different statutory schemes, risks of inequalities persist. Further measures to protect mixed careers have been called for.

1 GENERAL DESCRIPTION OF THE NATIONAL PENSION SYSTEM

The Belgian pension system strongly relies on statutory pension schemes, supported by occupational and personal pension schemes.

Statutory pensions work on a pay-as-you-go (PAYG) basis and are financed through a combination of social security contributions and general taxes. They consist of three separate statutory pension schemes respectively covering employees, civil servants and the self-employed. These statutory pension schemes consist of a contribution-based old-age pension, as well as a number of derived rights including a survivor's pension. In the fourth quarter of 2017, 89.3 % of men and 80.9 % of women aged 65 or older were registered as a pension recipient.[3] A means-tested pension scheme tops incomes below EUR 1154.41 per month (gross amount for a single person in 2020) up to that amount under certain conditions.[4] In 2018, 4.9 % of pension recipients received this means-tested pension top-up.[5]

[2] EU and EU-27 refer to the current 27 Member States of the European Union.
[3] Datawarehouse Arbeidsmarkt en Sociale Bescherming [Data Warehouse Labour Market and Social Protection], 2020. https://www.ksz-bcss.fgov.be/nl/dwh
[4] Federale Pensioendienst [Federal Pension Service], 2020. https://www.sfpd.fgov.be/nl/recht-op-pensioen/igo
[5] Coene, J., 'Armoede en sociale uitsluiting ontcijferd', in J. Coene, P. Raeymaeckers, B. Hubeau, S. Marchal, R. Remmen and A. Van Haarlem (eds.), *Armoede en Sociale Uitsluiting: Jaarboek 2019*, Acco, Leuven, 2020, pp. 361-441.

The statutory pension schemes for employees and the self-employed are part of social security. Social security is funded through contributions, with supplementary funding from general taxation. Civil servants' old-age pensions are considered as a form of deferred compensation and are thus paid from general taxes, though civil servants do pay contributions to finance their survivor's pensions.[6]

The pensionable age in the statutory pension system is currently 65 for men and women. Early retirement is possible at age 60 after a career of at least 44 years (including pension credits[7]), at age 61 after a career of 43 years, or at age 63 after a career of 42 years. The pension benefit is accrued in every year worked; so, in principle, shorter careers lead to a proportionally lower pension. There is no formal maximum number of career years, though 45 years is considered as the target. People are neither penalised for early retirement nor awarded a bonus for deferral of pension uptake, but old-age pensions can be combined with work earnings without limitation after a career of 45 years or once the pensionable age is reached.[8]

For employees, gross effective wages and notional wages (in the case of pension credits) in a career year are summed and capped if exceeding the maximum, which was set at EUR 58,446.94 for 2019. The yearly gross wage is indexed to the evolution in consumer prices until the time of retirement, subsequently divided by 45 and then multiplied by 60 % ('individual rate', corresponding to an annual accrual of 1.3 %), or 75 % in cases where the pensioner has a dependent spouse ('family rate'). The yearly old-age pension is the sum of this calculation for every career year. Notwithstanding some similar principles (career length, revenue revalorisations, and more), the pension calculation is different for the self-employed (a correction coefficient is applied), and is based on net business revenue. The pension of statutory civil servants is calculated in a different way. Their pension is based on the average wage of the last 10 career years. For every year worked as a civil servant, they build up 1/60th of that amount (for some categories of civil servants, a different denominator applies). Civil servants' pensions cannot exceed 75 % of the average wage of the last 10 career years and could not be higher than EUR 6801.90 per month (gross) in 2020.

There is no requirement for minimum contributions, calculation basis or duration of employment in order to be entitled to pension benefits in any of the schemes: people build up a pension entitlement from the first day of work. The pensions of employees and the self-employed are indexed to consumer prices; adjustments for increases in welfare payments occur in a non-systematic way. Civil servants' pensions follow public sector wage development, known as '*perequation*'.[9]

[6] Federale Overheidsdienst (FOD) Sociale Zekerheid [Federal Public Service Social Security], 2020. https://www.socialsecurity.be/citizen/nl/over-de-sociale-zekerheid/de-financiering-van-de-sociale-zekerheid/financiering-van-de-3-stelsels

[7] Pension credits are pension entitlements given for periods in which a person was not in paid employment.

[8] Federale Pensioendienst, 2020. https://www.sfpd.fgov.be/nl/pensioenleeftijd/wanneer and https://www.sfpd.fgov.be/nl/pensioenbedrag/bijverdienen

[9] Federale Pensioendienst, 2020. https://www.sfpd.fgov.be/nl/pensioenbedrag/berekening/verschillende-soorten-pensioenen/werknemers, https://www.sfpd.fgov.be/nl/pensioenbedrag/berekening/verschillende-soorten-pensioenen/ambtenaren, https://www.sfpd.fgov.be/nl/pensioenbedrag/berekening/maximumpensioen, https://financien.belgium.be/sites/default/files/downloads/700-schalen-20200101.pdf, https://statbel.fgov.be/nl/themas/consumptieprijsindex/gezondheidsindex and https://www.sfpd.fgov.be/nl/kenniscentrum/perequatie

A number of social corrections reduce the impact of employment and earnings on pensions. Pension credits are given for certain periods of non-employment ('assimilated periods'), including unemployment, sickness and invalidity, and periods of care leave for which people receive an allowance. It is also possible to build up a pension for other periods of non-employment (e.g. studying) through paying voluntary contributions. Finally, a minimum entitlement per career year and the so-called guaranteed minimum pension (EUR 1291.69 gross per month in 2020, on the condition of a 45-year career) improve the pensions of people with low incomes and in some types of part-time employment.[10]

There are also minimum pensions in the statutory pension system: a pensioner with at least 30 career years as an employee or self-employed worker has a right to a minimum retirement pension if this minimum pension is higher than the earnings-related pension. For individuals with incomplete careers (e.g. 30 years), the full minimum pension is not granted but only a fraction that is proportionate to the duration of the career (e.g. 30/45ths of the full minimum pension amount). If a pensioner with a minimum retirement pension dies, and the spouse is entitled to a survivor's pension, the spouse will benefit from the minimum survivor's pension.

In addition, a minimum calculation basis (the so-called 'minimum right per year' (*minimumrecht per loopbaanjaar/droit minimum par année de carrière*)) is applied to employees in the statutory pension scheme: a pensioner with at least 15 career years as an employee can potentially benefit from the calculation of the pension entitlement on a minimum basis per career year. If the wage generating pension rights in a certain year is lower than a predetermined minimum amount, the pension is calculated based on the minimum amount instead of on the actual earned wage. To ensure that an individual with too high a pension is excluded from the minimum right, there is also a maximum pension ceiling: if the total pension is above this ceiling, no additional minimum rights are granted.

A survivor's pension can be granted to people over the age of 47.5 years when their spouse dies. In principle it equals the deceased spouse's pension at the individual rate, though it can only be cumulated with other incomes (including own old-age pension) to a limited extent. People under the age threshold can receive a transition benefit of one year, or two years in the case of dependent children. In cases of divorce, the spouse of a (former) employee or self-employed person may be entitled to a divorce pension. For every year of marriage, people build up a pension calculated on 62.5 % of the then-spouse's wage, if own pension entitlements for that year remain below the amount so calculated. The ex-spouse's pension is not affected.[11]

Occupational pension schemes are funded and organised at the company or sectoral level. Employers and – less frequently – employees pay contributions into a pension fund or to an insurance company. Since 2019, it is also possible for an individual employee to make an agreement with an insurance company or pension fund and save up to EUR 1600 per year (in 2019) or up to 3 % of gross wages, rendering a tax deduction of 30 % of contributions paid.

[10] Federale Pensioendienst, 2020. https://www.sfpd.fgov.be/nl/pensioenbedrag/berekening/verschillende-soorten-pensioenen/werknemers/lonen, https://www.sfpd.fgov.be/nl/loopbaan/jaren and https://www.sfpd.fgov.be/nl/pensioenbedrag/berekening/gewaarborgd-minimum-pensioen

[11] Federale Pensioendienst, 2020. https://www.sfpd.fgov.be/nl/recht-op-pensioen/overlevingspensioen, https://www.sfpd.fgov.be/nl/pensioenbedrag/berekening/verschillende-soorten-pensioenen/overlevingspensioen, https://www.sfpd.fgov.be/nl/recht-op-pensioen/overgangsuitkering and https://www.sfpd.fgov.be/nl/pensioenbedrag/berekening/verschillende-soorten-pensioenen/gescheiden

The organiser of a pension (company or sector) is legally obliged to guarantee a certain interest rate, though since 2016 this minimum has been 1.75 %, down from 3.25-3.75 % before 2016. The self-employed can pay into an occupational pension for up to 8.17 % of net business revenue; contributions are fully deductible from taxes as a business expense. On top of that, the self-employed with a formal company structure can accumulate an additional occupational pension through an 'individual pension commitment', and since 2018 a similar option also exists for the self-employed without a formal company structure (the pension agreement for the self-employed).

For both employees and the self-employed, contributions into an occupational pension scheme should not be higher than the amount needed to reach an 80 % gross replacement rate, statutory and occupational pension combined. The pay-out of occupational pensions has been linked to receiving a statutory pension since 2016. At the start of 2019, 75 % of employees and the self-employed had an occupational pension.[12]

There are two types of personal pension schemes where take up is legally prohibited before the legal retirement age: personal pension schemes and individual long-term saving schemes.[13] In 2020, people can choose to pay up to EUR 990 per year into a personal pension scheme and receive a 30 % tax deduction, or EUR 1270 with a 25 % tax deduction. Premiums for individual life insurance schemes attracted a 30 % tax deduction for up to EUR 2390 per year in 2020. Taking money out of a personal pension is possible without penalty from the age of 60, although life insurance is usually paid out at the age of 65.[14] Around 3 million Belgians paid into a personal pension scheme or individual life insurance scheme in 2018, which corresponds to less than half of the population aged 20-64.[15] Other similar personal savings provisions, including long-term ones, are also used.

2 REFORM TRENDS

Over recent decades, a number of measures have been taken to delay retirement, starting with the raising of pensionable ages for women from 60 to 65 between 1997 and 2009, thereby equalising it with that of men. Since then, the eligibility criteria for early retirement have been tightened over recent years.[16] For cohorts born before 1956 it was possible to retire after 37 career years, or from the age of 62 after 32 career years. For cohorts born before 1958, early retirement was possible at 61 after 43 career years, at 62 after 42 career years and at 63 after 41 career years. For cohorts born since 1958, the criteria are now as specified in the previous section. Furthermore, the pensionable age, currently 65, will increase to 66 in 2025 and 67 in

[12] Financial Services and Markets Authority, 2020. https://www.fsma.be/nl/faq/wat-het-vrij-aanvullend-pensioen-voor-werknemers, https://www.fsma.be/nl/faq/wat-de-wettelijke-rendementsgarantie, https://www.fsma.be/nl/faq/werkgeversbijdragen, https://www.fsma.be/nl/faq/wanneer-kan-ik-mijn-aanvullend-pensioen-opvragen-0 and https://www.fsma.be/nl/news/de-tweede-pensioenpijler-beeld-overzicht-2019

[13] There are also other similar products (more 'traditional' life insurances) without tax advantages.

[14] Wikifin, 2020. https://www.wikifin.be/nl/themas/pensioenen/pensioensparen/fiscaliteit, https://www.wikifin.be/nl/themas/sparen-en-beleggen/spaarcenten-denk-ook-aan-langetermijnsparen, https://www.wikifin.be/nl/themas/pensioenen/pensioensparen/fiscaliteit and https://www.wikifin.be/nl/themas/sparen-en-beleggen/spaarcenten-denk-ook-aan-langetermijnsparen

[15] Assuralia, 2019. https://www.assuralia.be/nl/home/19-perscorner/persberichten/925-1-5-miljoen-belgen-doen-aan-pensioensparen-via-een-verzekering

[16] https://www.etaamb.be/fr/loi-du-10-aout-2015_n2015022279.html

2030. The eligibility age for survivor's pensions is steadily being increased from 45 years in 2015 to 50 years in 2025, in steps of six months per year. In 2019, the maximum career length taken into account for the pensions of employees and the self-employed ('career unity') was largely abolished. Whereas in the past the benefit calculation was based strictly on the wages earned during the 45 years before retirement, this is now based on the earnings of 14,040 days (corresponding to 45 working years), which can be worked over more than 45 calendar years.

In addition, social corrections have recently undergone reforms. Over recent years there has been an effort to gradually increase the level of means-tested and minimum pension benefits,[17] particularly in cases of a full career. At the same time, other social corrections have been rolled back. The maximum ceiling at which earnings are capped for pension calculation has been increased. Over the period 2012-2017, pension credits were reduced for people in unemployment. For periods of unemployment longer than one year, pension build-up has been based on the minimum wage instead of the previous wage after one year of unemployment for people under age 50 since 2017. The same is the case for periods of unemployment with employer supplement.[18]

A third series of reforms are related to the harmonisation of the three statutory pension schemes. In 2017, the minimum pension for the self-employed markedly increased when it was equalised with that of employees. The role of study years in pension build-up was equalised over the three statutory pension schemes in the same year. Before, study years were only taken into account in the pension build-up of civil servants, free of charge. This was abolished and now in all three public pension schemes it is possible to pay contributions for study years after the sixth grade of secondary education for which people have received a diploma.

Recent supplementary pension reforms include the introduction of the possibility for employees to join an occupational pension scheme at their own initiative, and of the 25 % tax deduction for personal pensions in 2018. Furthermore, the pension agreement for the self-employed was introduced, allowing self-employed people without a formal company structure to accumulate an additional occupational pension.

3 ASSESSMENT OF ADEQUACY

3.1 Current adequacy

The income position of people over age 65 has improved compared with that of working-age people since 2008. The median equivalised disposable income of people aged 65 or over grew from 72 % to 77 %[19] of that of those aged 18-64. Also, the aggregate replacement ratio increased over the same 10-year period by 4 p.p. to reach almost 50 % in 2019. However, Belgium still scored well below the EU average on both indicators in 2019 (respectively 91 % and 58 %), and the increases found in Belgium over the last 10 years are comparable to those for the EU as a whole over the same period. It should be noted, however, that the significantly

[17] https://www.etaamb.be/fr/arrete-royal-du-21-juillet-2017_n2017040444.html.

[18] This concerns an unemployment scheme in which people receive a payment from their previous employer on top of the unemployment benefit. Though technically an unemployment scheme, it was effectively used as an early retirement scheme before (commonly known as 'bridge pension'). Access to the scheme has since been restricted.

[19] The numbers in this section come from the statistical annex (see Section 5), unless stated otherwise.

lower taxation of pension income, compared with wages, means that gross replacement rates are lower than net replacement rates in Belgium.[20]

With the highest-income quintile among people aged 65 or over receiving an income around three times higher than the lowest-income one, Belgium has a low level of income inequality among older people compared with the EU. Income inequality in this age group is also lower than among people under 65, where the ratio is close to 4:1. Inequality appears to be relatively stable over time. While the statutory pension scheme is in principle earnings-related, the lower level of inequality among pensioners shows the moderating effect of social corrections, including minimum and means-tested pensions, the capping of earnings in the pension calculation and pension credits. However, a methodological issue may be at play: due to the high share of occupational pensions paid out as lump sums, the EU-SILC (European Union statistics on income and living conditions) underestimates pensions, particularly among higher earners who are more likely to have access to these schemes (Peeters et al., 2014).

In 2019, 16.5 % of people aged 65 or over were at risk of poverty or social exclusion (AROPE) in Belgium. The number is about 3 p.p. higher for those aged 75 or over, which could be related to the pensions of employees and the self-employed not being systematically adapted to wage development.[21] The AROPE rate is over 2 p.p. higher for women than it is for men, but the gender difference is markedly lower than for the EU as a whole. With a 5 p.p. drop over a 10-year period, the reduction in the AROPE rate among older people has been markedly sharper in Belgium than in the EU. The Belgian improvement in the AROPE rate is largely due to a reduction in the at-risk-of-poverty (AROP) rate among older people, which fell from 21.2 % in 2008 to 15.7 % in 2019, reaching a level comparable to that of the total population. The Study Commission on Ageing, moreover, estimates that only 9 % of older people were at risk of poverty in 2016 after taking home ownership into account, compared with 16.5 % in the rest of the population.[22] It should be noted, however, that both the AROP and AROPE rates showed a slight increase as of 2017, particularly for women. The evolution over the coming years will reveal whether this is mere noise in the data or whether there is indeed an increase in poverty risk. But since women are the main beneficiaries of social corrections (see below and Section 3.4), this could be related to recent reforms in pension credits.

The gradual increases in the minimum pension and means-tested benefits for pensioners are a likely reason for the reduction in the AROP rate among older people (Studiecommissie voor de Vergrijzing, 2019, pp. 48-50); such increases managed to lift some low-income pensioners closer to or just over the AROP threshold. This picture is confirmed by the relatively low intensity of poverty visible in the low level of severe material deprivation (1.6 %) and the relative median AROP gap (11.5 %) among people aged 65 or over. In addition, the alternative AROP rates, calculated at 50 % and 70 % of median income, show a high concentration around

[20] Peeters, H., Verschraegen, G. and Debels, A., 'Commensuration and policy comparison: how the use of standardized indicators affects the rankings of pension systems', *Journal of European Social Policy*, Vol. 24, No 1, 2014, pp. 19-38.
[21] Commissie Pensioenhervorming 2020-2040 [Pension Reform Commission 2020-2040], *Een Sterk en Betrouwbaar Sociaal Contract: Voorstellen van de Commissie Pensioenhervorming 2020-2040 voor een structurele hervorming van de pensioenstelsels*, FOD Sociale Zekerheid, Brussels, 2014, Attachment 2.1, p. 38.
[22] Studiecommissie voor de Vergrijzing [Study Commission on Ageing], *Jaarlijks Verslag*, Hoge Raad van Financiën, Brussels, 2019, p. 54.

the AROP threshold: 6.4 % of Belgians aged 65 or over have an income below 50 % of median income, and more than a third (34.4 %) have an income below 70 % of median income.

Based on supplementary data, we can identify some social groups that are particularly vulnerable to economic hardship in old age. Single people in general have a higher AROP rate than couples, respectively 20.4 % and 15.7 % in 2018,[23] and single women are more vulnerable to economic hardship than men.[24] However, deeper analysis shows that divorced women in particular face an elevated risk of poverty: in 2008, only 1 % of widows and 4 % of married women aged 65 or over received a means-tested pension benefit, compared with 16 % of non-married women and almost a quarter (23 %) of divorced women.[25] Despite minimum benefits having improved significantly since 2008, this shows a more structural incapacity of the pension system to deal with certain life courses: the system supports people who have been outside the labour market for years as long as they are within the bounds of the male breadwinner model (old-age pension at family rate; relatively generous survivor's pension), but not those falling outside these bounds. These data also show that the divorce pension is very insufficient to guarantee a basic standard of living.

Gender inequality in retirement is shrinking rapidly. The gender gap in pension income dropped by about a third between 2010 and 2019, with a remaining gap of 33.4 % in 2019. In addition, the gender gap in non-coverage rate shrank by a quarter in that period, with pension coverage in the 65-79 age group now being 7 p.p. lower for women than for men. This is undoubtedly the consequence of increased female labour market participation among younger cohorts and a relatively smaller gender wage gap (*Studiecommissie voor de Vergrijzing*, 2019, pp. 47-48), but women also benefit more from certain social corrections. A larger share of women's careers consists of periods of pension credits. While on average 30 % career years were 'assimilated periods' among recently retired male employees in 2013, this was 37 % among women.[26] Nevertheless, women are more likely than men to receive a minimum pension: despite fewer women than men having the required career length to qualify, around 1 in 5 women received a minimum pension in 2013 compared with 1 in 20 men (*Commissie Pensioenhervorming* 2020-2040, 2014, Attachment 3.1, p. 16). Women are also more likely to receive means-tested benefits: 6.9 % of women and 4.6 % of men aged 65 or over received such a benefit in 2011.[27]

Around 10.9 % of people aged 65 or over spent at least 40 % of their disposable income on housing in 2019, and this rate was 5 p.p. higher for women than for men. Both healthy life years and life expectancy at age 65 increased respectively by 0.3 and one year between 2008 and 2019 for women, compared with respectively 0.1 and 1.3 years for men. On average, people

[23] Eurostat, 2020. https://ec.europa.eu/eurostat
[24] De Tavernier, W., 'Belgen en hun pensioen. Langer werken of bijklussen: een noodzaak?', *Geron*, Vol. 22, No 1, 2020.
[25] Peeters, H. and De Tavernier, W., 'Lifecourses, pensions and poverty among elderly women in Belgium: interactions between family history, work history and pension regulations', *Ageing & Society*, Vol. 35, No 6, 2015, pp. 1171-1199.
[26] Peeters, H. and Van Camp, G., *Het Belang en de Samenstelling van Gelijkgestelde Periodes in de Drie Pensioenstelsels: Een stand van zaken* [The Importance and Composition of Assimilated Periods in the Three Pension Schemes: A state of affairs], Federaal Planbureau, Brussels, 2016.
[27] Berghman, M.J., Donvil, N. and Peeters, H., 'Sociale bijstand als indicator van armoede bij ouderen. Opname van de IGO naar geslacht, gezinssituatie, herkomst en pensioenstelsel', *Belgisch Tijdschrift voor Sociale Zekerheid*, Vol. 58, No 2, 2016, pp. 189-215.

aged 65 could expect to live over 20 more years in 2019, of which a bit less half without moderate or severe health problems.

The sustainability indicators show that Belgium still lags behind in terms of employment in the 55-64 age group, with only just over a half in employment in 2019. While the employment rate is still lower among women (47.0 %) than among men (57.3 %) in this age group, the gender gap has markedly decreased since 2010: the employment rate among women aged 54-64 increased by 20.7 p.p., compared with 14.5 p.p. among men. The improvement is probably related to restrictions on early retirement, though this cannot fully explain the sharper increase among women since 2010, as they have been subject to the same retirement regulations as men since 2009. Hence, the data reflect the increasing labour market participation of women, including in the late career.

In 2016, pension spending on old age, early retirement and the unemployment with supplement and survivor's pensions as a percentage of GDP was at 12.6 %, only slightly higher than the EU average of 12.4 %. Following the EU ageing reports' projections, however, while a 1 p.p. increase in pension spending is expected for the EU as a whole by 2059, the increase is almost double for Belgium at 1.8 p.p. The data from the Belgian Study Commission on Ageing (*Commissie Pensioenhervorming* 2020-2040, 2014) provide a more detailed picture. It expects an increase in pension spending from 10.7 % of GDP in 2018 to 13.0 % in 2040, after which the cost will decrease again to 12.5 % of GDP by 2070. The increase results from a demographic shift: while the population aged 18-66 would increase by 4.5 % over the 55-year period, the population aged 67 and over is expected to grow by 60 %, resulting in an expected increase in the old-age dependency ratio of 53 %. The decrease after 2040 would be the consequence of a lower level of growth in the old-age dependency ratio in combination with pension benefits not being indexed to wage growth (*Studiecommissie voor de Vergrijzing*, 2019, pp. 26-27, pp. 34-35). Finally, the demographic old-age dependency ratio (32.2 %) was below the EU average (32.2 %) in 2019, though the economic old-age dependency ratio, also taking into account activity status, was virtually on the EU average at 42.9 %. Hence, there were around 2.4 people of active age contributing per inactive older person.

3.2 Future adequacy

Theoretical replacement rate projections indicate that pensions after a standard 40-year career would maintain their level. Credits will continue attenuating the impact of short non-working periods for unemployment, childcare and family care. Also, the different replacement rates between high- and low-earners will continue making pensions more equal than work income.

The Belgian Study Commission on Ageing (*Commissie Pensioenhervorming* 2020-2040, 2014) expects a continuing reduction in the poverty risk of older people until 2070 due to increased employment, particularly among women, and the current growth path in minimum and means-tested pensions (until 2030), in particular for single people. At the same time, the commission warns that the increasing number of non-married women, a group with higher poverty risk, could slow down this decrease. The same factors are also expected to contribute to a further decline in inequality among pensioners (*Studiecommissie voor de Vergrijzing*, 2019, pp. 45-52).

Recent reforms in social correction mechanisms within the pension system have increased the importance of employment in reaching an adequate pension. The reduction of pension credits for spells of unemployment longer than one year and for periods of unemployment with employer supplement will result in lower pensions for vulnerable groups. The targeting of improvements in the minimum pension towards people with full careers could leave many, and in particular women, excluded from these measures intended to improve the economic position of older people.

In 2014, the Commission on Pension Reform 2020-2040 (consisting of academics) delivered a report with proposals for a renewed pension system (*Studiecommissie voor de Vergrijzing*, 2019). These proposals were used to design the pension reforms in Belgium, but not all elements of the report were translated into reforms, as the previous government did not manage to fulfil its ambition, or get a full agreement on some ideas and topics (such as the definitions of arduous professions, the introduction of a part-time pension, and a points-based pension system).

Discussions are ongoing in several areas. A number of topics are likely to be the subject of reforms in the coming years and have been put forward by the government or social parties. Several parties on both sides of the political spectrum have proposed further increases in the minimum pension in the coming years; these differ not only in terms of generosity, but also eligibility criteria. Some harmonisation between the three statutory pension schemes (e.g. regarding the minimum pension) is likely to be the subject of pension policy debates in the coming years. An ongoing parliamentary debate concerns future social security funding, and academics are also invited to participate. Also, no decision has been made on phasing out preferential fractions in the pension calculation for certain categories of public sector workers, although these have been discussed.

These initiatives are likely to inspire future debates on reforming the pension system and its financing.

3.3 Challenges for future adequacy

Providing adequate income protection for single people, and in particular single women, in a system that was fundamentally based on the historical 'male single-earner model', is and remains a challenge for the Belgian pension system, especially when the numbers of single people are expected to rise further. In several cases, career requirements to enjoy full minimum pension protection may still be unattainable, and derived rights are not necessarily sufficient to protect divorced women or widows, etc.

Recent reforms have been designed to improve the pensions of the self-employed. While this is a positive development, it will not be sufficient to bring these pensions up to the level of those of employees. The more limited access to pension credits for periods of non-employment also contributes to the pensions of the self-employed lagging behind those of employees.

Particularly at a time when careers are increasingly non-linear and people increasingly move between the statutes of employee, civil servant and self-employed, having three separate pension schemes, each with their own social corrections and rules about minimum pensions, seems untenable in the longer term.

As in many countries, the emergence of precarious atypical employment statutes (such as more temporary and interim employment, platform work, and flexi-jobs – with limited contributions to social security resulting in lower pension build-up) is a concern for the pension system. In the short run, they could reduce the contribution basis for a PAYG pension system, endangering financial sustainability if these forms of work were to replace regular employment to a large extent.[28] In the long run, they could also lead to adequacy challenges for the individuals concerned, due to the smaller calculation basis of their pensions.

Since 2015, the flexi-job scheme has allowed employees who already work 80 % in regular employment to also take a so-called 'flexi-job' in the bar and restaurant sector. Under this flexi-job statute, a worker builds up social entitlements, including a pension, without paying social contributions or income tax. In 2018, this scheme was extended to pensioners and allowed flexi-jobs in a wider range of sectors. Concerning demanding or arduous occupations that would qualify for earlier retirement in the public sector, there was an agreement between the government and public sector trade unions in May 2018. This still needs to be implemented: the government decided to wait for an agreement between social partners in the private sector.

In Belgium there is a widespread practice of requesting that occupational and personal pensions are paid as a lump sum. Such payments do not protect against the longevity risk, and if this gained importance within the pension system, poverty among older people could increase.

3.4 Solidarity mechanisms

The merit of the Belgian pension system seems to be particularly in poverty reduction, while replacement rates remain rather low. Even if it is a contribution-based scheme, which in theory prioritises the maintenance of a standard of living after retirement over a reduction of poverty, a complex system of social corrections has been put in place over the years, especially aimed at the lowest pensions.

The situation is rather different for civil servants, whose pension system is much more geared towards the maintenance of a standard of living. Compared with that of employees, the pension system for civil servants has a higher replacement rate after a full career (75 % vs 60 %), a pension calculated on the wage of the last 10 years instead of all career years, and a pension that follows wage development rather than just price indexation. When also taking into account employees' occupational pensions, civil servants' pensions are comparable to employees' pensions in the highest income quintile, but are more generous than employees' pensions in the other four quintiles.[29] Moreover, the pension scheme for civil servants also distinguishes itself in terms of early retirement: between 2014 and 2018, 61 % of employees and 75 % of the self-employed were 65 or older when they first took up their old-age pension, compared with only 16 % of civil servants. (Federale Pensioendienst, 2020) In sum, there is still much room for further harmonisation between these three statutory pension schemes. Up to the present, no

[28] Rekenhof [Court of Audit], *Impact Horecaplan 2015: Flexi-jobs, gelegenheidswerk en bruto-netto-overuren*, Rekenhof, Brussels, 2019.
[29] Berghman, J. and Peeters, H., 'De drie pijlers van het Belgische pensioenlandschap. Overzicht en uitdagingen', *Belgisch Tijdschrift voor Sociale Zekerheid*, 54 (1), 201, pp. 5-54.

decision has been made on phasing out preferential fractions in the pension calculation for certain categories of public sector workers, although this has been discussed.

The least adequate pension scheme is that of the self-employed, and efforts have been made to improve it in recent years. The equalisation of the minimum pension for the self-employed with that of employees is an important step in increasing the adequacy of the scheme. However, while pension credits are extremely important in the pension build-up of employees, they barely are for the self-employed. For instance, assimilated periods account for 30 % of male employees' careers in pension calculation and 37 % of female employees'. Among the self-employed, however, these percentages were respectively 3 % for men and 5 % for women in 2013 (Peeters and Van Camp, 2016), as they only include periods of illness and designated care activities.[30]

In terms of gender, women are the most numerous beneficiaries of social corrections. For different types of reasons, they benefit more from minimum and means-tested pensions, as well as from pension credits. These instruments play a vital role in reducing the gender pension gap. This also counts for derived rights. The rules generally allow a widow without a personal old-age pension to retain 80 % of the previous household income, but a widow of a dual-earner family in which both partners had equal pensions would retain only 55 % of the previous household income. As women's pensions increase, the income loss resulting from losing a partner will increase. This risks providing insufficient incentives for women's careers.

4 OPPORTUNITIES TO ADDRESS CHALLENGES

Raising the employment rates among older people is essential to ensuring the adequacy and financial sustainability of Belgium's pension systems. However, increasing the effective retirement age should also consider that not all workers are equal, and could make exceptions for arduous and hazardous jobs.

With regards to safeguarding or insuring the adequacy of the pension system, the Commission on Pension Reform 2020[21] put forward several proposals, as follows.

1. A points-based pension, which takes into account career length and corrects for arduous or hazardous occupations.
2. Higher and more transparent minimum benefits. Current regulations are very complex. Conditions such as long careers would limit coverage.
3. Further harmonisation of the three statutory pension systems, which would result in better income protection for people with a mixed career.
4. The role of the family in the pension system should be revisited to improve protection of single people and in particular divorced women, for instance by pooling the couple's pension rights and splitting them equally in cases of divorce.
5. With regards to the longevity risk, allowing the pay-out of supplementary pensions as a lump sum can subject pensioners to the risk of outliving their savings.

[30] FOD Sociale Zekerheid, 2020. https://www.socialsecurity.be/citizen/nl/pensioen/je-pensioen-als-zelfstandige/perioden-van-inactiviteit.

5 BACKGROUND STATISTICS

5.1. Relative income	2019			Change 2008-2019		
	Total	**Men**	**Women**	**Total**	**Men**	**Women**
Relative median income ratio (65+)	0.78	0.8	0.76	0.04	0.05	0.02
Income quintile share ratio (S80/S20), 65+	3.34	3.52	3.16	0.23	0.34	0.09
Relative income quintile share ratio (S80/S20), 65+ - 0-64	-0.31	-0.16	-0.43			
Aggregate Replacement Ratio (ARR) %	46	49	44	1	5	-3
5.2. Poverty and material deprivation	2019			Change 2008-2019		
	Total	**Men**	**Women**	**Total**	**Men**	**Women**
At-risk-of-poverty or social exclusion (AROPE), 65+ (%)	16.5	15.4	17.4	-6.4	-5.9	-6.7
At-risk-of-poverty rate (AROP), 65+ (%)	15.7	14.6	16.5	-5.5	-5.5	-5.5
Severe material deprivation (SMD), 65+ (%)	1.6	1.2	1.8	-1.6	-1	-2.1
At-risk-of-poverty or social exclusion (AROPE), 75+ (%)	19.6	20.9	18.7	-5.8	-2.3	-8.1
At-risk-of-poverty rate (AROP), 75+ (%)	19	20.7	17.8	-4.7	-1.5	-6.9
Severe material deprivation (SMD), 75+ (%)	1.2	0.4	1.7	-2.2	-1.2	-2.8
Relative median at-risk-of-poverty gap, 65+ (%)	11.5	12.4	10.8	-2.6	-3	-2.5
At-risk-of-poverty rate (AROP), 65+: 50 % threshold (%)	6.4	6.1	6.6	-2.4	-3.2	-1.7
At-risk-of-poverty rate (AROP), 65+: 70 % threshold (%)	34.4	31.4	36.9	-4.4	-4.3	-4.3
Material and social deprivation, age 65+ (1)	7	5.7	8	-0.2	-0.2	-0.1
5.3. Gender difference	2019			Change 2008-2019		
Gender gap in pension income (65-79) (%)(2)			33.4			-3.1
Gender gap in non-coverage rate (W-M in p.p.) (65-79)			7			-11.5
5.4. Housing and health situation	2019			Change 2008-2019		
	Total	**Men**	**Women**	**Total**	**Men**	**Women**
Housing cost overburden rate, 65+ (%)	10.9	8.2	13	-8.8	-9.6	-8.1
Self-reported unmet need for medical exam 65+ (%)	1.8	1.6	2	1.4	1.1	1.6
Healthy life years at age 65 (years) (3)	10.6	10.5	10.7	0.2	0.1	0.3
Life expectancy at age 65	20.3	18.6	21.9	1	1.3	1
5.5 Sustainability and context	2019			Change 2008-2019		
	Total	**Men**	**Women**	**Total**	**Men**	**Women**
Employment rate, age group 55-64 (%)	52.1	57.3	47	17.6	14.5	20.7
Pension expenditure as % of GDP (ESSPROS) (4)			12.8			2
Retirement duration from first pension (years) (5)	21.8	20.4	23.0	-0.2	-0.1	-0.2
Retirement duration from end employment (years)	21.5	19.8	23.2			
Eurostat and AWG projections			**2019**			**2059**
Old-age dependency ratio (20-64) (%)	32.2	28.2	36.3	51.6	47.0	56.4
Economic old-age dependency ratio (20-64) (%) (6)	42.9	35.9	50.7	69.7		
Gross public pensions as % of GDP (6)	12.2			15.2		
Benefit ratio (%)(6)	45.0			43.5		
Coverage ratio (% of pop aged 65+)(6)	135.0			118.2		
Gross pension ratio high / low earner		1.9	1.9		1.8	1.8

(1) *change since 2014, not 2008*

(2) *data refer to 2010, not 2008*

(3) *break in time series for 2019*

(4) *ESPROSS data refer to 2018*

(5) *Change is since 2016, not 2010*

(6) *2060 instead of 2059*

5.6 Theoretical Replacement Rates

	Net (%)				Gross (%)			
	2019		2059		2019		2059	
	Men	Women	Men	Women	Men	Women	Men	Women
Average earning (100%)								
Base case: 40 years up to the SPA	75.5	75.5	74.7	74.7	52.6	52.6	50.3	50.3
Increased SPA: from age 25 to SPA	75.5	75.5	76.5	76.5	52.6	52.6	52.1	52.1
AWG career length case								
Old base case: 40 years up to age 65	75.5	75.5			52.6	52.6		
Longer career: 42 years to SPA			76.5	76.5			52.1	52.1
Shorter career: 38 years to SPA			73.9	73.9			48.4	48.4
Deferred exit: 42 years to SPA +2			77.5	77.5			52.8	52.8
Earlier exit: 38 years to SPA -2								
Career break – unemployment: 3 years	75.5	75.5	73.8	73.8	52.5	52.5	49.6	49.6
Career break due to child care: 3 years	75.5	75.5	73.9	73.9	52.6	52.6	49.7	49.7
Career break care to family dependant: 3 years	74.5	74.5	73.5	73.5	51.8	51.8	49.3	49.3
Short career (20 year career)	54.5	54.5	52.6	52.6	34.0	34.0	33.2	33.2
Work 35 y, disabled 5 years prior to SPA			72.7	72.7			48.7	48.7
Early entry in the LM: from age 20 to SPA			80.8	80.8			56.5	56.5
Index: 10 years after retirement @ SPA			69.7	69.7			44.9	44.9
Extended part-time period for childcare			73.6	73.6			49.4	49.4
Survivor – full career		94.1		91.1		64.2		63.9
Survivor – short career		95.5		84.2		59.6		58.8
Survivor ratio 1*		0.62		0.61		0.61		0.64
Survivor ratio 2*		0.73		0.66		0.76		0.63
Low earnings (66%)								
Base case: 40 years up to the SPA	80.2	80.2	86.3	86.3	58.2	58.2	63.3	63.3
AWG career length case								
Old base case: 40 years up to age 65	80.2	80.2			58.2	58.2		
Career break – unemployment: 3 years	80.2	80.2	85.4	85.4	58.2	58.2	62.6	62.6
Career break due to child care: 3 years	80.2	80.2	85.5	85.5	58.2	58.2	62.7	62.7
Short career (20 year career)	69.8	69.8	67.9	67.9	50.7	50.7	49.8	49.8
Early entry in the LM: from age 20 to SPA			89.8	89.8			68.3	68.3
High earnings (100->200%)								
Base case: 40 years up to the SPA	56.6	56.6	57.2	57.2	36.4	36.4	36.2	36.2

**Survivor ratio 1: man base case, woman base case*
**Survivor ratio 2: man base case, woman short career case*

BULGARIA

Highlights

- The Bulgarian pension system has been undergoing significant reform since 2015, including an increase in the pensionable age and the qualifying period, and changes of rules on participation in the statutory funded scheme.
- Most indicators related to poverty and social exclusion display significant and persistent gaps between men and women, not reduced by the pension system.
- The sustainability of the pension system has improved due to implemented reforms stimulating longer careers. However, the state of the statutory funded pension schemes remains a concern.
- The adequacy of the pension system remains a challenge. Reducing high private costs in Bulgarian healthcare, especially for older people, is of key importance to the wellbeing of pensioners in ways that are of no less importance than the adequacy of pensions.

1 GENERAL DESCRIPTION OF THE NATIONAL PENSION SYSTEM

Since 1999 the Bulgarian pension system has developed from a fully unfunded model with only state social security to a mixed model including funded private pension schemes. Currently, the Bulgarian pension system has three types of schemes:

1. a statutory pension insurance scheme, functioning on the basis of the pay-as-you-go principle (first pillar);
2. statutory funded pension insurance with universal pension funds (auto-enrolment with opt-out) for those born after 31 December 1959 and with mandatory professional pension funds for people working in arduous conditions (second pillar); and
3. supplementary pension schemes (third pillar), comprising voluntary personal and occupational schemes.

The statutory pension insurance scheme is managed by National Social Security Institute (NSSI). The statutory funded pension schemes and the supplementary pension schemes are administered by licensed joint-stock companies, called pension insurance companies (PICs), which are supervised by an independent Financial Supervision Commission reporting to the National Assembly.

The statutory pensionable age in 2020 was 64 years and 3 months for men, and 61 years and 6 months for women. The statutory pensionable age is set to grow each year by one month for men, and by two months to 2029, and thereafter by three months, for women, until reaching 65 years for both genders: for men in 2029 and for women in 2037. After 2037 the retirement age for both genders should increase in line with the change in life expectancy, on the basis of implementing legislation to be adopted. The required insurance record, which stood at 38 years and 10 months for men and 35 years and 10 months for women in 2020, is also set to increase by two months per year, until reaching 40 years for men and 37 years for women in 2027. In 2020, insured people who did not meet the qualifying conditions might still be eligible for an old-age pension at the age of 66 years and 6 months (both men and women) with the completion of at least 15 years of actual insurance. This eligibility age for an old-age pension with an incomplete career is set to grow each year by two months until reaching 67 years for both genders in 2023.

Retirement can be deferred without any upper age limit. The right to a pension, once acquired, cannot be lost. Each additional year of service is multiplied by a higher weighting factor of 4 %, which serves as an incentive to defer retirement. In the funded pension insurance scheme, contracts are based on the accumulated amounts on individual accounts, technical interest rates and biometric tables[31] approved by the regulatory body.

The statutory pension scheme provides entitlements related to old age and disability and survivor's pensions. The statutory pension scheme also includes non-contributory pensions financed by the state budget, including old-age pensions for those aged 70 who have not accrued sufficient social insurance contributions and have low incomes.

Participation in the statutory pension scheme is mandatory for all economically active people, including the employed, the self-employed, civil servants, judges, prosecutors, investigators, military and police officials, and farmers. Bulgaria chose not to make the statutory funded pension scheme voluntary for any parts of the workforce, so there is a clear cut-off point between those who must participate and those who are not eligible to do so. Participation in the statutory funded pension scheme was restricted on the basis of age cohorts: for those born after 1959, participation was mandatory, whereas those born before could not join. Since 2015, people can opt out of the statutory funded pension scheme. The contribution rate for old-age pension insurance in 2019 was 19.8 % for those born before 1960 and 14.8 % for those born after 1959,[32] split between employees and employers using a ratio 44:56. The contribution rate for people who have decided to switch to the first-pillar scheme only is 19.8 %.

In 2018, there were 2,790,200 active contributors to the mandatory statutory pension scheme managed by the NSSI. According to the Annual Statistical Directory of the NSSI for 2018, this comprised 66.42 % of the working-age population, marking a slight increase from 65.43 % in 2017. The number of people contributing to the state social security each year depends mainly on the size of the labour force and the employment rate plus minor adjustments. In the last quarter of 2018 the employment rate of the population aged 16-64 was 67.7 %. Of those insured in 2018, 91 % were insured by employers, while 9 % were self-insured. The unemployment rate of 5.2 % in 2018, which was the lowest in at least 10 years, also contributed to high

[31] Biometric tables show life expectancy at all ages, which feeds into the calculation of life-long pensions and of the financial reserves that pension funds are required to keep.
[32] People born after 1959 participate in statutory funded pension schemes, where the contribution rate is 5 %.

participation rates in the social security system. The dependency ratio[33] (the number of pensioners per 100 insured people) had dropped in 2018 to 77.5 %, following a stable downward trend from 80.4 % in 2013.

Expenditure on pensions in 2018 represented 7.9 % of GDP, following a decreasing trend from 9.7 % in 2014. Currently transfers from the government for covering the deficit represent approximately a third of the whole revenue of the NSSI. Similar transfers have been made each year for more than a decade, so in reality Bulgaria has a social security system with mixed revenue – from social security contributions and taxes.

In 2018, the NSSI paid pension benefits to 2.163 million pensioners on average per month compared with 2.173 million in 2017. These figures exceed the population of pensionable age by 25 % because they incorporate all forms of early retirement, disability and survivor's pensions.

The statutory funded pension schemes and the supplementary pension schemes are privately operated and provide additional retirement income.

The contribution rate to the statutory funded schemes remained 5 % in the 2017-2020 period: 2.2 % paid by the employee and 2.8 % paid by the employer. Only people born after 1959 can participate in the statutory funded pension schemes. For people working under arduous and hazardous conditions who participate in professional pension funds the contribution rates remain 7 % or 12 %, depending on the actual profession. For those opting out of the statutory funded pension schemes, these contributions are channelled back into the public statutory pension scheme. The total number of members[34] of PICs operating the statutory funded and supplementary pension schemes at the end of the second quarter of 2019 was 4,712,456, of which 80 % were insured in universal pension funds (statutory funded pension schemes), 6 % were insured in professional pension funds (statutory funded pension schemes), and 14 % were members of voluntary pension funds (supplementary pension schemes).[35] In 2018, supplementary pension funds[36] had 4,669,768 members. In the first half of 2019, 66,815 new people joined private pension funds, of which 53,119 joined the statutory funded pension schemes with mandatory participation, while 13,696 joined the voluntary supplementary pension schemes. The first cohort of women is expected to start drawing annuities in 2021 and the first cohorts of men about two years later, depending on changes to the pensionable age.

[33] This indicator is different from the old-age dependency ratio published by the NSI/Eurostat, which is defined as the 'ratio of the number of persons aged 65 and more per 100 persons aged 15-64 years calculated in percentage', https://www.nsi.bg/en/content/6723/projected-age-dependency-ratio-districts-and-sex-until-2080. The ratio between those who actually pay social security contributions in a given year and those who receive pensions in the same year is directly relevant to the ability of the statutory unfunded pension scheme to cover its expenditures. This is the reason why the Bulgarian NSSI uses this indicator.

[34] The supervisory body publishing the data on supplementary pension funds run by PICs uses the term 'member', warning that the same person could participate in more than one supplementary pension fund.

[35] The coverage of funded pension schemes is based on the total number of asset-holders, i.e. everyone who has ever contributed to the scheme. In contrast, the pay-as-you-go pension scheme only counts active contributors in the given year: hence the coverage rate appears lower.

[36] This item from the terminology used by the regulatory body, which reflects Bulgarian legislation, comprises the statutory funded pension schemes (universal and occupational) and the voluntary pension schemes (occupational and personal). All these schemes are called 'supplementary' by the regulatory body and distinguished according to mandatory or voluntary participation.

Pension insurance in the supplementary voluntary pension funds is carried out on a fully funded principle on the basis of defined contributions. Contributions can be monthly, of another periodicity or one-off. Participation in the voluntary pension funds operating supplementary pension schemes is stimulated by tax relief. The tax base is reduced by up to 10 % if the amount is paid as personal pension contributions. The employers may also contribute up to BGN 60 (EUR 31) monthly per worker and the amount is deducted from their tax base.

As of 2020 in Bulgaria, there were nine private pension fund operators, which manage both universal pension funds and professional pension funds. Data published by the Financial Supervision Commission show that, in 2019, the interest of insured people in statutory funded pension schemes with mandatory participation remained very low. Only about 12 % of insured people in universal and professional pension funds exercised their right to choose a pension fund. The remaining 88 % did not show any preference and were assigned to a fund by administrative procedure. Looking back at the performance of the funded pension schemes in Bulgaria and their current size, it is not immediately evident how they will contribute in any significant way to social security in old age. The costs for pre-funding look excessively high compared with accumulated assets.

According to the social security code, pensions are indexed yearly from 1 July – applying, with equal weight, the increase in the average insurable income and the inflation index (CPI) in the previous year (the so-called 'Swiss rule'). Pensions were increased by 2.4 % in 2017, by 3.8 % in 2018 and by 5.7 % in 2019 by recalculating them according to the changes in the accrual rate, which was being increased during this period (see Section 2). In 2020, pensions were indexed by 6.7 %.

A large number of workers in hazardous jobs, as well as military servants and civil servants of the Ministry of Internal Affairs and other special agencies, teachers and ballet dancers are eligible for early retirement under special rules. Retirement ages for women and men under the statutory funded system are the same as in the public system. There is only one additional option mentioned in the social security code, namely that the payment of pension can start five years before retirement, but only in cases where the accumulated amount allows monthly payments that are not less than the statutory minimum pension.

The self-employed in Bulgaria pay social security contributions for old-age pensions at the same rate and following the same rules as employees. The statutory pensionable age and other retirement rules are the same for employees and the self-employed. The risk for the self-employed comes mainly from the specifics of their occupation and skills. If demand for their skills is unstable, they may experience career breaks resulting in lower pensions.

In Bulgaria the most commonly used term for platform work is 'freelancer' and the most common types of freelancers meeting the definition of a platform work are those in creative and online industries, such as IT specialists or programmers.[37] Legally freelancers are most often treated as self-employed, and the payment of social security contributions follows the same rules as for the self-employed. In Bulgaria larger tasks requiring higher skills are

[37] de Groen, W.P., Kilhoffer, Z. and Lenaerts, K., *Employment and Working Conditions of Selected Types of Platform Work*, Eurofound, 2018.

predominant among platform workers (de Groen, 2018). This is a sign that most of the freelancers doing platform work should not face any risks related to pensions if they report their full income and pay their social security contributions. It seems that platform workers in Bulgaria generally do not fall into the category of the vulnerable self-employed.

2 REFORM TRENDS

From the beginning of 2017, indexation has been applied in a way which favours length of contribution over age. This measure was meant to reward longer participation in the labour market. In the period between 2017 and 2019, the accrual rate was increased from 1.1 % to 1.2 %.[38] The plan was to increase this parameter until reaching 1.5 %, at which point the Swiss rule of indexation would be restored.

However, amendments to the social security code came into force with the Law on the Budget for State Social Security for 2019, suspending further increases in the accrual rate, which was previously envisaged as part of the pension reform. Two reasons were given by the government to justify the suspension: first, along with putting in place incentives for working longer the reform also increased state expenditure on social security; and the second reason was to not increase further the gap between previously granted and newly granted pensions. During the period of raising the accrual rate (2017-2019), the new value was applied to newly granted pensions and pensions in payment. The latter were recalculated with the new accrual rate instead of indexation.

From 2019 a change was introduced to the way the individual pension coefficient is calculated. Before 2019 a person had to choose three consecutive years from the 15 years before 1997. These three years were used for the calculation of the individual coefficient of the claimant together with the total period after 1996 for which social security contributions were paid. Starting from 2019 only the period after 2000 was to be taken into account. The coefficient for each year is calculated as the ratio of the average monthly contributory income of the claimant and the national average contributory income.

The minimum contributory pension was gradually increased in line with the general indexation, reaching BGN 219 (EUR 112) per month in January 2020. An ad hoc increase was applied as of 1 July 2020, raising the minimum pension to BGN 250 (EUR 128).

In the period 2017-2019 the government pursued a policy of rapid increases in the minimum wage. As a result, the average monthly insurable income grew rather fast, driven by increases in the minimum wage, increases in the minimum insurable income in different sectors of the economy and in the maximum insurable income, as well as by increased wages of teachers and employees in the public sector. The average monthly insurable income affects the size of newly granted pensions. All measures were decided by the government after tripartite consultations.

Since the beginning of 2018, the amount of social security contributions for the pension fund managed by the NSSI has increased by 1 percentage point (p.p.), of which 0.56 is paid by the insurer and 0.44 by the insured person.

[38] In 2019 it was decided to temporarily discontinue the implementation of this reform.

A person taking care of a disabled relative with permanently reduced working capacity is entitled to pension credits, provided that the caregiver is not insured and does not receive a pension. As of 1 January 2020, the scope of this provision was expanded to include all types and degrees of disability (previously only caregivers looking after a person with a 90 % reduction in working capacity were covered).

In 2019 and 2020 the government continued to allocate funds for pension supplements. Supplements for Easter and Christmas usually given to pensioners receiving pensions below the official poverty line depend on a discretionary decision made each year by the government but they have become a tradition and are routinely expected by low-earning pensioners.[39]

3 ASSESSMENT OF ADEQUACY

3.1 Current adequacy

Bulgarian data display an important pattern related to pension adequacy. Poverty and social exclusion generally increase with age, while gender gaps emerge among pensioners that do not exist in the working-age population.

The aggregate replacement ratio remained low in 2019 at 37 %, with a significant difference between genders (49 % for men vs 36 % for women). This represents a significant loss of income and welfare, especially considering women's earnings are already lower. It has remained practically unchanged since 2008, pointing to deep structural issues.

The income quintile ratio (S80:S20) of older people (aged 65 or over) in 2019 was 4.92 (5.15 for men and 4.64 for women). The ratio remains quite low compared with income inequality among those aged 18-64 which, in 2018, was 8.37 – one of the highest in the whole of the EU.[40]

In 2019 the at-risk-of-poverty-or-social-exclusion (AROPE) rate for those aged 65 or over was 47.1 % (39.1 % for men vs 52.5 % for women) increasing with age to 54.2 % among people aged 75 or over (41.1 % for men vs 61.8 % for women). A dramatic decrease in this indicator has been observed since 2008 but it also involves methodological issues related to severe material deprivation, so intertemporal comparison is not very reliable.

The at-risk-poverty (AROP) rate among pensioners is much higher, and a significant gender gap appears that does not seem to exist in the working-age population. In 2019, the AROP rate for those aged 65 or over was 34.6 % (27.2 % for men and 39.5 % for women) compared with 17.5 % (17.8 % among men and 17.2 % for women) among the working-age population (16-64). The AROP rate also increases with age, reaching 41.1 % among people aged 75 or over (29.2 % for men against 48 % for women).[41] In the two age cohorts (65+ and 75+), the AROP rate showed a sharp increase in one year. As this indicator is derived from the equivalised disposable income in a household, the primary reason for this very large gender gap is that, at this age, many older people, particularly women, are left alone without their spouses, thus

[39] These supplements are even included in the calculations of the current replacement ratios in the Actuarial Report 2019 of the NSSI, though not in the future projections.
[40] EU and EU-27 refer to the current 27 Member States of the European Union.
[41] In 2019 the AROP threshold set at 60 % of the national median was adopted by the Bulgarian government as an official poverty line.

becoming single-person households. So, in this age cohort, when most people are no longer able to do additional work, the pension gap has a particularly strong effect in driving poverty rates for women higher. The gender gap in pension income (at ages 65-79) in 2019 was quite large – women's pensions were 21.3 % lower than men's – but still below the EU average gap of 29.7 % (2018), while the gap in coverage was insignificant. These data show that while the specific work-life trajectories of women do not significantly affect their chances to qualify for a pension, the adequacy of their income from pensions is strongly negatively affected.

The relative median AROP gap (for those aged 65 and over) in 2019 was 19.4; that is, the typical person in this age group living below the AROP threshold had an income which was 19.4 % lower. In 2019, the threshold for a single person was EUR 211 per month. A poor single person aged 65 or more then had an average income of just EUR 170 per month, EUR 41 below the threshold.

In 2019, the severe material deprivation (SMD) rate for those aged 65 or over was 29.1 % (24.1 % for men and 32.5 % for women). For those aged 75 or over, the SMD rate was larger (32.9 %); the gap between men and women widens with age (the SMD rate in 2019 was 24.5 % for men and 37.7 % for women).

In 2019, the material and social deprivation (MSD) rate for people aged 65 or more was 49.8 % (42.9 % for men vs 57.9 % for women). The gender gap is quite large, as is the case with other indicators reflecting various deprivations. In principle, differences in income should be mitigated to some extent at household level, but are conditional on many other factors. As with monetary poverty, survivorship affects the deprivation risk of older women in particular.

In 2019, life expectancy at 65 was 14.2 years for men and 18.0 years for women. This was the shortest life expectancy at 65 in the EU for both genders. Women had gained an additional year of life expectancy since 2008 while men had gained half a year. There is more parity between the sexes in healthy life years expected at the age of 65 – 9.2 years for men and 10.4 years for women. Self-reported unmet need for medical examination is small – 4.5 %, without major differences between men and women – indicating that reasons for low life expectancy should be sought in the quality of medical care and the overall quality of life rather than in access to healthcare. By law, the basic package covered by health insurance in Bulgaria is available to retired people at no additional cost. Health insurance for retired people is covered by the state, so they do not have to pay health contributions. But Bulgaria has very high private costs for healthcare, especially for medicines. The difference between life expectancy and the healthy life years expected at 65 indicate that, on average, at the end of their lives, men would spend about four years in need of serious medical care while the figure for women is around seven and a half years.

Housing costs weigh heavily on people aged 65 and over, especially women. Housing allowances in Bulgaria are negligible in scope and amount. One of the few groups that can benefit are people aged 70 and over accommodated in social housing; but, according to the report of the Agency for Social Assistance in 2018, a mere 147 people were supported by housing allowances in the whole country.[42]

[42] Annual Report of the Agency for Social Assistance 2018.

In 2019, the economic old-age dependency ratio was 35.7 % (28.3 % for men vs 43.1 % for women). The gap reflects the much higher share of inactive women aged 65 or over, while total employment of working-age women is not much lower than total employment of men.

Pensioners who are in need of long-term care, defined in this context as a need for permanent assistance by a personal assistant or carer, are entitled to a cash supplement paid by the NSSI. The supplement is defined in the social security code and does not depend on the amount of the pension. The supplement is a fixed amount equal to 75 % of the social pension for old age,[43] which in 2019 was BGN 133 (EUR 68), so the supplement was BGN 100 (EUR 51).

Bulgaria does not use any special reference incomes for older people. The official poverty line is applied in some discretionary decisions on pension supplements, while the social pension is linked to the guaranteed minimum income (GMI). Special coefficients apply to means tests for older people in procedures for granting some allowances but these decisions are not based on any official rules or guidelines.

3.2 Future adequacy

In the base case, the net theoretical replacement rates (TRRs) are expected to slightly decrease by 2059 in comparison with 2019. Future TRR projections show no difference between the replacement rates for average- and low-earners, indicating that pensions (and taxation) may have little influence on reducing inequality.

Most career breaks of three years are projected to have a limited impact on replacement rates, except the unemployment break for men; in this case, the retiree would only be entitled to a benefit from the statutory funded scheme.[44] Deferring exit by two years would lead to a substantial increase in the TRR, raising it by 9.2 p.p. for those retiring in 2059. This reflects the policy to stimulate deferred retirement by increasing the accrual rate for employment after pension age.

A major challenge for Bulgaria will be to address the existing and future gender gaps in most indicators of poverty, material deprivation and overall social exclusion.

3.3 Challenges for future adequacy

Life expectancy for women is much higher at the age of 65 and also seems to have increased faster in the period 2008-2019. At the same time, the expected life years in good health for both sexes differed only slightly at the age of 65 (by less than one year). This means that women are much more likely to spend the end of their lives in poor health, without their partners, and often in single-person households. This calls for combined measures for increasing lifetime tenure, which has been addressed in the reform currently implemented by the government, by gradually equalising the statutory pensionable age for men and women. However, issues of high private costs in healthcare and the very underdeveloped long-term care system will have to be addressed as well. The increasing accrual rate, which is also part of the implemented

[43] National Social Security Institute. https://www.nssi.bg/pensions/grantpensions/424-pntd

[44] The career would be too short for a man to qualify for the pay-as-you-go pension at the standard pensionable age of 65, although it would be granted once he turns 67. A woman, however, would qualify for a pay-as-you-go pension at 65 after a 37-year career.

reform, favours longer and uninterrupted careers. This poses risks for women, for the self-employed and for people working under non-standard arrangements who are more likely to experience various breaks in tenure as well as for people doing informal work.

Life-long learning remains very limited in Bulgaria. As a result, older workers lose touch with technological developments and innovation in the field of communications, IT, and access to e-services. Reduced employability and an increased risk of unemployment in pre-retirement age can lead to significant loss of income from pensions.

Shocks that simultaneously affect public revenue and the performance of investment portfolios of funded pension schemes became quite common in the first two decades of the 21st century. Such shocks are likely to reduce the balancing effect on the adequacy of pensions from having a pension system with a variety of schemes.[45] Against this background, the performance of supplementary-funded pension schemes remains poor, while operational costs are high.

3.4 Solidarity mechanisms

There are no direct data on the average size of the pension received by different groups, with the exception of pensions for people with disabilities and pensions given to people who have worked in arduous and hazardous jobs, including the police and military.

We can give theoretic examples and draw some conclusions based on the pension formula applied in Bulgaria and some empirical information about the distribution of values of the terms included in the formula.[46]

The final 12 months before the pension is granted play an important role in calculating the amount of the pension received. People who retire just after a year in which the economy has been depressed will get a smaller pension. The size of the pensions is also strongly dependent on the amount of contributions due to the application of a personal coefficient (PC), which represents a ratio between the personal insurable income and the average insurable income over the periods the person paid social security contributions. In 2018, the average PC for men receiving pensions was 1.551 while for women it was 1.120. The difference was smaller among those receiving disability pensions (1.008 for men vs 0.829 for women). The third element is the length of tenure in years, which is transformed into percentages by multiplying it with the fourth term, giving the percentage for each year of tenure (PYT). The PYT was 1 % up to 2009, and then grew to 1.1 %. In 2019, the PYT was 1.2 %. To give an example, a person retiring in January 2019 who had paid social security contributions for 40 years at exactly the average insurance income would get a pension equal to 48 % of the average insurable income for 2018; that is, they would start with a replacement ratio of 48 %. The average monthly insurable income for 2018 was 890 BGN (EUR 455), so the pension of this specific person would equal 427 BGN (EUR 218) – slightly above the average contributory pension, which in 2018 was 399 BGN (EUR 204), but way below the minimum wage (510 BGN or EUR 261 in 2018). A

[45] Christoff, L., *(Не)адекватност на пенсиите в България (Издание 2018 Г.)* [Pension (In)adequacy in Bulgaria (2018 Edition)] (SSRN Scholarly Paper ID 3150489), Social Science Research Network, 2018. https://doi.org/10.2139/ssrn.3150489

[46] The analysis is based on information from the Actuarial Report 2019 and other statistical sources published by the NSSI.

tenure difference of 5.4 years,[47] which was the average difference between the total length of service of retired women (33.4 years) and men (38.8 years) in 2018, would cost that person a lost potential pension income equal to 692 BGN (EUR 354) per year: an amount that can eliminate deprivation on at least two and possibly three items on the material deprivation list; in Bulgaria half of that amount could buy, for example, a set of decent clothes and a pair of new shoes. The NSSI does not publish separate information on the tenure of the self-employed because, by law, they are part of the main category of employed people (social security contributors). Separate information is published for members of cooperatives, who have a very short duration of tenure (31.4 years in 2018).

In some years the government has applied a higher discretionary rate of increase to the minimum pension than to other pensions. This measure was applied to the indexation in July 2020 as well.

The social old-age pension is the main non-contributory old-age benefit provided to people who did not meet the conditions for granting an old-age pension based on social security contributions. Eligible people should be aged 70 or more and meet a means test based on the GMI. The size of the social old-age pension is determined each year by the Council of Ministers. Usually the overall indexation rate is applied, but this is not guaranteed in law; the decision is discretionary. In 2018 the size of the social old-age pension was BGN 125.58 (EUR 64.21) per month, in 2019 it was raised to BGN 132.74 (EUR 67.87), and in 2020 it amounted to BGN 141.63 (EUR 72.42).

4 OPPORTUNITIES TO ADDRESS CHALLENGES

The incentives to work longer should carefully consider the impact on those, mostly women, who cannot work longer (e.g. because they provide family care), and further compensatory mechanisms should be designed.

Abrupt policy reversals, such as introducing a higher accrual rate and discontinuing it after three years, may create insecurity and unpredictability; consistency in policies can help citizens plan for retirement.

The automatic pension indexation rule has worked well to protect the adequacy of pensions in the years when it was applied. It would be good in terms of predictability and trust in the pension system to apply this rule consistently, even in periods of crisis and when other reforms are implemented.

There is evidence of low interest among funded pension scheme participants to choose a scheme and follow its performance. Restoring trust should involve strengthening the legal protection of savers to avoid the repetition of, in the assessment of World Bank and IMF, 'previous bad conduct'.

[47] This difference concerns normal jobs. The difference in tenure between men and women for hazardous and arduous jobs exceeds six years.

It is important to carry out a further review of fees and costs, which are not related to investment performance and have been criticised as excessively high.

It is important to define the rules for the pay-out of supplementary funded pensions, which is expected to start in the second half of 2021.

5 BACKGROUND STATISTICS

5.1. Relative income	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
Relative median income ratio (65+)	0.67	0.74	0.63	0.01	0.05	-0.01
Income quintile share ratio (S80/S20), 65+	4.92	5.15	4.64	0.9	1.41	0.53
Relative income quintile share ratio (S80/S20), 65+ - 0-64	-3.82	-3.93	-3.74			
Aggregate Replacement Ratio (ARR) %	37	42	35	3	5	-1
5.2. Poverty and material deprivation	**2019**			**Change 2008-2019**		
	Total	Men	Women	Total	Men	Women
At-risk-of-poverty or social exclusion (AROPE), 65+ (%)	47.1	39.1	52.5	-18.4	-24.6	-14.3
At-risk-of-poverty rate (AROP), 65+ (%)	34.6	27.2	39.5	0.8	0.4	0.9
Severe material deprivation (SMD), 65+ (%)	29.1	24.1	32.5	-31.9	-35.4	-29.5
At-risk-of-poverty or social exclusion (AROPE), 75+ (%)	54.2	41.1	61.8	-16.9	-27.4	-10.8
At-risk-of-poverty rate (AROP), 75+ (%)	41.1	29.2	48	0.7	-0.4	0.9
Severe material deprivation (SMD), 75+ (%)	32.9	24.5	37.7	-33.1	-39.4	-29.7
Relative median at-risk-of-poverty gap, 65+ (%)	20.7	19.8	21	2.5	5.3	0.8
At-risk-of-poverty rate (AROP), 65+: 50 % threshold (%)	20.8	15.2	24.6	2.5	3.3	1.9
At-risk-of-poverty rate (AROP), 65+: 70 % threshold (%)	47.3	39.8	52.3	-0.3	-2.8	1.3
Material and social deprivation, age 65+ (1)	49.8	43.1	54.2	-13.1	-14	-12.7
5.3. Gender difference	**2019**			**Change 2008-2019**		
Gender gap in pension income (65-79) (%) (2)			21.3			-11.4
Gender gap in non-coverage rate (W-M in p.p.) (65-79)			-1.9			-0.1
5.4. Housing and health situation	**2019**			**Change 2008-2019**		
	Total	Men	Women	Total	Men	Women
Housing cost overburden rate, 65+ (%)	25.8	19.4	30.1	9.1	4.6	12
Self-reported unmet need for medical exam 65+ (%)	3.7	3.5	3.8	-23	-18.8	-25.8
Healthy life years at age 65 (years)	9.9	9.2	10.4	0.8	0.4	1.0
Life expectancy at age 65	16.2	14.2	18	0.9	0.6	1.2
5.5 Sustainability and context	**2019**			**Change 2008-2019**		
	Total	Men	Women	Total	Men	Women
Employment rate, age group 55-64 (%)	64.4	69.2	59.9	18.4	13.4	22.2
Pension expenditure as % of GDP (ESSPROS) (3)			7.9			0.9
Retirement duration from first pension (years) (4)	17.6	15.2	20.0	-0.2	-0.2	-0.2
Retirement duration from end employment (years)	17.0	14.5	19.4			
Eurostat and AWG projections	**2019**			**2059**		
Old-age dependency ratio (20-64) (%)	35.7	28.3	43.1	66.7	57.8	76.1
Economic old-age dependency ratio (20-64) (%) (5)	44.6	32.5	58.5	83.9		
Gross public pensions as % of GDP (5)	8.3			9.8		
Benefit ratio (%)(5)	26.7			23.3		
Coverage ratio (% of pop aged 65+)(5)	143.2			106.2		
Gross pension ratio high / low earner		2.7	2.7		2.2	2.2

(1) change since 2014, not 2008

(2) data refer to 2010, not 2008

(3) ESPROSS data refer to 2018

(4) Change is since 2016, not 2010

(5) 2060 instead of 2059

5.6 Theoretical Replacement Rates

	Net (%)				Gross (%)			
	2019		2059		2019		2059	
	Men	Women	Men	Women	Men	Women	Men	Women
Average earning (100%)								
Base case: 40 years up to the SPA	61.9	61.9	59.0	59.0	48.0	48.0	45.8	45.8
Increased SPA: from age 25 to SPA	60.6	56.2	59.0	59.0	47.0	43.6	45.8	45.8
AWG career length case	66.4	65.6	61.5	56.4	51.6	50.9	47.7	43.7
Old base case: 40 years up to age 65	64.9	78.0	59.0	59.0	50.3	60.5	45.8	45.8
Longer career: 42 years to SPA			62.0	62.0			48.1	48.1
Shorter career: 38 years to SPA			12.1	56.0			9.4	43.4
Deferred exit: 42 years to SPA +2			68.2	68.2			52.9	52.9
Earlier exit: 38 years to SPA -2								
Career break – unemployment: 3 years	58.8	58.8	11.9	55.8	45.6	45.6	9.2	43.3
Career break due to child care: 3 years	61.9	61.9	58.3	58.3	48.0	48.0	45.3	45.3
Career break care to family dependant: 3 years	61.9	61.9	57.8	57.8	48.0	48.0	44.9	44.9
Short career (20 year career)			6.1	6.1			4.7	4.7
Work 35 y, disabled 5 years prior to SPA			53.6	53.6			41.6	41.6
Early entry in the LM: from age 20 to SPA			66.5	66.5			51.6	51.6
Index: 10 years after retirement @ SPA			52.5	52.5			40.7	40.7
Extended part-time period for childcare			47.9	47.9			37.2	37.2
Survivor – full career		78.2		84.0		60.7		65.1
Survivor – short career		30.9		41.9		24.0		32.5
Survivor ratio 1*		0.63		0.71		0.63		0.71
Survivor ratio 2*		0.50		0.64		0.50		0.64
Low earnings (66%)								
Base case: 40 years up to the SPA	61.9	61.9	59.0	59.0	48.0	48.0	45.8	45.8
AWG career length case	66.4	65.6	61.5	56.4	51.6	50.9	47.7	43.7
Old base case: 40 years up to age 65	64.9	78.0	59.0	59.0	50.3	60.5	45.8	45.8
Career break – unemployment: 3 years	58.8	58.8	11.9	55.8	45.6	45.6	9.2	43.3
Career break due to child care: 3 years	61.9	61.9	58.3	58.3	48.0	48.0	45.3	45.3
Short career (20 year career)			6.1	6.1			4.7	4.7
Early entry in the LM: from age 20 to SPA			64.5	64.5			50.1	50.1
High earnings (100->200%)								
Base case: 40 years up to the SPA	54.7	54.7	43.0	43.0	42.5	42.5	33.3	33.3

**Survivor ratio 1: man base case, woman base case*

**Survivor ratio 2: man base case, woman short career case*

CZECH REPUBLIC

Highlights

- The Czech pension system has a significant redistributive function and is effective at protecting the older population against poverty and social exclusion; however, this ability has decreased over the last five years due to a drop in pensioners' relative income as a result of strong economic growth.
- Simulations by the Ministry of Labour and Social Affairs indicate that pension expenditures will rise by 4.5-6.0 percentage points (p.p.) of GDP by 2050, with a relatively stable revenue from social security over time. Despite this increase in expenditure, the at-risk-of-poverty (AROP) rate of old-age pensioners (aged 65 or more) will worsen by 5-9 p.p.
- Recent economic growth has increased the revenue of the pension system, making the need for reforming its long-term financial sustainability less obvious in the short term. Thus, reforms designed to improve fiscal sustainability will need to be all the more urgent and far-reaching in the near future.
- The government should reflect on how to improve the personal pension scheme, since it may play an important role in the provision of the income-related component of the old-age security system and may absorb part of the costs related to early retirement normally borne by the statutory pension scheme. A possible way forward would be to better involve employers in diversifying the income of future retirees.

1 GENERAL DESCRIPTION OF THE NATIONAL PENSION SYSTEM

The Czech pension system is currently based on a statutory pension scheme and a supplementary personal pension scheme. The statutory pension scheme (defined-benefit, pay-as-you-go – PAYG) is operated by the state and plays a dominant role (representing more than 90 % of old-age pensioners' income). The statutory funded pension scheme (defined-contribution, fully funded), was launched at the beginning of 2013 (as a voluntary partial opt-out from the statutory pension scheme) and closed at the end of 2015. The supplementary saving schemes include a personal pension scheme (the most prominent product, defined-contribution, fully funded) and other forms of individual security for old age consisting of products offered by commercial insurance companies. Even though the supplementary pension schemes cover more than 50 % of the population aged 0-65, they represent less than 1 % of current old-age pensioners' income. Only the personal pension scheme is described and discussed in this report, since it is the main supplementary pension product in the Czech Republic.

The statutory defined-benefit, PAYG pension scheme (the first pillar[48]) is based on compulsory pension insurance. This scheme is universal and compulsory for employees and self-employed people, and also allows restricted voluntary participation for some categories of economically inactive people. The contributory principle is utilised only to a limited extent due to the application of the principle of income solidarity. The pension consists of two elements: a universal basic amount (flat-rate), which is equal to 10 % of the national average wage, and an individual earnings-related component. The latter is based on the length of the insurance period – there is an accrual rate of 1.5 % of the reduced personal calculation basis for each year of insurance. The personal calculation basis is reduced in accordance with defined thresholds. Up to 44 % of the average wage, 100 % of the reference income is considered; and between 100 and 400 % of the average wage, only 26 % is considered. Generally, pensions in payment are indexed on an annual basis (by the consumer or pensioner price index plus 50 % of real wage growth rate; see Section 2 on reform trends for exceptions and recent developments). The universal basic component, together with the indexation method, result in the situation where higher pensions are indexed at a slightly lower rate than lower pensions. Only pensions above a threshold (36 times the monthly national minimum wage) are subject to personal income taxation (this applies to less than 1 % of pensioners).

The pensionable age was 63 years and 8 months for men and for women without children in 2020 (it was lower by up to four years for women, depending on the number of children raised). The pensionable age has been increasing since 1996, with the pace of increase modified several times over the years. The last measure was adopted in June 2017 and came into effect from 2018. It links the pensionable age to life expectancy; however, this link is not automatic. According to the approved law, the pensionable age is set to rise to 65 in 2030. Starting in 2019, the assessment of life expectancy developments will take place every five years, but should only affect people currently younger than 55 (for more on this process, see Section 2 on reform trends).

The contribution rate is 28 % and is split between employees (6.5 %) and employers (21.5 %). Pension system expenditure rose from 7.7 % to 8.5 % of GDP between 2008 and 2017. Nonetheless, the Czech Republic spends less on pensions than the average for EU[49] countries (12.4 % of GDP for EU). However, the Czech Fiscal Council (see CFC 2019a)[50] pointed out that, after accounting for the different demographic structures of EU countries, the different pension taxation schemes and the different replacement rates, the amount of pension expenditure in the Czech Republic would not differ from the EU average. Pension expenditure growth (as a percentage of GDP) is thus mainly fuelled by growth in the economic old-age dependency ratio in the Czech Republic. And this growth is driven by improved life expectancy

[48] The Czech pension system stakeholders (e.g. Ministry of Labour and Social Affairs and Ministry of Finance) still use the three-pillar terminology for naming individual parts of the pension system. The statutory defined-benefit, PAYG pension scheme is named the first pillar; the closed statutory funded pension scheme is still called the second pillar; and the voluntary personal funded pension scheme is referred to as the third pillar. For details see:
MLSA (Ministry of Labour and Social Affairs CR), 'Ministryně Maláčová představila tři varianty důchodové reformy' [Minister Maláčová presented three variants of the pension reform], 2020a. https://bit.ly/3g68LVF
MF (Ministry of Finance), Soukromé penzijní systémy. [Private pension systems], 2020. https://bit.ly/2WIzHD9
CFC (The Czech Fiscal Council), *Three Versions of Pension System Reform: All plan to split the first pillar*, 2020. https://bit.ly/3cNrmDH
[49] EU and EU-27 refer to the current 27 Member States of the European Union.
50 CFC, *International Comparison of Public Expenditure on the Pension System*, 2019a. https://bit.ly/2JIsP1i

at the age of 65. The Czech Fiscal Council has forecast that 'the share of people aged 65+ in the total population is currently 19 % and will increase to 30 % over the next 50 years. Given current revenue and expenditure policies, this will lead to a significant increase in pension and health and long-term care expenditure'.[51] Between 2009 and 2017, the pension system was in deficit; in 2018 the balance was restored (a cumulative deficit of approximately EUR 9.4 billion, equal to 4.8 % of GDP, over 10 years) and in 2019 there was a surplus.[52] There is no special treatment of arduous jobs within the statutory pension scheme, with an exception for approximately 4000 miners who can reduce their pensionable age by 10 years.

This scheme allows for a flexible retirement option with actuarial adjustment (early or deferred retirement). The early-retirement penalty depends on how prematurely the old-age pension is drawn. The proportion of early old-age pensions reached 37.9 % of newly granted pensions in 2013, but only 30-32 % in 2015-2018. Deferred old-age pensions represented only 1 % of newly granted pensions[53] since there is no restriction in terms of receiving an old-age pension and continuing to work (with the exception of early-retirement pensions), despite the fact that the bonus for people who carry on working past regular pensionable age is higher for those who do not simultaneously draw a pension. The working pensioner can periodically apply for an increase in the earnings-related component of the pension.

In the Czech Republic, non-standard forms of employment mainly include self-employment and, to a lesser extent, fixed-term contracts, part-time work and marginal categories of occasional work contracts (agreement to perform work and agreement to complete a job). Self-employment may, to some extent, function as a substitute for the other non-standard forms of work since it reduces social insurance obligations and tax duties when compared with standard forms of employment. The statutory pension scheme is, in principle, uniform for employees, self-employed people and other non-standard labour categories. Social insurance coverage of occasional work contracts is subject to income thresholds. These contracts are, however, only marginal: they are typically concluded in parallel with another employment contract. There are no statistics on the coverage of platform workers in the Czech Republic.

The personal pension scheme (the third pillar) is voluntary, a defined-contribution, fully funded scheme with a direct state contribution. In addition to the state contribution, the government also provides tax incentives for private saving. The system is administered by pension companies, which offer a conservative or a dynamic pension plan. The participation rate is over 70 % of the economically active population and most participants are enrolled in the conservative pension plan.[54] The annual rate of return on the plan is low and has oscillated around the rate of inflation in recent years. The rate of return on the dynamic pension plan

[51] CFC, *Report on the Long-Term Sustainability of Public Finances*, 2019b. https://bit.ly/2wlB28E
[52] For more details, see Jahoda, R., Malý, I. and Sirovátka, T., *ESPN Thematic Report on Financing social protection – Czech Republic*, European Social Policy Network (ESPN), Brussels, European Commission, 2019.
[53] CSSA (Czech Social Security Administration), *Statistická Ročenka z Oblasti Důchodového Pojištění za Rok 2008-2018* [Statistical Yearbook on Pension Insurance for 2008-2018], 2019. https://bit.ly/2JIY38k
[54] The client chooses the pension strategy at the time of concluding the contract or at any time after that (once a year free of charge). Approximately every second participant with a contract signed after 2013 (about 25 % of all participants) chooses a conservative pension plan. Participants with older contracts (currently about 75 % of all participants) remain in conservative funds (the default option) or can actively switch their pension plan to a newer one where they can decide upon pension strategy.

closely follows the development of international capital markets.[55] Contributions to the system can be made by participants themselves and by their employers. Pension companies managed funds worth 8.6 % of GDP in 2019 (7.6 % of GDP in 2015). Since 2013, participant contributions of up to CZK 1000 (EUR 40) per month are matched by a state contribution, using a degressive formula. A monthly participant contribution of between CZK 1000 and CZK 3000 (EUR 40-120) is exempt from income tax. Roughly 24 % of participants received a contribution from their employer in 2019 (20 % in 2015). Employer contributions of up to a certain ceiling are exempt from employee income tax and social security contributions. Internal estimates by the Ministry of Finance[56] suggest that total public support reached CZK 19 billion/EUR 0.76 billion in 2018 (0.35 % of GDP). Vidovićova *et al*. argue that the average participant contribution level is low and cannot be expected to significantly compensate for the drop in earnings on retirement.[57] The average contribution to the personal pension scheme was only 8.1 % of the average contribution to the statutory pension scheme in 2015. This percentage even dropped to 7.8 % by 2019. It is possible to claim benefits from this scheme up to five years before reaching pensionable age (which under certain conditions cancels the reduction of the statutory pension due to early retirement). The benefits can be claimed while the pensioner stays economically active. It is envisaged that this measure will mainly decrease the risk of poverty of people performing arduous jobs in cases where they lose their job just a few years before pensionable age. This scheme has not been used much; only 4455 individuals received this benefit in the fourth quarter of 2019 (1125 in Q4 2018).

2 REFORM TRENDS

According to the Law of June 2017, the pensionable age should reflect changes in life expectancy; a regular assessment should take place every five years (see Section 1). The government could decide to increase the pensionable age to over 65 years (with 65 years to be reached in 2030) on the basis of a report prepared by the Czech Statistical Office in October 2018.[58] This report states that the relative time spent in retirement will exceed the statutory ceiling of 25 % of the life span after 2033. Therefore, the government is not forced to adjust the pensionable age for the next 10 years. The law even obliges the government to react only when the projected share of life in retirement exceeds 26 % (25 % is a general recommendation; the government has to react when the share goes beyond the 24-26 % range), which will not take place until 2045 (MLSA, 2019b).[59] The wording of the law weakens the fiscal sustainability of the pension system compared with the previous version of the bill. The

[55] APF CR (The Association of Pension Funds of the Czech Republic), *Ekonomické Ukazatele Penzijních Společností a Jejich Fondů za Rok 2019 – čtvrtletně* [Economic Indicators of Pension Companies and their Funds for 2019 – Quarterly], 2020. https://bit.ly/2V1OeaU

[56] MLSA, *Zvýšení Efektivity III. Pilíře* [Increasing the Efficiency of the Third Pillar], 2019a. https://bit.ly/2XiuyCv

[57] Vidovićová, L., Jahoda, R., Vyhlídal, J., Kofroň, P. and Godarová, J., *Příjmová Chudoba a Materiální Deprivace Seniorů: Subjektivní a objektivní pohledy* [Income Poverty and Material Deprivation in Old Age: Subjective and objective dimensions of this phenomenon], 2015. https://bit.ly/2UQ58dN

[58] CZSO (Czech Statistical Office), *Zpráva o Očekávaném Vývoji Umrtnosti, Plodnosti a Migrace v České Republice* [Report on the Expected Development of Mortality, Fertility and Migration Rates in the Czech Republic], 2018. https://bit.ly/2QRdJZW

[59] MLSA, *Zpráva o Stavu Důchodového Systému České Republiky a o Jeho Předpokládaném Vývoji se Zřetelem na Demografickou Situaci České Republiky a na Očekávaný Populační a Ekonomický Vývoj* [Report on the State and Expected Developments of the Czech Republic's Pension System in View of the Demographic Situation of the Czech Republic and Population and Economic Projections], 2019b. https://bit.ly/3arDQPo

law does not include any automatic mechanism for changing the pensionable age; therefore, the future pension system will be exposed to ad hoc political decisions on pensionable age increases every five years, adding potential instability. In comparison with the previous legal regulation, which allowed for an increase in the pensionable age beyond 65 years, the legal fixing of the pensionable age at 65 years weakens the fiscal sustainability of the pension system.

In 2018, the parliament agreed that the universal basic amount of pension would increase from 9 % to 10 % of the average wage from 2019. The average pension thus increased by CZK 900 (approximately EUR 36) monthly in January 2019. This corresponds to a 7.3 % rise in the average pension – the greatest increase so far and, at the same time, almost equivalent to the cumulative average change in pensions between 2015 and 2018. The extent of pensioners' monetary poverty depends on their age (see Section 3.1). Therefore, the parliament passed a law in 2018 that has increased pensions for people aged over 85 by CZK 1000 (EUR 40) per month and for people over 100 years by CZK 2000 (EUR 80) per month since 2019. This measure has affected approximately 200,000 Czech pensioners (8.2 % of all old-age pensioners). Pensions were also markedly increased in January 2020. The universal basic amount of pension rose by CZK 220 (EUR 9) monthly (10 % of the yearly average wage increase), and the earnings-related component increased by 5.2 % (CZK 529/EUR 21 for an average pensioner) according to statutory rules. In order to repeat the average monthly pension increase by CZK 900 (EUR 36), the government further decided to increase each pension by an extra CZK 151 (EUR 6). The reason the government proceeded to accelerate the increase was the fact that the average replacement rate had previously decreased from 42.3 % (2013) to 37.9 % (2018) due to rapid wage developments. Both increases have a greater impact on pensioners with below-average pensions, where the universal basic amount of pension represents a bigger proportion compared with pensioners with above-average pensions. The adopted measure has weakened the financial sustainability of the pension system in the medium term.

In January 2019, the Ministry of Labour and Social Affairs set up a Commission for Fair Pensions. The commission is composed of experts and political representatives. Its aim is to discuss measures to improve the fairness of the pension system and ensure its financial sustainability. The measures discussed so far cover the following four areas: fairer pensions for carers; an earlier retirement possibility for workers in arduous and hazardous jobs; a simpler and fairer benefit formula under the statutory pension scheme; and improved settings of the supplementary personal pension scheme.

The 'fairer pension for carers' is specifically designed to reduce the gender gap in pensions and is, in general, targeted at people who take on the long-term care of dependent family members. The introduction of a 'fictive assessment income' was proposed as an appropriate measure. If the carer's qualifying income for future pension benefit is below the fictive income, the pension benefit should be calculated on the fictive income. This problem particularly affects women who face the largest drop in incomes when they return to the labour market after parental leave.

With the exception of miners, there is currently no specific retirement scheme for the group of workers in arduous or hazardous jobs (WAHJ). As regards pensions for WAHJ, the commission is considering redefining the scope of this group based on the existing categorisation of jobs according to the risk factors related. In the case of a narrow definition, this group would include less than 0.3 % of the labour force; a broad definition would affect about approximately 8 % of the labour force. The option under discussion assumes that the pensionable age of these people would be one year lower for every 10 years in a demanding profession. The commission has not yet reached agreement on the scope and financing of measures.

There is a consensus among members of the commission on the need for simplification of the benefit formula of the statutory pension scheme. The commission discussed several options which included both a budget-neutral technical solution and options accentuating a fairer form of pension benefit (budgetary expansive options). The essence of all these solutions lies in internal restructuring of the current statutory pension scheme; two pillars will be created within the scheme, called the ‘pillar 0’ and the ‘pillar 1’. Organisation into two pillars would clarify the current situation where pensions already consist of a universal basic amount (flat-rate) and an individual earnings-related component. Pillar 0 would provide the basic pension to all older people, with the amount higher than today (the discussed options range between 25 and 30 % of the national average wage, compared with the current 10 % of the average wage). This amount should better reflect the minimum cost of living of pensioners and would be indexed based on wage growth. Conversely, pillar 1 would be fully earnings-related, with none of the income reductions that are in place today. The benefit would be indexed based on inflation. Discussions on the weight of individual parameters are ongoing. However, it is already clear that the proposal would improve the situation of groups of people with lower incomes (generally women, self-employed people, and pensioners over 75 years of age).

The reform proposals discussed within the Commission for Fair Pensions would lead to fairer pensions at the cost of worsening the long-term financial sustainability of the system. For this reason, the Ministry of Labour and Social Affairs currently has no mandate from the government to elaborate on the discussed changes. Until the governmental parties reach an agreement (particularly over the question of the acceptable costs of increased equity of the system in relation to its long-term financial sustainability), the commission’s proposals will remain an inventory of problems affecting the pension system and possible solutions.

The commission also discussed possible changes to the supplementary pension scheme. These should consist in increasing the profitability of the system (by easing the fee policy and introducing a low-fee state fund), increasing participation by employers (participation should be part of collective bargaining) and incentives to increase the level of participant contributions (by means of valorising state support and linking it to economic development). However, this scheme falls within the competence of the Ministry of Finance, which has stated that it is not considering further adjustments to the system at the moment.

3 ASSESSMENT OF ADEQUACY

3.1 Current adequacy

Several factors contributed to changes in pension adequacy during the period under review. The development of average pensions is influenced mainly by the number of newly granted pensions and also by the way in which pensions already being paid are indexed.

While overall the AROP rate deteriorated markedly between 2008 and 2019, it also saw a remarkable turnaround within this same period. Between 2008 and 2013, the AROP rate decreased, as retirees enjoyed an increase in the relative pension value. In the period 2013-2018, the Czech Republic experienced economic recovery but, at the same time, restricted pension indexation. The relative median income ratio illustrates this development. While it improved from 79 % to 85 % during 2008-2013, it deteriorated markedly from 85 % to 74 % during 2013-2018. The aggregate replacement ratio shows a similar development (54 % in 2008, improving to 56 % in 2013, then worsening to 47 % in 2019). After 2017 the system of indexation was changed and some protective measures were prepared (see Section 2). These measures will not have the power to reverse the deteriorating income position of pensioner households, as wages rose rapidly in 2018 and 2019. However, it will help to at least partially slow down this deterioration.

The last factor behind the deterioration of the relative income position of pensioner households is improving life expectancy. Due to pensionable age increases, between 2008 and 2019 the time spent in retirement decreased by 2.3 years for men and 3.0 years for women. In 2008, 36,800 pensions were paid out to people aged 85 or over. In 2018, it was already 63,700 pensions. Pension indexation over a long period causes a gradual diminution of an individual's pension relative to the value of newly granted pensions.

It may be concluded that although pensions grew faster than inflation during the whole period under review, their growth was below that of income from economic activity. This is the main reason why pensioners found themselves in income poverty more often in 2019 than in 2008. On the other hand, although indicators of relative poverty deteriorated between 2008 and 2019, such absolute poverty indicators as severe material deprivation, material and social deprivation, unmet healthcare needs and housing cost overburden witnessed an improvement in the situation of older households. This stemmed from a faster growth in average income than in price levels (see Section 5 'Background statistics').

AROP rates are much higher for women. They live longer than men, which means that their pensions grow more slowly than wages for a longer period of time. The household composition also has a substantial impact on AROP values. In the case of both men and women aged 65 or over living with their partner, the AROP rate slightly deteriorated from 2 % to 3 % (1.5 % to 4.0 %) between 2008 and 2018. However, the AROP rate for both men and women aged 65 or over living alone saw a significant increase over this period (from 7.9 % to 17.4 % for men and from 15.4 % to 32.6 % for women). That said, higher age does not always mean an increase in income poverty. For example, the AROP rate for single men (aged 75 or over) was 15.0 %, but 18.9 % for younger single men (65-74) in 2018. In the case of single women, the AROP rate was almost the same for all age categories in 2018. An unproven hypothesis underlying this observation is that this may be influenced by socioeconomic inequalities in life expectancy. The OECD states that life expectancy in OECD countries varies by socioeconomic status as measured, for instance, by education level: 'Socioeconomic inequalities are particularly striking among men in the Czech Republic, where the life expectancy gap between men with lower and higher education levels is over ten years.'[60] Men with higher education, who live longer, have higher pensions at the same time.

The rapidly increasing poverty of women was thus affected by two counter-factors in the period under review. First, the already discussed decline in the pension value relative to the income of the rest of society, which can also be demonstrated by a deterioration in the aggregate replacement ratio or the relative median income ratio. Second, the shift towards couple cohabitation due to the increasing life expectancy of men is an undisputed trend (37.6 % of women aged 65 or over lived with their partner in 2008, compared with 44.3 % in 2018), which in turn prevented an even greater increase in poverty among women (for more information on the gender gap in pensions, see Section 3.3 on solidarity mechanisms).

There is universal free access to long-term care (LTC) health services for any resident. The level of a cap on drug co-payments is age-based (a reduced cap for the population aged 65-70, and even a greater reduction for people aged over 70). There is a set of cash allowances for people in need. The share of the population aged 65 or over receiving LTC cash benefits was 12.1 % in 2016. The largest cash benefit is personal care allowance. Eligibility for the allowance is based on an assessment of needs and family circumstances. The allowance is scaled into four levels, according to the recipient's degree of dependency on support. Pensions do not influence the allowance (either eligibility or amount). The recipients of benefits in kind are required to make a contribution to help cover the costs of board (up to a limit of CZK 170/EUR 7) and lodging (up to the limit of CZK 210/EUR 8) in residential social services.

3.2 Future adequacy

As regards future adequacy, theoretical replacement rates (TRRs) for similar careers are projected to remain broadly stable between 2019 and 2059. The net TRR for low earnings is 17.2 p.p. higher than for average earnings, reflecting the progressivity in the pension and tax systems. Care-related career breaks for three years would not lead to any loss of pension rights, while an unemployment break would trigger a moderate loss of 3.3 p.p.

The age of retirement, though, can have a significant impact on pension income. Retiring two years before or after the standard pensionable age would result, respectively, in a 9.1 p.p. lower or 9.6 p.p. higher net TRR compared with the base case (a 40-year career concluding at standard pensionable age). There is a question as to how future developments in career length will affect replacement rates. According to the 'Ageing Working Group career length' scenario, the net TRR would deteriorate by 3.4 p.p. for men and 8.8 p.p. for women between 2019 and 2059.

[60] OECD, *Health at a Glance 2019*, OECD Indicators, OECD Publishing, Paris, 2019, p. 68.

3.3 Challenges for future adequacy

Future adequacy is expected to deteriorate despite expectations that pension expenditure will rise in the coming years as a consequence of population ageing. This statement is conditional on no substantial reforms of pension system financing and no promotion of complementary schemes being prepared in these years. Simulations by the Ministry of Labour and Social Affairs[61] indicate that pension expenditures will rise by 4.5-6.0 p.p. of GDP by 2050, with a relatively stable revenue from social security over time. The figures come from the dynamic microsimulation pension model, which the ministry has been using and improving since 2011. Despite the increase in expenditure, the MLSA expects the AROP rate of old-age pensioners (aged 65 or over) to worsen to 19-23 %. There is no single driving factor behind the suggested development. Based on possible explanations proposed by the MLSA and other sources, the following factors and interpretation may be provided.

1. Study periods and unemployment periods will no longer be fully considered as periods of insurance (legislated in several steps between 1996 and 2011). Since these non-contributory periods have been reduced only for new labour market entrants, the MLSA[62] expects the impact of this change will not occur until after 2040.

2. The impact of (mandatory) full employment from (the communist era) before 1989 on pension calculation is disappearing. Over time, individuals who spent a substantial part of their active lives after 1989 (when employment is no longer forced by the threat of imprisonment) are retiring. Their insurance records report gaps, which has a direct impact on their newly awarded pensions. This applies more to women whose income from economic activity is, in some families, replaced by unpaid care, which is at the same time not considered to be an insured period (e.g. care for family with children aged over 4).

3. A large proportion (approximately 17 %) of the workforce pursue self-employment in the Czech Republic. Due to the tax laws, these people pay on average lower pension insurance contributions than employees. The self-employed thus generate higher net incomes during their economic activity, which is, however, counterbalanced by lower pension benefits granted.[63]

4. On the other hand, the Czech Republic has the second-highest employment rate in the EU (79.9 % in 2018). At the same time, a low share of the labour force worked under part-time contracts (6.2 % compared with 17.8 % in EU) or temporary contracts (6.9 % compared with 12.3 in EU) in 2018. There are no significant differences either in terms of gender (values for women are always far below EU values) or in terms of different age categories (e.g. 55-64). These factors have a positive effect on future entitlement and pension levels. Most people are eligible for an old-age pension and pension differentiation is rather low: see the S80:S20 income quintile ratio of older people (aged 65 or over) in Section 5 ‘Background statistics’.

[61] MLSA, *Tři Varianty Nastavení Reformovaného Důchodového Systému* [Three Options for Setting up a Reformed Pension System], 2019c. https://bit.ly/2V9eqjS

[62] MLSA, *Actuarial Report on Pension Insurance 2012*, 2012, pp. 102-103. https://bit.ly/2zTx6gw

[63] MLSA, *Architektura Nového Důchodového Systému* [Architecture of the New Pension System], 2020b. https://bit.ly/3bMfxw4

5. The negative effect of a 20 % gender pay gap is mitigated by a solidarity mechanism within the pension system. Equally, the impact of increasing wage differentiation is compensated for (see Section 3.3). However, these compensations are only partial. For example, a newly awarded pension of the ninth decile was 51.8 % higher than that of the first decile in 2001; however, this difference was already 70.8 % in 2018 (CSSA, 2019).
6. Higher divorce rates, lower preferences for cohabitation and a gradual reduction of survivor's pensions in the last 25 years have gradually reduced the positive impact of survivor's pensions on poverty reduction (MLSA, 2019b, p. 24).

3.4 Solidarity mechanisms

The Czech pension system contains numerous elements of solidarity. Perhaps the most important is the method of calculating the pension benefit, which includes a universal basic amount (flat-rate) and an individual earnings-related component. Even the earnings-related component is partly redistributive, because the individual qualifying income for a future pension benefit is only counted up to a certain limit (equal to 44 % of the national average wage). Above this limit, there is a marked reduction whereby only 26 % of the qualifying income is taken into consideration. In addition, the system operates with a minimum pension (CZK 4240/EUR 170 per month in 2020), which, however, less than 1 % of pensioners receive. As already indicated, the reduction mechanism in the benefit calculation formula has a positive impact on poverty reduction and adequacy, especially for people with a lifetime income lower than the median income. The second group of people benefiting from it are self-employed people, who have on average lower assessment bases than employees. Finally, women are the third group, especially because their income from economic activity is lower than that of men.

Even though the gender pay gap in the Czech Republic is one of the biggest in the whole EU, the income-equalising nature of the pension formula mitigates its influence. The Czech Republic is among five countries with the smallest gender gaps in pensions in the 65-79 age group (29.5 % in the EU compared with 14.2 % in the Czech Republic in 2019). The existence of survivor's pensions also helps reduce the gender gap in pensions. According to the CSSA (2019), 538,000 widow's pensions were paid out to women each month in 2018, but only 99,000 widower's pensions were paid out to men. Almost 95 % of these survivor's pensions are paid to persons already eligible for an old-age pension. The average monthly widow's pension (provided concurrently with old-age pension) was CZK 2000 (EUR 80) in 2018. Survivor's pensions, which supplement old-age pensions, therefore mostly increase the incomes of women and constitute a major solidarity mechanism in the system. Non-contributory periods related to childbearing and childrearing (applicable to children under 4 years old and mostly concerning women) are fully recognised in the pension formula. Insufficient supply of childcare as well as a rather generous parental benefit cause mothers to stay outside the labour market longer than is common in other EU countries. This has an impact on the gender pay gap at the time of their return to the labour market, which then negatively affects the amount of their pension. Section 2, on reform trends, describes a measure that is currently being discussed and that aims to tackle the issue. Another reason behind the rather low gender pension gap is the low proportion of part-time work among women.

The indexation system focuses on keeping the purchasing power of pensions stable (and even slightly improving it) over time, yet it is below wage developments. Ad hoc solutions are occasionally accepted; these are based on an extra increase in older people's pensions (such as in 2019 when pensioners aged over 85 received an extra increase of CZK 1000/EUR 40 per month and pensioners aged over 100 CZK 2000/EUR 80 per month). A systematic solution that would address this aspect is currently under discussion; it comprises a significant enhancement of the flat-rate basic amount component of pensions at the expense of the earnings-related component (as discussed in more detail in Section 2 on reform trends).

There are no solidarity rules for any group of WAHJ, with the exception of miners. At the same time, the labour market has a relatively good record of absorbing the increase in the pensionable age. The employment rate for men aged 55-64 rose from 61.9 % to 74.7 % between 2008 and 2019 (for women aged 55-64 it grew from 34.4 % to 58.9 %). Prior to their retirement, Czech men have the fourth highest employment rate in the EU, and Czech women experienced the second highest increase in the given period (both in 2018).

4 OPPORTUNITIES TO ADDRESS CHALLENGES

As regards the pensionable age reform, it is important that the government can regularly (at five-year intervals) respond to the changing demographic situation. As regards the pension indexation reform, which is aimed at improving the income situation of older retirees, it will be necessary to find financial resources to cover the cost of this measure. While the recent financial state of the pension system has been very good due to sustained economic growth, the most significant challenge will be to maintain or improve the financial sustainability of the system in the long run.

The current discussion on the ratio between the basic and the earnings-related component of new pensions seems to be crucial for the question of monetary poverty among pensioners. The growth of the basic amount of pension particularly benefits poor pensioners, self-employed people, women and pensioners later in retirement. The reform could either consist in mere technical adjustments with minor budgetary costs or in a larger-scale change to the mechanism of solidarity (with corresponding budgetary consequences).

Since the statutory funded pension scheme was abolished, differentiation of future pensioners' incomes derives mainly from supplementary pension schemes. Greater financial involvement by employers, bigger individual contributions and improved internal returns remain the main challenges of such schemes. Currently, there are strong financial incentives for participation in the personal pension scheme; however, most of the saved funds are withdrawn as a one-off lump sum. The government should consider how to promote life-long annuities.

Future discussion should focus on whether WAHJ would rather utilise early drawing of their supplementary personal pensions (without losing the right to a pension from the statutory pension scheme) or whether these categories deserve preferential treatment within the statutory pension scheme.

5 BACKGROUND STATISTICS

5.1. Relative income	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
Relative median income ratio (65+)	0.73	0.74	0.72	-0.06	-0.06	-0.06
Income quintile share ratio (S80/S20), 65+	2.57	2.54	2.53	0.3	0.4	0.17
Relative income quintile share ratio (S80/S20), 65+ - 0-64	-0.76	-0.78	-0.8			
Aggregate Replacement Ratio (ARR) %	47	45	50	-4	-3	-6
5.2. Poverty and material deprivation	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
At-risk-of-poverty or social exclusion (AROPE), 65+ (%)	17.7	10.5	23.2	5.2	3	7.1
At-risk-of-poverty rate (AROP), 65+ (%)	16.6	9.4	22.1	9.2	6.1	11.9
Severe material deprivation (SMD), 65+ (%)	2.2	2	2.3	-4.2	-2.7	-5.2
At-risk-of-poverty or social exclusion (AROPE), 75+ (%)	21.9	11.5	28.9	8.5	4.8	11.5
At-risk-of-poverty rate (AROP), 75+ (%)	20.7	10.4	27.5	12.8	7.9	16.3
Severe material deprivation (SMD), 75+ (%)	2.3	1.8	2.6	-3.9	-2.8	-4.6
Relative median at-risk-of-poverty gap, 65+ (%)	10.8	10.2	11	2.9	3.4	3.1
At-risk-of-poverty rate (AROP), 65+: 50 % threshold (%)	5.2	2.8	7.2	3.6	1.8	5.1
At-risk-of-poverty rate (AROP), 65+: 70 % threshold (%)	34.4	25.9	41	12.6	12.9	12.8
Material and social deprivation, age 65+ (1)	5.5	4.5	6.2	-5.8	-3.1	-8
5.3. Gender difference	2019			Change 2008-2019		
Gender gap in pension income (65-79) (%) (2)			14.2			-0.1
Gender gap in non-coverage rate (W-M in p.p.) (65-79)			-1.1			1.2
5.4. Housing and health situation	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
Housing cost overburden rate, 65+ (%)	10.1	6.5	13	-6.3	-6.2	-6.1
Self-reported unmet need for medical exam 65+ (%)	2.9	2.4	3.3	-0.6	-0.8	-0.4
Healthy life years at age 65 (years)	8.1	8.0	8.2	0.2	0.5	0.0
Life expectancy at age 65	18.2	16.2	19.8	1	0.9	1
5.5 Sustainability and context	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
Employment rate, age group 55-64 (%)	66.7	74.7	58.9	19.1	12.8	24.5
Pension expenditure as % of GDP (ESSPROS) (3)			8.4			0.8
Retirement duration from first pension (years) (4)	20.6	17.9	23.1	-0.3	-0.1	-1.0
Retirement duration from end employment (years)	20.1	17.1	22.8			
Eurostat and AWG projections	2019			2059		
Old-age dependency ratio (20-64) (%)	32.6	26.9	38.5	59.4	53.7	65.5
Economic old-age dependency ratio (20-64) (%) (5)	38.1	28.0	50.8	71.1		
Gross public pensions as % of GDP (5)	8.0			11.8		
Benefit ratio (%)(5)	38.5			38.2		
Coverage ratio (% of pop aged 65+)(5)	137.4			111.8		
Gross pension ratio high / low earner		1.4	1.4		1.3	1.3

(1) *change since 2014, not 2008*

(2) *data refer to 2010, not 2008*

(3) *ESPROSS data refer to 2018*

(4) *Change is since 2016, not 2010*

(5) *2060 instead of 2059*

5.6 Theoretical Replacement Rates

	Net (%)				Gross (%)			
	2019		2059		2019		2059	
	Men	Women	Men	Women	Men	Women	Men	Women
Average earning (100%)								
Base case: 40 years up to the SPA	62.4	62.4	61.5	61.5	47.1	47.1	46.1	46.1
Increased SPA: from age 25 to SPA	59.9	57.5	61.5	61.5	45.2	43.4	46.1	46.1
AWG career length case	62.9	61.2	59.5	52.4	47.4	46.2	44.7	39.3
Old base case: 40 years up to age 65	67.3	75.8	61.5	61.5	50.7	57.2	46.1	46.1
Longer career: 42 years to SPA			63.9	63.9			47.9	47.9
Shorter career: 38 years to SPA			59.1	59.1			44.3	44.3
Deferred exit: 42 years to SPA +2			71.1	71.1			53.4	53.4
Earlier exit: 38 years to SPA -2			52.4	52.4			39.3	39.3
Career break – unemployment: 3 years	58.9	58.9	58.3	58.3	44.5	44.5	43.7	43.7
Career break due to child care: 3 years	62.4	62.4	61.5	61.5	47.1	47.1	46.1	46.1
Career break care to family dependant: 3 years	62.4	62.4	61.5	61.5	47.1	47.1	46.1	46.1
Short career (20 year career)								
Work 35 y, disabled 5 years prior to SPA			60.7	60.7			45.5	45.5
Early entry in the LM: from age 20 to SPA			67.5	67.5			50.6	50.6
Index: 10 years after retirement @ SPA			56.6	56.6			42.5	42.5
Extended part-time period for childcare			59.5	59.5			44.6	44.6
Survivor – full career		74.6		73.6		56.3		55.2
Survivor – short career		38.0		37.4		28.7		28.1
Survivor ratio 1*		0.60		0.62		0.60		0.60
Survivor ratio 2*		0.61		0.61		0.61		0.61
Low earnings (66%)								
Base case: 40 years up to the SPA	79.6	79.6	78.7	78.7	62.8	62.8	61.5	61.5
AWG career length case	80.2	78.1	81.7	67.5	63.2	61.6	63.8	52.7
Old base case: 40 years up to age 65	85.6	96.1	78.7	78.7	67.5	75.7	61.5	61.5
Career break – unemployment: 3 years	75.7	75.7	75.0	75.0	59.7	59.7	58.6	58.6
Career break due to child care: 3 years	79.6	79.6	78.7	78.7	62.8	62.8	61.5	61.5
Short career (20 year career)								
Early entry in the LM: from age 20 to SPA			86.1	86.1			67.3	67.3
High earnings (100->200%)								
Base case: 40 years up to the SPA	39.4	39.4	37.1	37.1	28.4	28.4	26.7	26.7

**Survivor ratio 1: man base case, woman base case*

**Survivor ratio 2: man base case, woman short career case*

DENMARK

Highlights

- The Danish pension system has a high degree of social adequacy and financial sustainability. The relative importance of occupational pensions in old age incomes is growing, while the pensionable age is expected to increase significantly as a result of the link to life expectancy.
- Public pensions will in the longer run have a more limited role in income replacement beyond the low-income groups, but are effective at preventing poverty and involve a significant redistribution in favour of those with no or small supplementary pension savings. The linking of pensionable age to developments in life expectancy makes the system more sustainable, but may raise concerns about those workers unable to work up to the increasing pensionable age. The reformed senior pension offers an early retirement pathway for those who are no longer able to work full time.
- Occupational pensions covering nearly all full-time and most part-time employees are set to play a key role in income maintenance. But self-employed and non-unionised workers are not covered, and only a minority compensate sufficiently by saving enough in personal pension schemes.
- Future pension reforms could address the coverage problem in supplementary pensions and make expected retirement periods more equal across generations. A pension commission will carry out a review of the Danish pension system.

1 GENERAL DESCRIPTION OF THE NATIONAL PENSION SYSTEM

For old-age provision, Denmark has a system which combines, and to a large extent integrates, income from three types of pension schemes (statutory, occupational and personal pension schemes). Retirement practices are also markedly affected by the voluntary early-retirement pension scheme, VERP (*efterløn*), and disability pensions (*førtidspension* and *seniorpension*).

The statutory pensions consist of two old-age pension schemes: the national old-age pension, also known as the public pension (*folkepension*); and the much smaller statutory funded pension (ATP). The public pension, which presently still accounts for almost two-thirds of all pension income, is a universal, non-contributory, residence-based scheme financed from general taxation on a pay-as-you-go basis. People are entitled to 1/40th of the public pension for each year they reside in Denmark, between the age of 15 and pensionable age.[64] Benefits

[64] From 1 July 2025, entitlement to a full pension will be conditional on having resided in Denmark for 9/10ths of the time between the age of 15 and pensionable age.

are taxable and consist of a flat-rate amount (*grundbeløb*) and income-tested supplements (*pensionstillæg*). The flat-rate amount is only tested against earned income above a very significant level. The supplement is tested against all earned, capital and pension income, including spouse’s/partner’s income. There is a supplementary benefit for pensioners (*supplerende pensionsydelse, ældrecheck*) with little to no income besides the full old-age pension. The public pension (national old-age pension plus supplementary benefit) for a pensioner without supplementary income was EUR 23,655 annually for a single person and EUR 18,077 annually for a person in a couple in 2019. The present standard pensionable age of 66 (2020) will be raised to 67 by 2022 and thereafter – as pioneered by Denmark – linked to developments in life expectancy. As a result, the standard pensionable age will be raised from 67 to 68 in 2030 and raised from 68 to 69 in 2035. People working after reaching pensionable age can earn higher pensions. Public pensions are fully indexed to the average wage development.

The ATP is a mandatory, fully funded defined-contribution scheme financed from small nominal contributions from all employed persons. The size of the statutory funded ATP pension depends on the contributions paid, which vary with the number of hours of work. The scheme is mandatory for employees above 16 years of age working more than nine hours a week. In 2016, 90 % of pensioners received a payment from the ATP.[65] The ATP is the biggest private pension for half of old-age pensioners.[66] The ATP, which has largely matured and offers a moderate supplementary annuity (typically about 10-25 % of the flat-rate amount in the public pension), is organised in a separate fund under tripartite management.

There are two schemes equivalent to the ATP for people on social benefits. In the compulsory pension scheme *(obligatorisk pensionsordning, OP)* in general the state pays a contribution into the ATP scheme for all claimants of social security (except the public pension and integration allowance). In 2020, the contribution was 0.3 % of the social security benefit, increasing by 0.3 p.p. each year to reach 3.3 % in 2030. The supplementary pension scheme *(supplerende arbejdsmarkedspension for førtidspensionister, SUPP)* is a voluntary scheme that allows disability pensioners to save for old age. The disability pensioner pays one-third and the state two-thirds of the flat-rate, monthly contribution (EUR 72 monthly in 2020).

Among the supplementary pension schemes, the occupational pension schemes are based on voluntary collective agreements providing compulsory coverage for the employees concerned. These, mostly sector-wide, schemes cover 94 % of full-time employed people or 63.4 % of the working-age population (2016). Low coverage rates are in sectors with a large share of unskilled and non-organised labour such as in agriculture, sales and restaurants. The bulk of occupational pensions are fully funded, defined-contribution schemes with obligatory in-house annuitisations. The importance of these pension schemes in overall pension income is becoming steadily larger as the major sectoral schemes established around 1990 mature and expand as an effect of growing contribution rates. Contributions vary from 12 to 19 % across sectors, with workers typically saving 12 % of their gross pay, while professions such as nurses

[65] ATP, ‘Næsten alle folkepensionister modtager privat pension i dag’ [Almost all old-age pensioners receive a private pension], May, *Faktum* No 174, Hillerød, ATP, 2018.
[66] ATP, ‘ATP-pensionen er den største pension for halvdelen af pensionisterne’ [The ATP pension is the largest (private) pension for half of pensioners], March, *Faktum* No 196, Hillerød, ATP, 2020.

contribute 14 % and primary school teachers and university graduates 17-19 %. Over a year, 1 in 8 insured people pay considerably less in contributions, because part of their salary does not count towards occupational pensions or because they have been in non-unionised work, on study activities or on social security part of the year. On average employees covered by occupational pensions paid 12 % of their income in pension contributions in 2014.

The personal pension schemes consist of a wide range of voluntary personal life insurance and pension saving plans with uneven coverage and differing scope, of which most savings schemes allow lump-sum payments with no annuitisation obligation. These schemes are used for insurance (i.e. to secure the desired level of income security) and for compensation (i.e. to replace the lack of savings in occupational pension schemes). The compensatory function is mostly relevant for the self-employed, people in work not covered by collective agreements and thus occupational pensions (including many people in non-standard jobs), and social security claimants. However, with an average contribution of 3 % of income into personal pension schemes, people without occupational pensions do not compensate enough. The average 10 % contribution made by the self-employed masks a small group with high income that pays high contributions and a large group with lower income that pays few, if any, contributions.

The VERP, which has, historically, facilitated large-scale early retirement, is a voluntary, contributory scheme where the financing involves a major subsidy from general taxation. To become entitled, people must have been a member of the voluntary unemployment insurance scheme and paid the special contribution to the scheme for 30 years and started the contributions no later than their 30th birthday (people born before 1 January 1978 are subject to less strict requirements). People are also eligible for unemployment benefit when VERP is claimed. While formally an earnings-related benefit, its floor and ceiling tend to give it a de facto flat-rate character. The lowest retirement age in the VERP is being raised gradually by two years to 64 during 2018-2023, which will lower the maximum duration of the benefit from five to three years, and will thereafter be linked to the pensionable age, which is linked to developments in life expectancy. As a result, the lowest retirement age in the VERP will be raised from 64 to 65 in 2027 and further to 66 in 2032.

Pension reforms such as raising early retirement age as well as increased employment after pensionable age and the maturation of occupational schemes have already contributed to an increase in the average effective retirement age by around 3 years between 2008 and 2016.[67] As a result of the first longevity indexation carried out in 2015, the pensionable age in the VERP and the public pension will increase by one year in 2027 and 2030, respectively. The second indexation carried out in 2020 further increased the pensionable age in the VERP and the public pension by one year in 2032 and 2035, respectively. The aim is to limit the average duration of receipt of the public pension to 14.5 years while giving people a 15-year warning

[67] Depending on the methodology, different estimates put the increase from 62.8 years to 65.4 years (Forsikring and Pension, *Tilbagetrækningsalder fra Arbejdsmarkedet* [Retirement Ages], January 2020, Copenhagen, Insurance & Pension in Denmark, 2020) or from 63.7 to 66.9 years (Svar på Finansudvalgets spørgsmål nr. 369 (Alm. del) af 18. september 2020 stillet efter ønske fra Rune Lund (EL) https://www.ft.dk/samling/20191/almdel/fiu/spm/369/svar/1726643/2302771/index.htm). Better health and higher qualifications are other factors contributing to later retirement.

before the next rise in the pensionable age. Similarly, the aim for the VERP is to limit the maximum duration to three years while giving people a 12-year notice.

The disability pension (*førtidspension*) is for people with a permanent loss of a major part of their working capacity. The disability pension is somewhat higher for single claimants than for those who are married or cohabiting.

The senior pension (*seniorpension*) is for people with less than six years to the pensionable age in the public pension, a capacity of a maximum of 15 weekly working hours in their latest job, and a previous work record of full-time employment of 20-25 years.[68] The level of the senior pension is the same as that of the disability pension.

The self-employed and workers in non-standard jobs receive a public pension on the same conditions as everybody else. People in non-standard jobs pay the same ATP contributions as people in standard jobs. Self-employed people can make voluntary contributions to the ATP scheme, but very few do. There are only very few occupational pension schemes covering groups of the self-employed (primarily professionals such as doctors and lawyers) and none for people in jobs not covered by collective agreements.

2 REFORM TRENDS

Since 2017 the focus of pension policy has been on an ageing population, nudging older workers to stay in the labour market and work past pensionable age, while securing alternatives for those who cannot work till the pensionable age, and promoting savings in occupational schemes.

Two widely acknowledged issues in pension provision – the ‘savings disincentive’ and the ‘coverage residual’ problem – result from the interaction between the public and supplementary pension schemes. The savings disincentive problem means that low-to-middle income workers, covered by occupational pensions, reap little to no benefit from the savings they accumulate during their last decade in the labour market because the extra supplementary pension entitlements accruing result in a reduction of the pension income-tested part of the universal national old-age pension.

A pension reform aimed at reducing savings disincentives for workers in later life and postponing retirement and prolonging working lives was agreed in June 2017 and subsequently implemented. The reform raised the annual maximum contribution that people with less than 5 years until the pensionable age can pay into old-age savings (*aldersopsparing*) without leading to a reduction in the pension income-tested part of the national pension.[69] An extra tax credit for pension contributions was also introduced in 2018.[70]

[68] The senior pension replaced the senior disability pension (*seniorførtidspension*) on 1 January 2020. The senior disability pension was a fast-track disability pension for persons who lost their ability to work less than five years before reaching the pensionable age.

[69] For details see Kvist, J., ‘Denmark: Reform aimed at raising the effective retirement age and removing disincentives to private retirement savings’, *ESPN Flash Report* 2017/48, European Social Policy Network (ESPN), Brussels, European Commission, 2017.

[70] See “Aftale om lavere skat på arbejdsindkomst og større fradrag for pensionsindbetalinger” (February 2018)

The coverage problem refers to the fact that the 20-25 % of the working-age population without occupational pension coverage tend to make insufficient alternative pension savings. In 2018-2019, a broad coalition of political parties agreed to start a subsidised saving scheme for social security claimants. Launched in January 2020, the purpose of the OP for social security claimants is to ensure that people temporarily or permanently outside employment build a supplementary pension. Fully implemented in 2030, the scheme will have a contribution rate of 3.3 % of the social security benefit. In 2029, parliament will decide whether the contribution rate should be increased further (in comparison, contributions to occupational pension amount to 12-18 % of gross wages). The OP covers unemployment benefit, sickness benefit, social assistance, disability pension, VERP, holiday pay, rehabilitation benefit, study grant *(Statens Voksenuddannelsesstøtte, SVU)*, and more. The contribution becomes a part of the ATP life-long pension that is paid out at retirement. The benefit cannot be paid out earlier.

The 2017 pension reform tightened the residence criteria for the public pension, the supplementary benefit for pensioners, and the disability pension (2018, PAR). Other measures have been taken to increase older people's incentives to continue working. The 2017 reform meant that the earliest date at which people can begin to draw on tax-subsidised retirement savings was reduced from five to three years before the pensionable age to the public pension (Kvist, 2017). In November 2018, the government and the Danish People's Party agreed on a 2019 budget that increased pensioners' disposable income and improved their incentive to work after reaching the pensionable age. Hence, the basic amount of the public pension was increased (beyond indexation) and the limits from when income from work and occupational pensions results in a reduction of the public pension were increased.

Most recently, the issue of early retirement for workers who lose their full work capacity before they reach retirement age, which many thought had been settled with the gradual winding down of the VERP scheme decided in 2011, has re-entered the policy agenda. The immediate cause was that the Danish Social Democratic Party in the run-up to the June 2019 election campaigned for a right for workers with many heavy-duty working years to claim an early public pension for worn-out workers.[71] But the widespread concern among manual workers about whether they will be able to continue working until they reach the pensionable age is linked to its rise from 65 to 67 from 2019 till 2022 and its link to life expectancy thereafter. It has already been decided that the pensionable age, as an effect of the link, will be raised to 68 years in 2030 and 69 years in 2035; and it is estimated to increase to 73 years by 2060. The new pension commission is tasked with assessing perspectives for an adjusted indexation of pensionable age after 2040.

On 2 May 2019, the former government (The Liberal Party of Denmark, The Conservative People's Party and The Liberal Alliance), the Danish People's Party and the Social Liberals reached an agreement on a new senior pension to replace the senior disability pension (see Section 1). The senior disability pension had failed to become the intended early retirement pathway for older workers with a seriously reduced work capacity. As this failure was deemed to have been caused by the different approach of the municipalities in granting the pension to

[71] Kvist, J., 'Early Retirement for Worn-out Workers: A major election topic in Denmark', *ESPN Flash Report* 2019/23, European Social Policy Network (ESPN), Brussels, European Commission, 2019a.

qualifying claimants, the new senior pension will not be awarded by the municipalities (even though they have to finance a major part of it), but by a new agency (*Seniorpensionsenheden*).[72] The new senior pension came into effect on 1 January 2020, and the new agency took over its administration on 1 January 2021.

A new pension for workers who entered the labour market at an early age was finalised and adopted in late 2020; it will be described in detail in the next edition of the PAR.

3 ASSESSMENT OF ADEQUACY

3.1 Current adequacy

The Danish pension system scores well on poverty protection but less so on income maintenance. The aggregate replacement ratio was 48 % in 2019, up 7 percentage points (p.p.) since 2008.[73] The emphasis of the universal public pension is on poverty protection whereas income maintenance is to be fulfilled by the occupational pension schemes, many of which were established around 1990, but which do not cover the self-employed and people in jobs not covered by collective agreements. The latter groups can compensate through individual private savings which also act as a vehicle of insurance for other groups.

Low-income groups receive substantially more in public pensions and tend to have better replacement rates than high-income groups. This is a result of the income-testing of old-age pensions: the flat-rate part of the public pension (the basic amount) is only reduced for income from work income above a significant amount, while the income-tested part (the pension supplement and the supplementary benefit) is reduced for all kinds of taxable income above certain amounts and can only be claimed by people with modest or no income besides the public pension.

When judged by the poverty-protection measures of adequacy, the performance of the Danish pension system appears more impressive. Thus, it manages to achieve poverty levels that are low by EU[74] standards and these have even tended to reduce since the onset of the crisis in 2008. The at-risk-of-poverty-or-social-exclusion (AROPE) rate for people aged 65 or over was 10.0 % in 2019, down 8.6 p.p. from 2008. The at-risk-of-poverty (AROP) rate for people aged 65 or over was 9 % in 2018, down 9.1 p.p. from 2008 and significantly lower than the working-age AROP rate.[75] However, these fluctuations are more likely to have been caused by changes in median incomes than in pensions. The severe material deprivation rate was 1.3 % in 2019, up 0.4 p.p. from 2008. The AROPE rate for women was 10.5 % compared with 9.4 % for men. When looking at the situation of people aged 75 or over, the poverty risk in old age becomes more pronounced but still remains below EU levels. In 2019, the AROPE rate was 15.3 % for people aged 75 or over, the AROP rate was 14.5 %, and 0.9 % reported that they suffered from

[72] Politically, the agreement was a response, two weeks before the parliamentary election in June, to the promise of the Social Democrats to introduce a right to early retirement for worn-out workers. The Social Democrats joined the agreement later in December 2019.
[73] See Section 5 'Background statistics'. Unless otherwise stated, this is the source of statistics referred to in the remainder of the report.
[74] EU and EU-27 refer to the current 27 Member States of the European Union.
[75] In comparison, the AROP rate for people aged 18-64 years was 14.5 in 2018 (Eurostat, At-risk-of-poverty rate by poverty threshold, age and sex, 2020 (ilc_li02).

severe material deprivation. The AROPE rate (for those aged 75 or over) in Denmark is 15.9 % for women and 14.6 % for men.

The above figures are not used in domestic debates. The social partners, the ministries, and poverty experts all use the 50 % median income rather than the 60 % level used by the EU. There are two reasons for this. First, the 50 % level has been chosen on the basis of the relatively equal income distribution and is supported by analyses of poverty based on the budget method. Second, it must be taken into consideration that older people in Denmark have access to free universal healthcare as well as the most all-encompassing free home help in the world. These non-monetary benefits that older people are eligible for are not taken into account in the EU indicator. The effective purchasing power of pensioners is also raised by age-related tax rebates (e.g. on owner-occupied housing) and discounts on medication, transport, admissions and radio/TV. The fact that, unlike the Danish income figures, Eurostat data do not include imputed rent also affects the AROP rate among older people. The public pension contributes to only 1 % of pensioners being at risk of poverty at the 50 % level of the median income compared with 60 % of the general population.

There is little severe material deprivation among older people. In 2019, 1.3 % of people aged 65 or above reported they were materially deprived, up 0.1 p.p. since 2008. This was one-fifth of the level in the EU. Similarly, the rate of the people with material or social deprivation was 3.0 % in 2019, up 0.3 p.p. since 2014. This was one-fourth of the level in the EU.

Although the gender gap in pensions decreased by 10.4 p.p. from 2008 to 2019 it was still at 7.7 %. Though this is one of the smallest gaps in EU, it helps explain why older women are more often overburdened by housing costs than men.

With a life expectancy of 19.4 years at age 65 and an average retirement age of 65.4, the pension payment duration was 18.9 years in 2019. Indexation of pension ages with longevity is gender-neutral, but at 65 women’s life expectancy is 20.7 and men’s 18.0. As mentioned, the welfare reform of 2006 introduced indexation of pension ages with life expectancy increases, aiming at a pension duration of 14.5 years on average in the longer term – though, so far, averages are far away from this goal. The increase in life expectancy by 1.2 years from 2008 to 2019 contributes to an increase of about one year in the long-term pensionable age target. Since life expectancy is rising thanks to better medicines and treatment of people of advanced age it cannot be assumed that the work capacity of people in their late 60s and early 70s will rise to an extent that would enable a similar increase in the duration of working life.[76]

Pension benefits are not taken into account when determining the eligibility for long-term care (LTC) benefits. Indeed, people aged 65 or over get the same in pension income regardless of their LTC status. The pension may be used for whatever purpose the claimant finds fit, including paying rent if living in a home for older people or for certain home care benefits such as meals on wheels.

[76] According to projections of the Ministry of Finance, a 1-year increase in the pensionable age is estimated to lead to a 0.4 year increase in the average effective retirement age.

3.2 Future adequacy

The theoretical replacement rates (TRRs) in Denmark are projected to increase by 2059 compared with 2019 for workers in all income groups (by 7.9 p.p. net for average earners in the base case). The future replacement rate from occupational pensions (27.8 % gross) is the highest in the EU.

The Danish response to challenges to adequacy from an ageing population has not been a reduction of benefit amounts but rather an increase in the activity and employment rates of older workers, leading to a sharp increase in the effective retirement age. In turn, this objective has been sought through a variety of measures, as described in Section 2. Beyond key measures such as sharply restricted access to early retirement and the indexation of pensionable age to longevity (from 2006 and 2011) the possibilities for combining earned income with a public pension have also been markedly eased.

These measures have also been applauded internationally. Since the retirement reform in 2011 *(Tilbagetrækningsaftalen 2011),* Denmark has not received any further Country Specific Recommendations from the European Council to take action in the pension area. Following policy reforms and a 13.2 p.p. increase in the employment rate of older workers to 69.2 %, the emphasis on increasing the labour supply of older people through pension reforms in international policy advice has eased.[77]

In recent years disposable income has increased faster for older people than for the general population. This is mainly due to the maturation of occupational pension schemes, and a growing number of people continuing to work beyond the pensionable age and either postponing their pension claim or combining a public pension with some work income.

In the very long term, the OP scheme will help reduce inequalities in the labour market being fully projected into old age.

3.3 Challenges for future adequacy

Meanwhile, the economic benefits of a continuing rise in the pensionable age and as a result – presumably – in the effective retirement age have become a permanent fixture of the mid- to long-term fiscal planning of governments. Present forecasts of the fiscal room for manoeuvre in public budgets are predicated on such a continual rise in the average age at which people stop working, and are therefore rather vulnerable should this fail to occur.[78]

Similarly, revenues from the taxing of interest earned and benefits paid by occupational and personal pension schemes constitute an important part of the means which governments expect to have available for public pensions and care for older people. The adequacy of public provision for pensioners is therefore also sensitive to the duration of a low interest rate environment.

[77] Indeed, Denmark is one of the only two countries (Netherlands is the other) in the world that receive an A grade in the global index of the quality of national pension systems (*Mercer Melbourne Pension Index 2019*, Melbourne, Mercer, 2019).
[78] Finansministeriet, *Teknisk Briefing om Pensionsalder* [Technical Briefing about Pensionable Age], February 2019, Ministry of Finance, Copenhagen, 2019.

While the potential pension income of blue-collar workers will continue to get a lift from the maturation of their occupational schemes over the next two decades, the effect on income replacement may be undermined by the way a growing number of workers could be affected by the continual rise in the pensionable age.

Thus, the increases in pensionable ages resulting from their linking to longevity could increase future inequalities, as manual workers are less likely to be able to extend their effective retirement age than white-collar office workers.

Manual workers on average retire earlier than others[79] and with the demise of the VERP some could end up in a situation where they would have to take out their occupational pension savings prematurely to cover the gap between their effective exit age and the increasing pensionable age.

The government aims to address the situation of manual workers by introducing new pathways to retire before the pensionable age, such as the senior pension (see Section 1) and the early retirement pension. The government estimates that the majority of those entitled to the early retirement pension will be workers in manual jobs. Furthermore, the government has set up a commission to carry out a review of the Danish pension system by spring 2022.

The stricter formula for calculating the public pensions, see Section 2, will result in lower pensions for the increasing number of pensioners who have spent large parts of their working-age life outside of the EU. Hence, future pension adequacy for immigrants and asylum-seekers will no longer be provided through the public pension system. Instead, it will be secured by topping up reduced public pensions with social assistance and other minimum income benefits *(supplement til brøkpension)*.

3.4 Solidarity mechanisms

In general, public pensions play an important role both in securing a basic means of subsistence and in redistributing income. The non-contributory national old-age pension secures a basic income for everybody irrespective of gender, health and labour market career. The only exception is people who have lived a considerable part of their life abroad (primarily third-country immigrants/asylum-seekers).

Because half of the public pension is income-tested with other pension income there is a high degree of income redistribution from people with occupational and personal pension savings to people without. Presently, this redistribution capacity is reflected by a relatively even income distribution within the retired group.

The self-employed and workers in non-standard jobs receive a public pension on the same conditions as everybody else. However, they are rarely covered by occupational pension schemes. Hence, around 643,000 people are in the so-called residual group (*restgruppen*) that save insufficiently for their old age, defined in relative terms as saving less than 6 % of income.[80]

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[79] See e.g. OECD, *Preventing Ageing Unequally*, OECD Publishing, Paris, 2017. https://doi.org/10.1787/9789264279087-en.
[80] Finansministeriet, *Det Danske Pensionssystem nu Og i Fremtiden* [The Danish Pension System Today and in the Future], June 2017, Ministry of Finance, Copenhagen, 2017.

The relatively high public pensions help explain the low rates of older people at risk of poverty compared with other segments of the population. Public pensions also secure income maintenance for low-income groups. As described in the previous section, public pensions mean that people in the lowest income deciles have a higher replacement rate at retirement than people in middle- and high-income deciles.

In terms of solidarity across generations, the pay-as-you-go public pension rests on an implicit intergenerational contract. Today's retirees are supported by the current generation of working-age people. The contract rests on two assumptions: that those of working age work, and that those of childbearing age reproduce themselves. As the baby boom generations born between 1945 and 1965 have failed to fully reproduce themselves, Denmark along with other European countries is facing the challenge of an ageing population where fewer people of working age will have to support a growing number of older people.

As described, the Danish answer to the challenges of an ageing population has been to index the pensionable age to increases in life expectancy. However, the target pension duration of 14.5 years combined with the late implementation of the link (agreed in 2006 but implemented only from 2019), and the fact that life expectancy has risen much faster than expected, means that the pensionable age will increase faster than originally estimated. The result is that young people must work markedly longer and receive pensions for a shorter period than current pensioners, both in absolute and relative terms. Based on government forecasts for the rise in the pensionable age, the following illustration looks at men aged 25, 45 and 65 today, who all start working at age 25 and retire at the pensionable age. On average, someone aged 65 can look forward to 16 years of pension after 40.5 years of work. Someone aged 45 can expect to receive a pension for 15 years after 45 years of work. However, someone aged 25 can merely look forward to 14.5 years of pension after 48.5 years of work: they must work eight years longer than someone aged 65 to receive a pension for two fewer years.[81]

In terms of gender solidarity, the indexation of the pensionable age favours women since the mechanism does not take into account gender differences in life expectancy. Because women on average live longer than men, they will get more pension years. Women aged 65 today can on average expect 19 years on a pension compared with 16 years for men of the same age.

However, among women there are also considerable gaps in pension generosity between generations. A woman aged 25 can look forward to three years fewer on a pension despite spending a good part of the 48.5 years between ages 25 and 73.5 in the labour market, compared with 40.5 years for those presently reaching the age of 65 years.

As occupational pension schemes mature and their overall role in the pension package increases, gender inequalities in the labour market will be increasingly reflected in pension income and coverage. For women coverage is improving. This has helped lower the gender gap in pension income by 10.9 p.p. since 2010 – or twice that of the EU, at 5.6 p.p. In 2019 the gender gap amounted to 7.7 % in Denmark compared with 29.5 % in the EU. There was also a decrease of 0.7 p.p. in the gender gap in non-coverage rate.

[81] Kvist, J., 'Otium. Unge trækker nitten i spillet om pension' [Youth lose out in the pension game], *Politiken*, 14 April, Copenhagen, 2019b.

The challenges going forward are related to maintaining a flexible labour market and working conditions adapted to the needs of older workers. This involves addressing retirement options for those people who won’t be able to work until they reach the increased pension age. This assessment is supported by the senior think thank (*Seniortænketanken*), which advised the government in 2019 on how to promote longer working lives. Questions about both the intergenerational and intragenerational equity of the pension system are relevant for policy makers to address with a view to the future (to some extent, these questions will also be assessed by the pension commission).

4 OPPORTUNITIES TO ADDRESS CHALLENGES

When implementing the link between pension age and longevity, intergenerational equity could be improved, for instance, by increasing the currently foreseen target pension duration of 14.5 years, adjusting the ratio according to which longevity gains are converted into pension age increases (currently 1:1), or slowing the tempo of implementation. The new pension commission will assess this subject.

While the lack of supplementary pension saving for self-employed people and non-standard workers was partially addressed in 2017, it is widely acknowledged that more could be done (e.g. by making a certain level of supplementary pension savings compulsory or introducing mandatory membership of occupational pension schemes).

5 BACKGROUND STATISTICS

5.1. Relative income	2019 Total	2019 Men	2019 Women	Change 2008-2019 Total	Change 2008-2019 Men	Change 2008-2019 Women
Relative median income ratio (65+)	0.77	0.77	0.76	0.07	0.05	0.06
Income quintile share ratio (S80/S20), 65+	3.46	4.09	2.95	0.55	0.83	0.3
Relative income quintile share ratio (S80/S20), 65+ - 0-64	-0.73	-0.12	-1.23			
Aggregate Replacement Ratio (ARR) %	48	44	51	7	6	7
5.2. Poverty and material deprivation	**2019 Total**	**2019 Men**	**2019 Women**	**Change 2008-2019 Total**	**Change 2008-2019 Men**	**Change 2008-2019 Women**
At-risk-of-poverty or social exclusion (AROPE), 65+ (%)	10	9.4	10.5	-8.6	-7.8	-9.1
At-risk-of-poverty rate (AROP), 65+ (%)	9	8.1	9.7	-9.1	-8.9	-9.2
Severe material deprivation (SMD), 65+ (%)	1.3	1.5	1.1	0.4	0.7	0.1
At-risk-of-poverty or social exclusion (AROPE), 75+ (%)	15.3	14.6	15.9	-7.9	-11.9	-5.2
At-risk-of-poverty rate (AROP), 75+ (%)	14.5	14	15	-8.2	-11.9	-5.7
Severe material deprivation (SMD), 75+ (%)	0.9	0.6	1.2	0.4	0	0.7
Relative median at-risk-of-poverty gap, 65+ (%)	8.1	8.8	6.9	0.2	1.3	-1.2
At-risk-of-poverty rate (AROP), 65+: 50 % threshold (%)	1.9	2.2	1.7	-1.1	-0.1	-1.9
At-risk-of-poverty rate (AROP), 65+: 70 % threshold (%)	27	26.3	27.7	-12.7	-11.4	-13.5
Material and social deprivation, age 65+ (1)	3	3.1	2.9	0.3	0	0.5
5.3. Gender difference	**2019**			**Change 2008-2019**		
Gender gap in pension income (65-79) (%) (2)			7.7			-10.4
Gender gap in non-coverage rate (W-M in p.p.) (65-79)			-0.5			-0.7
5.4. Housing and health situation	**2019 Total**	**2019 Men**	**2019 Women**	**Change 2008-2019 Total**	**Change 2008-2019 Men**	**Change 2008-2019 Women**
Housing cost overburden rate, 65+ (%)	19.8	16.7	22.6	-1.1	0	-1.6
Self-reported unmet need for medical exam 65+ (%)	4.6	5	4.2	3.7	4	3.4
Healthy life years at age 65 (years)	11.3	10.7	11.8	-0.9	-1.3	-0.6
Life expectancy at age 65	19.4	18	20.7	1.2	1.4	1.2
5.5 Sustainability and context	**2019 Total**	**2019 Men**	**2019 Women**	**Change 2008-2019 Total**	**Change 2008-2019 Men**	**Change 2008-2019 Women**
Employment rate, age group 55-64 (%)	71.3	75.8	66.9	15.3	13	17.7
Pension expenditure as % of GDP (ESSPROS) (3)			12.2			1
Retirement duration from first pension (years) (4)	17.4	15.9	19.2	-0.2	-0.2	-0.2
Retirement duration from end employment (years)	19.9	18.0	21.4			
Eurostat and AWG projections	**2019**			**2059**		
Old-age dependency ratio (20-64) (%)	33.7	30.8	36.8	50.5	46.9	54.1
Economic old-age dependency ratio (20-64) (%) (5)	39.9	33.1	47.6	53.9		
Gross public pensions as % of GDP (5)	9.3			7.3		
Benefit ratio (%)(5)	42.8			36.2		
Coverage ratio (% of pop aged 65+)(5)	113.8			79.7		
Gross pension ratio high / low earner		1.2	1.2		1.3	1.3

(1) change since 2014, not 2008
(2) data refer to 2010, not 2008
(3) ESPROSS data refer to 2018
(4) Change is since 2016, not 2010
(5) 2060 instead of 2059

5.6 Theoretical Replacement Rates

	Net (%)				Gross (%)			
	2019		2059		2019		2059	
	Men	Women	Men	Women	Men	Women	Men	Women
Average earning (100%)								
Base case: 40 years up to the SPA	65.3	65.3	73.2	73.2	63.6	63.6	71.9	71.9
Increased SPA: from age 25 to SPA	65.3	65.3	77.5	77.5	63.6	63.6	76.4	76.4
AWG career length case	65.9	20.7	33.5	31.3	64.2	16.5	30.3	27.9
Old base case: 40 years up to age 65	65.3	65.3	26.2	26.2	63.6	63.6	22.6	22.6
Longer career: 42 years to SPA			74.3	74.3			73.1	73.1
Shorter career: 38 years to SPA			72.1	72.1			70.8	70.8
Deferred exit: 42 years to SPA +2			81.3	81.3			80.4	80.4
Earlier exit: 38 years to SPA -2			29.9	29.9			26.4	26.4
Career break – unemployment: 3 years	65.8	65.8	72.1	72.1	64.2	64.2	70.7	70.7
Career break due to child care: 3 years	65.8	65.8	72.3	72.3	64.2	64.2	71.0	71.0
Career break care to family dependant: 3 years	62.5	62.5	71.3	71.3	60.6	60.6	69.9	69.9
Short career (20 year career)	54.8	54.8	60.8	60.8	52.5	52.5	58.9	58.9
Work 35 y, disabled 5 years prior to SPA			70.0	70.0			68.5	68.5
Early entry in the LM: from age 20 to SPA			80.0	80.0			79.1	79.1
Index: 10 years after retirement @ SPA			69.9	69.9			68.4	68.4
Extended part-time period for childcare			70.9	70.9			69.5	69.5
Survivor – full career								
Survivor – short career								
Survivor ratio 1*								
Survivor ratio 2*								
Low earnings (66%)								
Base case: 40 years up to the SPA	87.0	87.0	96.8	96.8	87.6	87.6	98.3	98.3
AWG career length case	87.9	22.3	34.6	32.4	88.5	16.5	30.3	27.9
Old base case: 40 years up to age 65	87.0	87.0	27.5	27.5	87.6	87.6	22.6	22.6
Career break – unemployment: 3 years	87.8	87.8	95.7	95.7	88.5	88.5	97.1	97.1
Career break due to child care: 3 years	87.8	87.8	96.0	96.0	88.5	88.5	97.3	97.3
Short career (20 year career)	75.6	75.6	81.8	81.8	75.1	75.1	81.8	81.8
Early entry in the LM: from age 20 to SPA			115.5	115.5			118.7	118.7
High earnings (100->200%)								
Base case: 40 years up to the SPA	41.7	41.7	47.2	47.2	36.3	36.3	41.8	41.8

**Survivor ratio 1: man base case, woman base case*

**Survivor ratio 2: man base case, woman short career case*

GERMANY

Highlights

- In Germany, pensions from the statutory pension insurance (SPI) scheme are the most important component of old-age provision. As pension benefits depend above all on the sum of paid contributions, the interpersonal redistributive effects of the SPI are limited. The high labour market participation and the higher level of statutory pension benefits in the past still help reduce the at-risk-of-poverty-or-social-exclusion (AROPE) rate. The AROPE figure for the population aged 65 and over slightly increased after 2015 and stood at 18.7 % in 2019, which was slightly higher than the EU[82] average of 18.5 %.
- In line with the social character of the SPI, however, periods covered by contributions are not the only ones taken into account. Periods in which insured people could not pay contributions (e.g. periods of illness, unemployment, initial childraising or providing unpaid care to a close or related person) may also count towards the pension.
- As a result of pension reforms since 2001, the annual increase in SPI pension benefits remains behind wage growth, and therefore occupational or personal pensions are becoming a relatively more important element of pensioners' overall income. Continuous reform efforts are aimed at further increasing coverage of occupational and personal old-age provisions.
- In recent legislative periods, the focus was on performance improvements in the SPI for selected, particularly vulnerable, groups such as people with reduced earnings capacity, and a higher coverage for occupational pension schemes. Most notably, the 2019 Act on Benefit Improvements and Stabilisation in the Statutory Pension Insurance ('*Rentenpakt*') brought improvements.
- In spring 2020, the Pension Commission on a 'Reliable Intergenerational Contract' (*Rentenkommission 'Verlässlicher Generationenvertrag'*), appointed by the federal government, presented its suggestions for the long-term design of the old-age pension system in Germany. Its recommendations are a valuable aid for future decisions and will be incorporated into the federal government's considerations of how to ensure the financing of the statutory pension insurance system in the long term.

[82] EU and EU-27 refer to the current 27 Member States of the European Union.

1 GENERAL DESCRIPTION OF THE NATIONAL PENSION SYSTEM

Pensions in Germany stem from different sources and are often organised according to occupational status. The German pension system consists of the following pension schemes.

- Statutory pension schemes
  - The statutory old-age provision in Germany consists of a number of statutory pension schemes. The most important is the SPI, which provides compulsory cover for (almost) all employees and for certain categories of self-employed people. Other old-age provision schemes exist for the liberal professions and for farmers.
  - There is a separate scheme for civil servants as part of their service regulations.[83] It is older than the SPI and originates in the traditional principles of 'alimentation', lifetime employment and the duty of loyalty for civil servants based on the German Basic Law (*Grundgesetz*); in particular, it entails the notion that the public employer must provide life-long subsistence to the civil servant. Its rules are set at federal and land level. Federal civil servants, civil servants of the Länder and officials of their local communities are covered under different civil service pension rules (*Beamtenversorgung and Altersgeld)*. Similar to the SPI scheme, benefits replace the remuneration earned at a certain rate. Unlike the SPI, it contains a minimum pension which comes into place mainly in the case of invalidity, but not when a civil servant quits the job. Thus, the civil servant pensions apply the principle of providing adequate life-long subsistence.
- Supplementary pension schemes
  - A large number of very diverse occupational pension schemes.
  - Voluntary personal arrangements for old-age provision (personal pension schemes).

As part of the German minimum-income benefit system, the 'basic social assistance in old age and in the event of reduced earning capacity' scheme (*Grundsicherung im Alter und bei Erwerbsminderung*) of Social Code Book XII also guarantees a needs-based pension supplement in old age. This is according to the fundamental right to a guaranteed subsistence minimum in line with human dignity from Article 1.1 of the German *Grundgesetz*. There also exist allowance schemes, in particular for beneficiaries of supplementary pension schemes or the newly introduced basic SPI pension.

The SPI provides cover for employees with few exceptions[84] as well as for other groups, including recipients of income-replacement benefits (sickness benefit, injury benefit,

[83] For a full description of the federal scheme see: Bundesministerium des Innern, für Bau und Heimat (ed.), *Siebter Versorgungsbericht der Bundesregierung*, Berlin, 2020. www.bmi.bund.de

[84] Employees with a marginal employment (i.e. with a monthly income of EUR 450 or lower, or with a maximum of three months or 70 workdays per calendar year – so-called mini-jobs) are generally covered by the SPI but have the option to opt out of compulsory insurance.

unemployment benefit) and carers (for periods in which unpaid home care is provided, e.g. to a relative[85]). The SPI provides not only old-age pensions, but also reduced-earnings-capacity pensions and surviving dependants' pensions (widows/widowers and orphans).

The SPI is pay-as-you-go (PAYG) financed with a small reserve fund. The SPI is financed by earnings-related social insurance contributions and from general tax revenue. In 2019, insured employees and their employers contributed 9.3 % of each employee's gross wage to the SPI. In 2018 tax-funded government subsidies accounted for about 23.9 % of the total receipts.[86]

The individual SPI pension level depends on how long contributions were paid and on the level of the insured income. For each contribution year, the insured income is converted into 'earnings points' (EPs). A person receives one EP if their individual gross salary is equal to the average earnings of all insured people. When calculating pensions, the sum of the pension points earned over a person's working life is multiplied by the 'pension-type factor' (e.g. 1.0 for old-age pensions or 0.55 for a widow(er)'s pension) and the 'current pension value' (*Aktueller Rentenwert* – AR; in 2020 EUR 34.19 for west Germany and EUR 33.23 for east Germany). The AR applies to newly retired as well as already retired pensioners, and is adjusted on 1 July of each year on the basis of a calculation model that mainly refers to gross salary growth. Gross pensions are subject to income tax, but there are tax allowances; pensioners also pay contributions towards health and long-term care insurance.

Occupational pension schemes are in general voluntary for both employers and employees in the private sector. In the public service sector, employers and employees are obliged, on the basis of collective agreements, to pay contributions to their occupational pension scheme (*Zusatzversorgung des öffentlichen Dienstes*). The design of schemes in the private sector varies widely. Some collective agreements provide a binding framework for occupational pension schemes, but there are considerable differences between the various collective agreements and sectors. Occupational pensions may be financed solely by employers, solely by employees, or by both. They are mostly defined-benefit schemes.

The supplementary pension scheme involves a wide variety of additional voluntary capital-funded personal arrangements for old-age provision. There are tax advantages or direct subsidies for certified private pension products if eligibility criteria are met. The direct subsidies are attractive for low-income earners and for employees with children, whereas tax exemptions are aimed at high-income earners.

Regarding the statutory pension schemes, figures from 2019[87] indicate that 90 % of the population aged 65 and older received an SPI pension (including survivor's pensions). 88 % (west Germany) and 99 % (east Germany) of pensioners received benefits from this system.[88]

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[85] The contribution depends on the care grade of the care-dependent person. It is also paid in case of part-time workers or for recipients of a partial pension, and is supplementary to the own contributions (by employment). Formal care may also be given by unpaid carers, and is not only a right or duty of professional carers.

[86] Deutsche Rentenversicherung Bund (ed.), *Rentenversicherung in Zahlen 2019*, Berlin, Deutsche Rentenversicherung Bund, 2019, p. 9.

[87] Update ASID 2019 (source: *Alterssicherungsbericht* 2020, Table BC.1).

[88] Bundesregierung, *Unterrichtung durch die Bundesregierung. Ergänzender Bericht der Bundesregierung zum Rentenversicherungsbericht 2016 (Alterssicherungsbericht 2016) und Gutachten des Sozialbeirats zum Rentenversicherungsbericht 2016 und zum Alterssicherungsbericht 2016*, Bundestags-Drucksache 18/10571, Berlin, Deutscher Bundestag, 2016, p. 62.

The differences between the two parts of the country are mainly due to the low percentage of civil servants (*Beamte*) in the public sector in the new Länder. Pensions from supplementary pension schemes were received by 29 % (32 % west Germany and 13 % east Germany). Accordingly, the individual old-age provision systems have a different weight in the overall performance volume of old-age provision. In addition, in 2019 the total income of older people consisted of SPI pensions (73 %), civil servants' pensions (15 %) and occupational pensions (10 %).

The standard pensionable age in Germany is gradually being raised from 65 to 67 years between 2012 and 2031. It was 65 years and 8 months in 2019, will be 65 years and 10 months in 2021, and so on. From 2024 onwards, the standard pensionable age will be increased by two months per year. People can claim their pensions ahead of schedule under certain conditions, which are adjusted just as the standard pensionable age is. After 2031, people with an exceptionally long insurance period of at least 45 years can claim a pension upon reaching age 65 without deductions (pensions for people with exceptionally long-term insurance periods: *Rente für besonders langjährig Versicherte*). The pensions for those with long insurance periods (*Rente für langjährig Versicherte*) can be claimed if a 35-year qualifying period is completed upon reaching age 63, but will be reduced by 0.3 % for every month the pension is claimed before reaching the standard pensionable age of 67. As a consequence of the rise in pensionable age, Germany benefited from a substantial decrease in the duration of retirement.[89]

When people reach the standard pensionable age and draw a regular old-age pension, they can earn unlimited additional income from work or any other source, without suffering any repercussions on the amount of their statutory pension. However, when an old-age pension is claimed before reaching the statutory pensionable age (i.e. early retirement), the person can only earn up to EUR 6300 a year on top of the SPI pension; otherwise, the SPI pension is reduced. This is based on a pension principle: people who are able to work should not retire early. Employees who continue working after reaching the standard pensionable age will benefit from a pension accrual of 0.5 % for each month of postponement.

Due to the COVID-19 pandemic, the annual supplementary earnings limit for early retirement pensions has been raised temporarily for 2020 and 2021. It allows an average earner with two annual special payments to earn additional income without reductions in the early retirement pension. This is intended to make it easier for people who want to help out in the current situation to continue working or resume employment after retirement.

Reduced-earning-capacity pensions can be claimed at any age. A condition for this is that the person can no longer work (i.e. less than six hours a day – partial reduced earning capacity; less than three hours a day – full reduced earning capacity).

Whereas the SPI covers all forms of dependent employment (standard or non-standard work) with the exception of people in marginal employment and civil servants, it covers only some groups of self-employed people, whereas others have their own statutory pension schemes.[90] It

[89] *Pension Adequacy Report 2021*, Vol I, Chapter 1.
[90] Bäcker, G., *ESPN Thematic Report on Access to social protection of people working as self-employed or on non-standard contracts: Germany*, European Social Policy Network (ESPN), Brussels, European Commission, 2017.

can be assumed that more than 3 million self-employed people are not covered by any statutory pension scheme and depend solely on voluntary personal arrangements for old-age provision.[91]

2 REFORM TRENDS

A series of recent reforms have addressed the problem of a steady increase in the number of older people requiring 'basic social assistance in old age and in the event of reduced earning capacity' under the Social Code Book XII. Particularly noteworthy are the Act on Benefit Improvements and Stabilisation of the Statutory Pension Insurance (*RV-Leistungsverbesserungs- und –Stabilisierungsgesetz*, 1 January 2019), the Act on Strengthening Occupational Pensions (*Betriebsrentenstärkungsgesetz*, 1 January 2018) and the Basic SPI Pension Act (*Grundrentengesetz*, 1 January 2021).

The main measures of the Act on Benefit Improvements and Stabilisation of the Statutory Pension Insurance are as follows.

- For the net pension level before taxation[92] a lower limit of 48 % was introduced, along with an upper limit of 20 % on the contribution rate. This so-called 'double boundary' is applicable until 2025. Additionally, until 2025 the lower limit for the SPI contribution rate is set at 18.6 %. For the period after 2025, no commitment has yet been made.
- For recipients of a reduced-earnings-capacity or survivor's pension, in 2019 the non-contributory supplementary period was extended to the age of 65 years and 8 months. Since then, an increase has been applied in accordance with the increase in the standard retirement age (65 years and 10 months in 2021, and a gradual increase to 67 years in 2031). This will lead to higher reduced-earnings-capacity pensions and is an important contribution to reducing the risk of old-age poverty for newly retired individuals, albeit only gradually. However, people who already receive a reduced-earnings-capacity pension will not benefit from this regulation.
- The EPs for children born before 1992 are raised from 2.0 to 2.5, which means further convergence towards the 3.0 EPs that mothers or fathers receive for children born after 1992.
- In order to relieve more low-income earners from the burden of social security contributions, the 'transition zone' (*Übergangsbereich*), in which employees pay reduced employee contributions, has been extended and now encompasses incomes between EUR 450 and EUR 1300 per month.[93] The reduced SPI contributions will not lead to lower entitlements as the calculation of SPI pensions is earnings-related and not based on the amount of contributions paid. The amount of an SPI pension depends on the accumulated EPs, which are multiplied by the current pension value.

[91] Fachinger, U., 'Was wissen Selbständige über ihre Altersvorsorge? Große Unsicherheit über Regelabsicherung und individuelle Beteiligung an Alterssicherungssystemen'. *Deutsche Rentenversicherung* 72/4, 2017, pp. 361-394.
[92] Ratio of the standard pension (with 45 EPs) to the average earnings of employees insured in the SPI, both reduced by the average of social contributions for health and long-term care insurance.
[93] These thresholds had been EUR 450 and EUR 850 respectively since they were last raised in 2012.

The aim of the Act on Strengthening Occupational Pensions is to enable defined-contribution occupational schemes, which are negotiated as part of the collective bargaining process. Unions and employers can agree on defined-contribution occupational pension schemes without any warranty concerning minimum benefits or interest rates. The law is intended to raise the coverage ratio of occupational pension schemes. The effect of the law on the take up of occupational pensions remains to be seen as the implementation will take some more time.

The newly adopted Basic SPI Pension Act entered into force on 1 January 2021.[94] It is aimed at valuing the life performance of long-term contributors to the SPI system and strengthening confidence in the SPI system as a whole. The main features of the new legislation are as follows.

(1) Implementation of an individually calculated basic SPI pension supplement called 'basic pension' for individuals with at least 33 years of mandatory contributions (stemming in particular from working periods, initial childcare periods and periods of providing unpaid care to a close or related person), depending on contributions and income. The supplement is granted only if the overall EP average during someone's working life is below certain limits. For the average and the calculation of the pension supplement, only periods with an EP of at least 0.025 per month (corresponding to 30 % of average earnings) are considered. In the end, the sum of the individual pension and the supplement can amount to 0.8 EP (corresponding to 80 % of average earnings), if the pensioner has a credited career of 35 years and more. Between 33 and 35 years the benefits can reach between 0.4 and 0.8 EP.

(2) The basic SPI pension will be income-tested. For people who are married or living in a registered partnership, the income of the partner will also be taken into account. If the couple's monthly taxable income is above EUR 1950, the basic SPI pension supplement will be partly reduced. For a single person the SPI pension supplement will be partly reduced if the relevant threshold income exceeds EUR 1250 per month. With a taxable income over EUR 1600 for single people or EUR 2300 for couples, the excess amount will fully reduce the supplement.

(3) At the same time, an allowance is being introduced for people with a high number of credited periods and in receipt of a benefit under the 'basic social assistance in old age and in the event of reduced earning capacity' scheme. For people with a minimum of 33 years of mandatory contributions to the SPI (or other compulsory old-age pension) the allowance is EUR 100 per month and additionally 30 % of the SPI pension. The allowance is subject to a cap of 50 % of the minimum subsistence level 1 (*Regelbedarfsstufe 1*), which is currently EUR 223 per month.

The new regulations mentioned above will lead to improvements for selected groups of people, but do not constitute a break with the reform policy of 2001. Pension policy is still aimed at building a sustainable and reliable provision for old age based on the three-pillar model, with the SPI remaining the most important one.

Some of the recent reform measures run only to the end of 2024 and it is yet to be decided what will happen thereafter. In 2018, the federal government set up the so-called Pension

[94] *Grundrentengesetz* of 12 August 2020, published in the Federal Law Gazette (BGBL I, p. 1879).

Commission on a 'Reliable Intergenerational Contract' (*Rentenkommission* '*Verlässlicher Generationenvertrag*'). The commission, which consisted of representatives from the worlds of politics and academia and the social partners, was to develop recommendations for securing the sustainability of the SPI and of the supplementary pension schemes from 2025 onwards. The report was finalised on 23 March 2020.[95] In brief, the main recommendations are as follows.

- For the following seven years:
  - the net pension level before taxation to be set within a range between 44 % and 49 %; and
  - the contribution rate to be set within a range between 20 % and 24 %.
- Binding holding lines for the pension level and the contribution rate to be set every seven years within the ranges given above, first for the period 2026-2032, then for the period 2033-2039 and so on.
- The establishment of an 'old-age-security-advisory-council', which may also look in 2026 into the question of possible further adjustments of the future old-age pensionable age as of the year 2031.
- A mandatory insurance scheme for self-employed people.
- System-compatible and equally effective application of the measures to the civil servants' pension scheme.
- Introduction of two statistical measures into the pension insurance report to provide information on the adequacy of the pension system, since the net pension level before taxation does not provide information about the actual pension level and pension payments:
  - the gap between the standard SPI pension and the average need[96] of those claiming social assistance in old age; and
  - the sum of social security contributions (*Gesamtsozialversicherungsbeitrag*) and expenses of a provident nature required by legislation.
- Strengthening of the supplementary system by:
  - tax deductions of 4 % of the contribution ceiling for personal pensions; and
  - increasing and annually uprating public funding for employer-financed occupational pensions for low-paid workers.
- Comprehensive pension information, covering all pillars.

[95] Rentenkommission, 'Verlässlicher Generationenvertrag', *Bericht der Kommission Verlässlicher Generationenvertrag. Band I – Empfehlungen*, Berlin, Bundesministerium für Arbeit und Soziales, 2020.
[96] The need (covering primarily nutrition, personal hygiene, household equipment and personal needs of daily life; in Euro terms) forms the basis for the calculation of social assistance in old age.

- Introduction of a so-called gender check. This means a gender-specific impact assessment when drafting pension legislation.

The commission has decided against a major reform or even moving away from the current system. Instead, it has stuck to the course of reform that has been under way since 2001. However, it has not recommended making the system stricter (e.g. by proposing a further raising of the pensionable age). Instead, the system is to be reviewed and further developed by recommendations from an 'old-age-security-advisory-council' (e.g. recommendations for the binding holding lines for the pension level and the contribution rate). It remains to be seen if and how the government will adopt the recommendations of the commission as the report contains some dissenting opinions, especially regarding the pension level, the future standard pensionable age and the expansion of occupational and personal pensions. The political debate on the further development of the old-age pension system can be expected to continue, as the German Trade Union Confederation (*Deutscher Gewerkschaftsbund*) [97] has already stated.

The current coalition agreement includes the intention to establish a service that should provide citizens with information on individual entitlements to a pension regarding all pension schemes. The service will provide individuals with better access to information on old-age provision and thereby increase pension transparency, similar to national tracking services in other European countries (e.g. Netherlands, Denmark). Based on a report that confirmed the feasibility of such a service considering the large variety of pension suppliers in Germany, the federal government adopted a legislation that passed the German Bundestag and Bundesrat in December 2020. Immediately after that legislation comes into effect, the development of the technical requirements will start. The first operative phase is supposed to start 21 months later.

3 ASSESSMENT OF ADEQUACY

3.1 Current adequacy

The ratio of the median income of older people to the income level of the population aged 18-64 decreased between 2008 and 2019 from 0.87 to 0.84 (men 0.89 to 0.84, women 0.87 to 0.83). In the period from 2008 to 2019, the S80:S20 income quintile ratio changed significantly from year to year and the overall ratio increased from 4.04 (men 4.18, women 3.87) in 2008 to 4.64 (men 4.67, women 4.57) in 2019. The ratio of the median individual gross pension of people aged 65-74 years to the median individual gross earnings of people aged 50-59 years (ARR) remained stable at 0.44.

The differences between men and women lead to a gender gap in pension income, which in 2019 stood at 36.1 % for the 65-79 age group, higher than the EU average of 29.5, but 7.2 percentage points (p.p.) lower than in 2010. The gender gap in pensions is mainly due to two reasons. The first is the differences in the past pension law. Women were able to retire at younger ages than men, meaning they had shorter credited periods and thus lower pensions. Since the harmonisation of the pensionable age at 67, the pension gap has declined. The second is the gender wage gap. On average, women earn considerably less than men – partly because

[97] Deutscher Gewerkschaftsbund, *Die Auseinandersetzung um starke Rente geht weiter! Stellungnahme*, Berlin, Deutscher Gewerkschaftsbund, 2020.

they are more often employed in low-paid occupations and more often work part time or in marginal employment. These disadvantages are partially compensated for by the recognition of initial childraising periods in the SPI. It must also be taken into consideration that widows receive an additional widow's pension, which depends on the husband's former income. However, because of the heterogeneity of the German pension system, an overview of the situation for older people only partially reflects current adequacy. As the SPI is the most important pension scheme, the figures mostly reflect the dependency of pension entitlements on the duration of contribution payments and on individual earnings as well as on the reduction of SPI pension levels. Another reason for the comparatively high gender gap in pensions in Germany is the high pension coverage among women. The gender gap in pension coverage is one of the lowest in the EU, at 1.3 % in 2019. The vesting period is comparatively low: five years of contributions and periods of unpaid caregiving and initial childcare are taken into account. To get a better understanding of current adequacy and its future development, the other pension schemes have to be considered. On the one side for civil servants, the calculation of pensions is based on similar principles to the SPI.[98] In both schemes the assessment basis is the remuneration earned and uprated on wages; thus, pension payments do not depend on the stock market. On the other side, benefits differ in detail. For example, civil service pensions are based on the last pensionable income before retirement. For each pensionable year, the pension will be 1.79375 % of the pensionable remuneration up to a maximum[99] of 71.75 % after 40 years of service. However, the average pension rate is lower: 65.9 % for all, 68.6 % for men and 59.88 % for women. Additionally, civil servants are guaranteed a minimum pension (*Mindestversorgung*) of 35 % of the pensionable remuneration. Civil servants are eligible for the minimum pension after a minimum of five years of service, although in 2020 only 8.8 % of civil servants received a minimum pension.[100]

Since 2013, if civil servants leave the civil service at their own request before reaching their retirement age, they are able to apply for an *Altersgeld* instead of the SPI. Its calculation and payment are essentially based on the provisions of the civil service pension, with a 15 % reduction. The *Altersgeld* increases the attractiveness of the public service and achieves greater permeability between the public service and the commercial sector. The *Altersgeld* may be better than SPI. This depends on the individual career histories.

Regarding poverty and social exclusion, almost all indicators for Germany worsened between 2008 and 2019. The AROPE rate for the population aged 65 and over was 18.7 % in 2019 (men 16.6 %, women 20.8 %). It was thus slightly higher than the AROPE rate for the total population aged 18 and over (2019: 17.9 %). For the older age group (aged 75 or over) this rate was lower in 2019 (total 15.0 %, men 12.1 %, women 18.1 %). The rate increased by 1.7 p.p. among men from 2008 to 2019; among women, on the other hand, the AROPE rate decreased slightly by 0.8 p.p. However, the AROPE rate in 2019 differed not only between the two cohorts, but also between people with different citizenships. Whereas in 2019 the AROPE rates for German citizens (18.7 %) and those of other EU countries (18.1 %) were nearly the same

[98] At the beginning of 2019, around 1.69 million people were in receipt of a civil service pension, whereas 25.7 million people were in receipt of SPI pensions.

[99] About a third of civil servants also receive a SPI pension; in those cases the maximum of 71.75 % applies, when adding up both payments.

[100] For detailed numbers see *Siebter Versorgungsbericht der Bundesregierung*, p. 58.

as the overall rate of 18.7 % in Germany, the AROPE rate for non-EU migrants was much higher at 31.8 %. Overall, these figures suggest that the younger cohorts seem to be more affected by unemployment, labour market hybridisation and low-wage employment.

Comparing these data with data for the EU reveals a lower level in 2008, but an increase in the AROPE rate for Germany. For example, at EU level the AROPE rate for people aged 65 and over in 2019 was 18.5 % (men 15.5 %, women 20.9 %) with a decrease of 4.4 p.p. overall (men 3.9, women 5.3) between 2008 and 2019. The material and social deprivation rate of 3.7 % (men 3.0 %, women 4.4 %) was below the EU average and had decreased continuously from 6.6 % in 2014.

Concerning the housing and health situation in Germany, the proportion of homeowners over 65 years of age is relatively low. In 2016, the share of owners in that age group stood at 56.6 % (men 60.7 %, women 52.9 %). In 2019 the housing cost overburden rate was 20.4 %, with remarkable differences between the sexes (men 16.7 %, women 23.0 %). One reason for the differences is that women's income in old age is lower on average, especially for widows. Furthermore, survivors tend to stay in the same apartment where the couple lived previously. The result is an increase in the housing cost burden in general and in particular the housing cost overburden. The rate was much higher than the average EU rate of 10.0 %, which has remained more or less the same since 2008. By comparison, in Germany the rate of self-reported unmet need for medical examination in 2019 was 0.4 %, 4.7 p.p. lower than in 2008, and considerably lower than the EU rate, which was 2.8 %. Benefits granted by the long-term care insurance (LTCI) scheme do not depend on the income or assets of the insured person. As LTCI may not cover all LTC costs, benefit recipients may have to cover the rest of the costs by themselves or by immediate family members if necessary. If people in need of care – or under certain conditions their immediate family members – cannot bear the uncovered costs, the person becomes eligible for social assistance benefits to cover the remaining costs (so-called 'help for care'; see *Hilfe zur Pflege*, Section 61a(1) Social Code, Book XII). At the end of 2019, 3,867,188 people received LTCI social benefits and 302,358 people received help for care as social assistance benefits.

The average life expectancy of people aged 65 was 19.7 years (men 18.1, women 21.2) in 2017. The Statistics Office of the European Union (Eurostat) predicts that life expectancy at the age of 65 will rise to 23.7 years (men 22.1, women 25.2) by 2056. Moreover, the number of healthy life years at age 65 is relatively high in Germany (men 11.5, women 12.8) and has increased substantially since 2008 by 6.1 years for women and 5.2 years for men. For Germany, the pension payment duration was 18.8 years for men and 21.5 years for women in 2019. The retirement duration – under the Ageing Working Group (AWG) scenario – amounted to 18.6 (men) and 22.4 (women) years in 2016 and is estimated to be 21.4 (men) and 24.9 (women) years in 2056.[101] According to the national data from the *Deutsche Rentenversicherung*

[101] European Commission, Directorate-General for Employment, Social Affairs and Inclusion/Social Protection Committee, *Pension Adequacy Report 2018. Current and Future Income Adequacy in Old Age in the EU. Volume 2 – Country Profiles*, Brussels, European Commission, 2018, p. 54.

(German statutory pension insurance), the average duration of SPI pensions was 20.0 years (men 18.1 years, women 21.8 years) in 2018.[102]

3.2 Future adequacy

The analyses of the future adequacy of pensions, and here particularly of the TRRs, are based on model calculations. Therefore, it is necessary to define the subject matter precisely. Under the assumptions of a standard, 40-year career, earnings level and age of retirement, the OECD's model calculations show a very mild reduction in the TRR for average and high-earners; on the other hand, low-wage earners would see substantial increases (by 8.7 p.p.), in particular also through the introduction of the basic pension supplement in Germany. Three-year career breaks, for childcare especially, would result in even higher pensions than the uninterrupted career; this applies even if the three-year break for childcare is followed by 10 years working part time.

However, the developments of the pension schemes and their specific elements have to be distinguished. In Germany, the (relative) pension level before tax is the ratio of the standard pension (with 45 EPs) to the average earnings of employees insured in the SPI, both reduced by the average social contribution for health and long-term care. Official calculations show that the net pension level before taxes of the SPI is projected to fall from 48.1 % (2018) to 44.9 % (2032).[103] Until now, it has been legally laid down that the net pension level must not fall below 43 % in 2030. Moreover, the taxation of the pensions of the upcoming cohorts of pensioners will gradually increase.

As SPI pension levels have been reduced, the pension level of civil servants has been lowered from 75 % to 71.75 %. In addition, the adjustment rate of remuneration is regularly reduced by 0.2 % for each remuneration adjustment until 2024 (*Versorgungsrücklage*). Currently there are no initiatives to further reduce the pension level. Therefore, it will remain the same as it is now; for example, pensioners will receive a full pension, which is 71.75 % of the pensionable remuneration, if they complete 40 years of full-time service. However, the pensions already differ today between the Länder and between the Länder and the federal level. The difference can be in some cases as high as 15 %. One also has to take into consideration that all civil service legislation is subject to scrutiny through the Federal Constitutional Court.

With regard to occupational and personal pensions, it is as yet unclear how entitlements will evolve in future. Consequently, it is not known how adequate pensions will be in future and what the overall replacement rate will be. There are only data available about how many employees are covered and it is necessarily unclear what their entitlements will be when they retire[104] (see also Fachinger, Künemund, Schulz, *et al.*, 2015). Simulations on the basis of past

[102] Deutsche Rentenversicherung Bund (ed.), *Rentenversicherung in Zeitreihen. Oktober 2019,* Berlin, Deutsche Rentenversicherung Bund, 2019, p. 147.
[103] Bundesministerium für Arbeit und Soziales, *Bericht der Bundesregierung über die gesetzliche Rentenversicherung, insbesondere über die Entwicklung der Einnahmen und Ausgaben, der Nachhaltigkeitsrücklage sowie des jeweils erforderlichen Beitragssatzes in den künftigen 15 Kalenderjahren gemäß § 154 Abs. 1 und 3 SGB VI* (Rentenversicherungsbericht 2018), Berlin, Bundesministerium für Arbeit und Soziales, 2018, p. 32.
[104] Fachinger, U., Künemund, H., Unger, K., Koch, H. and Schmähl, W., 'Die Dynamisierung von Alterseinkommen – Chancen und Risiken eines neuen Mischungsverhältnisses staatlicher, betrieblicher und privater Alterssicherung'. In W. Schmähl and U. Fachinger (eds.), *Absicherung im Alter. Diskurse und Perspektiven*, Münster, LIT Verlag, 2015, pp. 195-301.

data do not provide an accurate picture of future adequacy. For example, the dependency on assumptions about average interest rates[105] undermines the robustness of adequacy projections. By contrast, since 2003, the official actuarial interest rate as per the actuarial reserve ordinance (*DeckRV*) – set by the German government – is below 3.0 %, and in light of past developments in the financial markets and the financial crises there are no signs that this will change even in the longer run. The TRR calculation indicate that the adequacy of the SPI will decline in the future. Hence, the maintenance of the current relative pension level depends strongly on the coverage and rate of return of supplementary pension provision.

The differences in pension adequacy between west and east Germany are still often mentioned. But over 30 years after the so-called unification in 1990, the structure has changed massively in both regions and the differentiation is not very helpful anymore. People aged under 60 years have lived longer under a west German regime and are mostly educated and trained to west German standards. Consequently, the considerable differences that once existed, in respect of the accumulation of entitlements in the SPI, for example, have more or less disappeared over the course of more than 30 years. Furthermore, there are similarly impoverished regions in west and in east Germany and some regions in west Germany are even worse off than those in the east, which will affect future pension adequacy.[106]

3.3 Challenges for future adequacy

The expected overall increase in the TRRs is driven by the argument that the projected decrease in the SPI replacement rate will be overcompensated by the projected increase in pension payments from personal and/or occupational pensions (three-pillar model). However, the underlying assumption that employees will save 4 % of their income consistently over their entire working life and that the real interest rates of personal and/or occupational pensions will reach an average of 2.0 % may be questioned. The coverage of supplementary personal pension schemes stagnated over recent years. This is even more problematic, as the (relative) net pension level before taxation of the SPI will further decrease.

Furthermore, since the paradigm change introduced by the 2001 pension reform, adequate old-age income relies on a combination of the pension level in the SPI and subsidised occupational or private pensions.

It is expected that the reduction in the pension level will, other things being equal, gradually increase the risk of old-age poverty. It is here that the basic SPI pension comes into play, since it should in most cases prevent the long-term insured from needing to claim benefits under the minimum-income benefit scheme under Social Code Book XII.

While occupational and personal pensions become more relevant the younger the cohorts are, this might give rise to increasing intra- and intergenerational income inequality in old age, because pension adjustments differ between the schemes and because of the variable returns

[105] In line with the Ageing Report projection, in Germany these are projected to turn positive in 2040 and increase to 2 % in 2050.

[106] Fachinger, U. and Stegmann, M., 'Die regionalwirtschaftliche bedeutung der gesetzlichen rentenversicherung', *Zeitschrift für Gerontologie und Geriatrie, 45*(5), 2012, pp. 385-391.

achieved by pension insurance companies in the financial markets.[107] This is further intensified by differences in the uptake of capital-funded occupational and/or personal pensions by the insured.

3.4 Solidarity mechanisms

Overall, the German pension system is determined by the dominance of the equivalence principle. As a consequence, it is primarily characterised by an intertemporal redistribution and – especially the SPI – with interpersonal redistributive elements. The SPI pensions are income-based and are mainly calculated on the duration of the contribution payment over the course of a person's working life. The SPI only insures income within defined low and upper limits: the upper monthly income threshold is EUR 6700 (west) and EUR 6150 (east) in 2019/2020, while the lower income threshold is EUR 450.

Employees with a monthly salary between EUR 450 and EUR 1300 are paying reduced employee contributions. As the calculation of SPI pensions is income-related, the reduced SPI contributions will not lead to lower entitlements. Also, low compulsory contributions prior to 1992 will be increased in the calculation of pensions under certain conditions (the so-called minimum-income pension).

For east Germany, the contribution assessment basis (i.e. the insured employment income) for each year is multiplied by the conversion value for the specific year, which is always larger than 1 (e.g. 1.1875 for 2008 or 1.0700 for 2020). Therefore, the EPs are uprated, which leads to higher pensions for pensioners in east Germany with the same number of EPs as in west Germany. Additionally, as the AR for east Germany is lower than the AR for west Germany, it will be uprated. From 1 July 2018 until 1 July 2024, the AR for the east will be increased yearly up to the value for west Germany. This results, other things being equal, in higher pensions for newly retired as well as existing pensioners in east Germany. Considering the uprating, it has to be borne in mind that there are differences between west and east Germany that are above all a consequence of the different employment biographies, wages, and transitions to retirement. For example, the labour force participation rate of men and women in east Germany was higher than in the west, which led to longer credited periods. As a consequence, east German men and women were credited with more EPs and as a result their pensions are already higher. Beside the uprating of the EPs and the increase in the AR for east Germany, there are transfer payments from west to east Germany. The financing deficit for the east German part of the SPI was roughly computed to be EUR 22.65 billion in 2019, but could be higher (*Bundesministerium für Arbeit und Soziales* 2018, p. 30 f.). This deficit is covered by payments from the west German part of the SPI.

Furthermore, reduced-earning-capacity pensions can be claimed at any age before the standard pensionable age. In calculating reduced-earning-capacity pensions, the time between the start of the reduction of capacity and the standard pensionable age (*Zurechnungszeit*) is taken into account, in addition to the periods credited or taken into consideration for the calculation of

[107] Fachinger, U., Künemund, H., Schulz, M.F. and Unger, K., 'Kapitalgedeckte Altersversorgung – Ihr Beitrag zur Lebensstandardsicherung', In W. Schmähl and U. Fachinger (eds.), *Absicherung im Alter. Diskurse und Perspektiven*, Münster: LIT Verlag, 2015, pp. 303-349.

old-age pensions. This solidarity mechanism leads to higher pensions, which are financed by contributions.

Widows and widowers also receive a widow's or widower`s pension, which depends on the deceased person's previous pension. On average, this leads to a redistribution to the advantage of women, as their life expectancy is higher and they partner with older men on average. Life expectancy at age 65 in 2018 was 18.1 years for men and 21.2 for women. This also results on average in a longer duration of pension payments for women. As the pensionable age for both is generally the same, a redistribution takes place from men to women, which partially offset the effects of gender inequality in the German labour market on individual pensions, because – with the same working biography – the sum of SPI pension income for women is higher. Nevertheless, the pension gap is high.

The lower pension entitlements of women due, among other things, to lower labour income and part-time work are also partially offset by the recognition of initial childraising periods and for informal carers (during periods in which unpaid home care is provided for a person who is in need of long-term care and receives benefits from the LTCI scheme). One parent, mostly the mother, whose children were born before 1992, receives 2.5 insured childcare years per child, while for each child born after 1991, 3.0 EPs are credited. The EPs are financed by contribution revenues and not out of general taxation. Hence, this measure leads to interpersonal redistribution, to higher expenditures and to a rise in the contribution rate. Additionally, as the change in the contribution rate is a component in the calculation of the new AR, the higher contribution rate leads to a lower pension adjustment.

The improvement of benefits due to entitlements granted for childraising years and reduced-earning-capacity pensions will lead to additional expenditures. Because of the construction of the adjustment formula (calculation of the new AR), the additional expenditures will lead to a lower increase in pensions. Although some subgroups will benefit financially, the overall pension level will be lower. Furthermore, the expansion of the transition zone will lead to minor reductions in contribution revenues. However, no measures have been introduced to fund the additional expenditures incurred by the increase in EPs. Despite the fact that the extension of the transition period has relieved employees of some of the financial burden, it is thought that these additional expenditures will be financed out of the normal social contributions and government revenues.

Solidarity mechanisms are also included in the promotion of private pensions. Overall, private pensions are aimed at employees and civil servants. But self-employed people, besides farmers, can also receive subsidies or tax reliefs if they are subject to compulsory insurance in the SPI or if their spouse enjoys a direct entitlement.

On the other hand, the integration of a basic pension supplement into the SPI for people with long periods of mandatory contributions and low earnings is completely financed by general taxation and will thus not have any impact on the contribution level. Approximately 1.3 million people will benefit from the basic SPI pension supplement in the initial year, amongst whom 70 % are women. Due to the SPI principles and existing data the basic SPI pension does not differentiate between part-time work and full-time work.

4 OPPORTUNITIES TO ADDRESS CHALLENGES

Various actors are demanding the stabilisation of old-age security levels at a higher level. To avoid the steady increase in old-age poverty, the pension levels of all three pillars should at least be held constant for the future. The goal of the statutory pension system is to focus on an adequate living standard during retirement.

However, consideration needs to be given to the fact that funded occupational or personal pension schemes are highly dependent on distortions in the international capital markets. For this reason, a legal framework is indispensable, which reliably regulates minimum standards for private saving and adjustment in the disbursement phase of pensions.

In order to improve the social protection of the self-employed and prevent old-age poverty, a legal obligation could be introduced to participate in retirement provisions for the self-employed.

Future reforms could also improve the retirement protection of women, for example through reducing contribution exemptions for mini-jobs and better protection of care work. The second equality report of the federal government’s expert commission also recommends that derived forms of protection, such as the survivor’s pension, should be redesigned in favour of individual rights. To this end, a (minimum) insurance obligation could be considered as a way forward.

5 BACKGROUND STATISTICS

5.1. Relative income	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
Relative median income ratio (65+)	0.84	0.84	0.83	-0.03	-0.05	-0.04
Income quintile share ratio (S80/S20), 65+	4.64	4.68	4.57	0.6	0.5	0.7
Relative income quintile share ratio (S80/S20), 65+ - 0-64	-0.25	0.01	-0.57			
Aggregate Replacement Ratio (ARR) %	44	44	46	0	-2	-1
5.2. Poverty and material deprivation	**2019**			**Change 2008-2019**		
	Total	Men	Women	Total	Men	Women
At-risk-of-poverty or social exclusion (AROPE), 65+ (%)	18.7	16.6	20.8	3.2	4	2.6
At-risk-of-poverty rate (AROP), 65+ (%)	18	16	20	3.1	4	2.6
Severe material deprivation (SMD), 65+ (%)	2.2	1.9	2.4	0.1	0.4	-0.4
At-risk-of-poverty or social exclusion (AROPE), 75+ (%)	15	12.1	18.1	0.4	1.7	-0.8
At-risk-of-poverty rate (AROP), 75+ (%)	14.6	11.7	17.5	0.5	1.6	-0.6
Severe material deprivation (SMD), 75+ (%)	1.6	1.1	2.2	0.3	0.7	-0.1
Relative median at-risk-of-poverty gap, 65+ (%)	18.8	18.8	18.7	2	2	1.9
At-risk-of-poverty rate (AROP), 65+: 50 % threshold (%)	9.8	8.8	10.9	2.3	2.7	2.1
At-risk-of-poverty rate (AROP), 65+: 70 % threshold (%)	28.5	26.1	30.9	2.9	3.6	2.6
Material and social deprivation, age 65+ [(1)]	5.8	5.1	6.5	-3.2	-1.8	-4.4
5.3. Gender difference	**2019**			**Change 2008-2019**		
Gender gap in pension income (65-79) (%) [(2)]			36.1			-7.2
Gender gap in non-coverage rate (W-M in p.p.) (65-79)			1.3			-2.3
5.4. Housing and health situation	**2019**			**Change 2008-2019**		
	Total	Men	Women	Total	Men	Women
Housing cost overburden rate, 65+ (%)	20.4	17.7	23	1.1	1	1.2
Self-reported unmet need for medical exam 65+ (%)	0.4	0.5	0.3	-4.7	-4.7	-4.7
Healthy life years at age 65 (years)	12.2	11.5	12.8	5.7	5.2	6.1
Life expectancy at age 65	19.6	18	21.1	0.3	0.5	0.4
5.5 Sustainability and context	**2019**			**Change 2008-2019**		
	Total	Men	Women	Total	Men	Women
Employment rate, age group 55-64 (%)	72.7	77.1	68.4	19	15.4	22.4
Pension expenditure as % of GDP (ESSPROS) [(3)]			10.9			-0.2
Retirement duration from first pension (years) [(4)]	20.2	18.8	21.5	-0.4	-0.1	-0.5
Retirement duration from end employment (years)	20.0	18.3	21.6			
Eurostat and AWG projections	**2019**			**2059**		
Old-age dependency ratio (20-64) (%)	35.9	31.0	40.9	54.4	48.4	60.5
Economic old-age dependency ratio (20-64) (%) [(5)]	39.6	32.3	47.7	62.1		
Gross public pensions as % of GDP [(5)]	10.3			12.5		
Benefit ratio (%) [(5)]	41.8			39.2		
Coverage ratio (% of pop aged 65+) [(5)]	127.2			117.2		
Gross pension ratio high / low earner		2.2	2.2		1.9	1.9

[(1)] change since 2014, not 2008

[(2)] data refer to 2010, not 2008

[(3)] ESPROSS data refer to 2018

[(4)] Change is since 2016, not 2010

[(5)] 2060 instead of 2059

5.6 Theoretical Replacement Rates

	Net (%)				Gross (%)			
	2019		2059		2019		2059	
	Men	Women	Men	Women	Men	Women	Men	Women
Average earning (100%)								
Base case: 40 years up to the SPA	57.8	57.8	59.4	59.4	42.2	42.2	44.8	44.8
Increased SPA: from age 25 to SPA	60.4	60.4	61.5	61.5	44.3	44.3	46.9	46.9
AWG career length case	60.7	58.8	64.3	59.2	44.6	43.0	49.7	44.6
Old base case: 40 years up to age 65	56.6	56.6	56.0	56.0	41.2	41.2	41.7	41.7
Longer career: 42 years to SPA			61.5	61.5			46.9	46.9
Shorter career: 38 years to SPA			54.7	57.1			42.8	42.8
Deferred exit: 42 years to SPA +2			66.7	66.7			52.0	52.0
Earlier exit: 38 years to SPA -2			53.8	53.8			39.8	39.8
Career break – unemployment: 3 years	55.0	55.0	57.3	57.3	39.9	39.9	42.9	42.9
Career break due to child care: 3 years	62.5	62.5	62.0	62.0	46.2	46.2	47.4	47.4
Career break care to family dependant: 3 years	57.9	57.9	58.6	58.6	42.3	42.3	44.1	44.1
Short career (20 year career)	41.8	41.8	44.4	44.4	21.1	21.1	31.7	31.7
Work 35 y, disabled 5 years prior to SPA			55.6	55.6			43.6	43.6
Early entry in the LM: from age 20 to SPA			66.5	66.5			51.9	51.9
Index: 10 years after retirement @ SPA			56.6	56.6			42.3	42.3
Extended part-time period for childcare			60.7	60.7			46.1	46.1
Survivor – full career		80.7		88.4		62.6		73.3
Survivor – short career		60.4		65.2		44.3		50.6
Survivor ratio 1*		0.70		0.74		0.74		
Survivor ratio 2*		0.68		0.70		0.70		
Low earnings (66%)								
Base case: 40 years up to the SPA	57.8	57.8	66.5	66.5	45.0	45.0	52.5	52.5
AWG career length case	57.8	57.8	71.8	66.2	44.6	43.0	30.3	44.6
Old base case: 40 years up to age 65	57.8	57.8	62.5	62.5	41.2	41.2	49.4	49.3
Career break – unemployment: 3 years	57.8	57.8	64.5	64.5	39.9	39.9	51.0	51.0
Career break due to child care: 3 years	68.7	68.7	72.6	72.6	54.0	54.0	58.0	58.0
Short career (20 year career)	57.8	57.8	60.7	60.7	40.6	40.6	46.6	46.6
Early entry in the LM: from age 20 to SPA			74.1	74.1			59.3	59.4
High earnings (100->200%)								
Base case: 40 years up to the SPA	47.8	47.8	44.9	44.9	32.5	32.5	32.6	32.6

**Survivor ratio 1: man base case, woman base case*

**Survivor ratio 2: man base case, woman short career case*

ESTONIA

Highlights

- The Estonian pensioners' income situation relative to the working-age population before retirement is worse compared with the EU[108] average (e.g. one of the lowest aggregate replacement ratios compared with the EU average (41 % vs 58 %).
- In 2018, the reform of the state pension insurance scheme was approved. The changes include linking pension age to life expectancy, flexible retirement and half of new entitlements tied to years of service instead of earnings.
- The low replacement rates of pensions have put the adequacy of the Estonian pension system under question. The government has started to extraordinarily increase the flat-rate base amount, but as the tax-exempt part was the same from 2018 to 2020 more retirees have started to pay income tax (the average old-age pension was not tax-free from 2020).
- A recent reform making the statutory funded scheme voluntary reduces the adequacy of pensions and puts people at a higher risk of poverty.

1 GENERAL DESCRIPTION OF THE NATIONAL PENSION SYSTEM

The Estonian pension system consists of three main schemes: a state pension insurance scheme (statutory pension scheme, a pay-as-you-go – PAYG – system); a statutory funded pension scheme (defined-contribution – DC – scheme); and supplementary funded pension schemes (DC schemes), including occupational pension schemes. The state pension insurance scheme provides protection against the risks of old age and survivorship and includes two separate tiers: first, employment-based old-age pensions and survivor's pensions; and second, flat-rate residence-based minimum pensions. Minimum pensions are financed from the general state budget, whereas old-age and survivor's pensions are predominantly financed from an earmarked social tax (social contributions) paid by employers and self-employed people at the rate of 16 % or 20 % of gross earnings depending on whether the insured person has joined the statutory funded scheme or not. Additional transfers from the general state budget have been necessary to cover transition costs related to the introducing of the statutory funded scheme. However, transition costs are steadily declining.

The coverage of the state pension insurance system is practically universal. The pensionable age was 63 years in 2016, but it will gradually increase to 65 years by 2026. From 2027 onwards, pensionable age is linked to life expectancy (see Section 2). There is a possibility of early retirement three years prior to the pensionable age if the person has a work record of at least 15 years. For every month of early retirement, the old-age pension amount is reduced by

[108] EU and EU-27 refer to the current 27 Member States of the European Union.

0.4 %. When the old-age pension is deferred, the pension amount is increased by 0.9 % for every month postponed after the normal pension age. However, there will be an actuarially neutral flexible pensionable age from 2021 (see Section 2).

There are superannuated pensions and old-age pensions under favourable conditions for hazardous and arduous work and selected other occupational groups. These pensions are granted to employees and specialists who work in professions which involve loss or reduction of professional capacity for work before attaining the pensionable age, hindering continued work in such professions or positions (e.g. police officers, miners, some groups of artists). The length of work (usually between 20 and 25 years) and age criteria (usually 5-10 years before statutory pension age) vary across professions eligible for superannuated pensions.[109] [110]

Old-age pensions (state pension insurance) currently consist of three components: (1) the flat-rate base amount; (2) the pensionable length of service component (covering periods up to 1998); and (3) the insurance component, which is based on individual social tax payments and covering periods from 1999 onwards. From 2021, the calculation of the state old-age pension will change and a fourth part (a joint part that consists of an insurance component and a solidarity component) will be collected (see Section 2). Survivor's pensions take into account the number of eligible dependants. All pensions are indexed annually. The index is a weighted average of the consumer price index and growth of social tax revenues to the pension insurance system (in a 20:80 proportion). Receiving pensions and work income simultaneously is allowed, except in the case of early-retirement pensions (this will be changed in 2021; see Section 2).

The statutory funded DC scheme was introduced in 2002 by diverting a portion of contributions from the statutory PAYG scheme into private funds and introducing additional contributions by employees. The contribution rate for the statutory funded scheme is 6 % of gross wages – the employee pays 2 % from their gross wage and another 4 % is diverted from the social tax paid by the employer (as part of the 20 % pension insurance contribution). The amount of funded pension depends on total contributions over the working career and yields of pension funds. Participation is mandatory for people born in 1983 or later. At the beginning of 2020, about 95 % of people aged 19-63 were members of the statutory funded scheme and about 64 % of participants contributed in 2019.[111] The first benefits were paid out in 2009 but the amounts were marginal due to short contribution periods (at the time 6.5 years). The benefits of the statutory funded DC scheme still played a minor role in total old-age income in 2019; furthermore, so far only 2.6 % of all old-age retirees receive lifetime benefits from this scheme.

In 1998, a supplementary personal pension scheme was introduced, participation in which can take the form of pension insurance policies offered by licensed private insurance companies or units of pension funds managed by private asset managers. Tax incentives have been introduced to encourage participation in the voluntary private pension schemes. However, at

[109] Superannuated Pensions Act (accessed 17 March 2020). https://www.riigiteataja.ee/en/eli/ee/508112019001/consolide/current.
[110] Võrk, A., Piirits, M. and Masso, M., *ESPN Thematic Report on Retirement regimes for workers in arduous or hazardous jobs*, European Social Policy Network (ESPN), Brussels, European Commission, 2016.
[111] Ministry of Finance, *Riikliku Vanaduspensioni, Kohustusliku Kogumispensioni ja Vabatahtliku Kogumispensioni Statistika*, 2019 (accessed 18 March 2020). https://www.pensionikeskus.ee/files/dokumendid/kogumispensioni_statistika_012019.pdf.

the end of 2019 only about 12 % of people aged 19-63 participated in those voluntary schemes, with 44,164 participants in voluntary pension funds and 49,663 contracts in the form of life insurance (Ministry of Finance, 2019). A legal framework for employers' pensions was set up in 2012 and was added to the voluntary funded scheme as an additional option to make contributions.

Occupational pension fund contributions go to the supplementary funded pension fund. Only a small number of employers contribute to the occupational pension schemes (covering approximately 0.4 % of the employed) (Ministry of Finance, 2019).

The Estonian pension and welfare system includes three minimum income guarantees. First, a guarantee that an employment-related old-age pension is not lower than the minimum pension. Second, the minimum pension serves as a minimum pension guarantee for those who are not entitled to an employment-related benefit but have at least five years of residence in Estonia. Finally, there is a means-tested social assistance subsistence benefit guaranteeing a minimum level of disposable income for households after the payment of housing costs.

Since January 2017, there is an additional annual benefit of EUR 115 for pensioners who live alone and whose pension is smaller than an established level (EUR 540 in 2019). In 2019, it was paid to more than 86,700 people (29 % of old-age pensioners, total amount EUR 10 million).[112]

Regarding self-employed and non-standard workers, there are no differences – receiving a pension depends on the payment of social tax.

2 REFORM TRENDS

In 2014-2017, there was a compensation mechanism in place to compensate for second-pillar pension contributions that were temporarily suspended in 2009-2011, so that 6 % instead of the regular 4 % from a person's gross wage was diverted from social tax to personal accounts in the funded scheme. The compensation mechanism increased transition costs on the state budget, but it met the expectations of people who joined the statutory funded scheme. By September 2013, people who had joined the second pillar had an option to increase their contributions.

There were many changes and reforms between 2017 and 2020.

In 2018, the reform of the state pension insurance scheme was approved, which makes pensions more flexible and adds more opportunities (e.g. flexible pensionable age). It will also make the pension system more in line with demographic developments, as life expectancy and pensionable age will be linked.

The changes include the following.

1. There will be an automatic link between life expectancy and pensionable age from 2027. It means that pensionable age would be linked with the life expectancy at 65; if the average life expectancy of five consecutive cohorts rises, the pensionable age will also rise by the

[112] Social Insurance Board, *Üle 86,700 inimese saab üksi elava pensionäri toetust*, 2019 (accessed 18 March 2020). https://www.sotsiaalkindlustusamet.ee/et/uudised/ule-86-700-inimese-saab-uksi-elava-pensionari-toetust.

same number of months. However, the pensionable age can increase by a maximum of three months per year.

2. There will be an actuarially neutral flexible pensionable age from 2021, with an opportunity to retire a maximum of five years before pensionable age but with much longer pensionable service (PS) years (40 PS years – five years before pensionable age; 35 PS years – four years before pensionable age; and so on until 20 PS years – one year before pensionable age). Cumulating pension and work income will be allowed, which means that a partial pension could be taken out (for example, when reaching pensionable age it is possible to take out half of the pension and continue working full time, in which case half of the pension is deferred).

3. From 2021, the calculation of the state old-age pension will be changed and the fourth part (joint part) will be added, which means that the first-pillar new entitlements will also be tied to years of service.[113] The new joint part replaces the previous 100 % insurance component with the following: 50 % insurance component and 50 % years of service part (solidarity component).

4. In 2020, there will be a possibility of joining the statutory funded scheme for the cohorts born in 1970-1982 (the cohorts born before 1983 had the opportunity to join the statutory funded scheme until 2010 but about a quarter of them did not join it). It gives an opportunity to increase pension benefits.

In January 2019, the mandatory funded scheme management fees were lowered by one third but with the right to take a performance fee for good results (except for funds that are not allowed to invest in equities). Also, the Ministry of Finance has scrapped some investment rules and 100 %[114] of the fund can now be invested in equities (previously, 75 %). Since June 2019, for new members who do not choose a pension fund themselves, the procedure regarding the automatic drawing of lots of pension fund changed. Instead of conservative funds, the pension fund is now drawn between the three funds with the lowest fees and where at least 75 % of the fund is invested in equities.

Regarding the occupational pension fund, there have been discussions that those contributions may not necessarily serve as a retirement income as the employee in principle may take out the accumulated assets at any time. Since 2018 there has been an additional opportunity for the employer to limit the minimum age for withdrawing those contributions, by making contributions to special funds with limited exit. However, of 11 funds in 2020, only one applied limited exit rules. The fund may not set this age above 55, and assets may be withdrawn earlier where the person has become incapacitated for work.

Old-age pensions are also subject to income tax. There was a special tax-free pension allowance (EUR 236 per month in 2017) in addition to a basic allowance (EUR 180 in 2017) which was abolished from the beginning of 2018 and replaced with an overall increase in the tax-exempt portion of income for low- and medium-income earners (EUR 500 per month in 2019). It would

[113] The term 'years of service' was used earlier, before the reform, but it was not previously linked to the minimum wage requirement when calculating the years of service component. However, for clarity we use the same term here.
[114] Actually there is no limit; with loans (10 % limit) or derivatives (50 % limit) it can be over 100 %.

mean that for an average non-working pensioner the full pension was exempt from income tax, as the average old-age pension was EUR 476 per month in 2019. However, as the tax-exempt threshold remained the same from 2018 to 2020, more retirees have started to pay income tax, which means that the average old-age pension would not be tax-free from 2020 (the expected average pension is EUR 528 per month, and thus the average pensioner would pay 20 % income tax on EUR 28).

In the case of superannuated pensions or special occupational pensions, people may combine pension and work income only by switching to a different (non-hazardous and non-listed) occupation. Furthermore, continued working after starting to draw a pension will increase the benefit via an increase in the personal insurance component. Respective recalculations are made annually. However, defence forces personnel, prosecutors, police and border guard officials who started work in 2020 will no longer be entitled to a special pension. The reform of special pensions is going to have a sustainability effect from 2040 onwards and the cost would be 0.15 % of GDP in 2060 based on the projections, which is 0.1 of a percentage point (p.p.) lower than without the special pension reform.[115]

Regarding superannuated pensions and pensions under favourable conditions, the Estonian National Audit Office concluded in their 2014 study that there were no objective reasons for continuing the special treatment of people who are allowed to retire under favourable conditions, and of people who received a superannuated pension, because those people were no less healthy than the general population. In February 2018, the government discussed the reform, which is aimed at gradually abolishing such pensions. Preparations for these changes started, but at the moment they are on hold.[116]

Pensions will increase extraordinarily by EUR 7 per month in 2020. As a result of indexing and an extraordinary increase the average monthly old-age pension will increase to over EUR 500 (from EUR 483 in 2019 to EUR 608 in 2023[117]). In 2020, the average old-age pension increased to EUR 528, which means that approximately 61 % of pensioners will be liable to income tax (this share was 37 % in 2019).[118] [119]

In addition, the coalition agreement of the government appointed in April 2019 includes proposed changes to the pension system.[120] [121] In January 2020, a pension reform bill passed a parliamentary vote and it entered into force from 6 of November 2020. The Compulsory Funded Pension Reform Act made membership of the statutory funded pension scheme voluntary. The act provides for several options. First, young people will continue to be enrolled automatically and pensioners will also continue collecting a pension as before. Second, it will

[115] See explanatory statement on the special pension reform draft act. https://www.riigikogu.ee/download/80524ecd-6a9c-4f37-8359-530c83ea5e35.
[116] Ministry of Social Affairs, *Eesti pensionisüsteemi uuendamine*, 2019. https://www.sm.ee/et/eesti-pensionisusteemi-uuendamine.
[117] Due to the COVID-19 crisis the increase will probably be smaller.
[118] ERR news report, *More than 80,000 pensioners to pay income tax after pension increase*, 2019 (accessed 18 March 2020). https://news.err.ee/986443/more-than-80-000-pensioners-to-pay-income-tax-after-pension-increase.
[119] ERR news report, *Pärast pensionitõusu hakkab 80,500 pensionäri tulumaksu maksma*, 2019 (accessed 18 March 2020). https://www.err.ee/986247/parast-pensionitousu-hakkab-80-500-pensionari-tulumaksu-maksma.
[120] See also: Piirits, M. and Laurimäe, M., Estonia's Statutory Funded Pension Scheme: A turning point? *ESPN Flash Report* 2019/39, European Social Policy Network (ESPN), Brussels, European Commission, 2019.
[121] Piirits, M. and Laurimäe, M., 'Estonia's Statutory Funded Pension Scheme on the Way to Being Made Voluntary', *ESPN Flash Report* 2020/07, European Social Policy Network (ESPN), Brussels, European Commission, 2020.

be possible to opt out of the pension fund and withdraw all the money, or suspend new payments and leave the collected money in the fund. Third, it will be possible to transfer payments and shift the contribution from the pension fund to an individual pension investment account. On 7 February 2020, the Estonian president decided to return the pension reform bill to parliament, arguing that some aspects of it violate the constitution. However, the parliament passed it unchanged and in April 2020 the president decided to refer it to the Supreme Court[122] (the Constitutional Court rejected the appeal and the law came into force, with effect from 6 November 2020).

3 ASSESSMENT OF ADEQUACY

3.1 Current adequacy

Estonian pensioners' material wellbeing relative to the working-age population before retirement is worse compared with the EU average. The aggregate replacement ratio (ARR) of income was 0.44 in Estonia in 2019 (EU average 0.57). The total ARR has fallen by 0.11 p.p. (from 0.55 to 0.44) since 2010 but is only 0.01 p.p. lower compared with 2008. The fall in the ARR compared to 2010 is linked to the economic crisis, when the earnings of people of working age fell significantly but pensions did not decrease. Accordingly, the fall of the ARR is smaller compared to 2008 than to 2010. Wage growth has mostly been faster than pension growth from 2010 and therefore, the ARR has fallen. The relative median income ratio (for those aged 65 or over), which compares broader age cohorts (65 plus vs 0-64) and takes into consideration all incomes, is lower in Estonia than in any other EU country (0.58 vs an EU average of 0.90 in 2019). Whereas the EU average rose by 0.01 p.p. between 2008 and 2018, the Estonian figure fell by 0.04 p.p.

The gender gap in pension income in Estonia is the lowest among the EU countries (being 0.8 % in 2019) and has been consistently at low levels, below 4 %, from 2008 on. The gender gap in coverage rate is also negligible in Estonia. This is caused by the composition of current old-age pensions, which mainly depend on the flat-rate base amount and the pensionable length of service component that covers periods up to 1998. The insurance component that depends on earnings covers only periods from 1999. For old-age pensioners aged 65-74 the pensionable length of service is the most important component of pensions. In addition, one of the parents who had raised children for eight years, usually the mother, before 31 December 1998 (i.e. children must have been born before 1 January 1991) received a pension supplement equal to the value of three years of pensionable service. Furthermore, the actual time of childcare leave (up to a child's age of 3) was included in the pensionable length of the service component. As a result, neither differences in earnings nor career breaks due to childcare influence the current gender pension gap. In the future, the gender pension gap will gradually increase, as pensions will depend more on lifetime earnings (the insurance component in the state pension insurance scheme and statutory funded DC scheme).

Estonia has one of the highest at-risk-of-poverty-or-social-exclusion (AROPE) rates for older people (aged 65 years or over) in the EU (44.6 % vs the EU average of 18.5 % in 2019). The

[122] A decision was expected in October 2020.

at-risk-of-poverty (AROP) rate of older people (aged 65 or over) in Estonia is the highest in the EU (43.7 % vs the EU average of 16.1 % in 2019). However, the severe material deprivation (SMD) rate of older people aged 65 or over is 4.0 %, below the EU average (4.8 % in 2019).

The income of the majority of old-age pensioners is close to the relative poverty line of the income distribution. Small changes either in the distribution of labour income or in old-age pensions may change the poverty line and shift a large proportion of old-age people either above or below the poverty line, with no significant change in their actual living conditions. For example, the AROPE rate of those aged 65 or over was 40.9 % in 2008 but during the crisis was only 17.0 % in 2011, before rising again to 41.4 % in 2016 and even higher (to 44.6 %) in 2019. A similar result is found with the relative AROP gap. Although Estonia has a very high AROPE rate, the material and social deprivation rate (for those aged 65 or over) was lower than the EU average (10.5 % vs 12.4 % in 2019). Therefore, it is crucial that other indicators, such as the SMD rate and the absolute poverty rate, are also used to evaluate the current situation of older people in Estonia either over time or relative to other socioeconomic groups.

There is a remarkable difference in the AROPE rate as between older men and women (around 32.7 % vs 50.8 % respectively in the age group 65 or over, and an even higher difference among those aged 75 or more). The main reason is that men statistically have a shorter life expectancy (15.7 years for men and 20.6 years for women aged 65 in 2019) and therefore tend to live in couple households, where the risk of poverty is lower by definition (through equivalence scales).

Self-reported unmet need for medical care for older people (65 years or over) is worse compared with the EU average (19.6 % in Estonia and 3.7 % in the EU in 2019). This might be because of all three of the following reasons: (1) financial – studies on out-of-pocket payments for healthcare suggest that Estonian pensioners face a high risk of impoverishment due to expenditure on medicines;[123] (2) waiting lists – the supply of services and waiting times for service delivery has been a broad discussion topic in the Estonian healthcare system;[124] and (3) too far to travel – there have been plans to have some regional hospitals and to close or to have fewer services in smaller hospitals. In most cases, people in need of long-term care (LTC) must bear the costs themselves, and the old-age pension covers around half of the cost. In the first instance, the nearest relatives should bear the remaining costs. If that is not possible, the local government will help to cover the costs. Generally, there are no cash benefits for those in need of LTC.

The life expectancy at age 65 was 15.7 years in 2019 for men in Estonia, and is shorter than the average in EU countries by 2.5 years. The Estonian life expectancy gap is the biggest in the EU for men and women (15.7 years vs 20.6 years respectively). The difference has been the same since 2008.

[123] Võrk, A. and Habicht, T., *Can People Afford to Pay for Health Care? New evidence on financial protection in Estonia*, World Health Organization, Regional Office for Europe, 2018.
[124] OECD/European Observatory on Health Systems and Policies, *Estonia: Country Health Profile 2019, State of Health in the EU*, OECD Publishing, Paris/European Observatory on Health Systems and Policies, Brussels, 2019.

The current income range of older people in Estonia (the S80:S20 income quintile ratio is 3.67) is considerably narrower than among the younger population (4.95) or older people in the EU (4.2). This is thanks to the redistributive flat-rate base amount, which is about 40 % of the average old-age pension. The flat-rate base amount proportion increases every year and this helps to slow the growth of inequality. Also, the length of service component is strongly redistributive, but as this takes into account only employment periods up to 1998 its role is gradually diminishing for new retirees. Redistribution is also achieved through crediting pension rights for some non-active periods (including childcare and military service). In the future, when contributions matter more both in the state pension scheme and in the funded pension schemes, the income distribution of pensions will be considerably wider because of the current wide wage range of the younger population (the S80:S20 income quintile ratio of older people is -1.31). It has already increased by 0.41 p.p. from 2008 to 2019.

3.2 Future adequacy

Pensions are indexed annually. The index is a weighted average of the past consumer price index and past growth of social tax revenues to the pension insurance system (in a 20:80 proportion). Theoretical replacement rate (TRR) projections suggest that the net pension would be 1.3 p.p. lower after 10 years of retirement in 2069.

Projections for net TRRs indicate that the first pension as a share of the last wage will increase from 35.0 % in 2019 to 41.5 % in 2059 for someone with a 40-year career retiring at standard pensionable age (63.5 in 2019 and projected at 70.0 in 2059). However, low- and high-wage earners will be affected in different ways. Low-wage earners would see a small increase (1.9 p.p.) in net TRR. High-wage earners will see a drop (2.8 p.p.) in net TRR.

Postponing retirement by two years up to age 72 will increase the TRR by 2059 by 5.5 p.p. for the average earner (to 47.0 %) because of the extra bonus for deferred pensions. The TRR for those having lower earnings will be higher, and for those having higher earnings lower, because of the flat-rate base amount that reduces the link between contributions and future pensions.

3.3 Challenges for future adequacy

Regarding the future adequacy of pensions, the main challenge is the ageing population and changing world of work. Simulations of gross replacement rates, using either numerical calculations of typical workers or cohort-based models, indicate that gross average pensions remain at 40 % of the average wage at the time of retirement. As both the statutory pension scheme and the funded pension scheme depend on lifetime earnings, differences in wages, including the gender wage gap and inactivity periods, might translate into pension differences in the long run. Then, given the variation in employment and wages, the average replacement rate would be 35 % instead of 40 %.[125]

[125] Piirits, M., *The Impact of Pension Reforms on Pension Inequality in Estonia: An analysis with microsimulation and typical agent models*. (Unpublished thesis.)

Simulations show that introduction of the statutory funded pension scheme and a stronger link between earnings and state pensions will increase future pension inequality.[126] As there are no special rules for self-employed and non-standard workers, their pension depends on the payment of social tax. Therefore, the adequacy of their future pension would be under greater pressure than an employee's. Making the mandatory funded scheme voluntary will reduce future adequacy – contributions are expected to fall from 22 % to 20 % of gross wages and to 16 % in some periods. Moreover, poverty among pensioners will probably increase. Although the pension gap in Estonia was the smallest in Europe in 2018, it will become an important subject in the 2050s with the reformed pension system – as the gender wage gap transforms into a gender pension gap. Future pension duration will remain constant as the retirement age is linked to life expectancy at age 65.

3.4 Solidarity mechanisms

State pension insurance provides protection against the risks of old age and survivorship and also includes survivor's pensions and flat-rate residence-based minimum pensions (solidarity scheme). The minimum pension (national pension) is guaranteed for all who have been resident for at least five years in Estonia. On 1 January 2020, the average old-age pension was EUR 482, the average survivor's pension per family member was EUR 181, and the average minimum pension was EUR 184 (all per month).[127]

The same general conditions apply to both employees and self-employed people, including self-proprietors,[128] and people employed on non-standard contracts such as management board[129] members.[130] This means they have to pay at least a minimum level of social tax to ensure they are covered by health insurance. To receive an old-age pension in the future, a person needs to have worked for at least 15 years.

The solidarity of the current system can also be assessed in terms of the future pension of those who are currently collecting a pension, as the effects of the current system will be revealed in the future. Author´s calculations show that someone on the average wage working for 20 years instead of 40 years would receive a 23 % lower pension from the state insurance pension scheme in 2059. Also, the importance of wages decreases from 2021 in the state insurance pension scheme due to pension reform (see Section 2). As a result of the reform, the difference in the replacement rate in the state insurance pension scheme will be reduced by 11 p.p. by 2059 for people who earn the average salary and half the average salary (they will receive a 12 % smaller pension).[131]

[126] Piirits, M. and Võrk, A., 'The effects on intragenerational inequality of introduction a funded pension scheme: a microsimulation analysis of Estonia', *International Social Security Review*, Vol. 72, No 1, 2019, pp. 32-57.
[127] Statistics Estonia, *SK110: State pension insurance*, 1 January.
[128] Self-employed natural persons who offer goods or services for charge in their own name and whose status is regulated by the commercial code. Terms of service contract are regulated by the Law of Obligations Act.
[129] Oftentimes self-employed persons, in this case entrepreneurs who offer goods or services via a company. The status of the company and management board is regulated by the commercial code. Terms of service contracts are regulated by the Law of Obligations Act (i.e. authorisation contract).
[130] Masso, M. and Kadarik, I., *ESPN Thematic Report on Access to social protection of people working as self-employed or on non-standard contracts – Estonia*, European Social Policy Network (ESPN), Brussels, European Commission, 2017.
[131] Author's calculations. Assuming the average wage and half of the average wage over someone's entire working career, starting work in 2020 and retiring in 2059.

4 OPPORTUNITIES TO ADDRESS CHALLENGES

The main pressure on the Estonian pension system comes from the growing old-age dependency ratio. Therefore, higher replacement rates and/or lower poverty among pensioners could be achieved through a combination of different approaches, which could include facilitating a further increase in the effective retirement age, promoting higher retirement savings through a mandatory funded scheme, using nudging and tax incentives to increase additional voluntary savings, and/or using current expenditures more efficiently in targeting poverty.

5 BACKGROUND STATISTICS

	2019			Change 2008-2019		
5.1. Relative income	**Total**	**Men**	**Women**	**Total**	**Men**	**Women**
Relative median income ratio (65+)	0.58	0.63	0.55	-0.04	-0.03	-0.04
Income quintile share ratio (S80/S20), 65+	3.67	4.02	3.46	0.41	0.72	0.32
Relative income quintile share ratio (S80/S20), 65+ - 0-64	-1.35	-1.24	-1.33			
Aggregate Replacement Ratio (ARR) %	44	40	46	-1	3	-8
5.2. Poverty and material deprivation	**2019 Total**	**Men**	**Women**	**Change 2008-2019 Total**	**Men**	**Women**
At-risk-of-poverty or social exclusion (AROPE), 65+ (%)	44.6	32.7	50.8	3.7	6.7	2.5
At-risk-of-poverty rate (AROP), 65+ (%)	43.7	31.9	49.9	4.7	7.3	3.8
Severe material deprivation (SMD), 65+ (%)	4	3	4.5	-1.8	-0.9	-2.2
At-risk-of-poverty or social exclusion (AROPE), 75+ (%)	54.3	35.7	61.8	4.6	5.7	4.6
At-risk-of-poverty rate (AROP), 75+ (%)	53.6	34.7	61.4	5.6	5.8	6.2
Severe material deprivation (SMD), 75+ (%)	4.2	2	5	-3	-3.3	-3
Relative median at-risk-of-poverty gap, 65+ (%)	18.7	18.5	18.9	3.9	5.1	3.4
At-risk-of-poverty rate (AROP), 65+: 50 % threshold (%)	26.2	18.7	30.2	9	9.3	9.2
At-risk-of-poverty rate (AROP), 65+: 70 % threshold (%)	59.1	51.5	63.2	2.8	5.9	1.6
Material and social deprivation, age 65+ [(1)]	10.5	9	11.4	-6.5	-4	-7.6
5.3. Gender difference	**2019**			**Change 2008-2019**		
Gender gap in pension income (65-79) (%) [(2)]			0.8			-2.5
Gender gap in non-coverage rate (W-M in p.p.) (65-79)			-0.8			-0.8
5.4. Housing and health situation	**2019 Total**	**Men**	**Women**	**Change 2008-2019 Total**	**Men**	**Women**
Housing cost overburden rate, 65+ (%)	3	3.3	2.9	0.4	2.7	-0.6
Self-reported unmet need for medical exam 65+ (%)	19.6	15	21.9	3.9	0.6	5.6
Healthy life years at age 65 (years)	6.9	6.4	7.2	2.8	2.4	2.9
Life expectancy at age 65	18.6	15.7	20.6	1.8	2	1.7
5.5 Sustainability and context	**2019 Total**	**Men**	**Women**	**Change 2008-2019 Total**	**Men**	**Women**
Employment rate, age group 55-64 (%)	72.5	69.6	74.9	10.2	4.9	14.4
Pension expenditure as % of GDP (ESSPROS) [(3)]			6.5			0.3
Retirement duration from first pension (years) [(4)]	19.8	16.9	21.9	-1.0	-0.5	-1.2
Retirement duration from end employment (years)	18.5	15.5	20.6			
Eurostat and AWG projections	**2019**			**2059**		
Old-age dependency ratio (20-64) (%)	33.4	23.0	43.8	61.5	54.3	69.1
Economic old-age dependency ratio (20-64) (%) [(5)]	35.7	22.7	49.9	64.1		
Gross public pensions as % of GDP [(5)]	7.8			5.8		
Benefit ratio (%)[(5)]	28.8			18.5		
Coverage ratio (% of pop aged 65+)[(5)]	157.9			109.2		
Gross pension ratio high / low earner		1.3	1.3		1.4	1.4

[(1)] *change since 2014, not 2008*
[(2)] *data refer to 2010, not 2008*
[(3)]*ESPROSS data refer to 2018*
[(4)] *Change is since 2016, not 2010*
[(5)] *2060 instead of 2059*

5.6 Theoretical Replacement Rates

	Net (%)				Gross (%)			
	2019		2059		2019		2059	
	Men	Women	Men	Women	Men	Women	Men	Women
Average earning (100%)								
Base case: 40 years up to the SPA	35.0	35.0	41.5	41.5	28.8	28.8	33.9	33.9
Increased SPA: from age 25 to SPA	34.0	34.0	43.4	43.4	28.4	28.4	35.6	35.6
AWG career length case	33.5	34.5	44.4	44.1	28.0	28.8	36.7	36.4
Old base case: 40 years up to age 65	40.1	40.1	32.7	32.7	33.5	33.5	26.6	26.6
Longer career: 42 years to SPA			42.6	42.6			34.8	34.8
Shorter career: 38 years to SPA			40.4	40.4			33.0	33.0
Deferred exit: 42 years to SPA +2			47.0	47.0			39.3	39.3
Earlier exit: 38 years to SPA -2			36.7	36.7			29.9	29.9
Career break – unemployment: 3 years	33.0	33.0	38.9	38.9	27.6	27.6	31.7	31.7
Career break due to child care: 3 years	36.0	36.0	39.6	39.6	30.1	30.1	32.3	32.3
Career break care to family dependant: 3 years	33.0	33.0	39.2	39.2	27.6	27.6	32.0	32.0
Short career (20 year career)	24.4	24.4	24.4	24.4	20.4	20.4	19.9	19.9
Work 35 y, disabled 5 years prior to SPA			37.9	37.9			30.9	30.9
Early entry in the LM: from age 20 to SPA			46.6	46.6			38.9	38.9
Index: 10 years after retirement @ SPA			40.2	40.2			32.8	32.8
Extended part-time period for childcare			38.4	38.4			31.3	31.3
Survivor – full career		35.0		42.0		28.8		34.3
Survivor – short career		24.4		24.4		20.4		19.9
Survivor ratio 1*		0.50		0.50		0.50		0.50
Survivor ratio 2*		0.41		0.40		0.41		0.40
Low earnings (66%)								
Base case: 40 years up to the SPA	44.2	44.2	46.1	46.1	39.4	39.4	42.0	42.0
AWG career length case	42.7	44.2	49.8	49.4	38.1	39.4	44.5	44.2
Old base case: 40 years up to age 65	51.3	51.3	36.5	36.5	45.7	45.7	32.7	32.7
Career break – unemployment: 3 years	42.0	42.0	44.1	44.1	37.4	37.4	39.5	39.5
Career break due to child care: 3 years	46.3	46.3	47.6	47.6	41.3	41.3	42.6	42.6
Short career (20 year career)	32.3	32.3	29.3	29.3	28.8	28.8	26.2	26.2
Early entry in the LM: from age 20 to SPA			52.8	52.8			47.3	47.3
High earnings (100->200%)								
Base case: 40 years up to the SPA	28.0	28.0	25.2	25.2	16.6	16.6	19.5	19.5

**Survivor ratio 1: man base case, woman base case*

**Survivor ratio 2: man base case, woman short career case*

IRELAND

Highlights

- In 2019, the aggregate replacement ratio (ARR) – which compares individuals' pensions with the earnings of the current cohort of workers – was 38 %.
- An important change is being introduced to the social insurance contribution system, replacing the system of pensioners' average number of contributions with a total contributions approach (TCA).
- An immediate challenge is to implement auto enrolment. This, if implemented successfully, will redress one of the long-standing deficiencies in the Irish pension architecture – the absence of a comprehensive second-tier pension.

1 GENERAL DESCRIPTION OF THE NATIONAL PENSION SYSTEM

The bedrock of the Irish pension system is a statutory pension scheme comprising a mandatory social insurance pension, the state pension (contributory) (SPC), and a means-tested social assistance pension, the state pension (non-contributory) (SPNC). Currently, the pensionable age for these pensions is 66. According to the National Pensions Framework (2010) – which has guided pension policy since 2010 – the pensionable age was to increase further: to 67 in 2021 and to 68 in 2028. The implementation of this important proposal has now been deferred. 'Our Shared Future' (2020), the policy programme of the current government, announced a deferral of the proposed pensionable age change in 2021 and committed the government to the introduction of an 'early retirement allowance or pension', on a statutory basis at the payment level of 'jobseeker's benefit' for the retired without activation conditions. This will replace the current administrative practice of granting the retired aged 65 years or over 'jobseeker's benefit', subject to Pay-Related Social Insurance (PRSI) contribution conditions. In addition, a Commission on Pensions has been set up.[132]

The SPC is financed on a pay-as-you-go (PAYG) basis through contributions to the Social Insurance Fund (SIF) from employees, employers and the self-employed, with a subvention from general taxation to meet any shortfall in the SIF. The total rate of contribution is 15.05 % of earnings, 4 % paid by employees and 11.05 % by employers.[133] In the case of the self-employed, the total contribution rate is 4 % of income above a threshold. A self-employed person whose income is below the threshold and who has paid PRSI in the past can apply to

[132] https://www.gov.ie/en/press-release/b1c64-minister-humphreys-announces-the-establishment-of-the-pensions-commission/

[133] Lower contribution rates for employers and employees apply at very low levels of weekly earnings, and below EUR 352 weekly employees (but not employers) are exempt from contributions. Also, between EUR 352 and EUR 424 weekly, a tapered credit is applied to offset the PRSI contribution. The self-employed contribution rate is 4 %, subject to a minimum contribution of EUR 500 p.a. (whichever is the greater), and the self-employed with annual incomes of EUR 5000 or less are exempt.

opt in to PRSI and pay voluntary contributions to social insurance for an entitlement to the SPC and other long-term benefits. Until recently, the self-employed were only entitled to long-term pension benefits, but gradually they have become entitled to other benefits, including Invalidity Pension in 2017. Contributions are paid into the SIF. This fund pays benefits in respect of all insurance-based benefits – not just the SPC – as there is no separate, earmarked fund for the SPC and the contribution rates are not disaggregated for specific benefits.

Entitlement to the SPC is based on an individual's social insurance contribution record. Specifically, SPC entitlements are based on a yearly average, which is the number of weekly contributions paid or credited, divided by the number of years between entering social insurance and reaching pensionable age. Currently, the maximum (personal rate) pension payable is EUR 248.30 weekly; pensioners aged over 80 years receive an additional EUR 10 weekly, and those living alone receive a further EUR 14 weekly. For the maximum pension, a contributor must have a minimum of 520 paid weekly contributions and a yearly average of 48-52 contributions since commencing insurable employment. Lower rates (in bands) are payable to people with lower averages. Since 1994, under the averaging system, periods of working in the home were included in the calculation of average contributions, by dividing the contributions by a lower denominator (total years minus years working in the home), where this benefited the pensioner.

The pension operates on a family-based system, in which pensioners may receive an enhanced pension in respect of a financially dependent spouse. This additional pension is called the Increase for a Qualified Adult (IQA); for qualified adults aged under 66 and over 66 respectively, the IQAs are 66 % and 90 % of the personal rate.

Changes implemented in 2012 affected pensioners with lower yearly averages, by increasing the number of rate bands and adjusting the link between average contributions and pensions payable. For some of those with lower averages (mostly women), the post-2012 rules resulted in lower pensions than the pre-2012 rules would allow.[134]

The interim total contributions approach, also known as T12 and the aggregated contribution method (ACM) for 'State Pension (Contributory), was introduced for pensioners with a date of birth on or after 1 September 1946. This new method does not use a yearly average to calculate the rate of weekly pension. Instead, the rate is based on the pensioner's total number of contributions paid over their working life. If a pensioner has 2080 or more social insurance contributions (or 40 years' full-time employment) they will qualify for a maximum personal rate of contributory pension.

New 'home caring periods' were also introduced at the same time. A home caring period covers a period of time when a person was resident in Ireland and was out of the work force while they provided full-time care for a child or children under 12 years, a child over 12 years who needed an increased level of care, or an adult who needed an increased level of care. Up to 1040 home caring periods (equivalent to 20 years) may be included in the interim total contributions approach. If a person has been credited with contributions and has fewer than

[134] McCashin, A., *Continuity and Change in the Welfare State: Social security in the Republic of Ireland*, Palgrave, London, 2019, Chapter 9.

1040 home caring periods, up to 520 (equivalent to 10 years) credited contributions can be accepted. This is subject to the combined total of credits and home caring periods not exceeding 1040. If the combined total of paid contributions, home caring periods and credited contributions is less than 2080, the person qualifies for a proportionally reduced rate of pension.

Arising from this initiative, the Department of Social Protection (DSP) reviewed over 94,000 cases, resulting in over 38,000 people receiving an increased pension payment. Work began in September 2018 and, where the review resulted in an increase in the pensioner's rate of payment, the increase was backdated to 30 March 2018 or the pensioner's 66th birthday, whichever was the later.

Since April 2019, all new State Pension (Contributory) applications are assessed under all possible rate-calculation methods, including the yearly average and the interim total contributions approach (TCA), with the most beneficial rate paid to the pensioner. The means-tested SPNC is financed out of general taxation and the maximum rate is EUR 237 weekly; similar to the SPC, there are additional payments in respect of qualified adults, those aged 80+ and persons living alone. Income and the value of capital (excluding the value of the claimant's home) are assessed in the means test to estimate a claimant's weekly means. There are disregards in the means test, including the first EUR 30 of means, and up to EUR 200 of earnings from employment. In relation to the SPC, income from work does not affect either entitlement to the SPC or the rate of the SPC: recipients of the SPC may continue in employment or self-employment. Both pensions are administered by the DSP. In 2019, the total number of recipients of old-age pensions – SPC and SPNC combined – was 526,078, of which 82 % were SPC. Over 63,000 of these pensions paid individual qualified adult allowances in respect of spouses and partners – 60,486 applied to the SPC. In addition, among those aged 66 or over, a further 93,000 were recipients of a widows', widowers' and surviving civil partners' contributory pension. Therefore, overall pension recipiency in 2019 was 649,000,[135] comprising the recipients of the SPC and SPNC, recipients of the Widows', Widowers' and Surviving Civil Partners' Contributory Pension – many of whom transfer to this payment on the death of their spouse or civil partner (to receive a higher benefit) – and the IQA recipients.

A 'household benefits package' (HBP) is also available. Only one HBP is payable per household, and it comprises a free TV licence and a monthly allowance of EUR 35 to assist with gas/electricity bills. It is worth EUR 580 per annum to recipients. All persons aged over 70 are entitled to the HBP. In addition, those aged 66-70 are entitled to the HBP if they are in receipt of a state pension, subject to their spouse, civil partner or cohabitant being a qualified adult on their spouse's pension, or else in receipt of a social welfare payment in their own right; moreover, if not in receipt of a state pension, they may be entitled to the HBP, subject to a means test. The Free Travel Scheme allows recipients to travel free of charge on all public transport owned by the state, with some exceptions. Everyone aged 66 years and over, legally living permanently in the state, is entitled to the Free Travel Scheme.

[135] https://www.gov.ie/en/publication/02f594-annual-sws-statistical-information-report/

Moreover, over-66s may also be eligible for other supports and payments, such as the 'fuel allowance' and/or 'telephone support allowance'.

State pensions do not have an earnings-related component or facilities for deferred or early drawdown of pensions. Employees of working age who are unable to work due to illness and who have the requisite social insurance contributions receive 'invalidity pension' (EUR 208.50 weekly plus IQA, if applicable) until aged 66, when they transfer to the SPC.

Occupational pensions may be provided by employers, but are not mandatory in the private sector. Supplementary pension coverage, which includes occupational and personal pensions, varies considerably. For men and women aged 20-69 in employment, the overall coverage rates were 61 % and 59 %, respectively, in 2019. This measure of coverage includes occupational pensions from current and previous employment, as well as personal pension coverage where payments have been deferred or are currently being drawn down. However, the coverage rate is 50 % if the measure of coverage refers only to current employment and personal pensions in active contribution. In the context of this overall current coverage rate of 50 %, it should be noted that the rates for men and women are almost equal (50 % and 51 %, respectively) and that the overall rate in 2019 was 3 percentage points (p.p.) higher than in 2018. The long-standing sectoral and socio-occupational differences in coverage remain; the public-sector rate is 89 %, in contrast to the accommodation/food services rate of 11 %; the part-time employee rate of 25 % is less than half that of full-time workers, 57 %; elementary occupations have a coverage rate of 221 %, in contrast to senior managers and officials with a rate of 58 %. Among those with supplementary coverage (on the current coverage basis, 2019 data), 62 % have occupational pensions, 15 % have personal pensions only, and 23 % have both an occupational and a personal pension.[136]

The state provides an incentive for employers, employees and individuals in the labour force to provide private pensions by allowing tax relief at marginal rates on pension contributions and the investment growth of the fund. Pension benefits are taxed in the same way as other income, although older persons benefit from certain tax credits and exemptions and do not pay social insurance contributions on pension income.

The maximum amount of pension contributions on which an individual can obtain tax relief in any one year is based on a combination of annual earnings and an age-related percentage of those earnings: 15 % for those aged under 29, increasing in increments of 5 % per age band to 40 % for those aged 60 or over. Currently, the annual earnings cap for pension contributions for tax relief is EUR 115,000. The maximum allowable lifetime pension fund at retirement for tax purposes (the 'standard fund threshold') is EUR 2 million, and any excess above the threshold is subject to a one-time tax of 40 %. Individuals funding their retirement through pension plans are entitled to take a lump sum at retirement, with maximum lump sums dependent on the type of pension plan. For personal pensions and Personal Retirement Savings Accounts (PRSAs), the maximum allowed is 25 % of the accumulated fund, whereas members of defined benefit (DB) schemes may take up to 150 % of final remuneration, depending on length of service. In the case of defined contribution (DC) pensions, members have a choice:

[136] Central Statistics Office, *Pension coverage 2019*. https://www.cso.ie/en/releasesandpublications/ep/p-pens/pensioncoverage2019/

25 % of the fund or a length-of-service arrangement. The maximum lump sum allowable is EUR 500,000, the first EUR 200,000 of which is tax free, with the next EUR 300,000 taxed at 20 %. The tax-free maximum of EUR 200,000 is a lifetime figure, and all sums taken since 2005 are taken into account.

The distribution of tax reliefs for employees and the self-employed is concentrated on middle to higher income earners. One study estimated that nearly three quarters of tax reliefs accrue to the top two quintiles of the income distribution. This distributional pattern arises from the fact that the majority of pension contributors (71 %) pay tax at the higher marginal rate, while 42 % of all earners are in this tax bracket.[137]

A flexible drawdown option at retirement – known as the approved retirement fund (ARF) – is available to all DC pension-saving arrangements (as an alternative to annuity purchase at the decumulation phase). An ARF is a post-retirement investment plan, where an individual can retain money invested before retirement and withdraw from it regularly after retirement to provide an income.

Public service occupational pensions, which are mainly mandatory, are almost universally financed on a PAYG basis. Private-sector occupational pensions are voluntary for employees, except where they form part of the conditions of employment imposed by the employer, and are usually funded by employer and employee contributions. Third-pillar pensions are funded by the self-employed, through retirement annuity contracts (RAC) and, for individuals, through a PRSA. There is no legal obligation on an employer to set up or contribute to an occupational pension scheme, nor to contribute to a PRSA where an employee chooses to have one. However, employers that do not have a pension scheme are obliged to facilitate the administration of employees' own contributions to a PRSA.

Occupational pensions can be provided on a DB, a DC or a DB/DC hybrid basis. Personal pensions and PRSAs are invariably provided on a DC basis. Private-sector pensions are financed on a funded basis. Employer and employee contributions, and the tax relief on the contributions, are accumulated in pension funds, which are mainly managed by insurance and pension companies. The following important patterns can be identified from the administrative data on schemes and their membership, as distinct from the individual-level survey data on coverage. The first notable point relates to the proliferation of schemes and the prevalence of small schemes: for a total labour force aged 25+ of 2.129 million, there were 135,810 schemes in 2019, an overall ratio of workers to schemes of 15.7. The small size of the schemes is confirmed by the existence of 63,000 one-person schemes (and 381,430 members divided across 74,866 schemes). By contrast, the average active membership of DB schemes is 714 (500,810 members/701 schemes).[138] A second notable point is the balance of membership between DB and DC schemes: excluding the one-person schemes, the ratio of membership is 57 % for DB and 43 % for DC schemes. Third, from 2018 to 2019, the trend towards a decline in DB pensions continued, with a 1.7 % fall in the total number of schemes (from 713 to 701)

[137] Collins, M. and Hughes, G., 'Supporting pension contributions through the tax system: Outcomes, costs and examining reform', *Economic and Social Review*, Vol. 48, No 4, 2017, pp. 489-514.

[138] The implied coverage rates in these administrative data are significantly lower than the rates recorded in the Quarterly National Household Survey 'Pensions' module, and no attempt is made here to reconcile these two sets of data.

and a 2.8 % fall in the number of schemes that meet the required funding standard[139] (from 614 to 597). Conversely, there was a 3.8 % rise in the number of DC schemes and a 7.8 % growth in their active membership.[140]

In relation to pension coverage, the social insurance system is mandatory and encompasses all sectors, full-time and part-time work, and all forms of employment and self-employment. In 2018, there were over 3 million PRSI contributors, and 74 % of those were contributors to the main social insurance category (Class A), accumulating entitlements to the SPC and a full suite of benefits.[141] In addition, there were over 314,000 contributors in other PRSI categories contributing to SPC entitlements; therefore, a total of 84 % made SPC-related contributions. Non-standard workers are not categorised as such by the social insurance code, and there is no indicator in official statistics on the number of workers who have jobs in non-standard employment. An analysis by the Irish Congress of Trade Unions uses the number of temporary jobs as a measure of non-standard jobs: 7 % of the labour force in 2016. In most cases, such workers are covered for pension purposes under the PRSI system. Workers in non-standard jobs and classified as employees will be entitled to the state pension, if they have been in ‘insurable’ employment and fulfil the contribution regulations. Non-standard workers, in particular, may benefit from the system of credited contributions. Contributions are credited if a person is not in employment, but is receiving a benefit or allowance:[142] though no PRSI is payable on the income support, the person receives credited contributions, and these go toward the total number of contributions required to qualify for a pension. However, the growth of the digital economy and of increasingly complex forms of employment and self-employment may challenge the capacity of the social insurance system to recognise and include all these emerging forms of employment.

In contrast to the social insurance system, the coverage of the supplementary pension system is incomplete, as noted earlier: 50 % and 51 %, respectively, for men and women on a current coverage basis, with significant variations in rates by employment status and sector.

2 REFORM TRENDS

A range of reforms is imminent or in the process of being implemented. First, changes in the level of state pensions have, to date, been decided on a discretionary basis, by government, in the annual budget. On 28 February 2018, the government launched ‘A Roadmap for Pensions Reform 2018-2023’. This announced that, by the end of 2018, it would develop proposals to (a) set a formal benchmark of 34 % of average earnings for the SPC and (b) institute a process

[139] Defined benefit schemes (excluding certain schemes primarily in the public sector) are required to certify their funding and funding reserve every three years. Schemes that don’t meet the funding standard or funding standard reserve are required to submit a funding proposal to the Pension Authority.

[140] The number of PRSA contracts in 2019 was 298,532 – an increase of 5 % from 2018. All data in this paragraph are from *The Pensions Authority Annual Report and Accounts 2019*.

[141] The social insurance coverage data are given in Department of Employment Affairs and Social Protection, *Statistical Information on Social Welfare Services 2019*, Dublin, 2020, Table A5. Data on contributors refer to 2018. Contributors include voluntary contributors, recipients of unearned income and others not counted in the conventional labour force figures.

[142] Credits may be awarded where there is no payment being made, e.g. a spouse whose benefit has been exhausted and does not satisfy a means test may still claim credits.

whereby future changes in the rates of payment are explicitly linked to changes in prices and average wages. This proposal has not yet been implemented.

Second, the planned increase in the pensionable age to 67 in 2021 has been deferred by the current government, and a Commission on Pensions has been established to examine this question and wider issues related to the future development of the pension system.

Third, changes are planned to the method by which state pensions are calculated. The new government's programme – 'Our Shared Future' – includes a commitment to introduce a total contributions approach. This is intended to be a fairer and more transparent system, where the person's lifetime contribution will be more closely reflected in the benefit received. It is anticipated that the TCA approach will replace the yearly averaging system. Under the reformed system, the amount of pension paid will be proportionate to the number of social insurance contributions and/or credits made over a person's working life.

In September 2018, the government published a consultation document, Total Contributions Approach Consultation 2 (TCAC). This document noted that the version of interim TCA implemented in 2018 differed in some respects from the original TCA proposals in the National Pensions Framework (NPF) document of 2010. For example, in respect of the total number of contributions required, the NPF proposed 30 years, whereas the 2018 interim TCA provisions stipulated 40, and the NPF and 2018 variants of interim TCA differed also in respect of the treatment of home-care work. The TCA consultation document presented 16 detailed 'pen pictures' of various hypothetical pensioners, and showed how these would be treated under the 'old' averaging system, the NPF proposals and the 2018 variant of TCA. One clear pattern in the 'pen pictures' is that the 2018 variant of TCA confers stronger entitlements on those with long periods of home care than either the old averaging system or the NPF proposals. At the time of writing, the 2018 interim TCA version applies, but the new permanent system of TCA rules has not yet been finalised. It should also be noted that the new government has announced its intention to introduce a facility for retirees to defer receipt of the pension on an annual basis, with corresponding actuarial adjustments to the pension.

Fourth, in relation to public-sector pensions an additional superannuation contribution (ASC) was implemented in January 2019; this entails a contribution based on a percentage of pensionable remuneration of pensionable public servants whose pay exceeds certain minimum levels. Replacing the emergency-conditions pension-related deduction (PRD), this significant reform was originally brokered as part of the mid-2017 'public service stability agreement' between the government and the public service trade unions. When implemented at the permanent contribution rates from the beginning of 2020, ASC will provide some EUR 550 million annually towards the sustainable financing of public service pensions (in addition to the existing mainstream occupational pension contributions of public servants).

The government has approved an increase in the compulsory retirement age to 70 for those public servants whose compulsory retirement age is currently 65. There has been no change to the minimum pension age at which public servants can retire.

Finally, the 2020 programme for government contains a commitment to introduce a pension auto-enrolment system. The objective of this commitment is to address the low proportion of employees in Ireland with supplementary pension cover. Implementation of the new system will be based on the following principles: a phased roll-out of contributions, matching contributions by employers, a top-up by the state, a range of retirement savings products for participants to choose from, and an opt-out facility. Policy development and planning are continuing in relation to five specific issues: the role and scope of the Central Processing Authority that will collect contributions; the functions and role of registered providers; the investment framework and funds to be offered by the registered providers; the phasing-in and implementation of the scheme; and the nature and scale of the state's financial incentive.

In relation to the critical issue of the state's financial incentive, the recently published report by the Interdepartmental Pensions Reform and Taxation Group noted that automatic enrolment (AE) has the potential to address the supplementary pension coverage gap. However, the report concluded that designing financial incentives for such a system is complex, given the nature of the current system of tax relief for pension contributions. To address these complexities, the Automatic Enrolment Programme Board, which provides the overall strategic direction for the AE project, is to develop proposals for government on an appropriate incentive structure for AE that will primarily target lower earners.[143]

3 ASSESSMENT OF ADEQUACY

3.1 Current adequacy

In 2018, the poverty threshold in Ireland (60 % of median equivalised income) was EUR 264 weekly, and the core, personal rate of the state pension was EUR 243.30 (EUR 248.30 from March 2019). Some pensioners also receive additional payments if they were aged 80+, living alone and receiving the HBP. If these benefits are added to the SPC, the incomes of those wholly reliant on the SPC come close to the poverty line. However, the value of the SPNC (EUR 232 weekly in 2018 and EUR 237 weekly from March 2019), is lower than the poverty line.[144] A substantial proportion of the incomes of lower-income pensioners is derived from state pensions – 86 % in the case of the lowest income quintile – and the level of state pensions relative to the poverty line is therefore an important influence on indicators of adequacy.[145]

The data on which this discussion of adequacy is based are given in Section 5 'Background statistics'. A key indicator of pension adequacy in the data is the at-risk-of-poverty rate (AROP). The data show that the AROP rate (at the 60 % of median income threshold) for those aged 65+ was 18.1 % in 2019, showing a decrease of 3 p.p. from 2008, but an increase on the figure of 16 % for 2016, recorded in the previous Pensions Adequacy Report.[146]

Looking at the most recent period, we see that the national poverty threshold in Ireland rose by 7.4 % from 2016 to 2019,[147] reflecting the post-recovery growth in incomes generally. If we

[143] https://www.gov.ie/en/publication/98d7f-report-of-the-interdepartmental-pensions-reform-and-taxation-group/, p. 84.
[144] Recipients of the SPNC are also eligible to apply for the HBP, Living Alone, 80 years payment and fuel allowance.
[145] The national poverty line data are from Central Statistics Office, *EU-SILC 2018*, Dublin, 2019, Table 1.1, and the income quintile data are in McCashin, A., *Continuity and Change in the Welfare State: Social security in the Republic of Ireland*, Palgrave, London, 2019, p. 211, Table 9.3.
[146] The 2016 figures are in the previous PAR report for Ireland: European Commission, *Pension Adequacy Report 2018*, Vol. 2, *Country Profiles – Ireland*, Publications Office of the European Union, Luxembourg, 2018, pp. 65-74.
[147] Eurostat, EU-SILC (tessi014).

bring national-level data and information into the picture, we notice that pension rates also increased: the SPNC and SPC increased by 4.5 % and 4.3 %, respectively, from 2016 to 2018; although these increases are less than for incomes overall, they confer real increases in the value of state pensions, as the consumer price index rose by 1.2 %. Moreover, pension provisions continued to evolve during the period; those turning 65 were not entitled to a pension until aged 66, and changes were made to the system of rate bands and contribution rules. Equally, offsetting adjustments were made to moderate the impact of these changes: retirees awaiting the pensionable age of 66 were made eligible for 'jobseeker's benefit'; under the interim TCA, 98,000 pensions were reviewed in 2018 and (backdated) increases awarded to 38,000 pensioners affected by the changes.

The AROP figure should also be viewed alongside the other financial indicators given in the Statistical Annex. First, at the higher threshold of 70 %, the AROP for 2019 is significantly greater at 33.5 %, indicating the clustering of pensioners at modest levels of income. Second, the AROP rate (60 % threshold) is noticeably higher for women than men: the rate for men is 14.6 % and for women 21.2 %. Third, the relative poverty gap indicator of 6 % shows that the gap between poor pensioners' incomes and the (60 %) poverty line is small and well below EU[148] standards. Finally, the S80/S20 share ratio for income distribution indicates a slightly lower level of income dispersion among the over-65s than the under-65s, and a largely stable degree of dispersion over time: the 2019 figure shows a decline of 0.02 from the 2008 figure. Those figures indicate that the first pillar is effective in protecting against poverty, but it is not designed to be a complete income replacement pension.

In relation to pensions, the aggregate replacement rate (ARR) for 2019 is 38 %, a very marginal decline on the figure for 2008. To place pensioners' incomes in the context of the incomes of the population aged 64 and under, the ARR should be considered alongside the relative median income ratio: this figure was 85 % in 2019, with a higher figure for men (88 %) than for women (83 %). Overall, the data suggest some moderation over time in gender differences. From 2010, the gender gap in pension income (for 65-79-year-olds) fell by 8.9 p.p. to 27.3 % in 2019, and the gap in the non-coverage rate fell by 10.4 p.p.

The non-income indicators for Ireland in the annex have very low values and record declines over time. The 2019 figure for the material and social deprivation rate among those aged 65+ was 6.6 %, a decline of 1.7 p.p. on the 2008 figure: the severe material deprivation (SMD) rate is 1.9 and the housing cost overburden rate 1.5. The low SMD rates are reflected in the at-risk-of-poverty-or-social-exclusion (AROPE) indicators: these are only marginally higher than the AROP figures. For example, the respective figures for the 75+ age group for AROP and AROPE in 2019 were 20.9 % and 21.8 %.

In comparison with the EU, two contrasting patterns emerge in the data. First, on the income and pension variables Ireland's figures are less favourable than the overall EU figures. The AROP rates for Ireland and the EU in 2019 were 18.1 % and 16.1 %, respectively, for those aged 65+. This outcome can be understood if the pension and income indicators are observed. Ireland's indicators are significantly lower: the ARRs, which uses income of workers in the

[148] EU and EU-27 refer to the current 27 Member States of the European Union.

calculation, are 38 % (Ireland) and 57 % (EU). Likewise, the relative median income ratio for Ireland, 85 %, is lower than the EU figure of 90 %. In respect of some gender-related indicators, Ireland records more favourable values: the gender gap in pension income (65-79) in 2019, 27.3 %, was lower than the EU figure of 29.5 %, and the figure for the change since 2010 was more favourable for Ireland (-8.9 percentage points) than for the EU (-5.8 percentage points). Furthermore, the decline in the gender gap in the non-coverage rate for 65-79-year-olds was also greater for Ireland than the EU overall.

The median AROP rate in 2019 (for 65+, at the 60 % threshold), when individual countries are ranked is 15.7 % and applies to Belgium. Ireland's rate is 2.4 percentage points higher. Ireland's AROP figure – which indicates the *extent* of poverty – is comparatively high, but the figure for the *depth* of poverty, the relative poverty gap, is comparatively low. The poverty gap for Ireland is 6 %, a third of the (weighted) average for the EU (17.4 %). The relatively high AROP figure for Ireland can be viewed alongside the indicators of pension expenditure. Ireland's figure for pension expenditure/GDP is 4.7 %, the lowest of the EU 27, and reflects the low ARR, though it is noted that GDP is not an ideal denominator for Ireland, and the share of the population above 65 also plays an important role – in Ireland this is lower than in other EU countries.

It should be noted that the pensions provided under the Irish social welfare system are intended to provide an adequate basic standard of living. They comprise flat-rate payments with eligibility based on achieving a certain level of social insurance contributions over a person's working life (SPC) or through satisfying a means test (SPNC). In Ireland, the SPC is a flat-rate pension not directly related to a person's earnings from employment. State pensions do not have an earnings-related component or facilities for deferred or early drawdown of pensions. In many other EU Member States, the first-pillar pension is related to earnings. Basic schemes, like the Irish state pension, pay either flat-rate benefits (the same amount to every retiree) or their value depends on years of work, but not on past earnings.

Second, Ireland's record on some of the income and pension indicators is counterbalanced by consistently good figures on other indicators. In 2019, all of these indicators were in very low single digits: housing cost overburden rate 65+ (1.5 %); severe material deprivation 65+ (1.9 %); severe material deprivation 75+ (2 %); self-reported unmet need for medical exam 65+ (2.5 %). Also, these indicators declined over the period 2008-2019. While the data also shows low values for these indicators for the EU as a whole – for example, 9.8 % for the housing cost indicator for those aged 65 and over – Ireland's figures are lower than the EU average.

Long-term care (LTC) provisions are also relevant. There are two key features of LTC that should be noted. First, there is no link between social insurance contributions or pensionable employment and entitlement to LTC. Under the terms of the Nursing Homes Support Scheme Act 2009 those requiring long-term, residential nursing-home care may apply for the 'Fair Deal Scheme'. Subject to a care needs assessment, older persons will be offered LTC. Care recipients will contribute a maximum of 80 % of their income to the cost of the care, and all forms of income are assessed, state and all pension income included. The balance of the cost is met by the health authorities. In addition, 7.5 % of a person's assets are assigned to the LTC provider; where the assets include a person's home, the cost can be deferred until after a person's death and recouped from their estate. This framework applies to providers in all sectors; public, voluntary/non-profit and private/for-profit. The basic point is that older persons with no income other than the SPC or the SPNC will exchange 80 % of this income for residential LTC.

Second, the social welfare system (through the Social Welfare Consolidation Act 2005) underpins care to older (or dependent) people in their own homes by paying either a 'carer's allowance' (means-tested) or 'carer's benefit' (based on social insurance contributions) to a family member who provides the full-time care. The means test applicable to the 'carer's allowance' and the contribution requirements for the 'carer's benefit' relate to the carer, the person providing the care. As there were almost 88,000 recipients of these payments in 2019 (of whom 84,000 received the means-tested allowance), they are an important element of the overall LTC system.[149] The majority of recipients of 'carer's allowance' are women (77 %), and 29 % of 'carer's allowance' recipients are aged over 60. One other aspect of these provisions is that recipients of social welfare benefits such as the SPC or SPNC or invalidity pension may, in addition, receive a partial carer's payment (half-rate carer's payment) if they are providing full-time care.

3.2 Future adequacy

The theoretical replacement rates (TRRs) for Ireland project that a male average earner retiring in 2059 at age 65 and after a 40-year career would see increased living standards (the net TRR would increase by 8.6 percentage points to 66.5 in 2059). Comparing TRRs for high and low earners shows that the theoretical replacement rates will increase for both groups, but low earners have higher replacement rates. For average earners, a 3-year break in employment due to unemployment or childcare provision does not affect the long-term TRR relative to no breaks in a longer career of 40 years to state pension age. On the other hand, the TRRs will reduce for those with a 20-year career by 15.6 p.p.

3.3 Challenges for future adequacy

The most recent actuarial review of social insurance estimated that the share of persons of pensionable age (for the SPC) will increase from 12 % of the total population in 2015 to 17 % in 2035 and 23 % in 2055. The pensioner support ratio (ratio of workers to pensioners) is projected to fall to 3.4 in 2035 and 2.3 in 2055.[150] These latter figures show that the planned future increases in the statutory pensionable age (now subject to reconsideration by the current government and the Commission on Pensions) would represent a significant response to demographic ageing and would improve the demographic balance of the state pension system.

The important challenge now is to achieve policy balance: to complement the policy of pension age increases with policies to manage the impact of a further increase in the pensionable age of some older workers on lower incomes. The evidence is that high proportions of them do not

[149] Department of Employment Affairs and Social Protection, *Statistical Information on Social Welfare Services 2019*, Dublin, 2020.
[150] KPMG, *Actuarial Review of the Social Insurance Fund 31 December 2015*, KPMG, Dublin, 2017, p. 58, Table 6.2.

have a supplementary pension, and if obliged to retire (on health or contractual grounds) they may be reliant on the (proposed) retirement allowance, which is planned to be at the same level as 'jobseeker's benefit' (lower than SPC). Measures will be required to ensure that such workers have adequate income – for example, by facilitating older workers to remain in work and other initiatives.[151]

A second challenge is to ensure that the new TCA approach to the contribution–benefit link does not disadvantage individuals distanced from the mainstream labour force. This could emerge as a significant problem if there is a growth in those forms of employment that are difficult to include in social insurance: for example, peripheral self-employment or informal work in the digital economy, though credited contributions will mitigate some of this risk. Third, the imminent introduction of AE will increase the coverage of second-tier pensions.[152] However, as AE is DC, there is more potential variance in pension levels, compared to a DB alternative – especially at the individual level, but also to some extent at the overall level. Finally, AE is employment based. Therefore, it may not be practically possible to eliminate differences in coverage and adequacy arising from fundamental differences in employment history and status. For example, periods of non-employment due to caring responsibilities, unemployment, illness and migration will all affect the duration and capacity of workers' contributions to their pension scheme, though credited contributions and the pension-specific home caring periods, which allow for a type of credited contribution where no income support was received and absences from the labour market were due to caring responsibilities, will mitigate some of this risk. The means-tested SPNC will still also be available to low-income people with insufficient employment records to qualify for SPC.

3.4 Solidarity mechanisms

The aspects of the pension system that affect solidarity and redistribution are complex and subject to varied patterns of change over time. Reforms to public-sector pensions – for example, the additional superannuation contributions imposed and the switch to average career earnings from final salary – have reduced their superiority relative to the pensions of most private-sector workers' pensions and will represent a wider pooling of risks and contributions among employees. The planned introduction of AE has the potential to improve adequacy for those enrolled. If take-up is high (and opt-out is low) it will become a quasi-mandatory second-tier pension and provide many private-sector employees (currently not in a scheme) with pensions, funded partly by employers and the state. The redistributive impact of the AE scheme will depend, in part, on the nature of the state's financial incentive, which has not yet been decided. If an equitable form of state support for AE contributions was implemented, it would

[151] There is a wide range of possible measures: allowing workers with an illness to receive an SPC at 65; developing specific activation programmes for older workers; encouraging both employers and employees to revise the contracted age of retirement by agreement. The Irish Human Rights and Equality Commission has developed guidance for employers and employees using fixed-term contracts beyond the retirement age, and the Workplace Relations Commission has a code of practice on a longer working life.

[152] An empirical analysis of the economic impact of AE based on specific scenarios is given in Bercholz, M., Bergin, A., Callan, T., Rodriguez, A. G., and Keane, C., 'A micro-macro economic analysis of pension auto-enrolment options', *ESRI Working Paper* 640, 2019.

avoid the introduction into AE of the regressive state support through relief at marginal tax rates which currently underpins private and occupational pensions.

A number of issues arise in relation to social insurance and the state pension. First, the self-employed and employees receive the same state pension. The self-employed pay less PRSI than the total contributions for employees, and so their state pension is better value for money. Therefore, the terms on which employees and the self-employed contribute to and receive state pensions do not fully implement the principle of solidarity.

Second, it is anticipated that the TCA regime will replace the anomalous yearly-averaging system with a more explicit link between benefits and contributions. As presently envisaged, the TCA formula will allow for significant periods of home-based care and other forms of credited contribution. Over time, because of the sustainability challenges, there may be pressure to tighten the link between paid contributions and pension entitlements. Within the context of a social insurance system, such a policy would have a strong rationale. However, this would weaken the mechanisms of solidarity within the state pensions system as a whole and might require compensating policy changes.

Third, the PRSI contribution is a flat percentage of earnings with a tapered reduction in contributions at low earnings levels; the pension paid, however, is a flat-rate pension with no income replacement element. Therefore, for employees on the lowest earnings, the current contribution–benefit system confers more generous replacement rates than for those on higher earnings. This is one indirect but distinctive expression of redistribution in the SPC.

Finally, gender differences in coverage and pension income have been in decline. This is the outcome of an accumulation of social trends and policy changes. The eventual rise in female employment participation in the 1990s drew more women into the social insurance system as direct contributors, generating pension rights in later decades. Likewise, the application of credits for home-based care from 1994 onwards enhanced women's social insurance records, and the inclusion of low-paid and part-time workers in social insurance increased women's participation in social insurance.

4 OPPORTUNITIES TO ADDRESS CHALLENGES

The relatively low employers' and employees' contributions limit the financial base of social insurance. There are two reasons why policy makers could consider increased contribution rates. First, in addressing sustainability, enhanced contribution income could be an alternative policy to – or could complement – successive increases in the pension age. Second, it could contribute to higher income replacement in old age.

Finally, tax expenditure on pension contributions is not only regressive, but also costly: approximately 2 % of GNP and 5 % of total tax revenue. Accordingly, policy makers could view a potential reform of pension tax expenditure as a means of addressing equity, adequacy and sustainability challenges, building inter alia on the ongoing work of the Interdepartmental Pensions Reform and Taxation Group.

5 BACKGROUND STATISTICS

5.1. Relative income	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
Relative median income ratio (65+)	0.85	0.88	0.83	0.11	0.13	0.1
Income quintile share ratio (S80/S20), 65+	3.8	4.01	3.51	0.02	-0.11	0.01
Relative income quintile share ratio (S80/S20), 65+ - 0-64	-0.25	0.04	-0.59			
Aggregate Replacement Ratio (ARR) %	38	38	41	-11	-8	-14
5.2. Poverty and material deprivation	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
At-risk-of-poverty or social exclusion (AROPE), 65+ (%)	19.4	15.5	22.8	-3.1	-3.1	-2.9
At-risk-of-poverty rate (AROP), 65+ (%)	18.1	14.6	21.2	-3	-3.1	-2.5
Severe material deprivation (SMD), 65+ (%)	1.9	1.5	2.3	-0.3	-0.3	-0.3
At-risk-of-poverty or social exclusion (AROPE), 75+ (%)	21.8	13.3	28.5	-2.9	-3.9	-1
At-risk-of-poverty rate (AROP), 75+ (%)	20.9	13.1	26.8	-2.7	-3.4	-1.4
Severe material deprivation (SMD), 75+ (%)	2	1.1	2.7	0.2	-0.2	0.5
Relative median at-risk-of-poverty gap, 65+ (%)	6	6.5	5.5	-1.6	-4.2	-0.6
At-risk-of-poverty rate (AROP), 65+: 50 % threshold (%)	3.1	2.6	3.5	-3.1	-4.3	-2.1
At-risk-of-poverty rate (AROP), 65+: 70 % threshold (%)	33.5	29.8	36.7	-5.1	-3.8	-6
Material and social deprivation, age 65+ (1)	6.6	6.1	7.1	-1.7	-1.4	-2
5.3. Gender difference	2019			Change 2008-2019		
Gender gap in pension income (65-79) (%) (2)			27.3			-8.9
Gender gap in non-coverage rate (W-M in p.p.) (65-79)			6.3			-10.4
5.4. Housing and health situation	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
Housing cost overburden rate, 65+ (%)	1.5	2.1	1	-0.5	0.1	-1.1
Self-reported unmet need for medical exam 65+ (%)	2.5	2.8	2.2	-0.3	0.2	-0.7
Healthy life years at age 65 (years)	13.6	13.1	14.1	3.8	3.8	3.8
Life expectancy at age 65	20.4	19.1	21.6	1.8	2.3	1.3
5.5 Sustainability and context	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
Employment rate, age group 55-64 (%)	61.8	69.9	53.9	8	3.8	12.7
Pension expenditure as % of GDP (ESSPROS) (3)			4.7			-1.3
Retirement duration from first pension (years) (4)	19.7	18.4	20.9	0.6	0.6	0.6
Retirement duration from end employment (years)	20.4	18.6	22.1			
Eurostat and AWG projections	2019			2059		
Old-age dependency ratio (20-64) (%)	24.0	22.8	25.1	49.7	46.3	52.9
Economic old-age dependency ratio (20-64) (%) (5)	28.2	23.3	34.0	59.4		
Gross public pensions as % of GDP (5)	4.6			7.5		
Benefit ratio (%) (5)	36.1			32.2		
Coverage ratio (% of pop aged 65+) (5)	141.8			121.9		
Gross pension ratio high / low earner		1.3	1.3		1.4	1.4

(1) change since 2014, not 2008
(2) data refer to 2010, not 2008
(3) ESPROSS data refer to 2018
(4) Change is since 2016, not 2010
(5) 2060 instead of 2059

5.6 Theoretical Replacement Rates

	Net (%)				Gross (%)			
	2019		2059		2019		2059	
	Men	Women	Men	Women	Men	Women	Men	Women
Average earning (100%)								
Base case: 40 years up to the SPA	57.9	55.8	66.5	66.5	44.5	42.4	55.1	55.1
Increased SPA: from age 25 to SPA	59.4	57.1	68.0	68.0	45.9	43.6	57.0	57.0
AWG career length case	65.8	59.9	33.1	32.1	52.1	46.4	24.5	23.9
Old base case: 40 years up to age 65	57.2	55.2	27.5	27.5	43.9	42.0	20.4	20.4
Longer career: 42 years to SPA			67.5	67.5			56.4	56.4
Shorter career: 38 years to SPA			65.6	65.6			53.8	53.8
Deferred exit: 42 years to SPA +2			68.8	68.8			58.1	58.1
Earlier exit: 38 years to SPA -2			26.7	26.7			19.8	19.8
Career break – unemployment: 3 years	56.5	55.8	65.4	65.4	43.1	42.4	53.5	53.5
Career break due to child care: 3 years	55.5	55.8	65.6	65.6	42.1	42.4	53.8	53.8
Career break care to family dependant: 3 years	57.1	55.8	65.1	65.1	43.7	42.4	53.2	53.2
Short career (20 year career)	45.8	44.2	49.9	49.9	33.9	32.6	37.2	37.2
Work 35 y, disabled 5 years prior to SPA			64.3	64.3			52.0	52.0
Early entry in the LM: from age 20 to SPA			70.4	70.4			60.2	60.2
Index: 10 years after retirement @ SPA			64.2	64.2			51.9	51.9
Extended part-time period for childcare			65.6	65.6			53.8	53.8
Survivor – full career		56.0		67.7		42.4		56.5
Survivor – short career		55.9		63.1		39.5		45.7
Survivor ratio 1*		0.50		0.50		0.50		0.50
Survivor ratio 2*		0.46		0.46		0.46		0.44
Low earnings (66%)								
Base case: 40 years up to the SPA	69.9	68.0	83.6	83.6	58.5	56.5	71.9	71.9
AWG career length case	77.1	71.8	30.0	29.1	66.2	60.5	24.5	23.9
Old base case: 40 years up to age 65	80.9	77.9	24.9	24.9	68.2	65.0	20.4	20.4
Career break – unemployment: 3 years	68.8	68.0	82.5	82.5	57.2	56.5	70.3	70.3
Career break due to child care: 3 years	67.6	68.0	82.7	82.7	56.2	56.5	70.6	70.6
Short career (20 year career)	55.4	54.0	62.0	62.0	46.0	44.7	50.9	50.9
Early entry in the LM: from age 20 to SPA			86.6	86.6			76.3	76.3
High earnings (100->200%)								
Base case: 40 years up to the SPA	38.9	37.2	45.5	45.5	25.5	24.1	32.9	32.9

**Survivor ratio 1: man base case, woman base case*

**Survivor ratio 2: man base case, woman short career case*

GREECE

Highlights

- Pensions in Greece appear to become gradually more adequate, given that most of the pension adequacy indicators improved over the period 2008-2019.
- The recent reform of Law 4670/2020 (February 2020) aims at establishing a closer link between paid contributions and benefits, as well as at addressing those aspects of the 2016 pension reform that were declared unconstitutional by the Council of State.
- Future pension adequacy in Greece is ensured, in the long run, through the application of a relatively high future gross pension replacement rate for low earners. Yet, the future adequacy of pensions, in the short run, is likely to be negatively affected, given the abolition of the 'thirteenth monthly pension' and, in some cases, the reduction in the national pension by 2.5 % for each year below the 40 years of permanent residence required.
- Efforts should be concentrated on addressing specific pension-related challenges, such as: high unemployment, the lack of special arrangements for the increasing rates of non-standard employment, the large gender pay gap during working life, undeclared work and contributions evasion.

1 GENERAL DESCRIPTION OF THE NATIONAL PENSION SYSTEM

Pensions in Greece have been based, since 1 January 2017 (Law 4387/2016),[153] on a unified multi-tier (public) statutory pension scheme, which consists of four parts: first, a 'national' (quasi-universal) non-contributory pension (financed out of the state budget); second, a compulsory contributory (primary) pension which operates under a defined-benefit pay-as-you-go (PAYG) scheme (unfunded scheme); third, a contributory auxiliary (secondary) pension based on a completely notional defined-contribution (NDC) scheme; and, fourth, lump-sum retirement benefits which are contributory, being provided under an NDC scheme. Additionally, the social solidarity scheme provides the 'social solidarity allowance for uninsured elders', granted to uninsured persons over 67 years of age who are not covered by a pension scheme, given the fulfilment of certain conditions.

The benefits under the statutory pension scheme are provided by a single social insurance institution, namely the Digital National Social Security Fund (e-EFKA). e-EFKA is the result of the integration of the Unified Agency for Auxiliary Social Insurance and Lump-sum Benefits (ETEAEP) into the Unified Social Security Fund (EFKA).[154]

[153] Law 4387/2016 was adopted on 13 May 2016 and its most crucial provisions entered into force on 1 January 2017.
[154] Auxiliary (secondary) pensions and lump sums were provided by ETEAEP until March 2020.

e-EFKA provides: (a) all national and contributory (primary) pensions; (b) auxiliary (secondary) pensions to all retired persons (freelancers are optionally covered by ancillary insurance – except in certain categories, when it is compulsory); and c) lump-sum retirement benefits to certain categories of salaried employees (i.e. civil servants and certain white- and blue-collar employees in the private sector – sailors, employees in banking and the wholesale/retail trade and manufacturing sectors) and the self-employed professions. Moreover, from 1 January 2021 – under the provisions of Law 4670/2020 – self-employed doctors and farmers, plus those who are exempt from mandatory inclusion in the auxiliary insurance scheme, have the opportunity to take out optional insurance. This law also provides the possibility from 1 January 2021 of optional lump-sum insurance for those who are exempt from mandatory insurance. There are also four mandatory equity funds in operation, which provide monthly dividends exclusively to retired public-sector employees.[155]

The public statutory pension scheme covers all retired persons in Greece. According to the latest available data (September 2020), it covers 2.486 million pensioners (IDIKA, 2020), while the total number of actively insured persons (that is, employees in both the private and public sectors and all the self-employed) was estimated at 3.825 million in 2019, or 56.4 % of the working-age population (aged 15-64). The public statutory pension scheme also provides 1.241 million auxiliary pensions to 1.184 million persons (or 47.6 % of the total number of pensioners) (September 2020), while it covered 2.56 million actively insured persons in 2019 (latest available data), representing 37.8 % of the working-age population (aged 15-64). As regards the (statutory) equity funds, dividends are paid every month to 406,590 beneficiaries (September 2020), while contributions to these funds are paid by approximately 545,000 public-sector employees.

The latest available data (IDIKA, 2020) reveal that the average monthly gross income from pensions (including auxiliary pensions) in Greece was EUR 921.06 in September 2020. With regard to the main (contributory) pensions, 41.8 % of them amount to less than EUR 500 gross per month; for the auxiliary pensions, 68.9 % of them amount to less than EUR 200 gross per month. It should be pointed out, however, that until 2016 pension benefits were based on higher accrual rates.[156] Current accrual rates are lower, varying from 0.77 % to 2.55 % (depending on the number of years of contributions) for the main (contributory) pensions, while the accrual rates for the auxiliary pensions are calculated annually according to the methodology of NDC schemes.[157]

Apart from the statutory pension scheme, the Greek pension system also includes a few supplementary (voluntary) pension schemes, which take the form of occupational pension funds and private pension plans. The pension benefits that they provide are supplementary to the benefits of the statutory pension scheme and they are defined contribution (DC) in nature (funded schemes). At present, there are 21[158] occupational pension funds that provide benefits in kind and in cash – paid in monthly annuities (pensions) or as a lump sum. As to personal

[155] Moreover, there are four mandatory supplementary pension schemes, whose members are excluded from e-EFKA (former ETEAEP) auxiliary pensions (oil-sector employees, food retail industry, pharmaceutical industry and private insurance company employees).
[156] Until April 2016, the accrual rates varied between 2 % and 3 %.
[157] Until December 2014, the annual replacement rates for the auxiliary pensions were set at 0.45 %.
[158] See: https://eletea.com.gr/statistika/

pension plans, these are the least developed and operate through individual pension accounts. Overall, these supplementary pension schemes make up an insignificant part of the whole pension system, given that they provide less than 1 % of the total number of pension benefits in Greece,[159] while the coverage rate of occupational pension funds is estimated to be less than 5 % of the working-age population (aged 15-64).[160]

Since 1 January 2013 (Law 4093/2012), the statutory pensionable age has increased from 65 years to 67 years. As a general rule, this applies to all, with a few early-retirement exceptions.[161] These exceptions affect, in particular: the mothers and widowed fathers of children with disabilities who are unable to undertake any work (for them the statutory pensionable age is set at 55, or 50 for a reduced national pension, with at least 20 years of contributions); and persons engaged in arduous work (for whom the statutory pensionable age is set at 62, with at least 15 years of contributions, 12 of which should be in arduous work).[162] However, for those with a contributory period of 40 years, the pensionable age is set at 62 years, instead of 67. It should be noted that auxiliary pensions are based on the same qualifying criteria (pensionable age and contributory period) as apply to the main (national and contributory) pensions. As to the early pensionable age, this is set at 62 years, with at least 15 years of contributions.[163] However, the pension system foresees that, for those who retire from 2017 onwards, aged between 62 and 67 and with less than 40 years of contributions, the amount of the national pension is to be reduced by 6 % for each year up to the age of 67. In addition, the amount of the national pension of all insured persons (natives and foreigners) is to be reduced by 2 % for every year that falls short of 20 years of insurance, with a minimum of 15 years, and with a 2.5 % penalty for each year below the 40 years of permanent residence required. As regards effective pensionable age, for 2018 this was estimated at 61.7 years for men and 60 years for women (OECD, 2019). There is no minimum age or minimum contribution period requirement for the lump-sum element of e-EFKA. The qualifying retirement conditions for the main (contributory) old-age pension, under Law 4336/2015, have been gradually following a process of unification for all types of employees and all self-employed (i.e. freelancers, farmers and the liberal professions). Moreover, it should be noted that there are still serious difficulties for non-standard workers in terms of the fulfilment of the qualifying retirement conditions, which relate mainly to the short duration of their contribution periods.

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159 Symeonidis, G., 'The Greek pension reform strategy 2010-2016', *World Bank Social Protection & Labor Discussion Paper* No 1601, Washington, DC, 2016.

160 OECD, *Pensions at a Glance 2019: OECD and G20 indicators*, OECD Publishing, Paris, 2019.

161 Until August 2015, early retirement exceptions also affected mothers of minors and specific categories of civil servants. These were abolished by Law 4336/2015.

162 There are special favourable pension rules for workers in arduous and hazardous jobs (WAHJ), which relate to a lower pensionable age, higher pensionable salaries and higher replacement rates. In particular, the statutory pensionable age is set at 62 years, which is 5 years earlier than the respective age of other workers. It requires 35 years of contributions, with at least 25 years of arduous work for a full pension entitlement, or 15 years of contributions with at least 12 years of arduous work for a reduced pension entitlement. Moreover, an additional annual replacement rate of 0.27 % is foreseen for each year of contributions paid as WAHJ, on condition that retirement is not taken before the general statutory pensionable age (67).

163 The pension system offers the possibility of taking into account 'notional years of insurance' (credits for non-contributory periods) in order to establish entitlement to a pension. In particular, the pension system provides that certain non-contributory periods (up to 7 years), such as maternity leave, sickness leave, study leave and 1 year of receiving unemployment benefit, are counted as contributory periods. Moreover, persons with at least 12 years of contributions may purchase non-contributory periods (up to 7 years) in order either to establish entitlement to a pension or to improve the level of their pension benefit.

Disability pensions are provided in the case of loss of capacity to work (or reduced capacity). The amount of the national pension depends on the years of insurance (the national pension is reduced by 2 % for every year that falls short of 20 years, with a minimum of 15 years) and on invalidity level (100 % of the previous amount is granted to pensioners with severe disability – i.e. more than 80 % disability; 75 % to pensioners with ordinary disability – 67-79.9 %; 50 % to pensioners with partial disability – 50-66.9 %; and 40 % to pensioners with less than 49.9 % disability. The invalidity level is evaluated by the Disability Certification Centres (KEPA) or the Supreme Army Health Committee (ASYE). According to the HELIOS official database (IDIKA, 2020), 234,719 disability main pensions were provided to 201,998 persons in September 2020, representing 8.1 % of all pensioners.

2 REFORM TRENDS

The most significant changes aimed at ensuring the financial sustainability of the system were introduced in 2010 by two pension reform laws (Law 3863/2010 and Law 3865/2010) and in 2016 by the pension reform Law 4387/2016, which, among other things, changed the structure of the pension system in Greece.[164] Almost all the provisions of the 2016 pension reform have now been implemented.[165]

Nevertheless, it should be pointed out that a number of legal provisions were adopted in the period 2017-2019 that brought about certain changes to some of the provisions of the 2016 pension reform. These concerned mainly: (a) the abolition, under Law 4583/2018, of the reduction in pension benefits (both main and auxiliary pension) through the elimination of the 'personal difference' of up to 18 % for those who had been granted pensions prior to implementation of the new pension rules under the 2016 pension reform;[166] (b) the adoption of Law 4578/2018, which, as of January 2019, provided for a reduction in the self-employed social insurance contributions for pensions (i.e. from 20 % to 13.33 %); (c) the rules for survivor pensions;[167] and (d) the introduction of a permanent extra pension benefit as a kind of 'thirteenth monthly pension'.[168]

However, in October 2019, certain aspects of the 2016 pension reform were declared unconstitutional by the Council of State. Given this, one of the main social policy priorities of

[164] For more information see European Commission, *Pension Adequacy Report 2018*, Vol. 2, *Country Profiles – Greece*, Publications Office of the European Union, Luxembourg, 2018, pp. 75-84.

[165] It should be noted that there are two provisions which are considered rather important and which have not as yet been put into force. These concern: (a) the Social Insurance Regulation of the Unified Social Security Fund (EFKA) and (b) the disability pension regulation of EFKA. These were expected to be completed and put into force by the end of 2018, but they are still pending. Law 4670/2020 foresees that the Unified Regulation of e-EFKA shall be developed and put into force within 2 years (namely February 2022).

[166] According to the provisions of Law 4472/2017, a reduction of up to 18 % for each pension in payment (contributory and auxiliary) was expected to be put into effect from January 2019. This reduction concerned the elimination of the 'personal difference', which is defined as the difference (positive or negative) between the total current pension amount (as calculated according to the rules prior to the 2016 pension reform) and the total new 'recalibrated' pension amount (calculated on the basis of the new rules).

[167] Law 4611/2019 provided for an increase in the amount of the surviving spouse pension from 50 % to 70 % of the amount of the deceased spouse's pension; the elimination of the limitation imposed on the duration of the survivor pension for those of active age (previously 3 years for those below 55) and who can now receive a survivor pension of 50 %, even if employed; and a reduction in the number of years of marriage required to be entitled to a survivor pension (from 5 years to 3 years).

[168] This 'thirteenth monthly pension' was to be paid once a year at a level of 30-100 % of current pensions (the highest percentage applying to pensions below EUR 500 per month and the lowest to pensions above EUR 1000 per month).

the newly elected government in Greece (July 2019) has been reform of the social insurance system.[169] To this end, Law 4670/2020 was adopted by the Greek parliament on 27 February 2020, with most of the provisions having retroactive effect. The rationale behind this new reform was: (a) to improve the efficiency of the system by creating a unified digital organisation; and (b) to comply with the Council of State decisions concerning the unconstitutional aspects of the 2016 pension reform.

The main reform actions which bring about important changes to the system of social security are the following:

- The integration, as of 1 March 2020, of ETEAEP into the EFKA as an auxiliary insurance branch and a lump-sum branch. The latter has been renamed e-EFKA.
- The digitalisation of all services provided by e-EFKA, such as the issuing of certificates, applications for benefits and pensions, etc.
- The introduction of a new system of social contributions for freelancers, farmers and self-employed persons.[170]
- The amendment of the social security contribution categories for auxiliary pensions and lump-sum benefits for self-employed persons.[171]
- As of 1 June 2020, the social security contribution rates for employed persons have been reduced by 0.9 percentage points (p.p.), due to the reduction in the social security contributions for unemployment benefit.
- The application, with retroactive effect from October 2019, of new higher accrual rates for the calculation of contributory pensions for every year of contributions between 31 and 40 years. The increase in the new accrual rates varies from 0.56 to 0.91 p.p.
- The application, with retroactive effect from October 2019, of new lower accrual rates (-1.5 p.p.) for the calculation of contributory pensions for every year in excess of 40 years of contributions.
- The reduction in the pension cut, from 70 % to 30 % of total pension income (national pension, contributory pension and auxiliary pension) for retirees who combine income from pensions with income from work.

[169] See also Theodoroulakis, M., Konstantinidou, D. and Capella, A., 'The New Reform of the Social Insurance System in Greece', *ESPN Flash Report* 2020/11, European Social Policy Network (ESPN), European Commission, Brussels, 2020.
[170] As of January 2020, the social insurance contributions of freelancers, farmers and self-employed persons are no longer linked to their declared income. Each freelancer, farmer and self-employed person has to choose from six social insurance categories, each of which corresponds to predefined amounts for the contributory (primary) pension and health care. For those freelancers and self-employed persons who have less than 5 years of insurance, a special (lower) social insurance category is foreseen.
[171] As of January 2020, self-employed persons, freelancers, salaried lawyers and salaried engineers can choose from three contribution categories; previously the contribution rate for the auxiliary pension for the self-employed was 7 % of the minimum salary and 4 % of the minimum salary for the lump-sum benefit (for the lump-sum benefit, this rate also refers to employed doctors). Participation in the supplementary pension scheme continues to be mandatory for the self-employed in the 'liberal professions' (except doctors), while for other self-employed, freelancers and farmers, participation is voluntary. In the case of the lump-sum benefit scheme, participation is mandatory for certain self-employed professionals and certain categories of employees.

- The abolition of article 96 (par. 4) of Law 4387/2016, which implied recalculation of the auxiliary pensions for those pensioners who received total pension income of more than EUR 1300 per month. This provision had brought about significant cuts to the level of auxiliary pensions, and, thus, to the total income of pensioners. Auxiliary pensions that were paid before 30 September 2019 have continued to be paid from 1 October 2019, in an amount that was calculated in accordance with the provisions in force on 31 December 2014. The amount paid out before tax now cannot be less than the amount paid out before tax on 30 September 2019.
- The abolition of the extra pension benefit, known as the ‘thirteenth monthly pension’.

The digitalisation of all services provided by e-EFKA and the integration of ETEAEP into e-EFKA are expected to improve access to services provided to insured persons, as well as the efficiency of the system. Furthermore, Law 4670/2020 provides for a 2-year period in which to prepare and establish the social insurance regulations of e-EFKA, which will ensure the application of uniform rules for benefits and contributions to all insured persons.

Under the new system of social security contributions for the self-employed, contributions by self-employed persons are no longer directly proportionate to their income; instead, each person can choose their contribution category. This new system will lead to a significant reduction in the amount paid for social security by high-income self-employed persons. Given that the new amount of the lower contribution is higher than the lower contribution under the previous self-employed contribution regime (EUR 220 per month, as against EUR 177.95), the new system would appear to create a greater burden of social contributions on the low-income self-employed than under the previous regime. However, this increase in the amount of the lower-scale contributions is, in large part, outweighed by changes in the tax scale for the self-employed.

Overall, the new reform entails mainly parametric changes, which appear to address various previous defects, while reinforcing the reciprocity of the system. It establishes a closer link between paid contributions and benefits, and addresses those aspects of the 2016 pension reform that were declared unconstitutional by the Council of State.

3 ASSESSMENT OF ADEQUACY

3.1 Current adequacy

In examining the poverty-related indicators of people aged 65+, it becomes evident that almost all indicators have shown an improvement over the period 2008-2019.[172] In particular, the relative median income ratio of people aged 65+ has shown an increase of 14 p.p. (i.e. from 86 % in 2008 to 100 % in 2019), which means that the income of older people is now slightly higher than that of younger age groups. Yet, this increase is mainly due to a reduction in the income of the population aged below 65 years over the same period, and thus it does not imply an improvement in the income of those aged 65+. The S80/S20 income quintile share ratio for people aged 65+ decreased from 4.48 in 2008 to 3.76 in 2019, which implies that the pension

[172] See Section 5 ‘Background statistics’.

reforms undertaken over this period have had a positive impact on reducing income inequalities among people aged 65+. The relative income quintile share ratio of older people (S80/S20) (65+ minus 0-64) is -1.83, thus revealing that income inequalities are greater within the population aged 0-64 than among older people. To a certain extent, this can be attributed to the distributive effect of the pension system.

The aggregate replacement ratio (ARR) (median individual pensions of 65-74-year-olds, relative to the median individual earnings of 50-59-year-olds) was 76 % in 2019, while the EU[173] average was 57 %. Compared with 2008, it had increased by 35 p.p. However, this increase reflects not an increase in pension benefits, but rather a reduction in the median gross earnings of people aged 50-59. It should be pointed out that men have a higher ARR than women (81 % against 68 % in 2019), which reflects differences in pension levels.

Pensions in Greece, in spite of the successive cuts imposed over the period 2010-2016, have played a vital role in preventing older persons from falling into poverty. The at-risk-of-poverty-or-social-exclusion (AROPE) rate of people aged 65+ decreased by 7 p.p. over the period 2008-2019 – from 28.1 % in 2008 to 21.1 % in 2019. This can be attributed to the significant decline in the poverty threshold over the same period. The AROPE rate is slightly higher for the population aged 75+, standing at 21.8 % in 2019. It should be pointed out, however, that the AROPE rate for the total population in Greece was much higher than the rate for the population over 65 (30 %, against 21.1 %). This implies that the income from pensions is far more adequate than the income of the total population.

The at-risk-of-poverty (AROP) rate of people aged 65+ in Greece is one of the lowest in the EU (12.2 % in 2019, against an EU average of 16.1 %). It showed a significant reduction of 10.1 p.p. over the period 2008-2019. It should be pointed out, however, that although the severe material deprivation rate of people aged 65+ has fallen by 1.8 p.p. over the same period, it remains one of the highest in the EU. In 2019, it was 13 %, which is far higher than the EU average (4.8 % in 2019). This decrease can be attributed to the fact that over the crisis period in Greece, a range of social solidarity support measures were implemented, such as measures to address the humanitarian crisis and the food and basic materials assistance to the most deprived through the Fund for European Aid to the Most Deprived (FEAD). These measures concerned mainly the provision of in-kind benefits to the most deprived part of the population, and thus contributed to the decline in the severe material deprivation rate of people aged 65+. On the other hand, however, the material and social deprivation rate of people aged 65+ in Greece rose by 2.4 p.p. over the period 2014-2019, to stand at 27.1 % in 2019 (24.9 % for men and 28.8 % for women).

The AROP rate among people aged 65+ computed with a 50 % poverty threshold was fairly low in 2019: 6.3 %, against an 8 % EU average. Yet, this is not the case for the AROP rate of people aged 65+ computed with a 70 % poverty threshold; then the AROP rate is 19.7 %. This indicates that although the pension system provides a safety net against poverty for pensioners (through the provision of the national pension), the level of the safety net is not fully adequate to meet the 70 % poverty line.

[173] EU and EU-27 refer to the current 27 Member States of the European Union.

As for the relative median at-risk-of-poverty gap, this showed a notable decrease of 3.1 p.p. over the period 2008-2019, to stand at 17.7 % in 2019, mainly due to the significant decrease in the poverty threshold mentioned earlier. It is necessary to point out that during the same period, the overall at-risk-of-poverty gap for the total population showed an upward trend, from 24.7 % in 2008 to 27 % in 2019. It is evident, therefore, that the depth of poverty risk is much greater for the total population than for the older population.

The gender gap in pension income for persons aged 65-79 was 24.1 % in Greece in 2019, some 5.4 p.p. lower than the EU average (29.5 %). The gender gap in pension income decreased by 15.1 p.p. over the period 2010-2019. This is mainly due to the fact that most of the cuts imposed over the period 2010-2016 involved high-income pensioners, the majority of whom were men. Therefore, the narrowing of the gender gap in pension income is a result not of an increase in female pensioners' income, but of a decrease in the income of male pensioners. However, women in Greece continue to have less access to the pension system than men: the gender gap in the non-coverage rate remained almost unchanged over the period 2010-2019 (16.7 p.p. in 2010 and 15.7 p.p. in 2019); that is much higher than the EU average (of 6.4 p.p.). This can be explained by the fact that women in Greece continue to exhibit, by and large, low employment rates and short working careers, which, in turn, lead to short contributory periods and thus to failure to fulfil the qualifying conditions for retirement.

Turning to the share of the population aged 65+ living in a household where total housing costs represent more than 40 % of their total disposable household income, the data show that this was 27.6 % in 2019, with remarkable differences between men and women (21.6 %, versus 32.4 %). This can largely be attributed to the gender gap in pension income: women, despite the decrease observed in the gender gap in pension income over the period 2008-2019, continue to receive lower pensions than men. Nevertheless, the housing cost overburden rate increased significantly (by 12.5 p.p.) over the period 2008-2019. However, the increase for women was more substantial than that for men: among women, it increased by 14.7 p.p. between 2008 and 2019, while among men it increased by 9.9 p.p.

The share of people aged 65+ who report unmet needs for medical examination increased by 3.2 p.p. in the period 2008-2019 (i.e. from 12.4 % in 2008 to 15.6 % in 2019). The increase was higher among women aged 65+ than among men aged 65+ (i.e. 4.3 p.p. for women and 1.7 p.p. for men). In 2019, men aged 65 were expected to live in good health for 8.1 years (0.9 years less than in 2008), while women aged 65 were expected to live in good health for 7.7 years (0.7 years less than in 2008). The deterioration in the older population's health situation over recent years is a result of the prolonged economic crisis, along with a decrease in public expenditure on health and significant cuts in disposable income. Despite this, Eurostat data reveal that life expectancy at age 65 remained almost unchanged over the period 2008-2019, standing at 20.6 years in 2019 – 19.1 years for men and 21.9 years for women. This implies that people are living as long, but with fewer healthy years. This, in turn, is expected to trigger an ever-increasing demand for health and long-term care services in Greece.

It should be noted that pension benefits do not affect cost-sharing for long-term care services and benefits. On the other hand, it should be underlined that pension benefits affect eligibility for long-term care cash benefits, since pensioners who receive disability pensions and benefits [174] from e-EFKA are not eligible for the state-financed (non-contributory) disability/welfare benefits provided by the OPEKA unless social insurance fails to provide a relevant cash benefit. In addition, pension benefits affect indirectly eligibility for long-term care services, since most of the existing public formal long-term care services entail rather strict eligibility criteria. Thus, in practice, pensioners with high income from pensions are not eligible for these services.

3.2 Future adequacy

However, according to the projection of theoretical replacement rates (TRRs), future pension adequacy in Greece is ensured, in the long term. In particular, the future gross pension replacement rate for a standard worker with low earnings (i.e. 66 % of average earnings) and a full working career (i.e. 40 years of contributions) and who retires at the age of 62 is estimated at 93.7 % in 2059, compared with 87.7 % for a standard worker with average earnings and 78.2 % for a standard worker with high earnings. The future gross pension replacement rates show that pensions play a redistributive role, aiming to protect low earners from old-age poverty. Yet, ensuring adequate pensions for non-standard workers with short working careers and low earnings remains a challenge that needs to be addressed.

As to the very recent reform, its implementation is expected to improve the future adequacy of pensions for persons with more than 30 years of contributions, given that it introduces new, higher accrual rates for the calculation of contributory pensions for every year of contributions between 31 and 40 years. By contrast, the application of lower accrual rates for contributory periods of longer than 40 years leads to a proportionally lower relationship with the contributions of those insured with a long insurance record, which, in turn, is likely to create insurance disincentives.

Moreover, although the recalculation of auxiliary pensions is expected to increase the level of pension benefits for most (high-income) pensioners (see Section 2), the abolition of the 'thirteenth monthly pension' is expected to have a negative impact on the adequacy of pensions, especially for low-income pensioners. In addition, the reduction of the national pension by 2.5 % for each year below the 40 years of permanent residence required of all insured persons, natives or foreigners, is expected to have a negative impact on the adequacy of the pension benefits of migrants, refugees and repatriated natives, especially for those coming from non-EU countries that have no bilateral social security agreements with Greece. Finally, it should be noted that the freezing of existing pensions at current levels until the end of 2022 is a matter of concern for the future adequacy of pensions in Greece in the short run.

[174] Social insurance coverage entails the provision of old-age, survivor and disability pensions, along with two cash benefits provided directly to disabled people (including older people) with care needs, which are funded by the e-EFKA. These are: (i) 'total invalidity benefit', which is granted to old-age pensioners who are blind and to invalidity pensioners, provided their condition requires constant supervision and support from a third person; and (ii) 'non-institutional care benefit', which is provided to insured persons and pensioners receiving invalidity, old-age or survivor pensions, as well as to members of their families (including disabled children) who suffer from specific diseases, on condition that they do not receive total invalidity benefit.

3.3 Challenges for future adequacy

As to the challenges for future adequacy, the main issues to be addressed are to ensure access to the pension system and adequate pensions for women and non-standard workers with short working careers and low earnings. Both women and people in non-standard employment (except self-employed persons), face difficulties in fulfilling the qualifying retirement conditions for pension entitlement, due to short working careers or long periods of absence from the labour market. Moreover, there is concern for most women, as well as most non-standard workers and low-income self-employed with regard to their pension benefit adequacy. This is largely due to the fact that, given that their earnings-related contributions are rather low, their pension benefits, which are calculated on the basis of average income over the whole working life, are also expected to be low.

As for self-employed persons, it should be noted that, although for the majority of them the new social security contribution system ensures higher pensions than under the previous system, their pensions are expected to be lower than the pension of the average standard employee. This is attributed to the fact that self-employed persons pay lower contributions than the average amount of contributions paid by salaried employees.

Moreover, addressing the gender pension gap remains a challenge for the future adequacy of pensions in Greece. The gender pension gap is mainly a result of gender inequalities in the labour market (gender pay gap, work-life duration), as well as of the provisions for women's early retirement that were in force until recently. The need to address this challenge becomes even more imperative in the context of population ageing. As Greece's population is ageing,[175] the number and share of older women in the population is expected to increase further due to their longer life expectancy. Thus, concerted action is needed to address the gender pension gap in Greece, as women, who will constitute the majority of pensioners in the future, and are more likely to live on their own, will be at greater risk of poverty and social exclusion in the future.

3.4 Solidarity mechanisms

It should be stated right at the outset that it is hardly possible to provide an accurate assessment of the current adequacy of the national pension system in Greece with regard to different population groups, since neither the relevant statistical data nor administrative disaggregated data are publicly available at the national level. Besides, current pensions in payment are based to a large extent on the provisions of previous pension provisions. This implies that the high degree of fragmentation that characterised the pension system in Greece until very recently has led to great inequalities in terms of the conditions for pension entitlement and the level of pension benefits.

Nevertheless, as described in Section 3.1, most of the pension adequacy indicators have improved over the period 2008-2019. The improvement in pension adequacy can be attributed to: (a) the significant drop in the average disposable income of the working population; and (b)

[175] Eurostat data reveal that the share of people aged 65+ in Greece has been following an increasing trend, from 18.7 % in 2008 to 22 % in 2019, while it is projected to reach 25.9 % by 2030 and 33.8 % by 2050.

the implementation of pension reforms over the past few years. As to the latter, it should be noted that the integration of all statutory main (contributory) pension funds into EFKA has contributed to the application of uniform rules for benefits and contributions for all insured persons. As a result, the harmonisation of rules for all insured persons has eliminated most of the inequalities of the past.

Moreover, the current public pension scheme, which has been in force since 1 January 2017, aims, among other things, to improve the redistributive functions of the pension system. In particular, it includes, for the very first time in Greece, along with a contributory pension, a guaranteed national pension, which is equal to the AROP threshold for a single person. In addition, it establishes a means-tested monthly social solidarity allowance for uninsured older persons (EUR 360), while it continues to provide survivor pensions, having set a minimum guaranteed amount of EUR 360 per month for these pensions. Moreover, a compulsory minimum amount of contributions has been set, which eventually leads to entitlement to a corresponding amount of contributory pension. It should be pointed out that the harmonisation of the rules for pension entitlement was accompanied by the introduction (Laws 3863/2010, 3865/2010, 3996/2011, 4336/2015) of the possibility to take into account 'notional years of insurance' (credits for non-contributory periods),[176] in order to establish entitlement to a pension. This, in turn, facilitates the fulfilment of the minimum contributory period criterion for pension entitlement, especially for women and people in non-standard employment. Furthermore, the system provides that persons with at least 12 years of contributions may purchase non-contributory periods (up to 7 years) in order either to establish entitlement to a pension or to improve the level of the pension benefit.

Another redistributive element, which is considered crucial for preserving pension adequacy over time, is the application of an exclusively positive indexation mechanism for pensions in payment, to be put into effect from January 2023 onwards.[177] This mechanism entails an annual increase in pensions in payment, which will be calculated on the basis of 50 % of GDP growth and 50 % of the change in the consumer price index.

However, it should be noted that two redistributive elements of the previous pension system, which was in force until the end of 2016 (before the 2016 pension reform), were abolished. In particular, the means-tested pensioners' social solidarity benefit, which was considered a kind of guaranteed minimum income for pensioners, was abolished at the end of 2019. Similarly, the minimum guaranteed pension, which is provided to private-sector pensioners who retired before 12 May 2016 (the old IKA-ETAM), was abolished for new pensioners (those who retired after 12 May 2016). Its abolition, however, is partly compensated for by the provision of the new state-funded national pension.

4 OPPORTUNITIES TO ADDRESS CHALLENGES

Specific policies and measures should be taken in order to improve the rate of low participation of older workers, which will be crucial to increase the effective retirement age and the

[176] The pension system provides that certain non-contributory periods (up to 7 years), such as maternity leave, sickness leave, study leave and 1 year of receiving unemployment benefit, are counted as contributory periods.
[177] Note should be made of the fact that all pensions in payment have been frozen since 2010.

contributory period, leading to higher pension benefits. To this end, further policies to disincentivise early retirement should be promoted.

Emphasis should be placed on establishing appropriate mechanisms that would address the problem of contribution evasion, which has a negative effect on the coverage and adequacy of the pension system. To this end, specific social protection arrangements should be introduced in order to cover the emerging needs related to new forms of work.

Moreover, given that the number of non-standard workers has been on the increase over recent years, it is essential that existing pension entitlement rules become more flexible for them, in order to improve their eligibility to pension outcomes and, in general, to improve their social protection coverage.

5 BACKGROUND STATISTICS

5.1. Relative income	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
Relative median income ratio (65+)	1	1.04	0.96	0.14	0.15	0.12
Income quintile share ratio (S80/S20), 65+	3.76	3.85	3.67	-0.72	-0.78	-0.64
Relative income quintile share ratio (S80/S20), 65+ - 0-64	-1.83	-1.77	-1.88			
Aggregate Replacement Ratio (ARR) %	76	81	68	35	33	24
5.2. Poverty and material deprivation	**2019**			**Change 2008-2019**		
	Total	Men	Women	Total	Men	Women
At-risk-of-poverty or social exclusion (AROPE), 65+ (%)	21.1	18.4	23.2	-7	-6.2	-7.7
At-risk-of-poverty rate (AROP), 65+ (%)	12.2	10.9	13.4	-10.1	-9.9	-10.2
Severe material deprivation (SMD), 65+ (%)	13	11.1	14.5	-1.8	0	-3.2
At-risk-of-poverty or social exclusion (AROPE), 75+ (%)	21.8	16.6	25.8	-12.2	-14.7	-10.2
At-risk-of-poverty rate (AROP), 75+ (%)	12.7	9.3	15.4	-15.3	-18.1	-13.2
Severe material deprivation (SMD), 75+ (%)	13	10.1	15.3	-4.9	-4.4	-5.1
Relative median at-risk-of-poverty gap, 65+ (%)	17.7	18.7	16.8	-3.1	-1	-6
At-risk-of-poverty rate (AROP), 65+: 50 % threshold (%)	6.3	5.7	6.7	-6	-5.3	-6.7
At-risk-of-poverty rate (AROP), 65+: 70 % threshold (%)	19.7	17.3	21.7	-11.3	-12.7	-10.1
Material and social deprivation, age 65+ (1)	27.1	24.9	28.8	2.4	-0.5	4.7
5.3. Gender difference	**2019**			**Change 2008-2019**		
Gender gap in pension income (65-79) (%) (2)			24.1			-15.1
Gender gap in non-coverage rate (W-M in p.p.) (65-79)			15.7			-1
5.4. Housing and health situation	**2019**			**Change 2008-2019**		
	Total	Men	Women	Total	Men	Women
Housing cost overburden rate, 65+ (%)	27.6	21.6	32.4	12.5	9.9	14.7
Self-reported unmet need for medical exam 65+ (%)	15.6	13.2	17.6	3.2	1.8	4.3
Healthy life years at age 65 (years)	7.9	8.1	7.7	-0.8	-0.9	-0.7
Life expectancy at age 65	20.6	19.1	21.9	1.3	1.3	1.3
5.5 Sustainability and context	**2019**			**Change 2008-2019**		
	Total	Men	Women	Total	Men	Women
Employment rate, age group 55-64 (%)	43.2	56.1	31.6	0.2	-3.1	4.1
Pension expenditure as % of GDP (ESSPROS) (3)			16			3.4
Retirement duration from first pension (years) (4)	21.0	19.9	21.8	-1.7	-0.7	-3.5
Retirement duration from end employment (years)	22.3	20.6	23.8			
Eurostat and AWG projections	**2019**			**2059**		
Old-age dependency ratio (20-64) (%)	37.6	34.0	41.2	67.7	58.5	77.8
Economic old-age dependency ratio (20-64) (%) (5)	58.7	44.1	78.6	81.5		
Gross public pensions as % of GDP (5)	15.7			12.1		
Benefit ratio (%)(5)	65.4			43.4		
Coverage ratio (% of pop aged 65+)(5)	105.6			93.5		
Gross pension ratio high / low earner		2.2	2.2		2.4	2.4

(1) change since 2014, not 2008
(2) data refer to 2010, not 2008
(3) ESPROSS data refer to 2018
(4) Change is since 2016, not 2010
(5) 2060 instead of 2059

5.6 Theoretical Replacement Rates

	Net (%)				Gross (%)			
	2019		2059		2019		2059	
	Men	Women	Men	Women	Men	Women	Men	Women
Average earning (100%)								
Base case: 40 years up to the SPA	79.5	79.5	87.7	87.7	69.0	69.0	76.3	76.3
Increased SPA: from age 25 to SPA	67.2	67.2	86.9	86.9	54.5	54.5	75.5	75.5
AWG career length case	79.6	71.7	89.9	89.4	69.3	59.1	78.7	78.1
Old base case: 40 years up to age 65	78.5	78.5			68.4	68.4		
Longer career: 42 years to SPA			90.8	90.8			79.6	79.6
Shorter career: 38 years to SPA			78.0	78.0			66.4	66.4
Deferred exit: 42 years to SPA +2			89.2	89.2			77.9	77.9
Earlier exit: 38 years to SPA -2								
Career break – unemployment: 3 years	67.2	67.2	74.6	74.6	54.5	54.5	63.2	63.2
Career break due to child care: 3 years	67.2	67.2	74.7	74.7	54.5	54.5	63.3	63.3
Career break care to family dependant: 3 years	67.4	67.4	74.5	74.5	54.7	54.7	63.1	63.1
Short career (20 year career)	43.1	43.1	38.3	38.3	31.5	31.5	32.2	32.2
Work 35 y, disabled 5 years prior to SPA			73.5	73.5			62.2	62.2
Early entry in the LM: from age 20 to SPA			90.6	90.6			79.4	79.4
Index: 10 years after retirement @ SPA			76.0	76.0			64.6	64.6
Extended part-time period for childcare			69.5	69.5			58.5	58.5
Survivor – full career		114.0		131.0		117.1		127.5
Survivor – short career		86.8		94.2		79.6		83.4
Survivor ratio 1*		0.72		0.75		0.85		0.84
Survivor ratio 2*		0.71		0.61		0.79		0.63
Low earnings (66%)								
Base case: 40 years up to the SPA	87.6	87.6	93.7	93.7	76.4	76.4	84.4	84.4
AWG career length case	87.6	76.2	95.8	95.3	76.5	64.5	86.2	85.8
Old base case: 40 years up to age 65	86.4	86.4			75.5	75.5		
Career break – unemployment: 3 years	72.4	72.4	76.5	76.5	60.4	60.4	68.9	68.9
Career break due to child care: 3 years	72.4	72.4	76.6	76.6	60.4	60.4	68.9	68.9
Short career (20 year career)	49.6	49.6	48.4	48.4	37.2	37.2	37.9	37.9
Early entry in the LM: from age 20 to SPA			96.3	96.3			86.7	86.7
High earnings (100->200%)								
Base case: 40 years up to the SPA	68.1	68.1	78.2	78.2	56.7	56.7	67.8	67.8

**Survivor ratio 1: man base case, woman base case*

**Survivor ratio 2: man base case, woman short career case*

SPAIN

Highlights

- The Spanish pension system plays an important role in maintaining the quality of life, and especially in the fight against poverty for older persons. The better situation of the elderly population in Spain is due to the fact that pensions maintained their purchasing power. According to the indicator of those at risk of poverty or social exclusion (AROPE), the percentage of older people facing poverty and/or social exclusion decreased in the period 2008-2019, with a greater fall among people aged 75 or over.
- Spain has one of the highest aggregate replacement ratios in Europe. The indexation of pensions, and the solidarity and redistribution mechanisms have made it possible to maintain an adequate level of pensions for most pensioners. However, expenditure on contributory pensions per inhabitant in purchasing power standards (PPS) is low, compared to the average for the EU countries. There is a significant gender gap among pensioners aged 65-79.
- Sustainability of the social security system and modification of some parameters included in the legislation of the last pension reforms (2011, 2013) form part of the debate of the Parliamentary Commission of the Toledo Pact that recommenced in February 2020. Depending on the measures that parliament finally adopts, some parameters of the system could be adjusted, seeking a fair reordering of expenses so that they do not overburden workers or pensioners.
- Technological advances and the proliferation of non-standard contracts in the future must be taken into account in the design of social protection to avoid gaps in coverage during their working age, and a further impoverishment when they reach pensionable age.

1 GENERAL DESCRIPTION OF THE NATIONAL PENSION SYSTEM

Statutory pension schemes are administered by the social security system. They are financed by social contributions and distributed through the pay-as-you-go (PAYG) system. There are some exceptions to this general rule: the special regime of ‘passive classes’,[178] non-contributory pensions, the supplement to guarantee a minimum pension and minimum income benefits (ingreso mínimo vital) are financed from the state budget. The statutory pension schemes follow a defined benefit (DB) model. The public pensions system is characterised by a governance system based on political consensus, established in 1995 by the Toledo Pact.

[178] *Clases Pasivas* is a specific regime for civil servants of the central state administration and the staff of constitutional bodies. But, since January 2011, new civil servants of the central administration have had to adhere to the social security system.

The social security system provides a double level of protection: contributory (professional) and non-contributory (means-tested). The contributory pensions scheme covers the contingencies of old age, invalidity and survivors. The non-contributory pensions scheme covers the contingencies of invalidity and old age of those individuals who are not entitled to contributory pensions and who find themselves in need.

The contributory pensions scheme includes a general regime and special regimes, which have the same rules regarding access to benefits and amount's calculations but with differences in contributions, with the exception of *Clases Pasivas* which has a differentiate system. The general regime is the largest and includes workers over 16 years of age, regardless of the type of contract. Special regimes are divided into self-employed, seafarers, state civil servants (*Clases Pasivas*) and students; of these, the state civil servants' regime shows the greatest differences from the general regime. Since 2011, new state civil servants have had to adhere to the general regime. During the transition period, the rules of this special regime tend to harmonise with those of the general regime.

The parameters for the calculation of public pensions were modified by law in 2011 and in 2013, and came into force in 2014. A transitional period of implementation was established, to end in 2027, except for in one respect – the parameter for the number of years to be taken into consideration in calculating a pension – which will be fully implemented in 2022. What follows refers to the situation in 2020 and to the value of pensions at the end of the transition period.

To access a contributory pension, a minimum of 15 years of contributions is required, 2 years of which must be within the 15 years prior to retirement. This has not changed from the previous legislation.

The pensionable age is 65 years and 10 months (or 65, if the person has contributed for 37 years). By 2027, it will have risen to 67 (or 65, if the person has contributed for 38 years and 6 months). However, some groups may be able to bring forward their pensionable age, such as persons with disabilities, or people in arduous or hazardous work.

The incentives to extend the pensionable age[179] have been improved, and formulas have been introduced to allow the pension to be combined with earnings from work once pensionable age is reached: the flexible pension[180] and the active pension.[181] These schemes do not allow a person to gain income from work and claim 100 % pension, unless the person is self-employed and has one or more employees. There is a 'peculiar exception', by which a pensioner can gain extra earnings without being an employee or self-employed, if those are below the amount of the minimum interprofessional wage.

The amount of pension is calculated as a percentage of a regulatory base, which is the average of the social security contribution bases of the 23 years before the date of retirement. This period will be extended to 25 years from 2022. In the event that there are contribution gaps in

[179] It consists of adding a percentage to the pension between 2 % and 4 % per year extra worked, which varies according to the number of years of contributions.
[180] Flexible retirement is the possibility of making the retirement pension compatible with a part-time job and the amount of the pension is inversely proportional to the percentage of time worked on average per day.
[181] Active retirement: when persons who reach pensionable age and have met the contribution period required for entitlement to 100 % of the pension, may combine a pension with work, either on a self-employed or an employed basis. Such pensioners will receive 50 % of the pension, regardless of what they earn.

the period considered, these are filled by a percentage of the minimum contribution bases in the corresponding period. But in the special regime for the self-employed, periods of no contributions are not filled in with fictitious bases, as happens in the general regime. The percentage applicable to the regulatory base follows a scale that increases according to the number of years of contributions. To reach the maximum pension, 36 years were required in 2020; this period will increase to 37 years of contribution by 2027.

Early retirement in the event of involuntary loss of employment may be taken 4 years before pensionable age, and with 33 years of prior contributions. Early retirement through voluntary resignation may be taken 2 years before pensionable age, with 35 years of contributions. For each year before pensionable age, the reduction coefficients are 7.5 % in the first case and 8 % in the second.

In 2020, contributory pensions were indexed according to the expected consumer price index (CPI), meaning a 0.9 % rise.

Pension amounts are capped at a value set annually by the government. A series of solidarity measures has been maintained, such as non-contributory pensions, the supplement for the minimum contributory pension and the maternity supplement.

The total number of contributory pensions in 2019 was 9.8 million, of which 62.2 % were retirement pensions, 24.1 % survivors' pensions, 9.8 % invalidity pensions and 3.9 % other pensions. Moreover, there were 655,315 pensions from *Clases Pasivas*.[182] We should add a further 450,000 non-contributory pensions. Around 10 % of social security pensioners have two or more public pensions.

Public pension expenditure in 2018, was 12.6 % of GDP, of which 9 % involved spending on old-age pensions.[183]

Supplementary pension schemes are voluntary and follow a defined contribution system.[184] An occupational pension plan is the instrument most often used by companies to externalise the pension commitments to their workers (56.42 % of total supplementary pension plans are occupational pension plans) followed by collective insurances (42.79 %). The latter is generally for specific groups of employees (executives and others). The system of occupational pension plans is poorly developed, and most plans are linked to large firms. They cover the contingencies of retirement, invalidity or death, and may be paid early in the case of special need. Their number has decreased by 14 % in the period 2010-2018. A low percentage of workers, approximately 2 million (13 % of employees listed in the social security system in 2018), benefit from an occupational pension plan. The self-employed, on-call workers, temporary agency workers, casual and seasonal workers do not benefit from them. Other types of non-standard workers could be included in the plans, but that depends on the commitments assumed by the company toward their workers.

[182] The pensions of *Clases Pasivas* are managed by the state, but as of October 2020 they will be managed by the social security.
[183] Source: Eurostat, Pensions [spr_exp_pens], Last update 26 April 2020.
[184] Dirección General de Seguros y Fondos de Pensiones, *Informe estadístico de instrumentos de previsión social complementaria*, 2018.

Personal pension plans are the instruments most often used for voluntary savings. Although more developed than occupational pension plans, they have also shown a declining trend in recent years. The number of participants in individual pension plans decreased by 1.5 % between 2017 and 2019.[185] The number of participants is around 7.5 million, or about 18.9 % of people aged 16 and over. In relation to the contributions to the individual and associated pension plans, an increase of 44.5% is observed with respect to those made in the same quarter of 2018.

2 REFORM TRENDS

In July 2018, the government suspended the application of the new coefficient for the annual indexation of pensions – the Pension Revaluation Index (PRI) – approved in the pension reform, and applied the CPI. This measure was endorsed by the Parliamentary Commission of the Toledo Pact on 10 October 2018; henceforth, pensions will be revalued annually on the basis of the CPI, as a way of preserving the purchasing power of pensioners.

During the time that the PRI was applied, between 2014 and 2017 pensions increased by 0.25 % per year. In 2018, the indexation led to a rise of 1.7 % for contributory pensions and 3.1 % for non-contributory pensions and for the supplement to guarantee a minimum pension. In 2019, the indexation led to increases of 1.6 % for contributory pensions and 3 % for non-contributory pensions and for the supplement to guarantee a minimum pension.

Another amendment approved by the government in 2018 was to postpone the application of the ‘sustainability factor’ until 2023; it had been scheduled to begin in 2019.

The amendments introduced in 2018 have not yet been incorporated into pension legislation and are going to be debated by the Parliamentary Commission of the Toledo Pact, which resumed its sessions in February 2020 to address those issues that were left unresolved in the previous legislature.

Other measures adopted by the government in 2018 were aimed at increasing the social protection of certain disadvantaged groups. Thus, the survivors’ pension for those aged over 65 has been increased by 8 percentage points (p.p.) (from 52 % to 60 %) of its regulatory base, provided the pension is the beneficiary’s main source of income. Another measure is to increase the number of years of receipt of the long-term unemployed non-contributory benefit, which can now be claimed from the age of 52, instead of 55. Also, from January 1, 2019, the Social Security Scheme for Self-Employed was enhanced by making mandatory the protection of all contingencies that until now were voluntary, such as protection due to cessation of activity and professional contingencies. Coverages of certain benefits were also improved, such as cessation of activity of self-employed workers in which the maximum take up period was doubled.

The average level of pensions did not decrease between 2014 and 2018, a period coinciding with the start of the reform in 2013. On average, the contributory retirement pension in the

[185] Source: *Boletín de Información Trimestral de Planes y Fondos de Pensiones*. Tercer trimestre 2019. http://www.inverco.es//documentos/pension_trimestral/1812_Diciembre%202018/1812Tfp_0202-ParticipesSistInd.pdf

general regime increased by 7.9 %, and in the self-employed regime by 7.1 %. There are various reasons why, on average, pensions have not decreased: the new retirement pensions are higher than the old ones, mainly because wages were higher, reflecting the increase in productivity of those years, as well as longer working careers.

The debate on pensions reopened in Spain within the framework of the Parliamentary Commission of the Toledo Pact. The main focus of the debate is the sustainability of the social security system, which runs an annual deficit of over 1 % of GDP (1.4 % in 2018 and 1.3 % in 2019) while securing the adequacy of benefits. Furthermore, pensions indexation based on CPI (as was the case in 2018 and 2019) represents additional annual expenditure, as PRI entails an almost freeze of pension amounts.

There are three main groups of thought that may influence the parliamentary debate. Two share a preference for not altering the current public pensions scheme – a DB model for statutory pensions – although there is significant difference between them in terms of how they would achieve a financial balance in the social security system; meanwhile the third group seeks to change the model.

The first group, made up of the majority of political parties, with proposals similar to those supported by the current government, maintains that the social security system is not bankrupt; they says the shortfall is an accounting deficit, but not an economic one, since the level of income from social contributions is sufficient to maintain the system, although there are undue expenditures that should be shifted to the state budget. They claim that the system could sustain the rise in expenditure from demographic ageing and maintain pension indexation through the CPI. The way to achieve this should be by generating more income from social contributions (more people working and increased labour productivity), by strengthening the relationship between the amount of contributions and the duration of the pension – promoting longer working life, discouraging anticipated retirement and extending the retirement age, incorporating migrant workers into the labour market, or developing supplementary occupational pension schemes plans in the framework of collective bargaining, among other things. All these measures must be accompanied by a consensus for the maintenance of purchasing power and improvement of pensions.

The second group maintains that there is no way to achieve sustainability of the social security system without reducing total expenditure on pensions until the finances are balanced. This would only be achieved by applying both the PRI and the sustainability factor to new pensions (as was envisaged by the pension reform), although that could mean freezing or reducing pensions for 30-40 years. They believe there is no way to boost the system's income – whether through increased social contributions (labour cost increase) or by imposing new taxes (such as taxing banks) – as that would be harmful to the economy. Furthermore, transferring resources from the state budget to social security runs contrary to what was established by a previous Toledo Pact on 'financing sources differentiation'.

The third group, supported by the Bank of Spain and banking and insurance institutions, maintains that there is a need to change the model for public pensions, moving from the current DB scheme to a defined contribution (DC) scheme and by introducing, for instance, a notional accounts system. Their rationale is that trying to sustain the current level of pension income could imply intergenerational inequity, as a significant fiscal and social burden (taxes and social contributions) would be transferred to present and future generations, which could see their incomes seriously limited.

The debates on pension reform often do not include other aspects that affect the welfare of retired persons, although the adequacy of the pension is reflected in the economic capacity of pensioners to meet the cost of housing, supplies (heating and others), medical supplies and, possibly, spending on long-term care. However, there are some exceptions: non-contributory pensioners are entitled to a supplement to help pay the rent, and pensioners with a high degree of disability receive a supplement of 50 % of their pension to pay for 'third-party support'.

3 ASSESSMENT OF ADEQUACY

3.1 Current adequacy

The data used in this section are shown in Section 5 'Background statistics'. If other data are used, the source is indicated.

Between 2008 and 2019, the income of the older population improved slightly in relation to the income of people of working age. In terms of relative median income, the ratio (65+ /18-64) was 100 % in 2019, and the increase between 2008 and 2019 was 17 p.p. (20 p.p. for men and 14 p.p. for women). The increase in relative income is due to the increase in pensions, but also to the devaluation of wages in Spain as a result of the economic crisis: wages lost 7.1 % of their purchasing power from the beginning of the crisis to 2018.[186]

Pensions maintained their purchasing power, due to the fact that they were indexed to the CPI, except in the worst years of the crisis (2010 and 2011), when pensions were practically frozen, and in the first 4 years of application of the pension reform, when they rose annually by 0.25 %.

However, compared to the average for EU countries,[187] the PPS per inhabitant of non-means-tested pensions is 25 % lower.

In the period 2008-2019, people aged 75+ experienced a bigger reduction in the AROPE rate than among people aged 65+ (-12.1 p.p. and -10.5 p.p., respectively), maintaining AROPE levels lower compared with those of working age. This difference may be due to the increase in the incidence of severe material deprivation among those aged 65+, which was more pronounced for women than for men (0.6 p.p. for men and 0.2 p.p. for women). During the period 2014-2019, 'material and social deprivation, age 65+' decreased from 13.2 % to 11.9 %, the decrease being particularly noticeable among women (1.9 p.p. for women and 0.3 p.p. for men). AROPE for 65+ in Spain is lower than the EU average.

Pensioners, however, have also been affected by the economic crisis, as evidenced by the large number of non-voluntary early retirement pensions being claimed since 2014, when such pensions accounted for 20 % of all new pensions; they still accounted for 14.4 % in 2018. Those who lose their jobs involuntarily can retire 4 years before the pensionable age. Even so, in 2018 the effective retirement age has reached 64.2 years in a trend that increasingly brings

[186] INE, Quarterly Labour Cost Survey, March 2019.
[187] EU and EU-27 refer to the current 27 Member States of the European Union.

this age closer to the legal retirement age (effective retirement age: 64.2 years; legal retirement age:65.5 years in 2018).

Spain has one of the highest theoretical replacement rates (TRR) in the Organisation for Economic Co-operation and Development (OECD) and even in the EU. In 2016, with an average salary, the replacement rate (public pensions: earnings related) was 78.7 %. Nevertheless, the aggregate replacement ratio (ARR) shows a big gender inequality: while the overall ARR is 70 %, it is 75 % for men and 50 % for women. This means that, on average, women's salaries are much lower than those of men and they have more interrupted careers.[188]

Also, Spain is one of the EU countries where the gender gap in pensions for people aged 65-79 is more accentuated (31.3 % in 2019) – above the EU average of 29.5 %. In the period 2010-2019, the gender gap in pensions dropped by 4.6 p.p. One of the main factors behind this gender gap is the number of years of contribution to social security: whereas 60 % of men retire with 40 or more years of contributions, the figure for women is only 23 %. Furthermore, over half of all women (53 %) retire with 30 years or fewer of contributions, while the proportion for men is 13 %.[189] Another important factor is the low proportion of older women without a retirement pension.

There is a significant gap in pensions among different regimes of social security. On average, the retirement pension of the self-employed is 37.13 % lower than that of people who retire under the general regime. The number of years of contribution is one reason for the difference: only 46.76 % of pensioners in the self-employed regime have made contributions for over 35 years.

Among other expenses that affect the economic capacity of pensioners, the housing cost overburden rate is low compared to the average for the EU countries: in 2019, 3.5 % of people aged 65 years and over declared this to be a problem (3.7 % of women and 3.3 % of men). Between 2008 and 2019 the rate decreased by 0.6 p.p., especially among women. Also, the percentage of people aged 65 years and over who self-reported unmet need for medical exam in 2019 was 0.6 %, down 2.2 p.p. since 2008.

Pensions are not taken into account when determining eligibility for long-term care (LTC): what is considered is the situation of a person who, at least once a day, requires help to carry out the most essential daily activities. There are no age limitations. Cost-sharing, or co-payment applies for both benefits in kind and in cash according to the type and cost of the service and the economic situation of the individual.

3.2 Future adequacy

Long-term (2059) TRRs for pensions will, in most cases, decrease in comparison to 2019. The net TRR for the base case (40 years up to the standard pensionable age (SPA)) in Spain will decrease by 12 p.p. TRRs obtained on the basis of projected working life durations (AWG case) will be 3 p.p. higher than the case base (89.2% in comparison with 85.7%). According to other

188 European Commission, *The 2018 Ageing Report: Economic and Budgetary Projections for the 28 EU Member States (2016-2070)*, Publications Office of the European Union, Luxembourg, 2018.
189 Montserrat Codorniu, J. 'La crisis económica y la reforma del sistema de pensiones', Documento de trabajo 4.10, *VIII Informe FOESSA*, 2019.

specific TRR cases, Spain, as most EU Member States, grants a minor bonus for postponing retirement and around actuarial reduction in the case of early retirement. Short careers (20 years) will have a significant impact on the long-term replacement rate, while, as currently, the reduction is less than half compared with a full 40-year career. The greatest impact of the pension reform is foreseen to be on women, migrants, non-standard works, among others who traditionally have, on average, fewer years of contribution.

The contribution bases accumulated during the working life or during the period accounted to calculate the pension, coincide, or almost coincide, with wages. Nevertheless, pensions are not strictly proportional to salaries due to multiple factors such as the caps on pensions (maximum and minimum) and some solidarity mechanisms to guarantee the adequacy of pensions reinforced by the tax benefit system. So, the difference between the TRR of people with low earnings and the TRR of those with high earnings is reduced. According to the AWG projections, the difference in gross and net TRR between low and high earners in 2059, in the base case scenario, show an increase of 5 percentage points in the gross TRR and of 10 percentage points in the net TRR.

When there are interruption periods for childcare or extended part-time periods for childcare, the replacement rate for women (between 79.1 and 80%) will be higher than for men (75.3 and 76.2%) in 2059. This is probably due to compensatory measures for women (maternity complement) when calculating the initial pension. In the case of persons who have suffered a disability 5 years before retirement age, the replacement rate will be significantly higher that the base case in 2059, due to the interplay of more favourable fiscal rules.

In the long term, the introduction of the ‘sustainability factor’ which links pension income to life expectancy at 65 years and the other measures introduced in the recent reforms, while responding positively to sustainability challenges, will influence future pension levels. The pension replacement rates 10 years after retirement will be around 9 p.p. lower than the base case in 2059.

One of the main objectives of the pension reform (2011, 2013) was to increase the proportionality between years of contributions and years of pension. Among the different measures there are: to tighten conditions for voluntary early retirement and to promote incentives to postpone the date of retirement. Neither of these measures have been very successful so far. In 2019, the number of early retirement pensions shows an increase in relation to the total new retirement pensions compared to 2014 and only around 5% of retirement pensioners have a supplement for having extended working life. It is a government objective to enhance these measures in order to close the gap between the legal retirement age and the effective retirement age.

The main challenge for the future adequacy of pensions is to maintain a high level of labour career length and contributions, and to reduce the gender gap in wages and level of participation in employment. The new labour relations (new forms of self-employment and non-standard work) will pose pressures on pensions adequacy due to the decrease in work intensity, causing a decrease in income, in social contributions and taxes. Further steps would include to promote the development of the supplementary occupational pension schemes, through reducing costs, improving fiscal benefits, improving transparency and quality of information, and enhancing the involvement of participants, mainly young workers.

3.3 Challenges for future adequacy

The challenges facing the public pension system include an ageing population, technological advances and changes in labour relations.

While the baby-boom generation is characterised by its demographic explosion, their children – the millennial generation – are the product of family planning. They were born in an epoch characterised by the birth rate crisis of the 1980s and the first half of the 1990s. The downward trend in the birth rate has continued in the first decades of the twenty-first century. This means that the old-age dependency ratio of persons aged 65 and over relative to the 20-64 age group is expected to almost double in 30 years – from 29.9 % in 2020 to 57.2 % in 2050. From 2050 the dependency ratio it will decrease intensely.

The 4.0 technological revolution will change the structure of the labour market. The number of jobs is expected to decline, and new jobs will become more specialised. According to OECD data, 14.7 % of jobs in Spain are at risk of disappearing.[190] This will lead to a polarisation of labour demand between highly qualified staff who have access to jobs with high salaries and those workers who do not have the knowledge or skills required for the new functions, and who will be relegated to low-wage jobs – or left outside the labour circuits.

The structure of the labour market is evolving toward an increase in 'non-standard contracts',[191] an increase in the outsourcing of services – giving rise to a growth in bogus self-employment[192] and economically dependent self-employment[193] – and an explosion in the number of 'on-demand'[194] workers supported by technological platforms and other forms of non-productive collaborative economy, such as the leasing of private goods (tourist flats being a typical example). Most people on non-standard contracts are registered under the special regime of 'self-employed', which is characterised by the low contributions of its participants, although there is also precariousness in the general regime. The new structure of the labour market, if the right policy instruments are not used, will lead to an increase in the number of workers with low pensions, compared to what they would have received on 'traditional contracts'. So, the current statutory pension scheme, designed for a labour market structure based on full-time and long-term contracts, might be failing. The social security system will have to face a larger number of pensioners on lower incomes, '*baby boomers-baby boosters*', as indicated by the dependency ratio of the population aged 65 and above relative to those of working age.

[190] OECD, *OECD Employment Outlook 2019: The future of work*, OECD Publishing, Paris, 2019. https://doi.org/10.1787/9ee00155-en
[191] These include part-time employees, fixed-term employees, temporary agency workers, casual and seasonal workers, on-call workers, apprentices and paid trainees.
[192] Bogus self-employment – when the 'self-employed' worker does not have an employment relationship with the company, but follows the company's orders (schedules, work, etc.). The company benefits, because it transfers the costs of social and tax contributions to the worker.
[193] Economically dependent self-employed – when the person works for a client from whom they receive at least 75 % of all their income, notwithstanding the fact that they may have more clients.
[194] 'On-demand' – online platform workers, most of them with zero-hour contracts.

The gender gap in pensions may widen in the future, due to the technological revolution and the increase in non-standard contracts. Because of the educational gender gap and the traditional role of women as caregivers for their families, women may be relegated to jobs that require lower professional qualifications and those that do not require full-time dedication. This means that women's wages and social protection could decline compared to the current situation, and that could result in a bigger gender gap in pensions and impoverishment in the future. In order to reduce the gender gap in pensions, further measures should be implemented aimed at: ensuring women's access to all levels of education; improving measures to reconcile work and family life; increasing the public offer of services for the care of children from birth to 3 years of age; and remunerating leave for the care of family members, among others. New rules and incentives to increase the pension age and the length of careers can contribute to better pensions on condition of extending working lives.

3.4 Solidarity mechanisms

Spain has important solidarity mechanisms, such as the supplement to guarantee a minimum pension, non-contributory pensions and the maternity supplement.

The purpose of the supplement to guarantee a minimum pension is to guarantee a certain level of income, regardless of the type of benefit (retirement, disability, survivor). It is not a universal benefit, because it is subject to means testing and proof of residence. The average monthly amount is EUR 214.14 in 2019. This supplement is not consolidated with the pension and is reviewed annually. Almost 24 % of contributory pensioners receive the supplement to guarantee a minimum pension, and the largest groups to benefit from it are women and self-employed workers. This expenditure – at EUR 7.09 billion in 2019 – represents approximately 5.54 % of total expenditure on contributory pensions.

Non-contributory pensions reach almost half a million people, which amounts to about 5 % of all pensioners with contributory pensions. These benefits are aimed at those who are not entitled to a contributory pension and who lack sufficient income. Beneficiaries are those over 65 and those between 18 and 65 with a degree of disability equal to or greater than 65 %. There is a residency requirement. The amount of the pension is set annually by the state, and in 2019 it was EUR 392.0 a month, paid in 14 instalments. People with a 'severe disability' are entitled to a supplement of 50 % of the pension (third-person allowance), and all of these receive a supplement of EUR 525 a year if their housing is rented. The annual cost of non-contributory pensions was approximately 1.9 % of the expenditure on contributory pensions in 2019.

The 'maternity supplement' is a measure of solidarity with women.[195] The government justified this measure 'for the mission of contributing demographically to the social security system'. It consists of a supplementary percentage (between 5 % and 15 % of the pension) added to a woman's contributory pension if she has had two or more biological or adopted children. The implementation of this measure started in 2016. This supplement benefited approximately 60 % of retired women in 2019. The average monthly amount of the supplement that year was EUR 59.70. This maternity supplement has stimulated a debate on its opportunity and fairness. The major controversial aspects are that it is not universal and excludes means-

[195] Art. 61 del RD-Legislativo 8/2015 texto refundido de la Ley General de la Seguridad Social.

tested pensions (as well as pensioners who retired before 2016) and that it is a gender-discriminatory measure. According to a recent ruling by the Justice Tribunal of the EU, it contravenes Directive 79/7 of the EU on gender equality in the receipt of benefits.[196]

There is favourable indexation for lower pensions, such as the supplement to guarantee a minimum pension and the non-contributory pensions. In 2010, 2011, 2018 and 2019, they were revalued above the CPI.

Another redistributive measure is pension caps on contributory pensions: while there is a floor to guarantee a minimum pension, there is also a ceiling on the maximum. Those caps are set by the government annually. In 2019, the maximum pension was EUR 2659.41 per month, while the minimum pension ranged from EUR 677.4 to EUR 835.8 per month, depending on family situation and the age of the recipient.

Contribution periods include breaks in employment for maternity/paternity, and leave for the birth or adoption of children, for the care of sick relatives and for the care of children under 6 years of age. Another type of credit is contained in the non-contributory benefit for unemployed people over 52 years of age: the time that a person receives the benefit is included as contribution time to calculate the pension.

4 OPPORTUNITIES TO ADDRESS CHALLENGES

Specific policies and measures should be taken to promote active ageing and provide access to lifelong learning, in order to encourage development and the updating of skills to accommodate the changing needs of the labour market, and thus to facilitate a longer working life.

Credits taking into account periods of inactivity (such as for childcare or unemployment) should be reinforced to guarantee adequate benefits during retirement. Moreover, measures to ensure the work–life balance and to facilitate both the insertion and the continued presence of women in the labour market should be promoted, in order to reduce the future pension gender gap.

As the social contributions of the special regime for the self-employed in the social security system are not related to their incomes, the assessment base for pension contributions by the self-employed should be adjusted to incentivise the enrolment of the self-employed in the system and avoid them ending up with low pensions, as a result of having paid the minimum rate. Measures aimed at reducing the current big share of self-employed workers choosing the minimum contribution basis and a particular focus on access to social protection by non-standard workers need in this regard particular attention.

Supplementary pension schemes – both the occupational and the individual pension plans – should be promoted by reducing their cost, improving fiscal benefits, facilitating mobility between funds, improving transparency and the quality of information, and enhancing the involvement of participants in its supervision.

[196] Council Directive 79/7/EEC of 19 December 1978 on the progressive implementation of the principle of equal treatment for men and women in matters of social security, *Official Journal of the European Communities*. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31979L0007&from=EN

5 BACKGROUND STATISTICS

5.1. Relative income	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
Relative median income ratio (65+)	1	1.04	0.95	0.17	0.2	0.14
Income quintile share ratio (S80/S20), 65+	4.5	4.55	4.44	-0.65	-0.83	-0.52
Relative income quintile share ratio (S80/S20), 65+ - 0-64	-1.85	-1.61	-2.12			
Aggregate Replacement Ratio (ARR) %	70	74	55	28	28	13
5.2. Poverty and material deprivation	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
At-risk-of-poverty or social exclusion (AROPE), 65+ (%)	15.7	15.7	15.8	-10.5	-7.2	-12.9
At-risk-of-poverty rate (AROP), 65+ (%)	14.5	14.5	14.4	-11	-7.6	-13.6
Severe material deprivation (SMD), 65+ (%)	2.3	2.4	2.2	0.4	0.6	0.2
At-risk-of-poverty or social exclusion (AROPE), 75+ (%)	17.6	18.1	17.3	-12.1	-7.4	-15.1
At-risk-of-poverty rate (AROP), 75+ (%)	16.4	17.3	15.8	-12.7	-7.2	-16.3
Severe material deprivation (SMD), 75+ (%)	2.2	1.9	2.4	0.3	-0.2	0.7
Relative median at-risk-of-poverty gap, 65+ (%)	17.1	16.4	18.6	-0.7	-5.4	1.2
At-risk-of-poverty rate (AROP), 65+: 50 % threshold (%)	7.3	6.9	7.6	-7.8	-6.4	-8.9
At-risk-of-poverty rate (AROP), 65+: 70 % threshold (%)	25.2	22.3	27.5	-10	-9.7	-10
Material and social deprivation, age 65+ (1)	11.9	10.7	12.9	-1.3	-0.3	-1.9
5.3. Gender difference	2019			Change 2008-2019		
Gender gap in pension income (65-79) (%) (2)			31.3			-4.6
Gender gap in non-coverage rate (W-M in p.p.) (65-79)			25.9			-2.4
5.4. Housing and health situation	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
Housing cost overburden rate, 65+ (%)	3.5	3.3	3.7	-0.6	0.1	-1
Self-reported unmet need for medical exam 65+ (%)	0.4	0.3	0.5	-2.2	-2.3	-2.1
Healthy life years at age 65 (years)	12.4	12.4	12.3	3.1	2.5	3.5
Life expectancy at age 65	21.6	19.5	23.5	1.4	1.4	1.4
5.5 Sustainability and context	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
Employment rate, age group 55-64 (%)	53.8	61.1	46.9	8.3	0.6	15.7
Pension expenditure as % of GDP (ESSPROS) (3)			12			3.1
Retirement duration from first pension (years) (4)	22.4	20.5	24.1	-0.1	-0.1	-0.1
Retirement duration from end employment (years)	22.6	20.6	24.3			
Eurostat and AWG projections	2019			2059		
Old-age dependency ratio (20-64) (%)	31.9	27.7	36.1	64.5	57.6	71.3
Economic old-age dependency ratio (20-64) (%) (5)	44.4	35.7	54.8	77.9		
Gross public pensions as % of GDP (5)	12.3			11.9		
Benefit ratio (%) (5)	60.0			33.2		
Coverage ratio (% of pop aged 65+) (5)	108.3			106.7		
Gross pension ratio high / low earner		2.7	2.7		2.7	2.7

(1) change since 2014, not 2008

(2) data refer to 2010, not 2008

(3) ESPROSS data refer to 2018

(4) Change is since 2016, not 2010

(5) 2060 instead of 2059

5.6 Theoretical Replacement Rates

	Net (%)				Gross (%)			
	2019		2059		2019		2059	
	Men	Women	Men	Women	Men	Women	Men	Women
Average earning (100%)								
Base case: 40 years up to the SPA	98.1	98.1	83.1	83.1	89.3	89.3	72.3	72.3
Increased SPA: from age 25 to SPA	98.1	98.1	83.1	83.1	89.3	89.3	72.3	72.3
AWG career length case	87.6	92.1	85.2	85.2	78.4	83.0	75.1	75.1
Old base case: 40 years up to age 65	98.1	98.1	83.1	83.1	89.3	89.3	72.3	72.3
Longer career: 42 years to SPA			83.1	83.1			72.3	72.3
Shorter career: 38 years to SPA			83.1	83.1			72.3	72.3
Deferred exit: 42 years to SPA +2			87.5	87.5			78.1	78.1
Earlier exit: 38 years to SPA -2			76.5	76.5			66.8	66.8
Career break – unemployment: 3 years	98.1	98.1	83.1	83.1	89.3	89.3	72.3	72.3
Career break due to child care: 3 years	98.1	102.1	83.1	85.7	89.3	93.8	72.3	75.9
Career break care to family dependant: 3 years	93.1	93.1	80.8	80.8	84.1	84.1	69.0	69.0
Short career (20 year career)	69.7	69.7	57.3	57.3	55.3	55.3	45.5	45.5
Work 35 y, disabled 5 years prior to SPA			106.1	106.1			84.1	84.1
Early entry in the LM: from age 20 to SPA			83.1	83.1			72.3	72.3
Index: 10 years after retirement @ SPA			71.7	71.7			61.6	61.6
Extended part-time period for childcare			83.1	85.1			72.3	75.0
Survivor – full career		139.1		119.5		135.7		113.5
Survivor – short career		109.1		95.6		101.7		86.7
Survivor ratio 1*		0.85		0.88		0.76		0.79
Survivor ratio 2*		0.80		0.83		0.70		0.74
Low earnings (66%)								
Base case: 40 years up to the SPA	102.1	102.1	83.4	83.4	89.3	89.3	72.3	72.3
AWG career length case	90.4	95.9	86.7	86.7	78.4	83.0	75.1	75.1
Old base case: 40 years up to age 65	102.1	102.1	83.4	83.4	89.3	89.3	72.3	72.3
Career break – unemployment: 3 years	102.1	102.1	83.4	83.4	89.3	89.3	72.3	72.3
Career break due to child care: 3 years	102.1	105.0	83.4	87.6	89.3	93.8	72.3	75.9
Short career (20 year career)	71.1	71.1	60.0	60.0	61.6	61.6	52.0	52.0
Early entry in the LM: from age 20 to SPA			83.4	83.4			72.3	72.3
High earnings (100->200%)								
Base case: 40 years up to the SPA	89.8	89.8	74.5	74.5	80.6	80.6	64.8	64.8

**Survivor ratio 1: man base case, woman base case*

**Survivor ratio 2: man base case, woman short career case*

FRANCE

Highlights

- The income situation of retired people in France is favourable, compared to the working population: the aggregate replacement ratio is over two thirds (67 %) of net pay.
- Large disparities also exist in pension levels, and in particular there are unfair differences between the various socio-professional categories. Women still on average receive much lower pensions (a gap of 30.0 % in 2019, against 39.4 % in 2010, in spite of a constant improvement in their situation.
- No pension reforms were adopted from 2017 to 2020. In 2019, work began on a new universal pension scheme. However, in the face of opposition, President Macron suspended the project in March 2020, to avoid undermining national unity during the Covid-19 pandemic situation.
- A reform of the pension system remains indispensable, in particular to increase the length of occupational activity, as a response to the decline in the old-age dependency ratio.

1 GENERAL DESCRIPTION OF THE NATIONAL PENSION SYSTEM

The French pension system comprises two main parts:

- Statutory pension schemes: These are integrated into the social security organisation set up by the state. They include the general scheme (which covers two thirds of the working population), the agricultural scheme, schemes for self-employed people and specific schemes for some types of employee (train drivers, civil servants, etc.).
- Occupational pension schemes: These schemes are known as AGIRC (for managers) and ARRCO (for non-managers). They were created by social partners, are aimed at private-sector employees and can amount to an average of 40 % of the total pension.[197] Overall, in 2018, occupational pension schemes represented 24.5 % of the total pension entitlements paid out by obligatory schemes.[198]

Affiliation to the statutory and occupational pension schemes is a legal obligation, unlike the third, much less common system in France: personal pension schemes, which can be put in place as part of a company's social protection package.[199]

[197] *Social Security Accounts*, September 2019, p. 90. https://www.securite-sociale.fr/files/live/sites/SSFR/files/medias/CCSS/2019/CCSS_RAPPORT-SEPT2019-tome%201.pdf
[198] Court of Auditors, *Annual Public Report*, February 2020.
[199] Percentage of working-age population (15-64 years) covered in 2017: 5.7 %. Source: OECD, *Pensions at a Glance 2017*, OECD Publishing, Paris, 2017, p. 157. https://www.oecd.org/els/public-pensions/pag2017.htm/

Financing of the statutory and occupational schemes is based on a pay-as-you-go system, i.e. the contributions paid in by employers and employees are used to fund pensions paid out during the same period. Personal pension schemes, on the other hand, are financed by funded pension plans: in other words, by the savings constituted from the collected contributions.

The statutory and occupational pension schemes are based on a proportional principle, by which retired people receive a pension calculated as a percentage of the remuneration from their former activity. Pensions are thus proportional to the contributions paid in during their working life.

In the general scheme, the pensionable age is 62, yet obtaining a full pension (50 % replacement rate, not including occupational schemes), which is calculated based on the average annual salary of the best 25 years, requires a contribution duration of between 163 and 172 quarters of insurance, depending on the year of birth. If this condition cannot be met, it is still possible to retire at 62, but only on a reduced, 'discounted' pension. In contrast, a higher, 'premium' pension is available to those who continue working beyond 62, if they have already paid in the required amount of contributions.

Upon retiring at an age between 65 and 67 (depending on the year of birth), the benefit is calculated at the full rate, regardless of the number of quarters acquired. There are two kinds of old-age contributions to the general scheme: 'capped' old-age insurance contributions and 'uncapped' old-age contributions.

- Capped pension contributions: People covered by the social insurance system pay contributions on salary up to a gross pay threshold, known as the 'social security ceiling' (EUR 3428 gross a month in 2020). Only pay below this ceiling is taken into account in calculating the statutory retirement pension (apart from special schemes). On 1 January 2020, the salary rate was 6.90 % and the employer share rate 8.55 %.

- Uncapped pension contributions: 'Uncapped' old-age insurance contributions are applied to the total gross salary. They do not create any pension rights and only serve to finance the pension system. On 1 January 2020, the salary rate was 0.40 % and the employer share rate 1.90 %.

People who either have worked for a certain number of years before the age of 20, or have a specified permanent level of incapacity to work can retire at age 60. In addition, workers exposed to arduous conditions and who meet criteria established by the arduous conditions account can retire up to 2 years early.

Statutory pensions are uprated each year on 1 January according to the consumer price index.[200]

However, people belonging to special employee schemes (public services officers, for example) benefit from more favourable rules in terms of retirement age and, especially, the way that pensions are calculated (75 % replacement rate, consideration of salary of the last 6 months, and no ceiling), and for this reason they are not obliged to pay into an occupational scheme in order to supplement the statutory pension.

[200] Law No 2017-1836 of 30 December 2017 on the financing of social security for 2018 (article 41) – *code sécurité sociale: article* L. 16-23-1.

In the occupational schemes, the retirement age is also 62. Pensions are calculated according to the number of retirement points acquired in exchange for contributions paid in, multiplied by the value of the point used to calculate the pension. Each year, workers accrue points in proportion to their gross pay.

It is possible to cumulate a retirement pension and paid work, but further contributions into the system cannot be used to acquire new pension rights.

In general, self-employed people acquire rights to lower pension benefits than employed people enjoy under the general scheme. This is balanced by the lower contributions required from self-employed people. However, recent years have seen self-employed contributions follow a rising trend that has taken them closer to the level of contributions paid in by salaried workers.

People working on non-standard contracts can also legally obtain an insurance pension – old-age assurance – so long as they satisfy the following insurance pension rule:

- **either** they must have completed 150 hours of employed activity in order to obtain a quarter of insurance coverage, **or**
- they must have paid a specified amount of social contributions in line with the current rules set out in the Social Security Act.

2 REFORM TRENDS

During the period from 1 July 2017 to 1 July 2020, no new reforms of the pensions system were adopted.

However, this should be viewed in the context of a deep-seated reform initiated by the current government in September 2017. The aim is to move to a 'universal pension scheme', which, the government argues, will be simpler and fairer than the system in place, because everyone will be subject to the same contribution and pension rules. This project nevertheless came up against strong opposition in May 2019 from both trade unions and a large share of the population concerned by its impact. It has been criticised for raising significant questions about pension rights for future retirees. In order to maintain national unity during the current pandemic situation, President Macron postponed the adoption of this overhaul of the pensions system to an unspecified later date. According to the initial timetable, it would have been subject to a parliamentary vote[201] towards the end of the first half of 2020 and would have been progressively implemented, starting from 2025, for generations born from 2004.

This reform project anticipates replacing the 42 existing statutory and occupational schemes, each of which corresponds to a socio-professional category (private-sector employees, civil servants, tradespeople, lawyers, ballet dancers, etc.) with a single points-based system. It will mean that each euro contributed will open up the same rights to a retirement pension, whatever the socio-professional category.

[201] Ordinary bill and draft organic law instituting a universal pensions system.

The reform would lead to the suppression of special retirement schemes (for civil servants, etc.), which would need to be withdrawn gradually, while maintaining specific rules for certain categories (members of the police and army, train drivers, etc.).

In addition, it would mean the end of the distinction between the two types of obligatory retirement schemes, i.e. statutory social security schemes and occupational retirement schemes, which would be grouped into a single administrative and financial organisation.

The pension scheme proposed would only take into account income from employment up to EUR 120,000 gross per year, instead of total income from employment. As a result, private funded pension schemes could be extended, insofar as contributions that are no longer paid into obligatory schemes could be paid into these schemes on a voluntary basis.

Although the objective put forward is fairness, the bill on reforming pensions that was presented to parliament in February 2020 nevertheless aimed to control budgetary expenditure in the face of a need for finances estimated at EUR 10 billion by 2020.

The choice not to raise the pensionable age from 62 in order to tackle the increased financial burden on the system (which itself is a result of people living longer) has led to the establishment of an equilibrium age, also known as a ‘pivot age’. This corresponds to the age at which ceasing occupational activity would maintain the pension system in financial equilibrium. This would work out at 64 (2 years above the legal age) and would evolve to reflect life expectancy.

The aim of referring to an equilibrium age is to encourage people to pursue their occupational activity after the legal age. In statutory pension schemes, the plan includes a 5 % increase or decrease per additional or missing year. This kind of bonus–malus measure has also been in place in occupational pension schemes since 1 January 2019, following an interprofessional agreement between ARRCO and AGIRC on 30 October 2015.

The proposed reform also includes the following measures to upgrade women’s pensions:

- 100 % compensation for maternity leave, starting from the day the woman stops working, in order to take better account of the corresponding period for determining pension rights; and
- a 5 % increase starting from the first child and 2 % compensation for families with three or more children.

Similarly, survivor pensions allocated to the partners of deceased pensioners, the beneficiaries of which are most often women, would have to be calculated in order to guarantee 70 % of the total retirement pensions previously received by the couple.

The situation of some people who began working before age 20 would need to be taken into account, along with early retirement between 55 and 59 years of age for workers with disabilities.

The project also includes changes to the arduous pension measure: the personal arduous conditions account would be open to civil servants, and its contribution arrangements would be more advantageous.

People who have received low pay throughout their working lives would be protected by a guaranteed minimum 85 % of the statutory minimum wage, amounting to EUR 1000 per month, after deduction of social security contributions.[202]

3 ASSESSMENT OF ADEQUACY

3.1 Current adequacy

Thanks to its combination of statutory and occupational schemes, the French pension system is able to ensure a 67 % net replacement rate.[203]

The rate of monetary poverty among people in a position to claim a retirement pension is on a steady downward trend.[204] In 2019, 11.3 % of retired people aged 75 and over were considered to be at risk of poverty (9.7 % for men, 12.3 % for women, compared to 9.7 % of those aged 65 and over (9.1 % for men, 10.1 % for women). In comparison, the rates for the whole population amounted to 13.6 % and 11.9 %, respectively, in 2008 (EU-SILC, 2018).

This situation is linked to the beneficial effect of the retirement system on the living standards of people aged 65 and over, although retired people may have other types of income apart from pensions (e.g. income from property). The trend towards lower poverty is due to increasing numbers of people who can justify a full duration of insurance contributions at the date of their retirement, which results in a progressive increase in the average pension with each generation. Another reason is the successive increases in the minimum old-age pension, which in particular concerns single and very old women (68 % of single beneficiaries are women).[205] An even more significant factor is other forms of social aid (financial aid to pay for housing,[206] to acquire a complementary health plan,[207] or to remain in the home or move to an old people's home, etc.).

We nevertheless observe that the extension of the duration of contributions and, to an even greater extent, the increase in the retirement age on a full pension, have had the effect of delaying access to retirement for a significant number of people who were already excluded from employment, such as the over-60s in long-term unemployment. As a result, some of these people end up in situations of poverty, often finding themselves obliged to claim minimum social benefits (see Section 3.3). On the other hand, undeniable progress has been made in maintaining people aged 55-64 in employment, as shown by the evolution of their employment rate from 2008 to 2019 (from 38.2 % to 53.0 % – an increase of 14.8 % in 11 years). France thus comes close to the EU[208] average (59.1 %) without actually reaching it, which would require a greater pace of change.

[202] This reform project has been postponed due to the Covid-19 crisis.
[203] EU-SILC 2018.
[204] Rate of monetary poverty established at 60 % of median available income.
[205] DREES, *Les retraités et les retraites* [*Pensioners and Pensions*], Paris, 2019 (2016 figures). https://drees.solidarites-sante.gouv.fr/etudes-et-statistiques/publications/panoramas-de-la-drees/article/les-retraites-et-les-retraites-edition-2019
[206] 3.4 % in 2018, compared to 5.5 % in 2008 for the age group 65+. Data source: EU-SILC 2018.
[207] 98.6 % of the age group 65+ with no unmet needs for medical examination to declare. Data source: EU-SILC 2018.
[208] EU and EU-27 refer to the current 27 Member States of the European Union.

The reforms under way since 1993 have had a stabilising effect on the duration of retirement, despite longer life expectancy. On average, this period amounts to 19.6 years for men and 23.6 years for women. Although the retirement age rose after 2010, since 2017 it has been stable at 63.4. In addition, healthy life expectancy at 65 is 10.4 years, and is higher for man than for women. Also relevant are the differences in life expectancy at retirement age, which can be as much as 8 years, depending on the socio-professional category: the figure is lowest for those on the lowest pensions (labourers, farmworkers) and highest for the most advantaged (executives, liberal professions).[209]

In addition, different socio-professional categories have very different pension benefits and durations. Given that the best 25 years of contributions to the general scheme are taken into account (and even the last 6 months for some special employee schemes), workers whose careers were progressive get a better deal than workers with uniform career paths: the relationship between pensions and average income over the entire career is higher for the former than for the latter. This benefits high earners. Thus, while managers tend to reap the greatest benefits, uniform career paths are more common among certain socio-professional categories, like unskilled and manual jobs, for which the pension duration is generally shorter, due to lower life expectancy at retirement age (INSEE, 2018).

Employees in non-standard jobs, in addition to their low remuneration, are penalised by the discontinuous, irregular character of their work when it comes to acquiring rights to pensions. They can find themselves unable to reach the 150 hours of work on the minimum wage to accrue a quarter of pension rights. With low pay, they may also find it difficult to acquire a sufficient number of complementary retirement points.[210]

Another observation is that despite a general improvement, women's pensions are still lower than men's. In 2015, women's pensions were, on average, 29.7 % lower than men's (EUR 1050 gross, compared to EUR 1728, excluding survivor pensions).[211] This gap can be explained by the fact that women are generally less well paid than men during their working lives, and that their careers are more often incomplete. In 2017, taking into account survivor pensions (most of which benefit women), the gap shrank somewhat (29 %), but women's average pension remains significantly lower than men's: EUR 1388 and EUR 1955 per month, respectively (DREES, 2019).

Statutory and occupational pensions are counted as income when determining eligibility for financial aid, such as the personal autonomy allowance (*allocation personnalisée à l'autonomie* (APA)) and social assistance for accommodation in an old people's home. The APA is paid to any person aged 60 or over who needs assistance to accomplish everyday activities, or who needs to be continuously supervised. Each level of dependency (GIR 1 – the highest level – to GIR 4 – the lowest level – according to the national assessment grid) is then adjusted according to the recipient's needs and level of income (GIR 1: maximum EUR 1742;

[209] INSEE, 'L'espérance de vie par niveau de vie [Life expectancy by living standard]', *INSEE première*, No 1687, February 2018, pp.1-2.
[210] G. Bonnand and G. Huteau, *ESPN Thematic Report on access to social protection and people working as self-employed or on non-standard contracts – France*, European Commission, Brussels, 2016.
[211] DREES, *Les retraités et les retraites* [*Pensioners and pensions*], Paris, 2017. https://drees.solidarites-sante.gouv.fr/sites/default/files/2020-10/pano_retraites-2017.pdf

GIR 4: maximum EUR 674).[212] The allowance is proportional to the level of income: below a monthly income of EUR 813, recipients do not contribute to the funding of the care plan; above EUR 2996, they contribute 90 % of the funding.[213]

3.2 Future adequacy

As a result of previous reforms adopted in 2003, 2010 and 2014, the Retirement Guidance Council reports that pension expenditure should stabilise at around 14 % of GDP in the long term, in a scenario of productivity growth of only 1 % a year.[214]

The financial sustainability of the pension system will continue to rely on an increased effort from employed people, already manifest as a result of previous reforms, with:

- a progressive increase in the effective age of retirement, even if the statutory retirement age has not changed, since the average age is now 63.4 years in the general scheme;[215] and
- a gradual erosion of the purchasing power of pensions, due to the dual impact of low indexation or under-indexation of pensions and the increase in social deductions from pensions. This phenomenon has been particularly marked since 2017 (COR, 2019).

Theoretical replacement rates after a standard 40-year career are set to decrease by over 10 percentage points (p.p.), and by more among low-income workers. Credits will continue to ensure an adequate pension for those with interrupted careers due to unemployment, family care and particularly childcare (the last case will have an even higher TRR than the standard career).

Other factors to consider in terms of financial sustainability are economic growth hypotheses and the future trajectory of demographic ageing.

The recurrent problem regarding future uncertainties is how to guarantee the financial balance of pensions in the event of an economic downturn, such as seems almost inevitable in the wake of the Covid-19 pandemic. This perspective raises the concern that any future reforms may not solve inequalities in treating pensions for different categories of the population.

3.3 Challenges for future adequacy

Deliberations on the adequacy of a future pension system should not be restricted to financial challenges, unlike in the past. Securing public acceptance of planned reforms in this area, such as an extension of professional activity, is an occasion to promote the social fairness of the system, and involves three main challenges:

[212] Amounts on 1 January 2020.
[213] Le Bihan, B., *ESPN Thematic Report on challenges in long-term care – France*, European Commission, Brussels, 2018.
[214] Conseil d'orientation des retraites (COR), *Rapport annuel: Évolutions et perspectives des retraites en France* [Annual Report on Development and Perspectives of Pensions in France], La Documentation française, Paris, 2019. https://www.cor-retraites.fr/documents/rapports-du-cor/evolutions-et-perspectives-des-retraites-en-france-7
[215] Delevoye, J.-P., *Pour un système universel de retraite, Préconisations* [*Recommendations for a Universal Pension System*], Ministère des Solidarités et de la Santé, Paris, 2019. https://reforme-retraite.gouv.fr/IMG/pdf/retraite_01-09_leger.pdf

- giving greater consideration to maternity leave, to help reduce pension inequalities between men and women;
- making the conditions for acquiring pension rights less restrictive for people in atypical employment or part-time work (a quarter or less); the aim is to anticipate the risk of poverty for retired people who occupied precarious, low-paid jobs throughout their working lives; and
- giving greater recognition to arduous work conditions: this is a crucial challenge because life expectancy inequalities at pensionable age are highly dependent on work conditions during working lives; particular consideration should be given to situations that are likely to have a long-term impact on workers' health (exposure to noise, psycho-social factors, etc.).

3.4 Solidarity mechanisms

The pension system comprises a large number of mechanisms that grant retirement pension rights but have no relation to the amount of contributions paid in. Devised to establish national solidarity between pensioners, these mechanisms include:

- credit periods of unemployment during occupational careers (unemployment without benefits, return to studies, etc.);
- credit pension rights for people in specific circumstances (maternity, unemployment, illness, dependent children, etc.); and
- a guaranteed minimum pension though the old-age solidarity allowance (*allocation de solidarité aux personnes âgées*).

A minimum old-age benefit is guaranteed to people aged 65 or over. This is based on a solidarity allowance for old people, and is aimed at topping up their income to a guaranteed monthly level, which in 2020 was EUR 868 for a single person and EUR 1348 for a couple. This allowance is more frequently allocated to women (56 % of beneficiaries) than to men, and in three quarters of cases beneficiaries live alone. However, only 3.5 % of older people are affected by this measure.

The spouse of a person entitled to (or likely to be entitled to) a statutory or occupational pension can claim a survivor pension (54 % of the pension in the general statutory scheme, 60 % in occupational schemes) in the event of their death.

The aim of these different measures is to increase the amount of pension or to advance the age of retirement. They represent a total budget of EUR 43.8 billion (DREES, 2016).

In general, the lower the pension, the greater the contribution made by these solidarity mechanisms. Thus, for pensioners in the first income quartile, they constitute a 49.3 % share, compared to 10.1 % for pensioners in the fourth quartile. For the poorest pensioners, mechanisms like minimum pensions and the validation of non-contributory insurance periods to compensate for having been unemployed represent an important part of their pensions.

Some solidarity mechanisms also contribute to reducing pension differences between the sexes. Thus, they represent a 22 % share of women's pensions, compared to 12.4 % for men.[216] In fact, the increased duration of insurance granted for giving birth and bringing up children almost exclusively concerns women. This is also the case for pension insurance quarters that are validated in the case of a reduction in occupational activity following the birth of a child. Given their generally low levels of contributory pension or survivor pension, women also benefit more regularly from the minimum income guarantee provided by the old-age solidarity allowance.

The solidarity mechanisms relating to family rights recognised by the pension system also reduce pension disparities between insured parties with three or more children and other pensioners. This affects both women and men. Thus, fathers of three or more children benefit from a 16.8 % solidarity share, compared to 9.6 % for other men. The gap is greater still for women: the corresponding figures are 42.2 % and 12.2 %, respectively. This greater difference results from the fact that several solidarity mechanisms related to family rights are reserved for women and increase with the number of children (non-contributory pension quarters validated for maternity reasons), and the fact that women benefit more often from validated quarters resulting from a reduction in occupational activity following the birth of a child.

Lastly, solidarity mechanisms play a greater role in statutory pension schemes than in occupational pension schemes.

4 OPPORTUNITIES TO ADDRESS CHALLENGES

Preserving the future of the pension system would involve increasing the pensionable age or extending the insurance record to obtain a full pension. However, such a reform path is not without pitfalls and will require satisfactory responses to two key challenges:

- increasing the employment rate of older workers, mostly in the form of measures to combat unemployment within this section of the population; measures have to date proved ineffective, due to the obstacles they encounter in the labour market; and
- reinforcing measures to promote health and safety in the workplace, in particular, preventive health measures in arduous jobs.

A particular obstacle concerns the principle of intra-generational solidarity that underlies the pension system and whether it should allow for different options of retirement age and benefit levels. The risk of granting such an option to individuals is that it could create unequal conditions for people in a position to choose (in particular, those with better working conditions) and those with no choice other than to retire (such as unemployed people or workers in very arduous jobs). The latter, despite not being in a position to extend their activity, could find their pensions significantly reduced.

[216] Chedoudko, P., Martin, H. and Tréguier, J., 'Retraite. Les dispositifs de solidarité représentent 22 % des pensions versées aux femmes et 12 % pour les hommes [Retirement: Solidarity measures represent 22 % of pensions paid out to women and 12 % for men]', *Les dossiers de la DREES*, No 49, 2020.

5 BACKGROUND STATISTICS

5.1. Relative income	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
Relative median income ratio (65+)	1	1.03	0.98	0.05	0.03	0.06
Income quintile share ratio (S80/S20), 65+	4.11	3.9	4.26	-0.27	-0.55	-0.03
Relative income quintile share ratio (S80/S20), 65+ - 0-64	-0.2	-0.37	-0.08			
Aggregate Replacement Ratio (ARR) %	65	65	65	0	-4	5
5.2. Poverty and material deprivation	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
At-risk-of-poverty or social exclusion (AROPE), 65+ (%)	11.2	10.6	11.6	-2.9	-0.1	-5
At-risk-of-poverty rate (AROP), 65+ (%)	9.7	9.1	10.1	-2.2	0	-3.9
Severe material deprivation (SMD), 65+ (%)	3.2	3.2	3.3	-0.1	0.7	-0.6
At-risk-of-poverty or social exclusion (AROPE), 75+ (%)	12.3	10.7	13.4	-3.7	0.1	-6
At-risk-of-poverty rate (AROP), 75+ (%)	11.3	9.7	12.3	-2.3	1	-4.4
Severe material deprivation (SMD), 75+ (%)	2.6	1.8	3.1	-0.7	-0.8	-0.7
Relative median at-risk-of-poverty gap, 65+ (%)	13	11.2	13.7	4.9	4.2	4.9
At-risk-of-poverty rate (AROP), 65+: 50 % threshold (%)	3	2.3	3.5	0.5	0.4	0.5
At-risk-of-poverty rate (AROP), 65+: 70 % threshold (%)	17	14.9	18.6	-6.3	-3.6	-8.3
Material and social deprivation, age 65+ (1)	11.1	8.8	12.9	0.3	1	-0.2
5.3. Gender difference	2019			Change 2008-2019		
Gender gap in pension income (65-79) (%) (2)			30			-9.4
Gender gap in non-coverage rate (W-M in p.p.) (65-79)			0.8			-1.8
5.4. Housing and health situation	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
Housing cost overburden rate, 65+ (%)	5	3.5	6.2	-0.2	0.8	-0.8
Self-reported unmet need for medical exam 65+ (%)	1.7	1.6	1.7	-0.8	-0.1	-1.4
Healthy life years at age 65 (years)	11.0	10.4	11.6	1.5	1.7	1.5
Life expectancy at age 65	21.9	19.7	23.8	0.9	1.2	0.8
5.5 Sustainability and context	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
Employment rate, age group 55-64 (%)	53	55.4	50.9	14.8	14.8	15
Pension expenditure as % of GDP (ESSPROS) (3)			14.4			1.5
Retirement duration from first pension (years) (4)	24.0	22.0	26.0	-0.3	-0.2	-0.1
Retirement duration from end employment (years)	24.0	21.7	26.2			
Eurostat and AWG projections	2019			2059		
Old-age dependency ratio (20-64) (%)	36.1	31.6	40.3	56.1	50.2	61.8
Economic old-age dependency ratio (20-64) (%) (5)	47.1	39.9	54.6	70.8		
Gross public pensions as % of GDP (5)	14.8			13.5		
Benefit ratio (%) (5)	40.9			30.0		
Coverage ratio (% of pop aged 65+) (5)	176.9			157.0		
Gross pension ratio high / low earner		1.9	1.9		1.9	1.9

(1) change since 2014, not 2008
(2) data refer to 2010, not 2008
(3) ESPROSS data refer to 2018
(4) Change is since 2016, not 2010
(5) 2060 instead of 2059

5.6 Theoretical Replacement Rates

	Net (%)				Gross (%)			
	2019		2059		2019		2059	
	Men	Women	Men	Women	Men	Women	Men	Women
Average earning (100%)								
Base case: 40 years up to the SPA	76.2	76.2	65.1	65.1	63.8	63.8	52.1	52.1
Increased SPA: from age 25 to SPA	80.3	80.3	68.2	68.2	68.1	68.1	54.5	54.5
AWG career length case	68.8	64.7	69.3	61.9	57.2	53.0	55.7	49.5
Old base case: 40 years up to age 65	69.7	69.7	60.5	60.5	58.2	58.2	48.4	48.4
Longer career: 42 years to SPA			68.2	68.2			54.5	54.5
Shorter career: 38 years to SPA			62.1	62.1			49.7	49.7
Deferred exit: 42 years to SPA +2			71.7	71.7			57.4	57.4
Earlier exit: 38 years to SPA -2			57.7	57.7			46.1	46.1
Career break – unemployment: 3 years	75.8	75.8	64.8	64.8	63.4	63.4	51.8	51.8
Career break due to child care: 3 years	78.4	84.4	66.6	72.1	66.1	72.3	53.2	57.6
Career break care to family dependant: 3 years	74.0	74.0	62.4	62.4	61.5	61.5	49.9	49.9
Short career (20 year career)	38.0	38.0	31.2	31.2	30.4	30.4	24.9	24.9
Work 35 y, disabled 5 years prior to SPA			56.2	56.2			43.8	43.8
Early entry in the LM: from age 20 to SPA			82.6	82.6			71.3	71.3
Index: 10 years after retirement @ SPA			57.4	57.4			45.9	45.9
Extended part-time period for childcare			65.2	70.6			52.1	56.4
Survivor – full career		87.2		81.1		74.9		66.3
Survivor – short career		78.4		67.4		66.0		53.8
Survivor ratio 1*		0.57		0.62		0.59		0.64
Survivor ratio 2*		0.69		0.70		0.70		0.70
Low earnings (66%)								
Base case: 40 years up to the SPA	76.3	76.3	61.6	61.6	63.8	63.8	52.1	52.1
AWG career length case	69.5	64.4	66.8	59.3	57.2	53.0	55.7	49.5
Old base case: 40 years up to age 65	70.7	70.7	58.0	58.0	58.2	58.2	48.4	48.4
Career break – unemployment: 3 years	75.8	75.8	61.3	61.3	63.4	63.4	51.8	51.8
Career break due to child care: 3 years	79.0	86.4	63.0	68.2	66.1	72.3	53.2	57.6
Short career (20 year career)	55.2	55.2	35.7	35.7	42.7	42.7	27.9	27.9
Early entry in the LM: from age 20 to SPA			84.4	84.4			71.3	71.3
High earnings (100->200%)								
Base case: 40 years up to the SPA	57.3	57.3	49.0	49.0	45.4	45.4	36.0	36.0

**Survivor ratio 1: man base case, woman base case*

**Survivor ratio 2: man base case, woman short career case*

CROATIA

Highlights

- Due to the opposition of trade unions and pensioners' associations, some formerly enacted reforms related to retirement age, early retirement age, equalisation of retirement age of men and women were revoked after 2019.
- A number of reforms have sought to improve adequacy in the statutory schemes: a more generous rotating indexation formula, reduction in the management fee in the statutory funded pension scheme, and changes in the formula for payments under the statutory pension scheme for two-tier pensioners.
- Redistributive elements are strongly present, especially within the pay-as-you-go (PAYG) statutory scheme (e.g. pension credits during maternity and parental leave; pension credits for disability and survivor pensions; minimum pension without means testing; special treatment of workers in arduous and hazardous jobs).
- Key opportunities to address challenges include promoting longer working lives, and assessing the performance of the statutory funded scheme.

1 GENERAL DESCRIPTION OF THE NATIONAL PENSION SYSTEM

Since 2002, the Croatian pension system has been a mixed system, consisting of three schemes. The legislative framework is complex and it has been changed frequently.[217] The public pension scheme is designed as a pay-as-you-go (PAYG) defined benefits scheme financed by contributions, with a high deficit financed from the state budget (around 44.4 %).[218] Both the statutory funded pension scheme and the supplementary pension scheme can be classified as funded pension schemes. They are defined contribution schemes based on individual accounts financed from contributions and investment returns. The statutory funded pension scheme is mandatory, while the supplementary pension pillar is voluntary, and includes both 'open funds' for all citizens and 'closed funds' sponsored by employers, trade unions or other professional associations. Hence, 'closed funds' within the supplementary pension scheme have some

[217] Currently it consists of several basic laws: the Pension Insurance Act (OG 157/2013, 151/2014, 33/2015, 93/2015, 120/2016, 18/2018, 62/2018, 115/2018, 102/2019), the Act on Compulsory Pension Funds (OG 19/2014, 93/2015, 64/2018, 115/2018), the Act on Voluntary Pension Funds (OG 19/2014, 29/2018, 115/2018) and the Act on Pension Insurance Companies (OG 22/2014, 29/2018, 115/2018). However, there are altogether 18 laws relevant to the pension system.
[218] There is a trend of increasing expenditures, due to a recent stabilisation in the statutory pension scheme (in 2015 it increased to HRK 15.326 billion (approximately EUR 2.016 billion), in 2016 to HRK 16.507 billion (approximately EUR 2.171 billion), in 2017 to HRK 16.583 billion (approximately EUR 2.181 billion) and in 2018 to HRK 16.463 billion (approximately EUR 2.166 billion). Source: Author's calculations based on information from the reports of the Croatian Pension Insurance Institute. http://www.mirovinsko.hr/UserDocsImages/Izvjesce_o_radu_i_poslovanju_Zavoda

features of occupational pension schemes, although Croatia has no specific occupational defined benefit pension schemes. In fact, it is a personal pension scheme.

Regarding personal coverage, the statutory pension schemes cover all persons in employment and self-employment (including those on maternity and parental leave and sick leave), and some others, including full-time volunteers, apprentices and parents with children under 1 year of age. All insured persons who were under 40 at the time of the 2002 reform had to participate in both the public pension scheme and the statutory funded pension scheme (double coverage). Those between 40 and 50 could choose between staying in the public pension scheme or additionally joining the statutory funded scheme, while those over 50 had to remain within the public pension scheme. The dependency ratio within the public pension scheme grew rapidly between 1990 and 2000, being itself a major driver of the reforms. Since 2010, it has been higher than 80 %, reaching a peak of 87.57 % in 2014. Since then, it has fallen slightly. At the end of 2019, the public pension scheme had 1,545,192 contributors and 1,241,111 pensioners; hence the dependency ratio amounted to 80.32 %.[219] It is useful to note that during the summer months the dependency ratio improves, due to tourism (the seasonal character of the Croatian economy). The number of individual accounts within the statutory funded pension scheme is always higher than the number of contributors to the public pension scheme; it reached 1,936,261 at the end of 2018 (Croatian Financial Services Supervisory Agency, 2018).[220] This difference is due to the fact that the statutory funded pension scheme's accounts are kept inactive during a period of unemployment. The number of savers within the supplementary pension schemes is growing. In 2016, there were 286,312 members; even with state incentives, the figure remains relatively low – 345,627 members, or 19.1 % of the working-age population, at the end of 2018 (Croatian Financial Services Supervisory Agency, 2018).

The total contribution rate for the statutory schemes is 20 %. Persons covered only by the PAYG scheme pay all their contributions to the statutory pension scheme, while those in both schemes pay 15 % to the PAYG pension scheme and 5 % to the statutory funded pension scheme. Since January 2017, due to a tax reform, persons receiving non-regular income from employment and self-employment (so called 'other income') have paid contributions at a reduced rate (10 % instead of 20 %). The pension contribution is paid from an employee's wages or from the 'pension insurance base' (for self-employed persons and some other categories). Contributions paid for mandatory pension schemes are tax exempt, while pension payments are taxed. Contributions paid for voluntary schemes are not tax exempt,[221] although employers' matching contributions are.[222] Hence, the supplementary pensions in payment are normally tax exempt; they are only partially taxed, in proportion to the tax relief awarded during the accumulation phase.

The public pension scheme comprises old-age pensions (including several early retirement pension options), survivor pensions and three types of disability pensions (total, partial and

[219] Statistical Indicators. http://www.mirovinsko.hr/

[220] Croatian Financial Services Supervisory Agency, *Godišnje Izvješće*, 2018. https://www.hanfa.hr/media/3842/godisnje-izvjesce-2018.pdf

[221] The government stopped the income tax incentive in 2010.

[222] Since 2010, up to HRK 500 per month (around EUR 66) or a total of HRK 6000 per year (around EUR 790). The government has provided a matching contribution of 15 % for savers in the supplementary pension scheme, up to a ceiling of HRK 750 (about EUR 100).

temporary), also including higher benefits if death and disability were caused by an accident at work or an occupational disease. In order to acquire the right to an old-age or early retirement pension, a person must fulfil two conditions: (1) pensionable age and (2) qualifying years. The pensionable age still differs for men and women, although it will be equalised to 65 by 2030. In 2020, the pensionable age for men was 65 and for women 62 years and 6 months. The early retirement window is set 5 years lower. Regarding qualifying years, 15 years are required for old-age retirement, while for early retirement the requirement is 35 years. In addition, as of 2014, there are two new early retirement options without pension decrement: (1) at the age of 60 for those who have completed at least 41 years of contributions and (2) for persons who have reached early retirement age and have been unemployed for at least 2 years as a result of the bankruptcy of their employer. Deferred retirement is possible, but with an accrual bonus for a maximum of only 5 years (hence, up to the age of 70). Since 2014, old-age pensions have continued to be paid in full only to beneficiaries who continue to be employed part time up to a maximum half of full working hours (i.e. a maximum of 20 hours per week). Thus, the measure does not apply to full-time employment or regular self-employment activities. The Labour Act, as well as many laws in the public sector, still links automatic termination of employment to reaching the age of 65 (e.g. civil service, public administration, education, health sector).

Croatia has numerous groups of pensioners (determined by special legislation) who have earned their pensions under more favourable conditions, based on their status. There are now 17 categories, and at the end of 2019 they accounted for 14.36 % of all pensioners.[223] The biggest group is war veterans, and in 2017 the government changed the legislation to provide more extensive rights for these beneficiaries.[224] In addition, persons who perform hazardous and arduous work, as well as some other categories (e.g. persons with certain disabilities), enjoy pension advantages in the form of additional years of service and a retirement age reduction, partially financed by employers' additional contributions.[225]

2 REFORM TRENDS

The Croatian pension system has undergone many reforms: one systemic reform (from 1998 to 2002), and several parametric reforms (2013-2015), plus the most recent one (in 2018), which raised the issue of the role of trade unions as stakeholders in the preparation of such comprehensive reforms. In order to improve the adequacy and sustainability of the pension system, the government introduced a reform at the end of 2018, with effect from 2019.[226] There were several points to the reform.[227]

[223] Croatian Pension Insurance Institute, *Statistical Information*, 1/2020, p. 33.
[224] Zakon o hrvatskim braniteljima iz Domovinskog rata i članovima njihovih obitelji [Act on Croatian War Veterans and Members of Their Families], OG 121/17.
[225] Vukorepa, I., 'Retirement policy changes for workers in arduous and hazardous jobs: Comparative overview and lessons for Croatia', *Zbornik Pravnog fakulteta u Zagrebu*, Vol. 67, No 1, 2017, pp. 5-28.
[226] The reform is contained in six laws: the Pension Insurance Act, the Act on the Insurance Periods Counted with Extended Duration, the Act on Mandatory Pension Funds, the Act on Voluntary Pension Funds, the Act on Pension Insurance Companies, the Act on the Supplement to Pensions Earned under the Pension Insurance Act, OG 115/2018.
[227] See Bežovan, G., 'Croatia: Will the reform of the pension system contribute to improving the adequacy and sustainability of pensions?', *ESPN Flash Report* 2018/69, European Social Policy Network (ESPN), European Commission, Brussels,

Increase in pension benefits: for retirees on a minimum pension (around 246,000 people), pensions increased by 3.13 % from 1 July 2019 on the principle of solidarity. At that time, the average minimum pension was HRK 1697 (EUR 229), and it was a contribution to pension adequacy.

In order to increase **sustainability of the pension system** (also an **adequacy measure**), one of the main points of the reform was to **increase pensionable age**. Under the reform, the retirement age will be 67 from 2033. In 2018, people with a 41-year contributory period could receive an old-age pension at 60; under the reform, this will become 61 years in 2027 with a 41-year-contributory period. From 2027, retirement conditions for old-age pensions will be the same for women and men aged 65 and with 15 years of insurance. From 2028, the pensionable age will be increased by 4 months per year. By 2033, men and women will be entitled to early retirement at 62, if they have 35 years of insurance.

Penalty for early retirement: the reform reduced early retirement pensions by 0.30 % for each month of retirement before the pensionable age (3.6 % per annum), and up to a maximum of 18.0 % for 5 years. The reward for postponed retirement was increased from 0.15 % to 0.34 % per month of paid employment after the prescribed age, with 35 years of contributions.

Work in arduous or hazardous conditions: the reform reduced the number of jobs and increased the number of occupations for which the insured period is calculated with an increased duration: from 95 jobs and 11 occupations (about 25,000 beneficiaries) to 52 jobs and 13 occupations.

Statutory funded pensions: the reform created equal rights for all retirees receiving a pension from both the statutory pension scheme and the statutory funded pension scheme. Persons born before 1952 receive a public pension only. Those born between 1952 and 1961, who voluntarily opted for the statutory funded pension scheme, had the possibility to opt out of that regime at the moment of retirement. Recent pension regulation amendments from 2019 also allowed the cohorts born in 1962 and later to opt out of the statutory funded pension scheme and choose between the following options with supplements: (1) a pension only from the public pension scheme with a supplement of 27 % and a transfer of funds from the statutory funded pension scheme to the public pension scheme;[228] or (2) a pension from both the public pension scheme and the statutory funded pension scheme with a supplement of 27 % for the period insured in the public pension scheme until 2001, and a supplement of 20.25 % for the period insured in the statutory funded pension scheme from 2002 until retirement.

Reduction in the management fees of the statutory funded pension scheme: entrance fees were reduced from 0.8 % to 0.5 % of paid contributions. Management fees, which amounted to no more than 0.3 % of paid contributions in 2019, are reduced by 4 % for each subsequent year to a minimum of 0.2 %. People insured under the statutory funded pension scheme can request a one-off payment of up to 15 % of their savings when they retire, if their pension from the public scheme is above the minimum pension.

2018; G. Bežovan, 'Trade Unions Mobilise Citizens' Support for Referendum against Recent Pension Reform', *ESPN Flash Report* 2019/24, European Social Policy Network (ESPN), European Commission, Brussels, 2019.

[228] With supplements of 27 % and 20.25 %, the government contributes to the equalisation of pensions from the statutory funded pension scheme to those from the public pension scheme.

Reform created the possibility of the establishment of state Pension Insurance Companies (PICs): a PIC is a joint-stock or limited liability company that pays out pensions from the statutory funded pension scheme and a supplementary funded pension scheme.

Finally, the reform introduced additional major changes: (a) for each child born or adopted, the mother will receive a 6-month addition to her contributory period once she reaches pensionable age; (b) the indexation formula is more favourable: twice a year, 70 % of the consumer price index or the wage index (whichever is higher) over the previous 6 months plus 30 % of the consumer price index or the wage index (whichever is lower) in the 6 months before that; (c) like old-age retirees, early retirement pensioners can also combine pension and part-time employment; and (d) in order to increase transparency, the government designated one Mandatory Pension Fund board member representing insured persons.

The trade unions disagreed strongly with the increase in pensionable age, the increased penalty for early retirement and the increased pensionable age for the long-term insured. Three trade unions initiated an action to collect signatures in favour of a referendum on amendments to the Pension Insurance Act adopted in December 2018. Signatures were collected from 27 April to 11 May 2019 'to enable all citizens to have their voices heard and to take part in the decision making that determines how they will spend their old age'.

Under such pressure, in October 2019 the government passed a law containing the following provisions requested by trade unions:[229]

- the pensionable age returned to 65, cancelling the increase to 67;
- the early retirement age returned to 60, cancelling the increase to 62;
- long-term insured persons will be entitled to an old-age pension at 60, with a 41-year contributory period, cancelling the increase in the required age to 61;
- the permanent reduction (penalisation) of early retirement pensions is reduced from 0.3 % to 0.2 % per month for the difference between pensionable age and the early retirement age, lowering the reduction cap for early retirement from 18 % to 12 %; and
- the transitional period for the application of equal conditions to women and men for entitlement to an old-age pension and early retirement pension was extended from 2026 to 2029.

With recent tax reform from 2017, persons receiving non-regular income from employment and self-employment (so called 'other income') pay contributions at a reduced rate (10 % instead of 20 %). There is still a variety of contribution bases and contribution rates that makes work under non-standard contracts (e.g. contract for service, author's contract, student contract or occupational training, etc.) cheaper than using standard employment contracts. Recently the media have picked up on this as undermining the welfare state concept, and it is obvious that the current spread of such practices will affect the future pension adequacy for non-standard workers.

[229] Zakon o izmjenama zakona o mirovinskom osiguranju [The Act on Amendments to the Pension Insurance Act], OG 102/2019.

Croatia is also preparing for the introduction of a basic income benefit for older people. A preparatory study estimated that 30,000 to 40,000 older people (mostly women) in Croatia did not meet the minimum eligibility requirements for a pension.[230] In May 2020, parliament passed the Law on National Benefit for Older Persons. The benefit is targeted at citizens aged 65 who have resided in Croatia for 20 years and whose monthly income does not exceed HRK 800 (EUR 105) per household member.

3 ASSESSMENT OF ADEQUACY[231]

3.1 Current adequacy

Pensioners in Croatia experience a significant drop in living standards compared to their pre-retirement income, but a slight positive sign is visible from Eurostat data. The aggregate replacement ratio (ARR),[232] which stood at 32 % in 2010, had increased to 39 % in 2019; but it is still among the lowest in the EU. The low ARR can be explained by a very unfavourable pension system dependency ratio, lack of income from the statutory funded part of the pension system for current pensioners, and a limited number of years of contribution (short working lives). The share of pensioners who receive a pension based on 40 or more qualifying years – although slowly increasing – is still very low (at the end of 2019, still only 16.94 %).[233] The gender gap in pension income has decreased to 24.4 %, from 25.8 % in 2010 and 23.78 % in 2016. The relative median income ratio of older people (65+) compared with the median income of working-age adults had decreased by 2019 to 0.79, from 0.83 in 2016 (and 0.80 in 2010) and remains significantly below the EU[234] average of 0.90 in 2019; this could be explained by the fact that in the period 2015-2019, wages grew more than pensions. For women, the situation has improved somewhat since 2010: in 2010, the ratio for women was 0.73, compared to 0.84 for men, while in 2019 the figure for women had increased to 0.73 and for men had slightly decreased, to 0.82. This can be explained by the twin facts that the retirement age for women in Croatia is being slowly increased up until 2030,[235] and increased periods of contribution are directly affecting the level of income from pension benefits. On the other hand, the ratio for women in Croatia is still significantly below the EU figure, which stood at 0.89 in 2019. Income inequality between the top and the bottom quintiles of those aged 65+, as measured by the income quintile share ratio S80/S20, was 4.51 in 2019 in Croatia – a decrease of 0.80 percentage points (p.p.) from 5.31 in 2010. However, in comparison with the EU average S80/20 of 4.2 in 2019, income inequality for pensioners is still significantly higher in Croatia, which is among the group of countries with the highest pension inequalities in EU.

[230] Bejaković, P., *Analiza parametara iz sustava socijalne skrbi, mirovinskog sustava te stanje na tržištu rada i EU praksa u odnosu na projekt uvođenja nacionalne mirovine* [Analysis of Parameters from the Social Care System, the Pension System and the State of the Labour Market and EU Practices in Relation to the Project of Introducing a National Pension], Institut za javne financije, Zagreb, 2019.
[231] See Section 5 'Background statistics'.
[232] The ratio of income from pensions of persons aged between 65 and 74 years and income from work of persons aged between 50 and 59 years.
[233] Moreover, slightly less than 40 % of pensioners have fewer than 30 years of service, more women than men. Information from the Croatian Pension Insurance Institute, *Statistical Information*, 12/2019, p. 80.
[234] EU and EU-27 refer to the current 27 Member States of the European Union.
[235] For 3 months every year till 2029.

Overall risk of poverty and social exclusion for older persons (65+) remains high (33.6 % in 2019). Nevertheless, the rate of those at risk of poverty or social exclusion (AROPE) among people aged over 65 has decreased since 2010 by 3.9 p.p. (from 37.5 %), and for those aged over 75 by even more (6.4 p.p.) – from 44.2 % in 2010, to stand at 37.8 % in 2019. The AROPE rate for people aged 65+ in Croatia in 2019 was still significantly higher than the EU average that year of 18.5 %. Moreover, Croatian pensioners and people aged 65+ experience severe material deprivation at a much higher level than average EU pensioners: 10.0 % of those aged 65+ in Croatia experienced severe material deprivation in 2019, compared with the EU average of 4.8 %. The situation is similar with the at-risk-of-poverty (AROP) rate among those aged 65+, which had slightly decreased to 30.1 % in 2019 (from 30.5 % in 2010), but was still significantly higher than the EU average of 16.1 %.

Data on material and social deprivation for those aged over 65 registered an even bigger decrease since 2010 of 9.3 p.p. (from 24.7 % in 2014 to 15.4 % in 2019), but it was still much higher than the EU average, which stood at 12.4 % in 2019. The housing situation of older people in Croatia (65+) is relatively good, since 96.5 % are homeowners; and with 6.8 % who registered a housing cost overburden, the situation is better than in the EU as a whole, where the average was 10.0 % in 2019. On the other hand, other fields of material deprivation for people 65+ in Croatia – such as being able to afford a week's holiday away from home or to face unexpected expenses – are significantly lower than the average for EU.

That said, the health situation indicators are significantly worse than the EU average: both men and women could expect around 5 years of healthy life at the age of 65, compared to the EU average of 10.2 years for men and 10.4 years for women. Moreover, in Croatia life expectancy at the age of 65 in 2019 was 17.7, which was significantly lower than the EU average of 20.0. The data also point to a decrease in healthy life years: from 2010 to 2019 the figure fell by 2.8 years for men and 2.4 years for women. This negative trend should be examined more broadly and should provide an incentive for improvements in healthcare policy. Regarding meeting the need for medical care, in 2019 6.3 % of those over 65 had self-reported unmet need – above the EU average of 3.7 %.

Finally, it should be stressed that the relatively low pensions in Croatia create increased poverty rate risk among older people and a relatively low standard of living among pensioners. However, low pensions are often complemented by various social programmes at the level of local government, which offer and provide different social services for older persons at a reduced price – e.g. public transport tickets, as well as concert, theatre and cinema tickets. Additionally, many local governments target poor older people and pensioners on a low pension with special cash social benefits paid for from local government budgets (mainly cities and municipalities).

At the end, it should be pointed out that, when it comes to criteria for accessing long-term care services (such as getting a place in an old people's care home), no income or assets test is applied, although other criteria are used, as defined by each care (county) home (and not always publicly announced). On the other hand, after placement in a care home, cost-sharing is in place, based on a means test. The amount of the cost covered by each beneficiary is determined according to a special procedure.[236] The state may fully cover all the costs for very poor or frail older people placed in a public home by decree of a social care centre, or partially pay for the cost of the services in cases where the user does not have (sufficient) income or assets. There is no formally prescribed threshold to define ‘poor and frail’; usually it refers to older people without any income or with very low income and assets. Information about the social situation of their family members is checked, so if children are able to pay, they will cover the costs; if not, the state will cover the full cost. The decision is up to the social care centre, which uses all available medical documentation: those who, for reasons of health, are unable to live at home any longer will – after checks are carried out on their income, assets and family situation – be placed in a care home and the state will cover the cost. Regarding cash benefits (like allowance for assistance and care), an income and assets test is applied. The income ceiling for families corresponds to an average income of 200 % of the base amount (which is set at HRK 500 (EUR 68)) per family member. The means-test level for an individual living alone is 250 % of the base amount. In cases of serious mental or physical impairment – as well as in cases of blindness and/or deafness (where the blind/deaf person has not been trained to care for themselves) – the means test does not apply.

3.2 Future adequacy

Theoretical replacement rates in 2059 are projected to be lower than in 2019; for a 40-year career ending at the standard pensionable age, the reduction is 7.5 p.p. Most career breaks and short careers would result in proportionally lower pension rights, reflecting the contribution-based nature of the pension system (except childcare breaks, where pension rights are almost fully preserved). Replacement rates for low earnings are only slightly higher than for average earnings.

3.3 Challenges for future adequacy

The key challenge of pension adequacy in the future will be the intergenerational redistribution between the (fewer) people in younger cohorts paying contributions and the older cohorts receiving pensions. Based on the projections of Eurostat, in 2020 the old-age dependency ratio was expected to be at the overall EU level (32.6 for Croatia and 32 for the EU); but this ratio will rise faster in Croatia than in the EU (it is estimated that in 2050 the ratio will be 56.1 for Croatia and 51.9 for the EU). This means that the share of funds for pensions from taxes (the budget) will have to increase, which will unfavourably influence the budget balance and cause a shortage of funds for other social needs.

In addition, a longer pension duration can be expected because of longevity: according to the projections of Eurostat, the life expectancy of persons at age 65 will have increase by 2050 by more than 3.5 years for both men and women. However, the number of healthy life years after 65 has fallen and is on a downward trend (see Section 3.1). This could be a challenge for the public healthcare system, and at the same time an incentive to improve preventive and curative healthcare policy.

[236] In line with the Ordinance on participation and method of payment of beneficiaries for the maintenance costs of accommodation outside the family defined by the MDFSP.

The self-employed and non-standard workers have a lower contribution base and/or contribution rate, as well as short and interrupted work careers. This means that some of the workers on non-standard contracts will be confronted with periods of service that are too short to qualify for a pension (or that potentially yield a very low pension). Non-standard employment accounts for approximately 20 % of total employment in Croatia, and this share increased between 2008 and 2018 by 7.6 p.p. There are no significant differences between the sexes regarding the share of non-standard employment. Croatia has already undertaken some measures to prevent poverty among old people without pension benefits, by introducing the 'national benefit for older persons' (a social pension for those who are not entitled to contributory pensions) (see Section 2). Vukorepa, Tomić and Stubbs[237] propose that: (1) income from all work contracts should be treated equally and should be subject to payment of social security contributions; and (2) the self-employed should be allowed to fill retrospectively the gap in their past contributions or to top up the sum of contributions. This would extend the circle of persons who pay contributions, citizens could expect higher benefits in the future, and unequal treatment of standard and non-standard employment would be eliminated from the social protection system.

The Covid-19 pandemic will have a negative impact on pension adequacy and, with the current crisis, more people in public debate are calling for the dismantling of statutory funded pensions.

3.4 Solidarity mechanisms

Elements of solidarity or redistribution have been strongly present in the Croatian pension system, especially in the statutory pension scheme. Firstly, the compulsory pension insurance is broad based, because it covers all economically active persons (employed and self-employed, including those on maternity/parental leave and sick leave), but also some other groups like volunteers and apprentices, students, the unemployed or non-working parents who care for a little child (Vukorepa, 2017).[238] Secondly, additional pension credits (insurance periods not covered by contributions) are provided for disability and survivor pensions and to some categories of persons for old-age pensions.[239] In calculating disability and survivor pensions, additional years of service are added if the insured person has not attained the age of 60. If disability or death was caused by an accident at work or an occupational disease, the pension is calculated for at least 40 years of service (Pension Insurance Act, OG 157/2013, Art. 86). The third – and for many the most important – element of solidarity is the minimum pension, which is not means-tested or fixed, but depends on the number of qualifying years, multiplied by the minimum actual pension value. The share of minimum pension beneficiaries in the pensioner population had increased from 12.6 % at the end of 2008 to 22.6 % in January 2020

[237] Vukorepa, I., Tomić, I., Stubbs, P., *ESPN Thematic Report on access to social protection for people working on non-standard contracts and as self-employed – Croatia*, European Social Policy Network (ESPN), European Commission, Brussels, 2017.

[238] According to the Pension Insurance Act (OG 157/2013, Art. 14), parents who do not work but care for a child in the first year of life are provided with pension insurance on the personal claim, or the parent/caregiver is covered by mandatory pension insurance so long as they remain in that status. Also, an unemployed person who lacks at most 5 years of insurance and who has reached retirement age can acquire the pension insurance, provided they are entitled to unemployment insurance benefit (Labour Market Act, Art. 60).

[239] E.g., the employment of a parent caring for a child with severe developmental difficulties, who works half of the full-time working hours is counted as being in full-time employment.

(CPII, Statistical information). In addition, the average minimum pension is quite high: in January 2020, it amounted to 66.9 % of the average pension. On the other hand, the maximum pension is a mechanism of solidarity complementary to the minimum pension: the regular maximum pension is capped at 3.8 average salaries, while contributions can be paid up to six average salaries (nevertheless, the number of beneficiaries of the maximum pension is very small – about 0.2 % of the pensioner population).[240] Those on higher incomes contribute more to the pension system, but receive lower pensions, thus paying an 'implicit pension tax'.[241] If the recipients of minimum pensions, disability pensions, survivor pensions, early retirement pensions and pensions determined by special legislation are included among those who receive an 'implicit pension subsidy', then more than half of all pensioners receive pensions higher than actuarially neutral ones (Vukorepa, 2015).

As for taxation policy, the compulsory insurance contributions are tax exempt, while pension benefits are taxed (see Section 1).[242]

Gender-related solidarity mechanisms are built into the pension system. In general, there is intergenerational and intra-generational redistribution between the genders, because women live longer and retire earlier than men. Women make up the majority of minimum pension beneficiaries, and the minimum pension is the key mechanism of solidarity. Mothers who take additional maternity leave (the period following 70 days after the delivery until 6 months) are provided with 6 months of service at the time of retirement for each child born or adopted.[243] This measure has been in force since the beginning of 2019.

The present indexation mechanism is more favourable for pensioners than was the case prior to the Pension Insurance Act of 2013 (see Section 2). As of 2019, statutory funded pensions are indexed by the consumer price index.

Participants in the voluntary schemes who benefit from state matching contributions tend to be higher earners; hence these matching contributions have a regressive distributive effect.

4 OPPORTUNITIES TO ADDRESS CHALLENGES

Given the unfavourable demographic trends, it is necessary to reduce the outflow of the labour force, increase the employment rate of older workers (which is considerably below the EU average) and promote longer working lives. Possible areas for action include:

- further measures discouraging early retirement and incentivising deferred retirement;
- changing the special system for workers in arduous and hazardous jobs to enable professional mobility and postpone retirement;

[240] In 2019, there were 1746 pensioners with average pension HRK 7105 HRK (EUR 935) (*Statistical Indicators*, http://www.mirovinsko.hr/).
[241] Vukorepa, I., 'Lost between sustainability and adequacy: Critical analysis of the Croatian pension system's parametric reform', *Revija za socijalnu politiku*, Vol. 22, No 3, 2015, pp. 279-308. http://www.rsp.hr/ojs2/index.php/rsp/article/viewFile/1307/1306
[242] Bejaković, P, Mrnjavac, Ž., 'The role of the tax system and social security transfers in reducing income inequality: The case of the Republic of Croatia', *Ekonomski pregled*, Vol. 67, No 5, 2016, pp. 399-417. https://bib.irb.hr/datoteka/857287.KB_002.pdf
[243] Fathers can also be provided with these 6 months if they take paternity leave (but the number of fathers using this right is very small).

- improve the effective coverage and pension adequacy for non-standard workers;
- improving the transparency of pension spending, by clearly distinguishing contribution-based pension benefits from benefits based on special legislation;
- protecting low-income pensioners by ensuring access to minimum income or housing benefits in the event of high housing or energy costs, and improving their access to healthcare by increasing the thresholds for additional health insurance;
- assessing the performance of the statutory funded pension scheme related to transitional costs and dominant assets in government bonds; and
- analysing the impact of matching contributions to supplementary pension schemes on pension saving and income distribution.

5 BACKGROUND STATISTICS*

5.1. Relative income	2019			Change 2010-2019		
	Total	Men	Women	Total	Men	Women
Relative median income ratio (65+)	0.75	0.82	0.73	-0.03	-0.02	0
Income quintile share ratio (S80/S20), 65+	4.51	4.42	4.61	-0.8	-0.66	-0.51
Relative income quintile share ratio (S80/S20), 65+ - 0-64	-0.17	-0.27	0.06			
Aggregate Replacement Ratio (ARR) %	39	40	41	7	2	10
5.2. Poverty and material deprivation	**2019**			**Change 2010-2019**		
	Total	Men	Women	Total	Men	Women
At-risk-of-poverty or social exclusion (AROPE), 65+ (%)	33.6	28.3	37.3	-3.9	-3	-4.3
At-risk-of-poverty rate (AROP), 65+ (%)	30.1	24.9	33.6	-0.4	-0.2	-0.4
Severe material deprivation (SMD), 65+ (%)	10	8.8	10.9	-5.7	-3.8	-6.7
At-risk-of-poverty or social exclusion (AROPE), 75+ (%)	37.8	28	43.4	-6.4	-7.6	-5.4
At-risk-of-poverty rate (AROP), 75+ (%)	34.9	26.1	40	-2.7	-4	-1.6
Severe material deprivation (SMD), 75+ (%)	9.4	6	11.3	-8.5	-6.8	-9.4
Relative median at-risk-of-poverty gap, 65+ (%)	26.2	25.6	26.2	1.2	-0.3	1.2
At-risk-of-poverty rate (AROP), 65+: 50 % threshold (%)	20.6	16	23.8	1.4	-0.1	2.6
At-risk-of-poverty rate (AROP), 65+: 70 % threshold (%)	40	35	43.4	0.8	1.7	0.3
Material and social deprivation, age 65+ (1)	15.4	12.9	17.1	-9.3	-9.1	-9.3
5.3. Gender difference	**2019**			**Change 2010-2019**		
Gender gap in pension income (65-79) (%)			24.4			-1.4
Gender gap in non-coverage rate (W-M in p.p.) (65-79)			5.6			5.6
5.4. Housing and health situation	**2019**			**Change 2010-2019**		
	Total	Men	Women	Total	Men	Women
Housing cost overburden rate, 65+ (%)	6.8	5	8.1	-16.7	-14.8	-17.7
Self-reported unmet need for medical exam 65+ (%)	6.3	6.6	6.1	-11.2	-7.4	-13.6
Healthy life years at age 65 (years)	4.8	4.6	4.9	-2.5	-2.8	-2.4
Life expectancy at age 65	17.7	15.7	19.3	1.3	1.3	1.3
5.5 Sustainability and context	**2019**			**Change 2010-2019**		
	Total	Men	Women	Total	Men	Women
Employment rate, age group 55-64 (%)	43.9	52.6	35.9	6.8	3.7	9.5
Pension expenditure as % of GDP (ESSPROS) (2)			9			1.3
Retirement duration from first pension (years) (3)	19.2	16.6	22.1	-0.5	0.0	-0.8
Retirement duration from end employment (years)	19.9	17.3	22.3			
Eurostat and AWG projections	**2019**			**2059**		
Old-age dependency ratio (20-64) (%)	34.3	27.8	40.8	60.9	53.9	68.3
Economic old-age dependency ratio (20-64) (%) (4)	51.0	38.1	66.0	85.5		
Gross public pensions as % of GDP (4)	10.2			9.7		
Benefit ratio (%) (4)	31.2			23.2		
Coverage ratio (% of pop aged 65+) (4)	146.7			109.3		
Gross pension ratio high / low earner		2.1	2.1		2.1	2.1

** HR data from 2010, not from 2008*

(1) change since 2014, not 2008

(2) ESPROSS data refer to 2018

(3) Change is since 2016, not 2010

(4) 2060 instead of 2059

5.6 Theoretical Replacement Rates

	Net (%)				Gross (%)			
	2019		2059		2019		2059	
	Men	Women	Men	Women	Men	Women	Men	Women
Average earning (100%)								
Base case: 40 years up to the SPA	55.5	55.5	48.0	48.0	39.4	39.4	34.0	34.0
Increased SPA: from age 25 to SPA	55.5	51.7	48.0	48.0	39.4	36.7	34.0	34.0
AWG career length case	57.2	51.7	49.1	42.9	40.5	36.7	34.8	30.4
Old base case: 40 years up to age 65	55.5	62.0	48.0	48.0	39.4	43.9	34.0	34.0
Longer career: 42 years to SPA			49.8	49.8			35.3	35.3
Shorter career: 38 years to SPA			46.1	46.1			32.7	32.7
Deferred exit: 42 years to SPA +2			53.8	53.8			38.2	38.2
Earlier exit: 38 years to SPA -2			43.9	43.9			31.1	31.1
Career break – unemployment: 3 years	51.4	51.4	44.4	44.4	36.4	36.4	31.5	31.5
Career break due to child care: 3 years	55.5	55.5	47.8	47.8	39.4	39.4	33.9	33.9
Career break care to family dependant: 3 years	51.4	51.4	44.4	44.4	36.4	36.4	31.5	31.5
Short career (20 year career)	27.8	27.8	24.0	24.0	19.7	19.7	17.0	17.0
Work 35 y, disabled 5 years prior to SPA			42.0	42.0			29.8	29.8
Early entry in the LM: from age 20 to SPA			50.8	50.8			36.0	36.0
Index: 10 years after retirement @ SPA			45.4	45.4			32.2	32.2
Extended part-time period for childcare			39.7	39.7			28.2	28.2
Survivor – full career		55.5		48.0		39.4		34.0
Survivor – short career		38.9		33.6		27.6		23.8
Survivor ratio 1*		0.50		0.50		0.50		0.50
Survivor ratio 2*		0.47		0.47		0.47		0.47
Low earnings (66%)								
Base case: 40 years up to the SPA	60.9	60.9	52.6	52.6	47.0	47.0	40.6	40.6
AWG career length case	62.7	56.7	53.8	47.0	48.4	43.8	41.5	36.3
Old base case: 40 years up to age 65	60.9	68.0	52.6	52.6	47.0	52.4	40.6	40.6
Career break – unemployment: 3 years	56.4	56.4	48.7	48.7	43.5	43.5	37.5	37.5
Career break due to child care: 3 years	60.9	60.9	52.6	52.6	47.0	47.0	40.6	40.6
Short career (20 year career)	30.5	30.5	26.3	26.3	23.5	23.5	20.3	20.3
Early entry in the LM: from age 20 to SPA			55.7	55.7			43.0	43.0
High earnings (100->200%)								
Base case: 40 years up to the SPA	44.8	44.3	38.2	38.2	29.9	29.5	25.5	25.5

**Survivor ratio 1: man base case, woman base case*

**Survivor ratio 2: man base case, woman short career case*

ITALY

Highlights

- Despite high pension expenditure, economic security in old age is uneven in Italy: the statutory pension system is effective in ensuring *income maintenance* for average pensioners, but pension income *inequality* is notable and expanding, *protection against poverty is inadequate*, and tight eligibility conditions include *regressive* clauses.
- The fourth wave of pension reforms in 2016-2019 started addressing some of these challenges by both reinforcing solidarity elements for better protection against poverty and facilitating early retirement via a plethora of temporary early-retirement options. The reform process should be completed by setting new durable, sustainable and (especially) equitable eligibility conditions for retirement.
- The interplay between notional defined-contribution (NDC) statutory schemes, a flexible labour market and interrupted careers, lower contribution rates for self-employed and atypical workers, as well as the coverage gap in supplementary schemes, are projected to lead to inadequate pensions for workers with short/interrupted careers in future decades.
- In order to improve adequacy in the long run, while continuing to ensure fiscal sustainability, measures should be taken to strengthen the redistributive and solidaristic capacity of statutory pension schemes – revising both pension formulas and eligibility conditions in accordance with equity principles – and better integrate the latter with supplementary funded schemes.

1 GENERAL DESCRIPTION OF THE NATIONAL PENSION SYSTEM

The Italian pension system is still in transition from the traditional single-pillar structure towards a multi-pillar configuration. Until the 1990s, the pension architecture relied on a single (two-tiered) public pillar providing comparatively generous defined-benefit (DB) pensions at low retirement ages and only limited protection against poverty.[244] Since 1992, four waves of reform have implied changes along various dimensions. In the first wave (1992-1997), the overall pension architecture was redesigned by: (a) launching the transition to a multi-pillar system, through the development of supplementary voluntary occupational (second-pillar) and personal (third-pillar) funded pension schemes; and (b) replacing DB with NDC schemes in the statutory public pay-as-you-go (PAYG) pillar. The second wave (2001-2007) mainly included fine-tuning measures and provisions in relation to supplementary pension coverage. In the third wave (2009–2011), reforms were aimed at reducing expenditure in the short term, and tightening eligibility conditions for retirement – by both substantially raising pensionable ages and linking with demographic changes; the latter measures were partly (and temporarily)

[244] This implies that supplementary funded pensions are irrelevant for (most) current pensioners' income.

reversed by the reforms of the fourth wave (2016-2019), which also strengthened the anti-poverty safety net.

The **public, statutory pension system** is multi-tiered. Both the old-age social allowance (*assegno sociale*, formerly social pension) and the new citizenship pension (*pensione di cittadinanza*) constitute the **first tier**. They are anti-poverty, means-tested programmes financed by general revenues, providing flat-rate social assistance benefits to poor older people as identified by national income-test thresholds (Sections 2 and 3.4).

Second-tier PAYG schemes represent the main component of the public statutory pillar, covering 100 % of the employed population: private and public employees, the self-employed (including platform workers) and project workers – so-called para-subordinate workers (*parasubordinati* – formally self-employed people who mostly work as employees through collaboration contracts – bogus self-employed).[245] While in the past these were all DB schemes, since the 1995 reform an NDC system applies to new entrants in the labour market after 1 January 1996. For workers with fewer than 18 years of contributions in 1995, the NDC system applies pro rata (i.e. for working years after 1995 only). Initially, the DB system remained in force for workers with at least 18 years of contributions in 1995 but the 2011 reform also applied the NDC system pro rata (i.e. for working years after 2011) to these previously exempted workers.

Contribution rates vary from 33 % of gross earnings for private and public employees[246] to 24 % for the self-employed; para-subordinate workers now pay the same contribution rate as employees, but in previous years they were subject to a much lower contribution rate (e.g. 10 % in 1996-1998[247]).

Eligibility conditions for old-age and early-retirement pensions, as well as the old-age social allowance, are automatically adjusted for changes in life expectancy every two years and they have been rapidly tightened in the last decade. While the pensionable age was still 65/60 years for men/women respectively in 2010, in 2020 old-age pensions were paid to workers (men and women) aged at least 67. A minimum contribution period of 20 years is required. Deferred retirement is possible (as well as being incentivised via actuarial calculations) up to the age of 71 years.[248] For workers fully included in the NDC system, a further condition applies: retirement before 71 years is allowed only in cases where the pension equals at least 1.5 times the old-age social allowance mentioned above – about EUR 650 per month (the 'pension value threshold').

As for the possibility of retiring prior to reaching the pensionable age, the **early-retirement scheme** (*pensione anticipata*) introduced by the 2011 reform applies different rules to workers subject to the NDC system pro rata (in the short term) and those fully subject to the NDC system in the medium to long run. For the first group, in 2020 retirement was possible after

[245] Only liberal professionals (e.g. lawyers, architects) are not enrolled in public second-tier schemes, since they are compulsorily covered by private pension funds for their respective categories.
[246] Contributions were not levied on yearly gross earnings above EUR 103,055 in 2020.
[247] Raitano M., 'Italy: Para-subordinate workers and their social protection', in OECD (ed.), *The Future of Social Protection: What works for non-standard workers?*, OECD Publishing, Paris, 2018.
[248] Only five years of paid contributions are required at this age.

contributing for 42 years and 10 months (men) or 41 years and 10 months (women).[249] Conversely, workers fully included in the NDC system are allowed to retire at 64 years, subject to the fulfilment of two conditions: (a) the payment of contributions for at least 20 years; and (b) the pension amount being at least 2.8 times the old-age social allowance (second pension value threshold). In addition to this early-retirement scheme, however, reforms adopted in 2016-2019 have introduced several early exit options, mainly as temporary pilot programmes (see Section 2).

The special rules for workers in **arduous and hazardous jobs** (WAHJ, *lavoratori in mansioni usuranti*) were modified by the 2016 reform. Since 1 January 2017, WAHJ have been allowed to retire prior to reaching the pensionable age provided they have worked as employees in relevant jobs for at least seven out of the previous 10 years before applying for retirement or, alternatively, if they have worked in such jobs for half their career.[250] The reform also suspended (until 2025) the automatic linking of retirement conditions to changes in life expectancy.

The **combining** of pensions with income from work is fully permitted to workers entitled to statutory DB pensions. Conversely, workers subject to the new NDC system may only combine old-age/early-retirement pensions with income from work if they fulfil at least one of the following conditions: (a) 60/65 years of age for women/men; (b) 40 years of paid contributions; and/or (c) 35 years of paid contributions and 61 years of age.

In addition to public pension provision, private sector employees – and public employees hired after 2000 – are entitled to a **severance-payment benefit**, the TFR (*trattamento di fine rapporto*), when they retire or change their employer.[251]

Alongside the reformed and increasingly less generous public statutory schemes (see Section 3.3), the regulatory framework established in 1993 aimed to develop voluntary DC supplementary funded schemes, mainly relying on tax incentives and especially the transfer of the TFR to pension funds. The regulatory framework allowed the setting up of different types of supplementary pension schemes: (a) 'closed' pension funds (CPFs) are typical occupational schemes for specific groups of employees established by collective agreements (second pillar); (b) 'open' pension funds (OPFs) are hybrid institutions, comprising both second- and third-pillar forms depending on affiliation modes (i.e. collective vs individual); and (c) personal pension plans through life insurance contracts (PIPs) constitute the third pillar. Importantly, since 2007, a 'silent consent' mechanism for the transfer of TFR contributions (6.91 % of gross wage) to funded occupational pension schemes has been operating for private sector employees.[252] Despite attempts to extend funded pension coverage, 27 years after the launch of the multi-pillar plan, membership of funded schemes is still far from being universal: in

[249] The 2019 reform suspended, until 31 December 2026, the automatic linkage of the contributory years for early retirement to changes in life expectancy (see Section 2).
[250] Legislation identifies WAHJ as those employees performing particularly strenuous manual jobs listed in Law No 247/07. For details see Jessoula, M., Pavolini, E. and Strati, F., *ESPN Thematic Report on Retirement regimes for workers in arduous or hazardous jobs: Italy*, European Social Policy Network (ESPN), European Commission, Brussels, 2016.
[251] Project workers and obviously the self-employed are not entitled to the TFR.
[252] In accordance with the silent-consent mechanism, from January 2007, private sector employees have six months – either at the time of first employment or when they get a new job – to decide whether they want to keep the TFR or to transfer it to a supplementary pension fund. Should they remain silent, the TFR is paid by default into a supplementary occupational CPF.

December 2019, there were around 9.1 million members of supplementary occupational/personal pension schemes,[253] out of around 23.4 million people employed. Importantly, supplementary pension coverage varies remarkably across economic sectors and occupational categories. While total coverage among employees has reached 34 %, CPF take-up rates[254] are actually very high – between 70 % and 90 % – in core industrial sectors such as energy, chemicals and pharmaceuticals, around 40 % in the large fund (1 million potential members) for metalworkers, and extremely low – with figures around 10 % – in retail, tourism, fashion and more generally the service sector. Coverage is also modest among self-employed people – 1.1 million members of supplementary pension schemes out of 5.3 million self-employed people, corresponding to a coverage rate of around 22 % – whereas it is negligible for both non-standard and platform workers (Covip, 2019).

2 REFORM TRENDS

After the three severe reforms adopted during the great recession tightened eligibility conditions in the very short term – implying a seven-year increase in women's pensionable age in seven years (2012-2018) and the elimination of seniority pensions – since 2016 the pension debate in Italy has refocused on two main challenges. On the one hand, the negative effects of the implementation of the new eligibility requirements in a phase of prolonged economic recession: (a) a 'old in, young out' effect, with 1 million more older workers (aged 50-64) in employment compared with a 0.9 million net reduction (1.8 million gross[255]) for young workers (aged 15-34) between 2008 and 2013; and (b) the steep increase in unemployment among workers aged 50 and over – from around 130,000 individuals (2007) to 500,800 (2016) – despite the continuous increase of employment rates for older workers (aged 55-64) – from 34.3 % in 2008 to 50.3 % in 2016. On the other hand, Italian statutory pension benefits continued to be characterised by an uneven distributional profile, leading to relatively high levels of income inequality and comparatively high poverty rates among pensioners (see Section 3.1) – despite the highest public pension expenditure in the EU[256] (16.2 % in 2017).[257]

Against such a backdrop, after two decades of substantial pension retrenchment, a novel pension path was inaugurated with the *fourth wave* of reform. This has to be considered a reaction to the cost-containment measures adopted during the great recession phase, and it included: the 2016 Poletti-Renzi reform (Law 232/2016), later refined by the 2018 Stability Law (Law 205/2017),[258] and the more recent Di Maio-Salvini reform in 2019 (Law-Decree 4/2019 of 28 January 2019). The three reforms were aimed at tackling the two challenges

[253] Data by Covip, *La previdenza complementare: principali dati statistici*, December 2019. www.covip.it
[254] The take-up rate is calculated as the ratio between the number of workers affiliated to pension funds and potential members, the latter defined in relation to the economic sector covered by the collective agreement/CPF.
[255] Net figures discount demographic changes: in fact, the population aged 15-34 decreased by 0.9 million during 2008-2013.
[256] EU and EU-27 refer to the current 27 Member States of the European Union.
[257] Jessoula, M. and Raitano, M., 'Italian pensions from "vices" to challenges: assessing actuarial multi-pillarization twenty years on', in D. Natali (ed.), *The New Pension Mix in Europe*, Brussels, Peter Lang, 2017.
[258] Jessoula, M., 'The 2016 Italian pension reform and the issue of equity', *ESPN Flash Report* 2017/12, European Social Policy Network (ESPN), European Commission, Brussels, 2017a; Raitano, M. and Jessoula M., 'Changes in the pension debate under the new government in Italy', *ESPN Flash Report* 2018/41, European Social Policy Network (ESPN), European Commission, Brussels, 2018.

mentioned above by combining measures to relax eligibility requirements for (early) retirement with provisions to support low-income pensioners.

On the first front, the 2016 reform introduced a plethora of early-exit options, with strict eligibility conditions and/or narrow definitions of disadvantaged workers.[259] The main innovation was the APE, initially introduced on a trial basis from 2017 until 31 December 2018.[260] The 'social version' of APE allowed some groups of disadvantaged workers – among them those employed in 11 categories of demanding jobs (*mansioni gravose*) – with at least 30/36 years of paid contributions to anticipate exit from the labour market, up to three years and seven months earlier than the standard pensionable age, through the provision of a state subsidised allowance of a maximum EUR 1500 per month. On the second front, the 2016 reform addressed the uneven distributional profile of (public) pension incomes in Italy by: (a) increasing the amount of the 14th monthly pension instalment (*quattordicesima*) and extending the latter to around 1.2 million individuals with low pension benefits; and (b) raising to EUR 8000 per year the tax-exempt amount for pensioners below 75 years.

Subsequently, the 2018 Budget Law (adopted on 27 December 2017 and implemented since 1 January 2018) partly modified these rules, expanding – from 11 to 15 – the categories of workers employed in demanding jobs who are entitled to the social APE, as well as exempting (for a two-year period) the same 15 professional categories from the automatic increase in the standard pensionable age (in accordance with demographic changes) implemented in January 2019.

In 2019, the Di Maio-Salvini reform introduced several measures along the path opened by the 2016-2018 reforms. The two most important innovations were the 'quota 100 pension' (*pensione quota 100*) and the 'citizenship pension' (*pensione di cittadinanza*). Introduced as a pilot measure for three years (2019-2021), the quota 100 pension makes it possible to retire before reaching both the legislated pensionable age (currently 67) and the contributory period for early retirement (42 years and 10 months for men, 41 years and 10 months for women), subject to fulfilment of a combined contributory (38 years minimum) and age (62 years minimum) requirement (38+62=100). The quota 100 requirement is not linked to changes in life expectancy, unlike the standard pensionable age (SPA), which is automatically adjusted every two years. Early retirement through the quota 100 pension cannot be combined with income from work of above EUR 5000 per year. In addition, the reform suspended, until 31 December 2026, the automatic linkage of the contributory years for early retirement to changes in life expectancy: thus, as in 2018, the contribution period is currently set at 42 years and 10 months for men and 41 years and 10 months for women. Finally, with regard to access to retirement, the reform also: (a) prolonged the 'woman's option' which allows women to retire at the age of 58 with 35 contributory years if they switch from the 'mixed' pension calculation method – partly earnings-related, partly NDC – to the NDC, which pays lower pensions than

[259] For details see European Commission, *Pension Adequacy Report 2018*: *Volume 2*, Brussels, 2018.

[260] The 'financial version' of APE – allowing people to leave the labour market up to three years and seven months before the pensionable age by means of a loan issued by a bank – proved to be costly for potential beneficiaries, and was terminated in 2019 due to the limited number of applications.

the former; and (b) extended, until 31 December 2019, the APE pension[261] – which was then further refinanced until the end of 2020.

The second main innovation, the citizenship pension, was designed to tackle old-age poverty, and is a means-tested benefit for all those who have been resident in Italy for at least 10 years, aged 67 and above, with an annual equivalised income below EUR 9360. The monthly benefit amount for a single individual is set at EUR 630, plus EUR 150 as housing benefit.

3 ASSESSMENT OF ADEQUACY

3.1 Current adequacy

The high level of public pension expenditure, its unbalanced distributional profile, and the tight eligibility conditions for retirement implemented in 2011-2018 prompt four main considerations concerning the adequacy of the Italian pension system.

First, high pension expenditure ensures a high level of income maintenance in old age when average figures are considered. In 2019, the ratio between the median disposable income of older people (65 and over) and the median disposable income of those aged 18-64 was 101 % in Italy as against 90 % for the EU[262] average. The aggregate replacement ratio (ARR) was also significantly higher in Italy (73 %) than in the EU (57 %) in 2019 (see Section 5 'Background statistics').

Second, the gender dimension indicators show that women are systematically worse off than men in Italy. Although in 2019 the ARRs for both men and women were above the EU average (77 % IT vs 59 % EU for men; 65 % IT as against 54 % EU for women), there was an 18 percentage point (p.p.) gap between men and women in Italy, compared with a 5 p.p. gap only in the EU. This is consistent with the level of the gender gap in pension income (GGP, 65-79 years): in 2019, the GGP in Italy was actually well above the EU average (35.6 % vs 29.5 %) – in accordance with a lower reduction of GPP in Italy since 2010 (-0.1 p.p.) than in the EU (-5.8 p.p.). Importantly, the gender gap in the rate of non-coverage is not only significantly higher in Italy (17.7 p.p.) than in the EU (6.4 p.p.), but also increased (by 7 p.p.) between 2010 and 2019, in sharp contrast with a 0.7 p.p. reduction in the EU.

Third, despite high expenditure, the pension system design provides modest protection against poverty. Although in Italy older people are better off compared with their younger counterparts – in 2019, the at-risk-of-poverty-or-social-exclusion (AROPE) rate among the population aged 65 and over was significantly smaller (19.8 %, down by 4.6 p.p. since 2008, but in line with 20.4 % in 2010 and 19.9 % in 2015) than in the 0-64 age bracket (27.3 %) and among those aged 0-18 (27.9 %) – weaknesses appear when Italian figures are compared with EU averages. The Italian AROPE rate for older people (19.8 %) was above the EU average (18.5 %) in 2019,[263] and the weaker condition of older women also appears with regard to poverty: in Italy,

[261] For details, see Jessoula, M., 2017a; Jessoula, M., 'Le pensioni al nodo dell'equità: dalla Riforma Poletti-Renzi alla "Fase 2"', *La Rivista delle Politiche Sociali*, No 3-4/2017, 2017b; Raitano, M. and Jessoula, M., 2018.
[262] EU and EU-27 refer to the current 27 Member States of the European Union.
[263] Accordingly, the share of older people (aged 65+) reporting unmet medical need due to cost is higher in Italy (3.2 % in 2018) than in the EU (1.5 %).

the AROPE rate for women aged 65 and over was 22.8 % (vs 16.1 % of men) in 2019 compared with 20.9 % in the EU. Furthermore, whereas Italy had a below-average severe material deprivation (SMD) rate for people aged 65 and over in 2008 (6.7 % vs 7.5 % for the EU), the situation deteriorated during the sovereign debt crisis and then only partly recovered in recent years: in 2019, the SMD rate was 6.7 % for Italy compared with 4.8 % for the EU.[264]

Fourth, analysing all indicators diachronically, the variation between 2008 and 2019 allows us to grasp the overall trend in the efficacy of the Italian pension system in ensuring economic security in old age, also taking distributive effects into account. In fact, on the one hand, statutory pensions have become more effective in improving retirees' income conditions compared with younger people – the relative median income ratio has actually increased from 89 % (2008) to 101 % (2019) – as well as compared with older workers (aged 50-59) – as shown by the remarkable 20 p.p. growth of the ARR (from 53 % in 2008 to 73 % in 2019). This is consistent with at least two parallel developments in last decade. First, the limited growth of wages and severe increase of poverty, especially for those aged 55 and over, as consequence of the prolonged great recession (2008-2014) phase in Italy.[265] Second, the increase in pension levels due to the maturation of DB schemes for the self-employed and the longer working life duration (from 30.0 years in 2008 to 31.8 years in 2018) – mostly the result of higher employment rates for women[266] and older workers. On the other hand, the effectiveness of the pension system in protecting against extreme poverty has further diminished, as suggested by the increase in the SMD rate for people aged 65 and over in the last decade.

A trend towards increasing pension inequality is thus evident in Italy, as captured by distributional indicators such as the S80:S20 income quintile ratio, which was 5.07 in 2019 compared with 4.46 in 2008 – a higher level than in the EU (4.24), the result of a more substantial increase in Italy (by 0.61 p.p.) than at the EU level (0.25 p.p.) in the last decade.

Such uneven distribution of pension incomes in Italy is at least partly cushioned by the extremely high share of older people living in owned houses – 89.9 %, compared with 79 % for the whole population.

Finally, as regards the third dimension of adequacy, the remarkable – as well as extremely rapid – increase in pensionable ages (for old-age pensions) and contributory requirements (for early retirement) since 2010 raises issues related to both retirement duration and the interplay between expected longer working lives, labour market performance and social service coverage. As for duration of retirement, the strict and rigid eligibility conditions for old-age pensions may be particularly detrimental for (especially blue-collar) workers with long careers and lower life expectancy. This is especially true in a country where, despite higher life expectancy (at 65 years) than in the EU (20.9 years IT vs 19.9 years EU), the number of expected healthy years at 65 is almost at the European average – 10.4 years in Italy, 10.3 years in the EU. In this

[264] AROPE levels are higher for those aged 75 and over (21 %) than for those aged 65 and over (20.2 %), and the same holds true for SMD figures – 7.6 % (75+) vs 7.2 % (65+), with particularly high levels for women (8.5 % and 7.7 % respectively) – demonstrating an overall improvement in retirees' income conditions.
[265] INPS, *XIV Rapporto Annuale 2015*, 2015.
[266] Working life duration increased more for women – from 24.4 to 27 years – than for men – from 35.3 to 36.4 years – during 2008-2018.

respect, several national studies on life expectancy differentials and the underpinning driving factors have recently pointed to the regressive effects implied by tight – as well as rigid – eligibility conditions for retirement.[267]

From a different perspective, the significant growth in unemployed people aged 50 and above between 2008 and 2014 (in combination with youth unemployment rates well above 30 % since the great recession) and the further increase in the phase of economic recovery 2015-2019 suggest that measures must be taken to improve the absorption capacity of the Italian labour market and tackle the negative side-effects of austerity-driven pension reforms. Last but not least, due to the notorious underdevelopment of social care services (both for children and dependent older people) in Italy, women workers – who, again, experienced a seven-year increase in pensionable age in the seven years between 2012 and 2019 – are very likely to encounter severe problems in reconciling care duties with a longer working life.

When assessing pensioners' income adequacy in Italy, it is also important to outline that the main cash programme for long-term care (LTC) – the companion allowance (*indennità di accompagnamento*) – is fully universal (i.e. dependent and severely disabled older people are entitled to this benefit regardless of pension and other income levels). Conversely, income levels may be considered in order to access LTC services, which are typically regulated at regional level and, consequently, show huge regulatory variation.[268]

3.2 Future adequacy

With reference to the 'pension adequacy triangle' outlined in the PAR (Volume 1), future pension adequacy must be assessed considering the 'actuarial neutrality' principle shaping public statutory NDC schemes and supplementary DC funded pensions, the limited coverage of the latter (vs universal coverage of statutory schemes: see Section 1), and the steep increase in the SPA, as well as labour market features and performance.

As far as income maintenance is concerned, despite the projected decline (other things being equal) in theoretical replacement rates (TRRs) due to the application of the NDC formula in the coming decades,[269] the tightening of eligibility conditions under the 2009-2011 reforms will contribute to maintaining high pension levels in the future, at least for workers with full uninterrupted careers. Since NDC rewards longer careers and pensions claimed at later ages,[270] only a limited decline in the gross TRR – from about 79 % in 2019 to 74.6 % in 2059[271] – is in fact expected for a worker with a 40-years career to the SPA ('base case': 70 years and 6

[267] Leombruni, R., Stroscia, M., Zengarini, N. and Costa, G., 'Non tutti uguali al pensionamento: variazione nell'aspettativa di vita e implicazioni per le politiche previdenziali', in M. Jessoula, and M. Raitano (eds), 'La riforma Dini vent'anni dopo: promesse, miti, prospettive di policy', Special issue of *Politiche Sociali/Social Policies*, 3/2015; and Ardito, C., Costa, G. and Leombruni, R., 'Differenze sociali nella salute ed equità del sistema pensionistico italiano', in M. Jessoula and M. Raitano (eds), 'Le pensioni in Italia, oggi e domani', Special issue of *La Rivista delle Politiche Sociali*, 3/2019.
[268] Jessoula M., Pavolini E., Raitano M. and Natili, M., *ESPN Thematic Report on Challenges in long-term care: Italy*, European Social Policy Network (ESPN), European Commission, Brussels, 2018.
[269] Jessoula, M., 'A risky combination in Italy: "selective flexibility" and defined-contributions pensions', in K. Hinrichs and M. Jessoula (eds), *Labour Market Flexibility and Pension Reforms. Flexible Today, Secure Tomorrow?*, Basingstoke: Palgrave, 2012.
[270] This is due to an actuarial rate for pension calculation which rises with pension age.
[271] 2019 pensions are mostly computed under the old DB formula, which still largely applies, whereas 2056 pensions are computed under the NDC regime.

months). Measures introduced during the fourth wave of reforms (2016-2019) should not change the picture considerably since they were mostly geared towards the short term.

3.3 Challenges for future adequacy

If TRR rates are expected to remain comparatively high in future decades for workers with long, uninterrupted careers, NDC systems are, however, extremely penalising for those individuals with either frequently interrupted careers[272] or who retire prior to reaching the SPA. Thus, gross TRRs rapidly diminish when considering these variables, which are not unlikely if both the weak performance of the Italian labour market (the average duration of working life was 31.8 years in IT vs 35.7 EU in 2018) and the high SPA (above 70 years in 2056, among the highest in the EU) are taken into account. Assuming 40 years of paid contributions and retirement at 65, the gross TRR in 2056 is reduced by 13 p.p. compared with 2016 (56.9 % vs 70.6 %) and by 11 p.p. compared with the base case above (68.1 %). Substantially lower TTRs are also expected in the case of workers with a 35-year career and five years of disability to the SPA (53.9 %), workers with extended part-time periods for childcare (59.9 %) as well as in case of short careers (20 years) with TRRs reducing to 34.7 %. Importantly, it must be emphasised that workers with weaker labour market attachment are not likely to be covered by funded occupational/personal schemes, which therefore fail provide supplementary pension benefits where most needed (Jessoula and Raitano, 2017). These figures represent a major challenge for future pension adequacy in light of both the extremely weak redistributive and solidaristic mechanisms in NDC schemes and the lack of a minimum pension guarantee – apart from the modest means-tested old-age social allowance (*assegno sociale*) for poor older people.

In a similar vein, projections on future pension levels for the three traditional groups of the self-employed – farmers, artisans and dealers/shopkeepers – are also alarming in light of lower contribution rates – varying from 20.1 % to 24.1 % of declared income – for these categories in the NDC system. Such variation is relevant because, according to the logic of the latter, different contribution rates will translate into very different pension amounts (at the same current income) in future decades. Projections by the Ministry of Finance actually show that the decline in replacement rates over coming decades is expected to be much larger for self-employed workers than for employees: whereas in 2010 a self-employed worker retiring at 65 years and seven months after 38 years of contributions had a gross TRR of 77.2 % (compared with 73.7 % for employees), in 2040 it will be 47.3 % for a self-employed person retiring at 69 years and two months with 38 years of contributions.[273]

Finally, with respect to retirement duration, it must be acknowledged that the tight, as well as rigid, age and contributions eligibility requirements for old-age and early-retirement pensions respectively may have uneven implications in two respects. On the one hand, as outlined in Section 3.1 above, they disproportionately penalise workers with lower life expectancy at retirement – who are also often those with a low income and disadvantaged employment careers (Leombruni *et al.*, 2015; Ardito *et al.*, 2019). On the other, those individuals who cannot

[272] For a comparative assessment of the reduction in replacement rates for workers with non-standard employment careers, see European Commission (2018).
[273] MEF-RGS (Ministry of Economy and Finance – State General Accounting Department), *Mid- to Long-term Trends for the Pension, Health and Long-term Care Systems*, 2015.

work until reaching the SPA will receive significantly lower pensions, since NDC schemes reward later retirement.

3.4 Solidarity mechanisms

Due to long phasing-in period for the full application (around 2035) of the NDC system, until recently statutory public pension benefits have been calculated with the comparatively generous DB formula introduced in 1969 for employees (then extended to self-employed people in 1990). As a consequence of the 2011 reform, the NDC system has been applied pro rata for working years after 2011 only – this implies that in 2020 pensions were still predominantly calculated with the old DB method. The combination of the latter with a relatively protective labour market until the early-2000s ensures, on average, a comparatively high level of economic security and income maintenance after retirement – as demonstrated by the analysis of both the relative median disposable income and the ARR in Section 3.1.

Nevertheless, shifting from average figures to distributional indicators (e.g. the S80:S20 income quintile ratio), the uneven distributional profile of pension income appears. According to the most recent data, in 2018, a remarkable 36.3 % of pensioners received a pension income below EUR 1000 per month: in more detail, 12.2 % received a pension income below EUR 500 per month, 26.4 % received a pension income between 500 and EUR 1000 per month, 39 % received between EUR 1000 and EUR 2000 per month, whereas 24.7 % were in the upper bracket above EUR 2000 per month.[274]

Women are overrepresented in the pension income brackets below EUR 1500 per month. Actually, almost 70 % of women pensioners (67.8 %) earn a pension income below the latter threshold compared with only 46.2 % of men. Similarly, the average old-age pension amount for women is 36.7 % lower than for men. As recently argued also by the National Statistical Institute (ISTAT, 2020), the main reason for the disadvantaged condition of Italian women pensioners, when compared with men, relates to the marginal position of most Italian women in the labour market: women's employment rates have traditionally been (and still are) low, and the figures reported by Bettio, Betti and Tinios (2015)[275] showed that the median value for working career years is 25 for women compared with 40 for men – and roughly 30 % of Italian women have been in employment for fewer than 14 years.

Current pension amounts also tend to be lower among the three main categories of self-employed people covered by the INPS (dealers/shopkeepers, artisans, and agricultural workers[276]) as compared with employees. In 2019, the average monthly old-age pension for the main categories of self-employed people was EUR 886 for dealers/shopkeepers, EUR 855 for artisans, and only EUR 570 for agricultural workers, compared with EUR 1086 for private

[274] ISTAT, *Condizione di Vita dei Pensionati 2018*, 2020.
[275] Bettio, F., Betti, G. and Tinios, P., 'Data on the pension gender gap for the 2015 SPC Pension Adequacy Report', mimeo, 2015.
[276] These three categories currently make up 4.1 million out of the total of around 5 million self-employed people in Italy.

sector employees.[277] Such differences mainly derive from lower (self-reported) income levels among self-employed workers than among employees in Italy.

Against that backdrop, the old-age social allowance (*assegno sociale*) constitutes the main redistributive component. It is actually financed through general revenues and provides flat-rate modest social assistance benefits to poor people aged 67 years and above. The yearly amount is EUR 5977 – paid out in 13 monthly instalments of EUR 459.[278] In order to be entitled to the old-age social allowance, applicants must pass an income test. Though important with regard to one of the three key dimensions of pension adequacy (the anti-poverty function), this scheme is not able to actually lift beneficiaries out of poverty – the absolute poverty line calculated by ISTAT being EUR 780 per month for a single-member household (residing in a medium-size municipality in central Italy) in 2019. Nevertheless, the establishment of the citizenship pension (Section 1) in 2019 should contribute to reducing the large proportion of low-income pensioners by providing – following a means-test – a monthly benefit of EUR 630 – plus EUR 150 as housing benefit – for a single individual resident in Italy for at least 10 years, aged 67 and above, with an annual equivalised income below EUR 9360.

For the long term, in the NDC system, pension credits constitute the only explicitly redistributive element in statutory pension schemes for the employed population. They are provided in cases of military/civil service, maternity, parental leave, sickness and work injury, children's sickness, partial suspension for work, and also unemployment.

4 OPPORTUNITIES TO ADDRESS CHALLENGES

In light of the adequacy challenges outlined above, a few considerations can be formulated for both the short term and the medium to long term. As to the former, a rigorous evaluation of measures introduced with the three reforms of the fourth wave (2016-2019) is needed in order to assess whether, and to what extent, the main challenges concerning the (inadequate) poverty-prevention capacity of the pension system, and the potentially regressive effects of the tight eligibility conditions for retirement, have been effectively tackled. This is particularly important for those measures implemented on a trial basis, designed to both make a step toward empirically well-grounded pension policymaking, and rationalise the plethora of early-retirement options introduced in 2016-2019.

Moreover, some measures should be adopted in order to contain – or eliminate – the regressive impact of the current much stricter eligibility conditions for retirement. First, the pension value thresholds (Section 1) – which do not allow workers with expected low pensions to retire either at the SPA or via early-retirement pensions – should be removed (or substantially relaxed). Second, the linking principle, currently translating 100 % of life expectancy gains into higher pensionable ages and contributory requirements, should possibly be better calibrated in order to consider differential life expectancy gains (across the various professional categories) as

[277] Figure are higher for early-retirement pensions: EUR 1571 (dealers/shopkeepers), EUR 1479 (artisans), EUR 1079 (agricultural workers), EUR 2100 (private sector employees). Source: INPS, *Monitoraggio dei Flussi di Pensionamento – Pensioni decorrenti nel 2019 e nel primo trimestre del 2020*. Rilevazione al 02/04/2020.

[278] EU citizens and lawfully resident third-country nationals are both entitled to benefits. For a single person, the income threshold to be eligible for the old-age social allowance is EUR 5824.91 per year. To be eligible, people must have been residing continuously in the country for at least 10 years.

well as discrepancies between life expectancy gains and the increase in expected years in good health. Both these measures might significantly improve the equity and the adequacy profile – with respect to retirement duration – of the Italian pension system.

Besides pension reforms, investment in social services, active labour market and employment policies may also contribute to improve pension adequacy in Italy, which presents low employment rates as a result of persistently weak labour market performance and substantial reconciliation (work-life) problems.

For the long run, it should be acknowledged that in strictly actuarial systems such as NDC pension schemes (and DC supplementary pensions), fairness in terms of regulatory homogeneity and actuarial neutrality does not necessarily entail adequate and equitable pensions in the future.[279] Measures should therefore follow three main directions. First, the solidarity and redistributive capacity of public statutory schemes should be reinforced in order to reduce penalties for workers with fragmented careers. This requires a (more or less) incisive revision of the NDC system, which may range from the introduction of a minimum pensions guarantee[280] to a fully-fledged flat-rate statutory pension. Accordingly, second, the role of supplementary funded schemes – currently covering workers already well protected in the statutory schemes – should be thoroughly reconsidered. Third, eligibility conditions for old-age pensions should be made flexible, especially within an NDC framework.

[279] Jessoula, M., 'L'equilibrio imperfetto. Le pensioni italiane tra sostenibilità, adeguatezza, equità', in *Italianieuropei,* 3.2014; Jessoula, M., 'La riforma delle pensioni Poletti-Renzi: un passo verso la soluzione del "trilemma" delle pensioni?', in *Politiche Sociali,* No 1.2017.

[280] Raitano, M., *Poveri da Giovani, Poveri da Anziani? Prospettive previdenziali e vantaggi della pensione di garanzia*, Social Cohesion Paper 1.2017, OCIS – International Observatory on Social Cohesion and Social Inclusion, 2017. https://osservatoriocoesionesociale.eu/osservatorio/poveri-da-giovani-poveri-da-anziani-prospettive-previdenziali-e-vantaggi-della-pensione-di-garanzia

5 BACKGROUND STATISTICS

5.1. Relative income	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
Relative median income ratio (65+)	1.01	1.05	0.98	0.13	0.14	0.13
Income quintile share ratio (S80/S20), 65+	5.07	5.07	5.01	0.61	0.51	0.69
Relative income quintile share ratio (S80/S20), 65+ - 0-64	-1.28	-1.38	-1.27			
Aggregate Replacement Ratio (ARR) %	73	77	65	22	20	25
5.2. Poverty and material deprivation	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
At-risk-of-poverty or social exclusion (AROPE), 65+ (%)	19.8	16.1	22.8	-4.6	-4.2	-4.6
At-risk-of-poverty rate (AROP), 65+ (%)	16.2	13	18.7	-4.7	-4.3	-4.9
Severe material deprivation (SMD), 65+ (%)	6.7	5.2	7.9	0	-0.4	0.5
At-risk-of-poverty or social exclusion (AROPE), 75+ (%)	21.6	17.5	24.3	-3.6	-2	-4.3
At-risk-of-poverty rate (AROP), 75+ (%)	17.3	13.6	19.7	-4.7	-3.5	-5.2
Severe material deprivation (SMD), 75+ (%)	7.6	6.1	8.6	1.3	1.6	1.2
Relative median at-risk-of-poverty gap, 65+ (%)	18.3	19.4	17.8	-1	3.2	-2.7
At-risk-of-poverty rate (AROP), 65+: 50 % threshold (%)	8.7	7.4	9.6	-2.8	-1	-4
At-risk-of-poverty rate (AROP), 65+: 70 % threshold (%)	23.8	20.3	26.6	-5.8	-5	-6.1
Material and social deprivation, age 65+ [(1)]	11.6	9.5	13.1	-7.5	-8.3	-7
5.3. Gender difference	2019			Change 2008-2019		
Gender gap in pension income (65-79) (%) [(2)]			35.6			0.1
Gender gap in non-coverage rate (W-M in p.p.) (65-79)			17.7			7
5.4. Housing and health situation	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
Housing cost overburden rate, 65+ (%)	5.4	3.6	6.8	-2.7	-1.8	-3.3
Self-reported unmet need for medical exam 65+ (%)	3.2	2.6	3.6	-5.5	-5.6	-5.5
Healthy life years at age 65 (years)	10.4	10.6	10.2	3.1	3.0	3.1
Life expectancy at age 65	21.3	19.6	22.8	1.3	1.7	1.1
5.5 Sustainability and context	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
Employment rate, age group 55-64 (%)	54.3	64.6	44.6	20	19.3	20.7
Pension expenditure as % of GDP (ESSPROS) [(3)]			16.3			1.4
Retirement duration from first pension (years) [(4)]	22.8	21.1	24.3	-1.0	-0.4	-1.8
Retirement duration from end employment (years)	21.0	19.4	22.1			
Eurostat and AWG projections	2019			2059		
Old-age dependency ratio (20-64) (%)	38.6	33.7	43.5	65.8	57.0	75.4
Economic old-age dependency ratio (20-64) (%) [(5)]	57.0	42.1	77.2	84.2		
Gross public pensions as % of GDP [(5)]	15.4			14.2		
Benefit ratio (%) [(5)]	60.8			45.1		
Coverage ratio (% of pop aged 65+) [(5)]	106.7			88.9		
Gross pension ratio high / low earner		2.7	2.7		2.3	2.3

[(1)] change since 2014, not 2008
[(2)] data refer to 2010, not 2008
[(3)] ESPROSS data refer to 2018
[(4)] Change is since 2016, not 2010
[(5)] 2060 instead of 2059

5.6 Theoretical Replacement Rates

	Net (%)				Gross (%)			
	2019		2059		2019		2059	
	Men	Women	Men	Women	Men	Women	Men	Women
Average earning (100%)								
Base case: 40 years up to the SPA	79.4	79.4	74.6	74.6	71.4	71.4	64.5	64.5
Increased SPA: from age 25 to SPA	82.1	82.1	81.1	81.1	73.9	73.9	71.4	71.4
AWG career length case	86.2	84.9	74.7	76.1	77.8	76.5	64.9	66.3
Old base case: 40 years up to age 65								
Longer career: 42 years to SPA			77.1	77.1			67.2	67.2
Shorter career: 38 years to SPA			70.9	70.9			60.8	60.8
Deferred exit: 42 years to SPA +2			82.3	82.3			72.6	72.6
Earlier exit: 38 years to SPA -2			66.2	66.2			56.5	56.5
Career break – unemployment: 3 years	75.8	75.8	72.8	72.8	68.0	68.0	62.7	62.7
Career break due to child care: 3 years	77.6	77.6	73.2	73.2	69.7	69.7	63.1	63.1
Career break care to family dependant: 3 years	76.9	76.9	72.7	72.7	69.1	69.1	62.5	62.5
Short career (20 year career)	50.8	50.8	49.8	49.8	35.0	35.0	32.0	32.0
Work 35 y, disabled 5 years prior to SPA			65.5	65.5			56.4	56.4
Early entry in the LM: from age 20 to SPA			86.7	86.7			77.4	77.4
Index: 10 years after retirement @ SPA			63.5	63.5			53.9	53.9
Extended part-time period for childcare			68.0	68.0			58.0	58.0
Survivor – full career		129.3		112.0		118.5		103.2
Survivor – short career		85.6		80.5		77.2		76.1
Survivor ratio 1*		0.81		0.82		0.83		0.80
Survivor ratio 2*		0.48		0.48		0.50		0.50
Low earnings (66%)								
Base case: 40 years up to the SPA	78.6	78.6	71.9	71.9	71.4	71.4	64.5	64.5
AWG career length case	85.6	84.3	73.1	76.1	77.8	76.5	64.9	66.3
Old base case: 40 years up to age 65								
Career break – unemployment: 3 years	74.8	74.8	69.9	69.9	68.0	68.0	62.7	62.7
Career break due to child care: 3 years	76.7	76.7	70.5	70.5	69.7	69.7	63.1	63.1
Short career (20 year career)	48.8	48.8	46.8	46.8	44.3	44.3	32.0	32.0
Early entry in the LM: from age 20 to SPA			87.4	87.4			77.4	77.4
High earnings (100->200%)								
Base case: 40 years up to the SPA	73.9	73.9	58.4	58.4	63.8	63.8	49.3	49.3

**Survivor ratio 1: man base case, woman base case*

**Survivor ratio 2: man base case, woman short career case*

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Highlights

- The at-risk-of-poverty (AROP) and at-risk-of-poverty-or-social-exclusion (AROPE) rates among older people in Cyprus decreased impressively over the period 2008-2019. This change is attributed to several factors, including the redistributive capacity of the social security pension system.
- Very few legislative changes took place during 2017-2020; those that did were aimed primarily at mitigating the risk of poverty among older people and strengthening the pension adequacy of the national pension system.
- Theoretical replacement rates with respect to the statutory pension scheme are projected to increase over the period of 2019-2059; however, the challenge of ensuring future adequacy remains, especially for people who are not at the lower end of incomes and who do not have access to occupational pensions.
- Policymakers should consider ways to consolidate and expand gains in poverty reduction, and reduce the gender pension gap, as well as effectively reform the framework regulating supplementary pension schemes in a way that promotes adequacy, sustainability, safety and transparency.

1 GENERAL DESCRIPTION OF THE NATIONAL PENSION SYSTEM

The current pension system in Cyprus consists of the following schemes.

Social security statutory pension schemes

- The general social insurance scheme (GSIS), a compulsory earnings-related scheme which covers every person gainfully employed in Cyprus, both in the public and in the private sector, including the self-employed.
- The social pension scheme, a non-contributory scheme providing minimum pensions to older residents of Cyprus, aged 65 and above, with no pension income or one that is below the level of the social pension. The social pension ensures universality in pension provision and its benefit is equivalent to 81 % of the basic part of the pension of the GSIS.

Additional minimum-income protection is provided to pensioners, which goes beyond the provision of the minimum pension within the GSIS and the social pension. Such provisions include the following.

- Income support, which is provided to low-income pensioners through the scheme for the support of pensioners on a low income,[281] a non-contributory income-tested scheme, and the Easter allowance.[282]
- The guaranteed minimum income (GMI), a means-tested top-up benefit which is provided to all people/families with income below a minimum threshold, including low-income pensioners.[283]

Occupational pension schemes

- The government employees' pension scheme (GEPS), which provides supplementary pension benefits to its members.
- The semi-government sector employees' pension schemes, which provide supplementary pension benefits to their members.[284]
- The voluntary provident funds and other similar collective arrangements, set up for a single-employer or on an industry-wide basis, which provide defined-contribution lump-sum benefits to their members.

The backbone of the pension system is the GSIS. The GSIS was introduced in 1957 and reformed in 1964 and 1980. The 1980 reform converted the previous flat-rate contributions scheme to the current earnings-related insurance scheme. Participation in the GSIS is compulsory for every person employed in Cyprus and is financed with contributions paid by employers, employees and the government. The total contribution rate for employees is 21.5 % (with an upper ceiling on insurable earnings which is revised annually) and is paid in the measure of 8.3 % by the employee, 8.3 % by the employer and 4.9 % by the government. The total contribution rate for the self-employed is 20.5 % and is paid 15.6 % by themselves and 4.9 % by the government. It should be noted that the GSIS entitles contributors to benefits from a variety of programmes other than the old-age pension (e.g. unemployment insurance, sickness, and employment injury benefits – see Christofides and Koutsampelas 2019, Tables 1, 2 and I.3).[285]

The pensionable age is currently 65 years for both men and women, but early retirement at the age of 63 is possible if the applicant: (a) satisfies the stricter eligibility criteria on contributions; or (b) was entitled to invalidity pension immediately before reaching the age of 63; or (c) is between the ages of 63 and 65 and would be entitled to invalidity pension if they had not reached the maximum age for entitlement to an invalidity pension (63 years). However, there are financial disincentives (actuarial reductions in statutory pensions equal to 0.5 % for every month from pension claim to the age of 65) in order to discourage retirement before the age of 65; and there are financial incentives for prolonging working life until the age of 68

[281] Pensioners with a pension income below the poverty threshold are entitled to a special allowance whose level is announced annually by the Ministry of Labour, Welfare and Social Insurance.
[282] Easter allowance is a non-contributory means-tested benefit given to eligible pensioners once per year.
[283] The level of the GMI benefit is estimated by the Ministry of Labour, Welfare and Social Insurance using reference budget methods and increases with the size of the recipient unit. Currently, the level is set at EUR 480 per month for a single person.
[284] Their members include permanent employees of public enterprises, local authorities and other public law organisations.
[285] Christofides, L.N. and Koutsampelas, C., 'The social protection system in Cyprus: recent initiatives and labour market implications', *Cyprus Economic Policy Review*, Vol. 13, No 2, 2019, pp. 3-47.

(postponement of pension entitlement comes with the benefit of increasing the pension by 0.5 % for each month of postponement). The only special arrangements for workers in hazardous/arduous occupations are for miners, who may retire from the age of 58, depending on the number of years worked in a mine.

Pensions provided by the GSIS consist of a basic and a supplementary part and are calculated on the basis of the contributory period and the level of insurance points gained.[286] Specifically, for the statutory pension, the basic pension is set at 60 % of the average of actual and assimilated basic insurable earnings over the relevant period (the period between 5 October 1964 – or the first day of the year of attainment of age 16, if later – and the week before the week of statutory pension entitlement). This rate increases to 80 %, 90 % and 100 % if the beneficiary has one (spouse), two or three dependants, respectively. The supplementary pension is equal to 1.5 % of the total insurance points (actual and assimilated) of the beneficiary in the supplementary part. The basic part is indexed to the annual increase of the basic insurable earnings, while the supplementary part is indexed to the consumer price index.

In addition to the compulsory GSIS pensions, several employee and professional groups have access to supplementary retirement income through occupational schemes. The most important occupational pension scheme is the GEPS. The GEPS provides pensions to central government employees, teachers, academics, police officers and personnel of the armed forces. The GEPS underwent drastic changes in 2011-2012, primarily driven by fiscal sustainability concerns. Most importantly, as of 2011, participation in the GEPS has been closed for newcomers in the public sector. Employees of the semi-government sector also have access to occupational schemes which provide the same or similar benefits as the GEPS.

Access to an occupational pension income is also available to certain categories of the self-employed (e.g. lawyers, doctors, and dentists), who have set up and operate their own defined-benefit occupational schemes. In parallel, a large number of small provident funds[287] operate in the private sector, financed by employees and employers on a voluntary basis, typically offering lump-sum payments to their members upon certain contingencies (termination of employment, retirement, incapacity, death, or dissolution of the fund). Finally, in regard to non-standard employees, most rely on GSIS pensions and other social security pension provisions.

2 REFORM TRENDS

This section proceeds in the same order as Section 1, examining first actual reforms and trends in the social security statutory pension schemes and then proceeding to similar issues in regard to occupational pension schemes.

[286] Each year, gross earnings up to a ceiling, which is indexed annually, are transformed to points by dividing by the value of the insurance points (for 2020 this value is set at EUR 9147). The first insurance point of each year refers to basic insurance while insurance points of more than one refer to supplementary insurance.

[287] According to administrative data, 1091 provident funds were registered in 2016, covering 92,752 members (Statistical Data Regarding the Schemes Administered by the Social Insurance Services, Statistics Section, Social Insurance Services). The relative importance of these provident funds in retirement income is rather limited, as many of their members receive lump-sum entitlements before retirement (e.g. on termination of employment).

Social security statutory pension schemes

During the period of reference (1 July 2017 – 1 July 2020) only marginal changes in the social security pension system occurred. These include the expansion of the right to a widower's pension to men under the GSIS and an increase in the amount of income support under the low-income pensioners' scheme.

As part of the 2009 GSIS pension reform, as of January 2019, the contribution rates paid by employees and employers increased from 7.8 % to 8.3 %, respectively, and the government contribution increased from 4.6 % to 4.9 %. As a result, the total contribution rate calculated on employees' insurable earnings increased from 20.2 % to 21.5 %. Similarly, the contribution rate paid by the self-employed increased from 14.6 % to 15.6 % and the government contribution from 4.6 % to 4.9 %. Thus, the total contribution rate for the self-employed increased from 19.2 % to 20.5 %. The increase in contribution rates is the outcome of the gradual implementation of the 2009 GSIS reform measure according to which contribution rates are planned to increase every five years up to 2039. The aim of these contribution changes is to further secure the sustainability of the social insurance system.

An amendment in the GSIS law, approved in 2019, provides for the payment of widower's pensions to men under the same conditions as for women who lose their husbands. The bill is retroactive to 1 January 2018. This reform measure is likely to be accompanied by further increases in contributions (on top of the planned increases mentioned above) following any possible recommendations in the actuarial study which is evaluating the sustainability of the GSIS.

Furthermore, as of January 2019, a considerable increase (of 30 % to 40 %) in the amount of income support under the low-income pensioners' scheme was granted. Such an increase directly reduces the risk of poverty among older people.

Occupational pension schemes – reforms and trends

Since 2011, new hires into the public service have not been given access to the GEPS, leaving them without access to a supplementary scheme and producing inequities between older and newer cohorts of public servants. A social dialogue began a while ago in order to rectify this situation. The Ministry of Finance studied the matter and recently submitted a proposal to the trade unions for their views. The matter is now at the stage where unions are collecting feedback from their members and preparing modifications or counterproposals to the Ministry of Finance proposals. The momentum for this particular reform is quite strong.

In the private sector, the current market structure of supplementary pension plans is highly fragmented, with a large number of small employer-based funds, and is characterised by considerable heterogeneity in their provisions.

In February 2020, the House of Representatives passed a new pension law which implemented the latest directive of the European Parliament and of the Council on the activities and supervision of institutions for occupational retirement provision (IORP II). The Law No 10(I)/2020 effectively cancelled the existing legislation regulating the supplementary pension framework.

As part of IORP II transposition, recent reform efforts have been aimed towards the enhancement of adequacy of IORP pensions, the upgrade of the regulatory framework grounded in good governance standards, especially for larger, multi-employer pension plans and the IORP market consolidation (i.e. the creation of a relatively small number of larger pension plans).

With respect to the IORP pension adequacy, specific provisions were introduced in the new pension law which prohibit the dissolution of occupational provident funds, thus protecting the members' benefit entitlements which would have been previously granted to employees in the form of a lump sum. Such dissolutions could only proceed if the enterprise is itself ceasing operations and disbanding. At the same time, the enhancement of the regulatory framework with respect to the governance of larger, multi-employer pension plans is currently being introduced through secondary legislation stemming from the above new pension law. The implementation of the new primary and secondary legislation could potentially lead to a consolidation of the IORP market. Such consolidation would encourage cooperation and a more professional management of private pension plans.

One issue that is currently under discussion is the extent to which an employee can opt out of a pension plan set up by an employer and to which the employer would be willing to contribute. Clearly, compulsory employee contributions to these schemes would strengthen the financial situation of employees on retirement.

3 ASSESSMENT OF ADEQUACY

3.1 Current adequacy[288]

Before 2008, Cyprus was characterised by one of the highest AROP and AROPE rates for people aged 65 and over in the EU. However, after 2008, both rates dropped sharply. Specifically, between 2008 and 2019, the AROPE rate for those aged 65 and over, and for those aged 75 and over, decreased by 23.4 percentage points (p.p.) and 28.5 p.p. respectively; reaching 25.9 % and 34.9 % in 2019. A similar, strong, declining pattern was observed for the AROP rate over the same period; namely, a reduction occurred of 21.7 p.p. for those aged 65 and over and a reduction of 27.0 p.p. for those aged 75 and over. These reductions in the AROPE and AROP rates were the largest across all Member States over the period 2008-2019.

The sharp decrease of the risk of poverty among older people in Cyprus reflects an improvement in their relative income (that is, their income relative to non-pensioners' income). In particular, the relative median income ratio (among those 65 and over) increased by 18 p.p. over the period 2008-2019, reaching 77 % in 2019. Furthermore, compared with 2008, the aggregate replacement ratio (ARR) increased by 8 p.p., reaching 41 % in 2019.

Furthermore, it should be noted that the current poverty or social exclusion risks, although much lower compared with the past, remain above the respective EU[289] averages. In 2019, the AROP rate for those aged 65 and over in Cyprus was 24.6 % (vs 16.1 % in EU), while the

[288] All the indicators mentioned in this section are drawn from Section 5 'Background statistics', with the exception of pension duration which is calculated by the authors using Eurostat data (see footnote 11).
[289] EU and EU-27 refer to the current 27 Member States of the European Union.

AROPE rate for those aged 65 and over was 25.9 % (vs 18.5 % in EU). Income inequality among older people also remains high. The S80:S20 income quintile ratio of older people (aged 65 and over) was 4.47 in Cyprus in 2018 vs 4.24 in the EU.

The average pension duration was 21.0 years (18.0 for men and 22.9 for women) in 2019; since 2016, it has been increasing, especially among women. Pension duration can be expected to shorten slightly over the immediate future due to the long-term effect of the 2012-2013 reforms (e.g. introduction of actuarial reductions for early retirement and increases in the retirement age), which have not as yet been reflected in recent data. A cohort effect may also appear as a number of individuals in the public, semi-public and private (commercial bank) sectors took advantage of early-retirement schemes during the Cyprus crisis.

The overall picture is that poverty prevention improved significantly and income maintenance improved moderately. The improvement in most indicators (and especially poverty indicators) can be attributed to the following factors.

- The maturation of the pension system. The current pension system was introduced in the 1980s and pensioners at the top end of the age scale retired before making enough contributions to be entitled to a full pension (Koutsampelas, 2012).[290] Therefore, poverty among older people declines over time as the share of the older cohorts of retirees in the pensioner population declines.
- The recent economic crisis affected heavily the income of non-pensioners through job losses and reductions in wages and benefits (Koutsampelas and Polycarpou, 2012;[291] Koutsampelas 2012). This effect pushed the AROP rate in old age downward, all other things being equal, while the recent improvement in the labour market has not fully reversed this wage dynamic.
- The anti-poverty effect of non-contributory policies supporting low-income pensioners. Most of these policies were kept intact during the crisis, while the transition from the public assistance to the GMI scheme did not affect the income adequacy of older recipients. These policies mitigate poverty risk in old age (particularly its extreme forms).

Notwithstanding the large decrease in poverty in old age, gender disparities remain at high levels. The gender gap in pension income (for those aged 65-79) stood at 39.3 % in 2019; this was 4.8 p.p. below the 2008 levels but well above the EU average (29.5 %). The ARR for women stood at 39 % in 2019, well below that for men (47 %). Disparities in pension income result in differences in AROPE rates, which are especially high for women aged 75 or above. Women have, to a great extent, not participated enough in the labour market and are covered by the less generous social insurance flat-rate scheme which was in force prior to 1980. Overall, gender differences in pensions reflect the following factors: (a) a higher incidence of career interruptions and non-standard forms of employment among women; (b) labour market inequalities and particularly gender pay gaps; and (c) the higher life expectancy among women.

[290] Koutsampelas, C., ‘Aspects of elderly poverty in Cyprus’, *Cyprus Economic Policy Review*, Vol. 6, No 1, 2012, p. 6989.
[291] Koutsampelas, C. and Polycarpou, A., ‘Distributional consequences of the Cypriot crisis’, *Cyprus Economic Policy Review*, Vol. 7, No 1, 2012, pp. 47-61.

The current adequacy of pensions is expected to be materially enhanced by the introduction of the new national healthcare system. The new system is expected to improve the availability and affordability of healthcare services,[292] including long-term care (LTC) services (Theodorou *et al.*, 2017).[293] As regards the latter, the statutory provisions of LTC are limited and the majority of households rely on private spending or provision of care by family members. In particular, only eligible recipients of the means-tested GMI scheme can be entitled to LTC benefits, with the exception of people with severe disability (motor/paraplegia/quadriplegia/blindness) who are entitled to LTC subsidisation regardless of their income.

Finally, current pension adequacy is complemented by extensive home-ownership, access to good housing conditions and the prevalence of strong norms of intergenerational solidarity, with parents supporting their children during the various stages of their life-cycle and adult children supporting their frail older parents (Koutsampelas and Pashardes, 2017).[294]

3.2 Future adequacy

Theoretical replacement rates (TRRs) are expected to increase over the period 2019-2059. According to the baseline scenario (40 years up to standard pensionable age – SPA) the net TRR for an average earner is expected to increase considerably by 5 p.p. for men (i.e. from 66 % to 71 %); the increase would be even stronger for women (currently at 63 %) as the TRR will become equal. The corresponding increases for low- and high-earners are 1 p.p. (from 70 % to 71 %) and 7 p.p. (from 52 % to 59 %), respectively. On the other hand, according to the Ageing Working Group (AWG) estimates, which make country-specific assumptions about the average career length, the expected increase in net TRR is 9 p.p. for men (average earner), whereas women would not reach the qualifying SPA on leaving employment. The simulation exercise, further, shows that in the case of the increased SPA scenario (careers from age 25 to the SPA), the net TRR will reach 76 % in 2059 for both genders.

The prospective replacement rates for both genders under the scenario of three-year career breaks due to unemployment or childcare show a relatively small effect on adequacy, primarily due to the pension credits of the GSIS. One exception is the three-year career break for childcare, where women's replacement rates would decrease by 8 p.p. In general, the differences between current and prospective replacement rates for low- and high-earners, as well as from complete and shorter careers, show that the social security pension system will maintain its redistributive role in the future.

Despite the expected improvement in TRRs, the challenges for pension adequacy, especially in regard to income maintenance for those relying only on statutory pensions and who are not in the lower end of incomes, are often debated. Several stakeholders have stressed that prospective pensioners should have access to supplementary pension income in order to secure

[292] Self-reported unmet need for medical care in Cyprus stood at 1.4 % in 2018; 0.6 p.p. below the EU average (Eurostat online database: tespm110).
[293] Theodorou, M., Kantaris, M. and Koutsampelas, C., *ESPN Thematic Report on Inequalities in access to healthcare: Cyprus*, European Social Policy Network (ESPN), European Commission, Brussels, 2017.
[294] Koutsampelas, C. and Pashardes P., *Social Protection in Cyprus: Overview and challenges*, Economic Policy Paper Series No 05-17, University of Cyprus, Nicosia, 2017.

an adequate retirement income. The government is currently working towards reforming the present institutional framework for occupational pensions. These efforts, which are continuing, are reviewed in Section 2. The main challenge is to achieve consensus among stakeholders (government, employers and employees).

3.3 Challenges for future adequacy

During the last decade, the pension system became the subject of extensive reforms aimed at addressing demographic challenges and securing fiscal sustainability.[295] The planned five-yearly increases in social security contributions, themselves the result of an extensive actuarial study, were planned to achieve the sustainability of the GSIS for several decades. Further reforms were implemented during the crisis. Sustainability was addressed while simultaneously reducing drastically the very high AROP rates in old age. Notwithstanding these positive developments, important challenges for future adequacy continue.

The gains in the reduction of the AROP rate in old age should not be taken for granted, as wage dynamics may change and the relative income position of older people may deteriorate. Equally important is to narrow the pension gap between men and women (which also translates into differential poverty risks in old age). This inequity stems from gender pay gaps in the labour market, which were particularly intense for the older cohorts of women. Although women's presence in the labour market has strengthened over time, a relatively high gender gap during the working life continues (Christofides, Polycarpou and Vrahimis, 2013).[296] This results in challenges, if not higher women's poverty risks, at the end of working lives. Tackling these challenges should be a priority.

The long-term impact of past reforms on the retirement paths of various occupational/employment and vulnerable groups has not been studied in a comprehensive manner and, consequently, it has not been addressed.[297] In this context, a comprehensive study on assessing the pension income adequacy gaps for all of those groups, based on administrative data, needs to be undertaken. In that study, the role of occupational pensions in maintaining living standards relative to pre-retirement income needs to be specifically addressed.

Nevertheless, it is important to strengthen the framework governing occupational pension schemes, while at the same time reducing uneven access to occupational pensions.

3.4 Solidarity mechanisms

Inequalities in the labour market are transmitted to the pension system through insufficient contributions, resulting in pension disparities under the GSIS. In addition, individuals in poorly paid occupations and certain occupational/employment groups are less likely to have access to occupational pension provision that will supplement their retirement income. However, certain

[295] For a more detailed description of past reforms, see also the country fiche on public pensions for the Ageing Report 2018.
[296] Christofides, L.N., Polycarpou A., and Vrahimis C., 'The gender wage gaps, 'sticky floors' and 'glass ceilings' of the European Union', *Labour Economics*, Vol. 21, April, 2013, pp. 86-102.
[297] Pashardes, P. and Koutsampelas C., *ESPN Thematic Report on Access to social protection of people working as self-employed or on non-standard contracts: Cyprus*, European Social Policy Network (ESPN), Brussels, European Commission, 2017.

redistributive elements of the social protection system mitigate those inequalities, reducing inequality through solidarity and redistribution in old age.

Retirees with low or no contribution records can benefit from minimum-income arrangements. First, pensioners who only satisfy certain minimum contributory requirements receive a specified level of minimum pension from the GSIS. People who do not fulfil the eligibility criteria for a GSIS pension may be entitled to a social pension. The social pension is an income-tested scheme, tested only against pension income. Its aim has been to increase the financial autonomy of uninsured women (e.g. housewives), who currently represent 97 % of the beneficiaries of the social pension. Additionally, in the context of the GMI programme, low-income pensioners may be eligible to draw benefits to supplement their pension income through the income support scheme for low-income pensioners; they may also be eligible for a housing allowance and/or a LTC subsidy. These policies contribute decisively to limiting material deprivation as well as reducing the AROP rate among older people (Koutsampelas 2016; Christofides, 2015).[298]

Pension credits help insured people to offset, albeit partially, the loss of contributions during certain periods of employment interruption. The GSIS provides a very extensive set of pension credits. In particular, assimilation of basic insurable earnings is possible for periods of full-time study (or approved training), military service in the National Guard, unemployment, incapacity for work (sickness, injury, maternity and paternity), parental leave, periods of child-raising of up to 156 weeks, and unemployment shortly after the Turkish invasion, as well as prospective insurance period between the date of an insured person’s invalidation or death and age 63. Although assimilated insurance does not fully offset the effect of reduced labour market activity on pension entitlements, it does mitigate the effect of labour market interruptions on pensions.

There are also provisions for people forced to leave the labour market early (due to incapacity, disability or employment injury), through derived rights (widow’s pension and orphan benefits) and supplemental provision to invalidity pensioners in cases of partial invalidity, whereby invalidity pension is converted into statutory pension under the assumption of full (100 %) invalidity. Furthermore, the basic pension and minimum pension under the GSIS, as well as other social security benefits, increase with the number of dependants of the recipient. Finally, it should be noted that despite the link between contributions and benefits under the GSIS, given that most of the entitlements are earnings-related, a maximum threshold is applied to earnings for the purpose of contribution payments; this limits the gap between the entitlements of those with high and low earnings.

Finally, in regard to non-standard employees, there are no available national data or studies assessing pension adequacy for this group; however, there is international evidence pointing to the possibility that they face a higher risk of poverty after retirement. There is also evidence that non-standard employees in Cyprus are underpaid in relation to comparable-standard

[298] Christofides, L.N., *Cyprus: The Guaranteed Minimum Income Programme*, Peer Review on Universal Credit, November 2015, London, UK.

employees, resulting in differences in insurable earnings which translate into pension disparities (Koutsampelas, 2018).[299]

4 OPPORTUNITIES TO ADDRESS CHALLENGES

Although solid improvements have been achieved during the last decade (especially in terms of reducing the risk of poverty), there are still opportunities for improving pension adequacy.

First, the gains in the reduction of poverty in old age should not be taken for granted, but actively defended by strengthening the adequacy of the social security pension system in a fiscally responsible way.

Second, the pension gap between men and women is high. Therefore, it is important to assess the possibility of reforming the pension system with a view to mitigating the effect of labour market inequalities on pensions.

Third, the long-term impact of past reforms on the retirement paths of various vulnerable occupational groups has not been assessed in a comprehensive manner. Potential adjustments to the pension system to cover the divergent needs of these groups should be evaluated.

Finally, the coverage and adequacy of supplementary pension provision is important for income maintenance in old age. The main opportunities for reform include: broader coverage; better governance of occupational pension funds in the context of a consolidated market; improved transferability of pension rights between jobs; and enhanced supervision and guidance for the sector, possibly through an independent supervisory authority.

[299] Koutsampelas, C., 'Non-standard employment in Cyprus: trends and policy responses', *Cyprus Economic Policy Review*, Vol. 12, No 1, 2018, pp. 41-58.

5 BACKGROUND STATISTICS

5.1. Relative income	2019			Change 2008-2019		
	Total	**Men**	**Women**	**Total**	**Men**	**Women**
Relative median income ratio (65+)	0.77	0.82	0.74	0.18	0.19	0.17
Income quintile share ratio (S80/S20), 65+	4.47	4.79	4.14	-0.14	-0.14	-0.06
Relative income quintile share ratio (S80/S20), 65+ - 0-64	-0.08	0.37	-0.53			
Aggregate Replacement Ratio (ARR) %	41	47	39	8	9	2
5.2. Poverty and material deprivation	**2019**			**Change 2008-2019**		
	Total	**Men**	**Women**	**Total**	**Men**	**Women**
At-risk-of-poverty or social exclusion (AROPE), 65+ (%)	25.9	23.9	27.6	-23.4	-19.7	-26.4
At-risk-of-poverty rate (AROP), 65+ (%)	24.6	22.5	26.4	-21.7	-18.5	-24.3
Severe material deprivation (SMD), 65+ (%)	2.5	2.5	2.5	-8.4	-7.3	-9.3
At-risk-of-poverty or social exclusion (AROPE), 75+ (%)	34.9	31.3	37.7	-28.5	-29.8	-27.3
At-risk-of-poverty rate (AROP), 75+ (%)	34.4	30.6	37.5	-27	-28.2	-25.8
Severe material deprivation (SMD), 75+ (%)	1.3	1.3	1.3	-11.3	-11.7	-11
Relative median at-risk-of-poverty gap, 65+ (%)	13.5	13.5	13.3	-4.2	-2.2	-6.5
At-risk-of-poverty rate (AROP), 65+: 50 % threshold (%)	9.8	8.9	10.6	-15.1	-10.6	-18.8
At-risk-of-poverty rate (AROP), 65+: 70 % threshold (%)	40.9	38.3	43.2	-17.8	-13.9	-21
Material and social deprivation, age 65+ (1)	4.2	3.7	4.7	-11.6	-9.1	-13.6
5.3. Gender difference	**2019**			**Change 2008-2019**		
Gender gap in pension income (65-79) (%) (2)			39.3			-4.8
Gender gap in non-coverage rate (W-M in p.p.) (65-79)			0.4			0.4
5.4. Housing and health situation	**2019**			**Change 2008-2019**		
	Total	**Men**	**Women**	**Total**	**Men**	**Women**
Housing cost overburden rate, 65+ (%)	0.9	0.7	1.1	-1.1	0.2	-2.1
Self-reported unmet need for medical exam 65+ (%)	0.6	0.4	0.8	-4	-4.1	-4
Healthy life years at age 65 (years)	7.6	8.1	7.1	-0.7	-1.0	-0.5
Life expectancy at age 65	20.5	19.1	21.8	1.4	1.3	1.5
5.5 Sustainability and context	**2019**			**Change 2008-2019**		
	Total	**Men**	**Women**	**Total**	**Men**	**Women**
Employment rate, age group 55-64 (%)	61.1	72	50.7	6.3	1.1	11.3
Pension expenditure as % of GDP (ESSPROS) (3)			9.8			2.2
Retirement duration from first pension (years) (4)	21.6	20.5	22.5	0.0	0.2	0.1
Retirement duration from end employment (years)	21.5	19.6	23.2			
Eurostat and AWG projections	**2019**			**2059**		
Old-age dependency ratio (20-64) (%)	25.9	24.4	27.3	44.2	41.1	47.1
Economic old-age dependency ratio (20-64) (%) (5)	31.6	26.3	37.4	50.8		
Gross public pensions as % of GDP (5)	8.8			10.7		
Benefit ratio (%)(5)	59.5			42.9		
Coverage ratio (% of pop aged 65+)(5)	111.5			120.0		
Gross pension ratio high / low earner		1.9	1.8		2.2	2.0

(1) *change since 2014, not 2008*

(2) *data refer to 2010, not 2008*

(3) *ESPROSS data refer to 2018*

(4) *Change is since 2016, not 2010*

(5) *2060 instead of 2059*

5.6 Theoretical Replacement Rates

	Net (%)				Gross (%)			
	2019		2059		2019		2059	
	Men	Women	Men	Women	Men	Women	Men	Women
Average earning (100%)								
Base case: 40 years up to the SPA	66.0	63.0	71.0	66.0	59.0	58.0	62.0	60.0
Increased SPA: from age 25 to SPA	66.0	66.0	76.0	76.0	59.0	59.0	67.0	67.0
AWG career length case	63.0	57.0	72.0		56.0	52.0	61.0	
Old base case: 40 years up to age 65	66.0				59.0			
Longer career: 42 years to SPA			74.0	74.0			64.0	64.0
Shorter career: 38 years to SPA			67.0	67.0			59.0	59.0
Deferred exit: 42 years to SPA +2			74.0	74.0			64.0	64.0
Earlier exit: 38 years to SPA -2			59.0	59.0			51.0	51.0
Career break – unemployment: 3 years	64.0	64.0	67.0	67.0	58.0	58.0	58.0	58.0
Career break due to child care: 3 years	63.0	62.0	66.0	63.0	57.0	58.0	58.0	58.0
Career break care to family dependant: 3 years	63.0	63.0	66.0	66.0	56.0	56.0	57.0	57.0
Short career (20 year career)	45.0	45.0	46.0	46.0	40.0	40.0	40.0	40.0
Work 35 y, disabled 5 years prior to SPA			69.0	69.0			60.0	60.0
Early entry in the LM: from age 20 to SPA			83.0	83.0			73.0	73.0
Index: 10 years after retirement @ SPA			75.0	75.0			63.0	63.0
Extended part-time period for childcare			60.0	58.0			52.0	53.0
Survivor – full career		116.0		121.0		110.0		115.0
Survivor – short career		79.0		83.0		73.0		76.0
Survivor ratio 1*		0.89		0.88		0.86		0.86
Survivor ratio 2*		0.81		0.81		0.80		0.81
Low earnings (66%)								
Base case: 40 years up to the SPA	70.0	78.0	71.0	81.0	65.0	72.0	64.0	72.0
AWG career length case	70.0	73.0	71.0		64.0	68.0	64.0	
Old base case: 40 years up to age 65	70.0				65.0			
Career break – unemployment: 3 years	70.0	70.0	71.0	71.0	65.0	65.0	64.0	64.0
Career break due to child care: 3 years	70.0	78.0	71.0	81.0	65.0	72.0	64.0	72.0
Short career (20 year career)	54.0	54.0	56.0	56.0	50.0	50.0	50.0	50.0
Early entry in the LM: from age 20 to SPA			79.0	79.0			70.0	70.0
High earnings (100->200%)								
Base case: 40 years up to the SPA	52.0	52.0	59.0	59.0	42.0	42.0	47.0	47.0

**Survivor ratio 1: man base case, woman base case*

**Survivor ratio 2: man base case, woman short career case*

Note: In Cyprus, there is no difference in the calculation formula or in the pensionable age between men and women, and therefore the TRRs of men are generally equal to those of women. Nevertheless, there are differences in TRRs with respect to the Child-care break, Extended part-time and Survivor cases that reflect differences in the level of wages, entry and exit ages under the AWG case, credits granted due to childcare and maternity, as well as National Guard credits. When the above three cases are compared with the Base case, the TRR figure calculated under the Base case is for women. Therefore, the female net TRR figure under the Base case, which, for example, was calculated as 63% and 66% for 2019 and 2059 respectively, is used only for comparison purposes, between the Base case and the above three underlined cases: Child-care break, Extended part-time and Survivor cases and is not reported for any other purpose.

LATVIA

Highlights

- Among older people, the at-risk-of-poverty-or-social-exclusion (AROPE) rate in Latvia is the highest in the EU-27 and continues increasing. The current income replacement rate is one of the lowest in the EU and projected to remain so in the long run.
- Minimum pensions are very low and the introduction of the minimum income level, to which the minimum pension was planned to be tied, was postponed several times during the reporting period. Effective social safety nets and targeted social benefits and services for older people need to be implemented.
- The number of redistributive elements in the system is comparatively limited; individual accounts for pension capital accumulation are used both in the funded and pay-as-you-go (PAYG) schemes.
- The importance of the mandatory and voluntary funded schemes in old-age income provision is constantly growing. The low return from pension funds and the high volatility of financial markets jeopardise the adequacy of future pensions.

1 GENERAL DESCRIPTION OF THE NATIONAL PENSION SYSTEM

The old-age pension system consists of a state-administered mandatory notional defined-contribution (NDC) scheme (the first pillar), a mandatory statutory funded defined-contribution (FDC) scheme (the second pillar) and voluntary supplementary pensions (also known as the third pillar).

Those who are socially insured are employees and self-employed people. The total base rate of social contributions for employees (35.09 % of gross salary) is split between the employer and the employee (24.09 % and 11 % respectively); within this total rate, contributions are split between several insurance types. The share of pension insurance made up 24.54 percentage points (p.p.) in 2017, and 24.5 p.p. in 2019 and 2020; 20 p.p. out of those are registered on individual pension accounts (14 p.p. goes to the NDC and 6 p.p. to the FDC), while the remaining 4.5 p.p. are directed to the non-individualised PAYG pension budget. Old-age pensions are included in state social insurance for all categories of employees with no exclusions. The level of social protection coverage for non-standard contractual workers does not mainly depend on their type of contract but on the contribution base, which can be substantially below the wage depending on the sector or size of the company.[300] The self-

[300] For example, micro-enterprises with up to five employees are subject to a special tax regime, including a lower social insurance contribution base. For details see Rajevska, F., *ESPN Thematic Report on Access to social protection of people working as self-employed or on non-standard contracts: Latvia*, European Social Policy Network (ESPN), European Commission, Brussels, 2017.

employed with income below the minimum wage are insured but pay only 5 % contributions to the NDC pension insurance scheme. The state also covers pension contributions for people taking care of a child under 1½ years and recipients of maternity/paternity benefits, unemployment benefits, sickness benefits, etc.

The minimum pension amount depends on the length of insurance record. In 2020, the contributory minimum pension ranged from EUR 88 to EUR 136 per month depending on the insurance record (higher for people with disability since childhood). Older people with an insurance record of less than 15 years were eligible for the state social security benefit for people of retirement age amounting to EUR 64.03 per month, financed from the general tax budget.

Pensions (except for the state social security benefit) are subject to annual indexation, based on price inflation and changes in the nationwide wage bill (see Section 2 for further details).

The amount of the individual pension from the statutory PAYG scheme is determined by lifetime contributions paid into the NDC scheme since 1996, thus accumulating the individual's notional pension capital. For years of service prior to 1996, notional capital is calculated on the basis of the wage in 1996-1999 (the minimum basis is set at the level of the national average wage during this period for those with at least a 30-year insurance record, and at 40 % of the average wage for those with a shorter insurance record[301]).

To calculate the individual amount of annuity at retirement, the individual pension capital is divided by the gender-neutral average life expectancy at the age when the pension is claimed (G-factor). In this manner, the Latvian pension formula automatically links the amount of the assigned pensions to longevity changes. The notional pension capital is annually revalorised based on the national wage bill growth, meaning it is affected by the size of the labour force (i.e. fewer working people means a lower revalorisation). Pension entitlements are thus affected by demographic changes twice: through revalorisation of pension rights during accrual and through benefit calculation upon claiming a pension.

The pensionable age in the mandatory pension system is set to increase from 62 to 65 by 2025 by three months every year (starting from 2014). In 2020 it was 63 years and nine months for both men and women. The minimum insurance period to qualify for an old-age pension is set at 15 years and from 2025 it will be raised to 20 years. Early retirement is possible two years before the statutory pensionable age provided the applicant has a minimum 30-year insurance record. During early retirement (i.e. before reaching the statutory pensionable age) the pension is paid at the level of 50 % of the calculated pension amount. Upon reaching the statutory pensionable age, the pension is paid in full. Early retirement is more widespread among women: 15.7 % of newly granted old-age pensions for women in 2018 were early, compared with 11.3 % for men. The average pension age[302] increased from 62.56 years (men) and 62.44 years (women) in 2017 to 62.72 (men) and 62.62 (women) in 2018 respectively (for comparison, in 2014 the

[301] In 2018, 51 % of all newly granted pensions were calculated using this rule (Ministry of Welfare).

[302] The average age of claiming an old-age pension. However, many pensioners continue to work and combine pension and work income. The effective retirement age (i.e. the age of complete withdrawal from labour force) is considerably higher: in 2018, in Latvia it equalled 65.7 years for men and 64.7 years for women (OECD statistics on average effective age of retirement).

corresponding numbers were 61.59 and 61.34 years). Pensioners, except early retirees, may combine receiving a full pension with income from work that also gives entitlement to a periodic recalculation of pension benefit. Many Latvian pensioners are using this opportunity: in December 2018, 19 % of old-age pensioners remained in employment (16.5 % among women and 23.9 % among men).

The statutory funded DC scheme was launched in 2001. It is mandatory for those born after 1 July 1971. Practically all those born between 1 July 1951 and 30 June 1971 who had the right to join the scheme voluntarily have exercised this right. On 31 December 2019, there were 1.3 million members[303] of the statutory funded pension plans and the total worth of assets was around EUR 4.5 billion. At the same time, a significant proportion of the members are inactive (i.e. not paying contributions – 22.8 % in 2019). Since 2009, the proportion of active participants has not exceeded 80 %, while before the 2008 crisis it was at 87 % to 89 %. The large proportion of non-active participants is due to massive emigration. The benefit is accrued by transferring part of the social contributions to one of eight mandated asset managers offering 31 pension plans of various risk profiles. At the time of retirement, the accumulated capital can be converted into an annuity either by adding it to the PAYG notional capital or by purchasing a life annuity from a private insurance company.

In addition, any person and employer can make voluntary contributions to a private pension fund – six funds offer 16 pension plans. The plans are predominantly financed from own contributions and covered 325,000 members in December 2019, and the accumulated assets equalled EUR 560 million (8 times less than the assets in the statutory funded scheme). The share of inactive members is higher than in mandatory funds: only 46.3 % had made at least one contribution in the previous 12 months, 35.4 % were inactive, and 18.3 % reached their retirement age and received their pension capital in part.

In Latvia, widow(er)s are not entitled to a survivor's pension but are eligible for a short-term allowance. In 2019 the survivor's allowance paid to the retired surviving spouses was revised and set at 50 % of the deceased's pension (supplement included) payable for 12 months (previously a lump-sum payment was two months of deceased's pension, without supplement).

2 REFORM TRENDS

Most of the reforms in 2017-2020 were envisaged in earlier periods and did not affect the core principles of the system.

Despite the increase in living costs, there was very marginal development in the minimum pension amount during the period under observation: until 2020, it remained unaltered since 2006 and equalled EUR 70.43-108.85 per month depending on the length of insurance record (for people with disability since childhood – € 117.39-181.42 *(from2009)*). From January 2020, new minima are set at EUR 88-136 (for people with a disability since childhood – EUR 134.96-208.57) per month. On the one hand, in relative numbers this is almost a 25 % increase. On the other hand, in absolute numbers such minimum levels would not prevent people from falling

[303] This is more than 100 % of the workforce, as many of the participants have emigrated but the accumulations on their pension accounts remain in the scheme.

into poverty. The share of pensioners receiving the minimum pension is growing: in 2018, 11.6 % of all newly assigned pensions were on minimum pensions (in 2017, 11.3 %; in 2016, 10.1 %), and the average benefit amounted to EUR 82.51.

The introduction of the minimum income level, to which the minimum pension would be tied, was initially planned for 2017 but has been postponed and altered several times, including for budgetary reasons. To protect low-income pensioners and pensioners with disability, from January 2020 the government increased the state social security benefit for people with disabilities and minimum disability and old-age pensions (see above). These measures positively affect approximately 73 000 inhabitants with very low incomes.

In 2019-2020, first the Supreme Court and then the Ombudsman filed a Constitutional Court case claiming non-compliance of the minimum old-age pension with the constitution. The Constitutional Court upheld the claim.

Minimum income thresholds (including state social security benefit and minimum pensions) were increased as part of the 2021 budget; this measure will be described in detail in the next edition of the Pension Adequacy Report.

Changes in pension indexation rules took place in 2017. The role of the real growth in the wage bill index (WBI) was enhanced: starting from 2017, indexation ratio (IR) = consumer price index (CPI) plus 0.5 of real growth of WBI (instead of 0.25 of real growth of WBI before). In 2018, the indexation ratio for old-age pensions was made dependent on the length of insurance record to remunerate people with longer working careers. In Latvia, only pensions lower than 50 % of the average insured wage are indexed in full, while for the pensions above this threshold only part of the benefit (equal to 50 % of the average insured wage) is indexed. In 2020, the threshold was EUR 454 (2019 – EUR 420; 2018 – EUR 382; 2017 – EUR 349).[304]

There also were changes in the pension supplements for the years of service before 1996 (that is, before the new pension law entered into force). Before 2012, all pensioners received a monthly EUR 1 supplement for each year of pre-reform service. Those who have retired since 2012 do not receive these supplements,[305] while those who had retired prior to 2012 have continued to receive them until now. As of March 2019, 77.4 % of pensioners received the supplements. Unequal treatment of pensioners of different years has repeatedly been the target of criticism; a draft bill on the gradual resumption of supplements for those who retired after 2012 was supported by the parliamentary committee in 2019, but was not approved by parliament. In July 2018, the monthly amount of the supplement was increased from EUR 1 to EUR 1.50 for pensioners who retired before 1997 (who are mostly older than 80 now). Since 2019, the supplements have also been annually indexed.

The income tax allowance[306] for pensions was gradually increased from EUR 235 per month in 2017 to EUR 250 per month in 2018, EUR 270 per month in 2019, and EUR 300 per month in 2020. At the same time, the base rate of income tax was reduced from 23 % to 20 % in 2018.

[304] Pensions for some categories, such as people with a serious disability, politically repressed people and participants of the Chernobyl NPP clean-up, are indexed in full irrespective of amount.
[305] A supplement to the old-age pension after 2012 shall be granted, if the old-age pension is granted instead of a disability pension and if until 2012 the supplement to the disability pension was granted.
[306] Part of the pension benefit which is exempted from the personal income tax.

Statutory funded pension schemes offer three types of pension plan: active, balanced and conservative,[307] depending on the investment strategy. The total number of plans grew rapidly in 2018-2019 as restrictions on the permitted share of stocks in the investment portfolio of active plans eased from 50 % to 75 %. While the number of conservative and balanced pension plans remained stable in 2017-2020 (eight and four respectively), the choice of active plans expanded from 11 in 2017 to 17 in 2018 and 19 in 2019-2020. The caps on fees levied by fund managers for their services were considerably lowered in 2018, and it led to their gradual decrease (average rates were 1.39 % in 2017; 0.62 % in 2018; and 0.48 % in 2019). Despite the increased competition, the average nominal return rates (3.2 % in 2017, -4.0 % in 2018 and 10.8 % in 2019) are below the average yields demonstrated by pension funds in many other Member States.

Following a public signing initiative in support of making pension accumulations in the second pillar inheritable, the Law on State Funded Pensions was amended in 2018 (in force from January 2020). The default option remains as before (i.e. if a scheme participant dies before retiring, their accrued capital is returned from the pension fund to the PAYG budget) but, at the request of the testator, it is now also possible to include the accrued pension capital in the succession or to add it to another person's second-pillar accruals. By 10 February 2020, almost 75,000 people (5.8 % of the scheme participants) submitted applications to the State Social Insurance Agency: 67 % of them chose to include the capital in the succession, 31 % chose to add the capital to another person's pension account, and 2 % refused to will their savings to anyone and asked that they be credited to the budget.

The deceased's spouse allowance has been modified: before 2019, it was a one-time allowance amounting to double the deceased's pension (taken without the pre-reform supplement). Since 2019, the payment of the allowance has been organised differently: first, the supplement for the pre-reform service years is taken into computation; and second, it is paid for 12 months in monthly amounts set at 50 % of the deceased spouse's pension. The benefit is only paid if, at the time of death, both spouses were pensioners. The effectiveness of the benefit in reducing the poverty risk among single pensioners, mostly women, appears rather limited.

3 ASSESSMENT OF ADEQUACY

3.1 Current adequacy

The AROPE rate of older people is the highest in the EU and is growing constantly. Among those aged 65 and over it was 43.9 % in 2017, 49.0 % in 2018 and 50.5 % in 2019; among those aged 75 and over it was 52.0 % in 2017, 57.3 % in 2018 and 59.4 % in 2019. Some steps to improve the pensions of those who retired before 1996 under the previous pension law were taken in 2018-2019. Older women were more exposed to the risk of poverty than older men, with more than a half of all women aged 65 and over being in the at-risk group (53.9 % compared with 43.5 % among men in 2019).

[307] Conservative pension plans do not invest in stocks (companies' shares), only in treasury bills and bonds; balanced plans may invest up to 25 % in stocks; active plans may invest up to 75 % in stocks (50 % before 2018).

The relative median income ratio (among those aged 65 and over) is the second lowest in the EU: 58 % compared with 91 % in the EU. Since 2008 it has improved by 5 p.p. (from 53 %): but looking at the numbers more closely one can find that the highest rates were observed in 2011-2012 (86 % and 80 % respectively), which was not the sign of a fast improvement of pensioners' wellbeing, but of a rapid deterioration of working population incomes. Thus, although the EU average showed stable growth by 1-2 p.p. per year, Latvia saw an increase from 53 % to 86 % from 2008 to 2011, and then a falling back to 58 % by 2019. For further perspective, one could look back before 2008 (when the economy was overheated); in 2006, the ratio equalled 67 %.

Considering the two components of AROPE: severe material deprivation (SMD) and the at-risk-of-poverty (AROP) rate, the following inference can be made: material deprivation is decreasing much more markedly than relative poverty risk. In total, during the period 2008-2019, the SMD rate among older people was cut by 18.7 p.p.; meanwhile the AROP rate of older people was reduced by 4.1 p.p. Considering a shorter time span, taking only the post-crisis 2012-2019 period, the AROP rate among older people conversely rose by 34 p.p. – from 13.9 % in 2012 to 47.9 % in 2019. This is due to the fact that the threshold itself grew more than 1.8 times during this period, while pensions grew much more slowly (the average pension increased 1.3 times over the same period). In 2019, the average old-age pension equalled EUR 340, and 73 % of all pensions were below the AROP threshold.

The share of older people living in households where the total housing costs represented more than 40 % of the total disposable household income decreased considerably from 16.4 % in 2008 to 7.7 % in 2019 and was below the EU averages. However, households consisting of one person aged 65 and over faced the greatest difficulties: in 2019, 39.5 % of such households admitted that housing maintenance expenditure imposed a heavy burden on household financial situation compared with the 22 % average country rate, and 43 % characterised the influence as a slight burden (Central Statistical Bureau of Latvia). In 2017, 6.9 % of old-age pensioners received housing allowances from municipalities; in 2018, their number reduced to 6.8 %, and in 2019 to 6.1 % (Ministry of Welfare).

Income inequality among those aged 65 and over in Latvia is the second highest in the EU: the S80:S20 income quintile ration (among those aged 65 and over) being 5.07 compared with the EU's 4.2. Pensions are not capped in Latvia. Income differentiation is more pronounced among men (5.54, which is the highest rate in the EU) than women (4.7). Compared with 2008 (when the ratio was 5.56), the situation seems to have improved to some extent. The lowest ratios were observed in 2011-2012 – 3.6 and 3.7 respectively, well below EU averages, while in recent years the inequality ratio steadily grew: from 4.20 in 2015 to 5.07 in 2019. To a significant extent, these fluctuations reflect the impact of crisis on the revalorisation of pensions, followed by the retroactive recalculation of pensions granted or recalculated in 2010-2015 (see 2018 PAR).

The aggregate replacement ratio (ARR) in Latvia in 2018 was one of the lowest in the EU (40 % as opposed to 58 % in EU), and fell further to 38 % in 2019 – inadequately low, especially taking into account the low reference earnings of workers aged 50-59.[308] The choice of reference year can make a significant difference when observing medium-term trends. 2008 was the year with the lowest ARR ever (30 %), while 2006 demonstrated 49 %. The highest ARR in the last decade was observed in 2011 (53 %), and since that time has decreased almost every year.

Gender differences in Latvia are less pronounced than the average for the EU: the gender gap in pension income (for ages 65-79) is 18.7 % compared with 29.7 % in the EU. However, contrary to the tendency in the majority of EU countries, this gap is widening: it increased by 8.9 p.p. from 2010, as the degree of redistribution in the pension formula decreases over time (see Section 3.4), while women's shorter insurance records and lower wages become more influential in their pension calculation. There is a strong gender difference in terms of poverty risk, with an AROP rate for older women at 51.0 % as against 41.8 % for men. The gap in coverage is negligible – 0.6 %. A very sensitive topic for Latvia is the health status of older people: healthy life years at age 65 are less than half the EU average: 4.5 for men and 4.8 for women in Latvia compared with 10.2 for men and 10.4 for women in the EU on average, and have deteriorated since 2008 (by 0.3 years for men and 0.1 years for women). On self-reported unmet need for medical care (among those aged 65 and over), Latvia again is among the outliers, with 14.8 % as against 3.7 % in the EU, but the situation is gradually improving: the share of those who have reported unmet medical needs has decreased by 8.6 p.p. since 2008. From January 2020, the fee for a GP visit was reduced for pensioners aged 65 and above.

Older people falling short of the minimum insurance record (i.e. 15 years) are eligible for a state social security benefit for people of retirement age, which amounted to EUR 64.03 per month until 2021. The allowance is not indexed and had not been revised since 2006. The plans to increase the allowance amount were postponed several times. As of 2017, the eligibility age for the allowance was equalised with the statutory pensionable age (previously it was five years above the pensionable age), causing a rapid increase in the number of recipients. In 2019, 47 % of the recipients had a needy or a low-income person status and received social assistance from municipalities. In 2020, the Constitutional Court ruled that the amount of the state social security allowance failed to provide for basic needs and dignified living in old age, instructing the government to revise the allowance as of 2021.

The provision of institutional long-term care for older people is organised at municipality level. The beneficiary must pay for the social care received. As a payment, the institution takes 85 % of the pension benefit of the client (it was 90 % before 2020). Given that most pensions are low, this amount in the majority of cases does not cover the costs. The remaining payment is claimed from the individuals, their relatives and local government, in that order. If the older person is classified as on a low income, social services are available free of charge. Municipalities are at liberty to set a higher level of income as a threshold for access to their free services. Municipalities are obliged to provide home-care services only when there are no family members able to take care of older people or people with disabilities.

[308] The age group with the highest earnings in Latvia is 30-44 years. Starting from age 45, and especially after 50, wages are lower. (Central Statistical Bureau of Latvia).

There are no special long-term care cash benefits for older people, but there is a personal care benefit of EUR 213.43 per month available for people with a disability to use as they see fit (irrespective of the age or income of the beneficiary). As of 1 July 2019, a higher benefit amount of EUR 313.43 per month was introduced for beneficiaries who have had a disability since childhood. This benefit is granted on the basis of the formal disability status of the person and the level of care needed. Over 70 % of claimants are older people. It provides important support for informal carers.[309]

No reference income or real expenditure benchmarks for older people exist in Latvia.

3.2 Future adequacy

Between 2019 and 2059, Latvia is projected to experience one of the biggest falls in theoretical replacement rates (TRRs) in the EU. In the base case (40-year career until the standard pensionable age), the net TRR is projected to decrease by 18 p.p. for average earners. As the redistribution mechanisms linked to pre-reform careers (see Section 3.4) phase out, the TRR for low-wage earners will fall even more substantially, by 28 p.p., bringing it close to that for average earners.

Working beyond pensionable age could allow future retirees to slightly reduce the impact on their pensions: extending the career by two years would bring a 4.4 p.p. increase compared with the base case. Career breaks linked to childcare or unemployment would result in moderate (less than 2 p.p.) decrease in pension rights, while a short (20-year) working career would mean an almost proportional reduction.

3.3 Challenges for future adequacy

The Latvian pension formula automatically links the amount of assigned pensions to demographic changes: with growing life expectancy, people claiming a pension at the same age and with the same amount of accumulated pension capital would receive lower monthly pensions. Aside from that, the notional pension capital is annually revalorised based on the national wage bill growth, meaning it is affected by the size of the labour force (i.e. fewer working people means a lower revalorisation). Pension entitlements are thus affected by demographic changes twice: through revalorisation of pension rights during accrual and through benefit calculation upon claiming a pension. The size of the labour force also influences indexation of pensions in payment.

The effect of the increases in the qualifying period (15 years from 2014 and 20 years from 2025) should be closely monitored. Taking into account the turbulence in the labour market in the 1990s after the collapse of the Soviet-type economy and the persistently high shadow economy afterwards, coverage might become an issue, as the incidence of cases with an insufficient contribution record will certainly grow.

The inadequately low minimum pension levels, which undermine the poverty prevention capacity of the pension system, together with the low-income replacement level, have given

[309] Rajevska, F., *ESPN Thematic Report on Challenges in long-term care: Latvia*, European Social Policy Network (ESPN), European Commission, Brussels, 2018.

rise to a lack of trust in the pension system and in social insurance in general. In a recent survey (SKDS October 2019), 54 % of Latvian respondents answered that the social insurance system did not provide them with a feeling of security. This may result in a vicious circle, as low trust leads to contribution avoidance, which in turn reduces future pensions.

About one third of all employed people (in all types of employment and tax regimes) pay social insurance contributions from a contribution base below the minimum wage. As the individual's pension is proportional to lifetime contributions, their accumulated pension capital is very low. However, this result would not be seen at an individual level in the near future, since the pre-reform service record remains an important pension component for the cohorts about to retire.

Part-time employees are also accumulating relatively low pension capital on their notional accounts, and given the absence of any basic pension component and a very low statutory minimum pension level, their old-age pension benefits are likely to be very low.

The ability of the funded pension schemes to ensure an adequate supplement to PAYG pensions raises concerns. The authors of an annually updated pension savings report from the European Federation of Investors and Financial Services Users, having analysed the performance of Latvian mandatory pension funds since the commencement of their operation in 2003, conclude that during the period 2003-2018 pension funds in the statutory funded scheme demonstrated real growth of -0.72 % (i.e. below inflation).[310] Highly positive results of 2019 were quickly drowned out by a dramatic drop in asset values after the beginning of 2020.

As the share of the funded component of pensions increases, the collective and individual risks associated with the funded pension accumulation and pay-out stages (e.g. financial market fluctuations, inappropriate life pension policy selection) will become more important.

In May 2020, the State Audit Office reminded the government of its audit of the favourable service pension system carried out in 2017.[311] The State Audit Office warns that without an urgent political decision to review service pension schemes and reduce the number of beneficiaries the system may become an unbearable burden for the state budget. The amount of future state obligations for the payment of service pensions has already reached at least EUR 4.5 billion.

3.4 Solidarity mechanisms

The Latvian pension system includes a comparatively limited number of intra-generational redistributive elements, since individual accounts for pension capital accumulation are used both in the funded and PAYG pillars. Having reached the pension age, individuals convert this financial and non-financial capital into an annuity by dividing by the cohort unisex average life expectancy. Whereas the gender gap in life expectancy is the third widest in the EU, usage of the unisex average is significantly beneficial to women, especially considering that their lifelong earnings are lower: at the age of 65 women's life expectancy in Latvia is 4.9 years longer than men's (19.0 to 14.1), while the average EU gap is 3.4 years (21.5 to 18.1).

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[310] The European Federation of Investors and Financial Services Users, '*Better Finance': Pension Savings – The Real Return/2019 edition,* Research Paper.
[311] For details see Rajevska, R., 'Latvia: The Sustainability of 'Service Pensions' Scrutinised by the State Audit Office', *ESPN Flash Report* 2017/46, European Social Policy Network (ESPN), European Commission, Brussels, 2017.

Redistribution is found in the treatment of the pre-reform service record: first, the minimum calculation bases for those who had low wages in 1996-1999; and second, in the pension supplements for those who retired before 2012 (see Section 1). These two mechanisms grant a relatively high TRR for low-earners with a long service record. Over time, among new retirees, pre-reform years of service play an increasingly lesser role in pension calculation, so the impact of this factor is diminishing.

Due to the fact that only a fixed part of the pension benefit is indexed, small pensions are better protected against a fall in purchasing power, so some redistributive effect is achieved by annual indexation. The recent changes in indexation rules favouring those old age pension recipients with longer employment records enhanced this effect.

To a certain extent, a redistribution effect is achieved through minimum pensions for those pensioners whose earnings-based entitlement is below the minimum amount, which depends on length of service (see Section 1). The share of pensioners receiving a minimum pension is growing: in 2018, 11.6 % of all newly assigned pensions were on minimum pensions (in 2017, 11.3 %; in 2016, 10.1 %).

On the opposite side of the scale, there are no ceilings for pensions. In December 2019, nearly 3000 beneficiaries, or 0.7 % of all pensioners, received benefits exceeding EUR 1500. The insured amount of the annual wage is capped (the cap is approximately five times higher than the average insured wage); however, with the entry into force of tax reform in 2018, pension rights are partially acquired from income above the cap as well (in 2018 – 10 % of the income above the cap, in 2019-2020 – 14 % of the income above the cap).[312]

As the proportion of mandatory and voluntary FDC pensions in old-age income increases, the redistributive capacity of the pension system is expected to decrease.

4 OPPORTUNITIES TO ADDRESS CHALLENGES

As the NDC pension system has relatively few intra-cohort redistribution mechanisms against the background of high income inequality, the poverty-prevention capacity of the pension system should be improved. The Latvian authorities have recognised the need to improve minimum pension provision. Other options to increase the redistributive capacity of the pension system could include introducing a flat-rate non-contributory component into the pension formula or setting maximum benefit amounts. The existence of numerous service pension schemes based on a fundamentally different principle (defined benefits) has been widely criticised, including by the State Audit Office; however, no changes have taken place.

The OECD country review in 2018[313] put forward a number of recommendations for the Latvian pension system, including: reducing poverty and pension inequality by shortening minimum contribution periods, increasing minimum benefit amounts and incorporating service

[312] For more details see Rajevska, O., 'Frankenstein Tax: The evolution of the solidarity tax in Latvia', *ESPN Flash Report* 2019/47, European Social Policy Network (ESPN), European Commission, Brussels, 2019; and Rajevska, F. and Rajevska, O., *ESPN Thematic Report on Financing social protection: Latvia*, European Social Policy Network (ESPN), European Commission, Brussels, 2019.
[313] *OECD Reviews of Pension Systems: Latvia*, OECD Reviews of Pension Systems, OECD Publishing, Paris, 2018. https://doi.org/10.1787/9789264289390-en

pensions into the general scheme; linking pensionable age to life expectancy; fully indexing pensions in payment to the national wage bill; improving the design of both mandatory and voluntary funded pension schemes by introducing a default life-cycle investment strategy, streamlining the design of the retirement phase by eliminating the option to transfer assets to the NDC scheme, and introducing some risk sharing between asset managers and plan participants.

Effective social safety nets and targeted social benefits and services for older people at local level need to be implemented to provide a safety net for those without sufficient benefits from the pension system.

5 BACKGROUND STATISTICS

5.1. Relative income	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
Relative median income ratio (65+)	0.58	0.63	0.55	0.05	0.03	0.04
Income quintile share ratio (S80/S20), 65+	5.07	5.54	4.7	-0.49	0.25	-0.86
Relative income quintile share ratio (S80/S20), 65+ - 0-64	-1.61	-1.16	-1.89			
Aggregate Replacement Ratio (ARR) %	38	36	41	8	11	7
5.2. Poverty and material deprivation	**2019**			**Change 2008-2019**		
	Total	Men	Women	Total	Men	Women
At-risk-of-poverty or social exclusion (AROPE), 65+ (%)	50.5	43.5	53.9	-8.3	-8.6	-8.2
At-risk-of-poverty rate (AROP), 65+ (%)	47.9	41.8	51	-4.1	-3.5	-4.2
Severe material deprivation (SMD), 65+ (%)	10	6.4	11.8	-18.7	-16.9	-19.4
At-risk-of-poverty or social exclusion (AROPE), 75+ (%)	59.4	52.9	62	-8.1	-12.7	-6.1
At-risk-of-poverty rate (AROP), 75+ (%)	57.1	51.7	59.3	-3.1	-7.6	-1.2
Severe material deprivation (SMD), 75+ (%)	10.4	5.6	12.3	-21.1	-21.7	-20.7
Relative median at-risk-of-poverty gap, 65+ (%)	25.5	20.4	27.7	-0.8	1	-1.4
At-risk-of-poverty rate (AROP), 65+: 50 % threshold (%)	33.6	23.9	38.3	-3.6	-3.5	-3.6
At-risk-of-poverty rate (AROP), 65+: 70 % threshold (%)	58.2	53.4	60.6	-0.4	1.3	-1.2
Material and social deprivation, age 65+ (1)	20.8	15	23.6	-19.7	-19.4	-19.9
5.3. Gender difference	**2019**			**Change 2008-2019**		
Gender gap in pension income (65-79) (%) (2)			15.2			5.4
Gender gap in non-coverage rate (W-M in p.p.) (65-79)			0.6			1.7
5.4. Housing and health situation	**2019**			**Change 2008-2019**		
	Total	Men	Women	Total	Men	Women
Housing cost overburden rate, 65+ (%)	7.7	6	8.6	-8.7	-3.7	-11.1
Self-reported unmet need for medical exam 65+ (%)	10.7	9.8	11.2	-12.7	-11.7	-13.1
Healthy life years at age 65 (years)	4.7	4.5	4.8	-0.1	-0.3	-0.1
Life expectancy at age 65	17.1	14.1	19	1.3	1.3	1.3
5.5 Sustainability and context	**2019**			**Change 2008-2019**		
	Total	Men	Women	Total	Men	Women
Employment rate, age group 55-64 (%)	67.3	67.6	67.1	8.2	4.8	10.8
Pension expenditure as % of GDP (ESSPROS) (3)			7.1			1.8
Retirement duration from first pension (years) (4)	18.7	15.5	20.9	-0.8	-0.5	-0.9
Retirement duration from end employment (years)	18.2	15.1	20.0			
Eurostat and AWG projections	**2019**			**2059**		
Old-age dependency ratio (20-64) (%)	34.2	23.2	44.7	69.9	57.6	83.0
Economic old-age dependency ratio (20-64) (%) (5)	39.6	25.4	53.6	84.6		
Gross public pensions as % of GDP (5)	7.1			6.3		
Benefit ratio (%) (5)	23.0			13.5		
Coverage ratio (% of pop aged 65+) (5)	142.6			115.4		
Gross pension ratio high / low earner		1.9	1.9		2.2	2.2

(1) *change since 2014, not 2008*

(2) *data refer to 2010, not 2008*

(3) *ESPROSS data refer to 2018*

(4) *Change is since 2016, not 2010*

(5) *2060 instead of 2059*

5.6 Theoretical Replacement Rates

	Net (%)				Gross (%)			
	2019		2059		2019		2059	
	Men	Women	Men	Women	Men	Women	Men	Women
Average earning (100%)								
Base case: 40 years up to the SPA	59.7	59.7	41.7	41.7	46.7	46.7	32.1	32.1
Increased SPA: from age 25 to SPA	57.6	57.6	41.7	41.7	44.8	44.8	32.1	32.1
AWG career length case	62.9	62.9	44.7	44.7	49.7	49.7	34.7	34.7
Old base case: 40 years up to age 65	63.9	63.9	41.7	41.7	50.6	50.6	32.1	32.1
Longer career: 42 years to SPA			43.3	43.3			33.5	33.5
Shorter career: 38 years to SPA			40.3	40.3			30.8	30.8
Deferred exit: 42 years to SPA +2			46.1	46.1			35.9	35.9
Earlier exit: 38 years to SPA -2			20.2	20.2			14.4	14.4
Career break – unemployment: 3 years	57.1	57.1	39.5	39.5	44.4	44.4	30.1	30.1
Career break due to child care: 3 years		59.7	41.4	41.4		46.7	31.8	31.8
Career break care to family dependant: 3 years	57.2	57.2	38.5	38.5	44.5	44.5	29.2	29.2
Short career (20 year career)	30.8	30.8	22.1	22.1	22.5	22.5	15.7	15.7
Work 35 y, disabled 5 years prior to SPA			36.1	36.1			27.1	27.1
Early entry in the LM: from age 20 to SPA			45.7	45.7			35.6	35.6
Index: 10 years after retirement @ SPA			37.4	37.4			28.3	28.3
Extended part-time period for childcare			38.8	38.8			29.4	29.4
Survivor – full career		59.7		41.7		46.7		32.1
Survivor – short career		30.8		22.1		22.5		15.7
Survivor ratio 1*		0.50		0.50		0.50		0.50
Survivor ratio 2*		0.34		0.35		0.33		0.33
Low earnings (66%)								
Base case: 40 years up to the SPA	71.9	71.9	43.9	43.9	58.0	58.0	32.1	32.1
AWG career length case	76.5	76.5	46.8	46.8	41.3	41.3	34.7	34.7
Old base case: 40 years up to age 65	76.8	76.8	43.9	43.9	62.7	62.7	32.1	32.1
Career break – unemployment: 3 years	69.5	69.5	41.8	41.8	55.6	55.6	30.1	30.1
Career break due to child care: 3 years		71.9	43.6	43.6		58.0	31.8	31.8
Short career (20 year career)	37.5	37.5	21.7	21.7	29.2	29.2	15.7	15.7
Early entry in the LM: from age 20 to SPA			47.8	47.8			35.6	35.6
High earnings (100->200%)								
Base case: 40 years up to the SPA	46.4	46.4	30.2	30.2	37.3	37.3	24.0	24.0

**Survivor ratio 1: man base case, woman base case*

**Survivor ratio 2: man base case, woman short career case*

LITHUANIA

Highlights

- The Lithuanian pension system is not effective enough to ensure pension adequacy in any of its three dimensions. The life expectancy of retired Lithuanians is low compared with the EU[314] average, income falls sharply at retirement, and the at-risk-of-poverty (AROP) rate for older people is among the highest in the EU.
- Several parametric reforms of statutory pension schemes were implemented in the period between 2017 and 2019. Financing of social insurance pensions was partly shifted to the state budget, which opened opportunities to enlarge the financing basis of the scheme. Financing of the statutory funded pension schemes was separated from social insurance and members' private contributions were expanded to all participants.
- Because of the current pension inadequacy and prospects for a rapid increase in the demographic dependency ratio, the government should substantially strengthen financing of the statutory pension scheme, allocating more resources from general revenue.
- The statutory funded pension scheme has been operating for 15 years, with several reforms of its contributions. A detailed evaluation of the outcomes and of the role of the scheme in ensuring income adequacy is urgent for evidence-based decisions concerning the future development of the scheme.
- The redistributive capacity of the Lithuanian tax-benefit system is relatively low. However, the social insurance pension scheme redistributes income thanks to the 'general' (basic) component that is not earnings-related, and to ceilings in the pension benefit formula.

1 GENERAL DESCRIPTION OF THE NATIONAL PENSION SYSTEM

Lithuania's old-age pension system consists of five components. Their relative importance and modes of financing vary greatly. These include three types of public unfunded defined-benefit (DB) pension schemes: statutory pensions, state pensions and social assistance pensions, and two types of privately funded defined-contribution (DC) pension schemes: the statutory funded pension scheme and the personal pension scheme.

The **statutory pension** scheme is the most important in terms of coverage and provision of income in old age. Participation is mandatory for all employees and self-employed people without exception. Around 600,000 people, or 95 % of the retirement-age population, received

[314] EU and EU-27 refer to the current 27 Member States of the European Union.

statutory pension benefits in 2018 (Statistics Lithuania, 2019a).[315] Self-employed people and non-standard employees (including platform employees) are covered by the same pension scheme as standard employees. The only difference is that they pay contributions from the income they themselves declare. The self-employed have incentives to under-declare and thus are at risk of lowering their pensions. The pension benefit consists of two components. The amount of the first, general (basic) component is calculated only by reference to the contributory period and is financed from general revenue (state budget). The individual (supplementary) component is earnings-related. The component is financed on a pay-as-you-go (PAYG) basis. Working pensioners may combine a social insurance pension with income from work without any deductions. There are no exceptions in the pension benefits formula or in contribution periods for workers who were involved in arduous jobs. In 2020, the pensionable age was 64 years for men and 63 years for women. The contribution period for a full pension was 31.5 years for men and women ('2016 law'[316]). Pension indexation is based on the average change in the total wage bill in the economy for the past three years, the current year and three forecast years.

An early-retirement statutory pension is accessible to people who have completed the contribution period for a full pension and are less than five years younger than the pensionable age. The rate of payment is the old-age pension benefit, minus 0.4 % for each month prior to the pensionable age in which they receive this early old-age pension. For those who opt to receive an early-retirement pension the reduced pension amount is paid for the whole remaining period of their retirement.

State pensions are public unfunded pensions supplementary to the social insurance pension scheme. They are granted mainly to two rather large groups of population. The first group includes post-war anti-Soviet resistance fighters and people who have suffered from the former Soviet regime. The second group covers military and police officers, judges, scientists, artists, and some other smaller professional groups. Around 100,000 people, or 16 % of the retirement-age population, received state pension benefits in 2018 (Statistics Lithuania, 2019a).

The **social assistance** pension is designed as a minimum-income pension for those not protected by social insurance pension schemes. Social assistance pensions are paid to older people or people with disabilities who were not able to acquire social insurance rights, because of insufficient contribution records. Most recipients of this pension are people disabled from childhood. Around 11,000 people received old-age social assistance pension benefits in 2018 (Statistics Lithuania, 2019a). Social assistance pensions are non-means-tested, but cannot be combined with social insurance pensions, state pensions or other periodic pension benefits.

The **statutory funded pension scheme** is a fully funded and DC scheme. The statutory funded pension scheme is administered by private fund managers. In 2023, contributions into the statutory funded pension funds will comprise 3 % of the participant's personal salary and 1.5 % of the national average salary as a supplementary contribution paid to the participant out of the

[315] Statistics Lithuania (2019a). *Number of pension beneficiaries and expenditure of pensions*. https://osp.stat.gov.lt/statistiniu-rodikliu-analize?hash=ba05ae93-3450-4a54-b7de-176cc24ce44b#

[316] Law Amending the Law of the Republic of Lithuania on State Social Insurance Pensions No I-549, adopted on 29 June 2016. https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/b79c4442bd4a11e6a3e9de0fc8d85cd8?jfwid=-ji9gt565y

state budget. New participants can opt either for these maximum contributions, or for a minimum contribution of 1.8 % (in 2019) paid out of their own earnings and a supplementary contribution of 0.3 % paid out of the state budget. Employers and employees can voluntarily contribute above 3 %, qualifying for a further tax relief. There is auto-enrolment for workers under 40, with the right to opt out, delay or temporarily suspend contributions. Older employees can join the scheme voluntarily, but there is no way to leave the scheme until they reach pensionable age. About 60 % of employees contribute to the statutory funded pension scheme (Sodra, 2019).[317] As the scheme will only mature in two or three decades, it does not play any role in the income protection of the current older population.

The **personal pension scheme** (called the third-pillar pension scheme in Lithuania) is a fully funded DC scheme. It is financed by individual voluntary contributions, which are tax-deductible. Access to this scheme does not depend on the type of employment, nonetheless some employers are involved in making contributions to personal pension schemes for their employees as these contributions are treated as costs and are deducted from taxable profits. It is the smallest component in the overall pension package. The coverage is only about 4 % of the working population (Bank of Lithuania, 2017).[318]

There is no occupational pension scheme in Lithuania, despite the fact that the Law on Occupational Pensions was adopted in 2006[319] in order to implement Directive 2003/41/EC on the activities and supervision of institutions for occupational retirement provisions.

2 REFORM TRENDS

The statutory (social insurance) pension scheme had not been reformed until the beginning of 2018 (2016 law), with the exception of continuing to increase the statutory pensionable age. Until 2012, the statutory pensionable age was 62.5 years for men and 60 years for women. From January 2012, it started to increase by two months per year for men and by four months per year for women, aiming to achieve 65 years for both men and women in 2026.

Several elements of the social insurance pension scheme changed from 1 January 2018 with the implementation of the new Law on Social Insurance Pensions of the Republic of Lithuania. The reform increased the length of the insurance period required to qualify for a full pension, introduced indexation rules and modified the pension calculation formula for old-age and work-incapacity pensions (2016 law).

The length of the insurance period required to qualify for a full basic component of old-age pensions will increase from the current 30 years to 35 years by 2027. The implementation of this increase will be gradual, by six months per year (2016 law).

[317] Sodra, *Gyventojų pensijų kaupimo sąskaitas papildė 33 mln. eurų* [The pensions saving accounts of the residents increased by EUR 33 million], 2019. https://www.sodra.lt/lt/naujienos/gyventoju-pensiju-kaupimo-saskaitas-papilde-33-mln-euru-

[318] Bank of Lithuania, *Lietuvos II ir III Pakopos Pensijų Fondų bei KIS Rinkos Apžvalga. 2017 m. I pusmetis* [The Review of the Second-Pillar and Third-Pillar Pension Funds], 2017.

[319] Law on the Accumulation of Occupational Pensions No X-745, adopted on 4 July 2006. https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/TAIS.280574/asr

Pension benefit indexation rules were introduced with effect from the beginning of 2017. Indexation is based on the average change of the total wage bill in the economy for the past three years, the current year and three forecast years. Pension benefit growth is thus directly linked to the sum of contributions paid. Hence it takes into account the projected workforce decline.

The calculation of work incapacity pensions was also modified. Before the reform, pension benefits were calculated for three groups depending on the level of incapacity. Now, the amount of the pension benefit is linked to the level of lost working capacity more gradually (i.e. the levels of incapacity are set up at 5 % intervals). That will ensure fairer income compensation.

The reform of 2018 included increasing transparency through a simplified pension formula. The new pension formula changed the calculation of the earnings-related part of the pension (referred to as an 'individual pension component' in the new law).

Similarly, a pension points system was introduced. The new system defines pension points as the ratio of a person's past social insurance contributions and the national average of the contributions paid. This should lead to a more transparent accrual of entitlements in the future. The Bank of Lithuania has proposed to go further and to introduce a notionally DC system (Bank of Lithuania, 2017). However, no support has yet been expressed from the government.

A new phase in the process of the social insurance pension scheme reform started in January 2019. Financing of the 'general' (basic) component was shifted from the social insurance fund to the state budget. This shift in the financing of the pension scheme was accompanied by the social insurance contributions and personal income tax (PIT) reform (see Box 1). The general part of the pension depends on the contribution period, but is not directly related to the size of the contributions paid. Hence, it is reasonable to finance it from general revenue rather than from contributions.

Box 1. Changes in social insurance contributions and the personal income tax system in 2019 in Lithuania

Lithuania has introduced substantial changes in the social insurance contribution system, which took effect in 2019. The main goal of the reform was to make the social security contribution system more transparent, as well as to shift the 'general' (basic) flat-rate social insurance pension component from the system of social insurance to the state budget.

First, the calculations of state social insurance contributions were changed. The burden of payment of the larger part (i.e. 28.9 %, of social insurance contributions paid by employers) was transferred to employees. Respectively, employers were obliged to recalculate the gross wage for employees by increasing it by a factor of 1.289. The new social insurance contribution is applied on the recalculated earnings and is reduced from 40 % (i.e. 9 % paid by the employee and 31 % by the employer) to 21.26 % (19.5 % and 1.76 %[320] respectively).

Pension social insurance contributions account for a part of the contribution indicated above. These were reduced from 25.3 % (i.e. 3 % paid by the employee and 22.3 % paid by the employer) to 8.72 % employee contributions. The reduction of the social insurance contributions for pensions reflects the shift of the general (basic) flat-rate social insurance pension component from the system of social insurance to the state budget, and also provides space for people to allocate contributions to funded pensions in addition to contributions to the PAYG social insurance pension scheme. In other words, if a person participates in pension accumulation through the statutory funded pension scheme, an additional contribution of 1.8 % or 3 % is applied (it will increase to 3 % for all participants by 2023).

Simultaneously, the rates of PIT and tax allowances were revised. Since 1 January 2019, the general rate of PIT has been set to 20 % (instead of 15 % previously), and a second tax bracket with a rate of 27 %[321] was introduced. However, income taxed at a progressive PIT rate is not subject to social insurance contributions. In effect, wage recalculation should not lead to the reduction in the employee's net wage due to the changes in social contributions and PIT.

The intention of the basic component's shift to the state budget was to place its financing on a broader basis, not only on the income of employed people. However, the reform did not consolidate sufficient additional resources in the state budget for a substantial pension increase. On the contrary, the net result of all the changes to income tax and social insurance contributions, and the recalculation of employees' gross wages, should be in a reduction of the overall tax burdens on wages (Lazutka *et al.*, 2019).[322]

The social insurance fund in Lithuania had accumulated debt mainly due to the economic crisis and the generous increase of pensions and other benefits, in particular maternity benefits, before the crisis. A total debt of EUR 3,682.3 million (i.e. around 100 % of the social insurance fund's annual expenditure) was accumulated by December 2017. Annual interest was paid on that debt thus reducing the ability to finance pensions. It was decided to transfer the debt of the social insurance fund to the state budget in 2018 (Ministry of Finance, 2018).[323] Furthermore, transfers towards the statutory funded pension scheme from the social insurance budget have

[320] The 1.76 contribution consists of 1.31 % for unemployment insurance (for termless employment contracts and 2.03 % for fixed-term employment contracts); 0.14 % for insurance against accidents at work and occupational diseases (in practice four categories of employers are set according to their history of accidents at work and occupational diseases); 0.16 % as a contribution to the guarantee fund; and 0.16 % as a contribution to the long-term work benefits fund.
[321] 32 % from 2020.
[322] Lazutka, R., Navicke, J., Poviliunas, A. and Zalimiene, L., *ESPN Thematic Report on Financing social protection: Lithuania*, European Social Policy Network (ESPN), European Commission, Brussels, 2019.
[323] Ministry of Finance, 2018. https://finmin.lrv.lt/lt/naujienos/3-7-mlrd-euru-sodros-skola-perkeliama-i-valstybes-izda

stopped since 2019. Since total contributions currently exceed expenditure, Lithuania is trying to build up a pension reserve fund to prepare for future economic shocks. The social insurance reserve fund was established in 2018 (Government of Lithuania, 2017).[324]

Since 2019, recipients of statutory old-age pensions whose pensions are less than 95 % of their minimum consumption needs (EUR 251 per month for 2019) have been eligible to receive a pension supplement from the state budget. The supplement amounts to EUR 20 on average and is added to pension benefits that are below EUR 238.[325] In 2018, it accounted for only 69 % of the AROP threshold for a single person (EUR 345) (Statistics Lithuania, 2019b).[326] Consequently, the measure may reduce the low-income gap of pensions, but not the AROP rate of retirees. Similarly, the increase in the monthly non-contributory social assistance old-age pension from EUR 117 to EUR 132, and of the disability pension by only 1.5 % on average (depending on level of disability), are negligible in terms of improving pension adequacy.

On 1 January 2018, the social assistance pension was increased by 16 % after a 10-year period of stagnation. It was further increased by 1.5 % from 2019 and, again, by 6 % from 2020.[327] From 2019 the social assistance pension base was related to a minimum consumption needs basket (MCNB) and calculated as 54-56 % of the previous year's MCNB. Thus, the social assistance old-age pension is indexed with the MCNB's growth rate.

The statutory funded pension scheme has experienced substantial changes since 2019. Before 2019, there were two options for participating in the statutory funded pension scheme. The first one was to transfer 2 percentage points (p.p.) of statutory PAYG scheme contributions (2 % of wages) to the statutory funded pension scheme, but without additional personal contributions and without a state subsidy. It was a 2 % mode of financing. The second option was to pay, in addition to 2 p.p. of statutory PAYG scheme contributions, an extra 2 % of a participant's wage from their own pocket and to receive a subsidy to their own pension account from the state budget in the form of 2 % of the country's average wage. That was a 2 % + 2 % + 2 % mode of financing. Participation was voluntary and based on an opt-in principle.

From the beginning of 2019 a new mode of financing was set up, cancelling the transfer of a portion of the state social insurance contributions to the pension funds (Law 2003).[328] The pension accumulation reform cancelled the system whereby the State Social Insurance Fund (SSIF) would transfer 2 % of social insurance contributions into the second-pillar pension funds. Instead, a revised formula (4 % + 2 %) for pension accumulation was established. After the consolidation of social insurance contributions (i.e. when the nominal earnings were increased by a factor of 1.289 – see Box 1) the accrual rates changed, with the formula turning into 3 % + 1.5 % respectively. The contribution into the pension fund comprises 3 % of the participant's personal income and 1.5 % of the national average wage as a supplementary

[324] Government of Lithuania, 2017, *Stability Programme of Lithuania for 2017*. https://ec.europa.eu/info/sites/info/files/2017-european-semester-stability-programme-lithuania-en.pdf
[325] SADM (2019), Ministry of Social Security and Labour of the Republic of Lithuania. https://socmin.lrv.lt/lt/naujienos/kaip-mokamos-priemokos-mazu-pensiju-gavejams
[326] Statistics Lithuania, 2019b. https://osp.stat.gov.lt/informaciniai-pranesimai?articleId=6475033
[327] From 2020 all social assistance benefits are not less than one social assistance pension base.
[328] *Law on the Accumulation of Pensions No IX-1691*, adopted on 4 July 2003, Vilnius. https://www.e-tar.lt/portal/lt/legalAct/TAR.1F58348F79F7/asr

contribution paid for a participant out of the state budget.[329] An accompanying reduction in total social insurance contributions by 0.55 p.p. (before the tax reform[330]) reduced the financing of social insurance pension and provided space for people to allocate contributions for funded pensions from their own pocket. Employers and employees can voluntarily contribute more than 3 %, qualifying for further tax relief.

The new legislation also includes a new procedure for enrolment into the statutory funded pension scheme. The reform provides for auto-enrolment for workers under 40, with the right to opt out, delay enrolment[331] or temporarily suspend payments. The procedure for enrolment is repeated every three years until the person reaches the age of 40. People over 40 years of age who do not contribute to the funded statutory pension scheme can voluntarily enrol themselves into the accumulation process. People who were enrolled into the statutory funded pension scheme before 31 December 2018 had the right to submit, by 30 June 2019, a request for the termination of their participation in the accumulation of pensions (transferring the accumulated funds into the social insurance system) or suspension of the transfer of pension contributions.

Finally, since 2019, pension assets management companies have been obliged by law to establish life-cycle pension funds and to offer participants the ability to join pension funds which are most appropriate to them in terms of age. The new legal provision foresees that the SSIF will become the centralised provider of annuity services by mid-2020. The SSIF will be responsible for annuity provision for members of the statutory funded pension scheme.

3 ASSESSMENT OF ADEQUACY

3.1 Current adequacy

The AROP rate for older people (aged 65 and over) in Lithuania is 15 p.p. higher than the national average (i.e. 31.6 % for older people and 22.9 % for the total population).[332] It is higher than the EU average for older people by 15.5 p.p. The AROP rate of older pensioners (aged 75 and over) is higher than that of all the pensioners (aged 65 and over) (i.e. 34.6 %). The AROP rate is 23 % and 49.1 % for men and women, respectively. The AROP rate for women aged 75 and over increased from 33.6 % in 2016 to 38.8 % in 2019 (see Section 5 ‘Background statistics’).

The AROP rate of older people is rising in parallel to the growing economy and wages. The AROP threshold increased on average by 10 % per year during the last five-year period. Pension benefits increased as well, but with a delay. In 2018, the yearly AROP threshold for a

[329] These rates will apply to all participants by 2023. Currently, participants can opt either for these maximum contributions, or for a minimum contribution of 1.8 % paid out of own earnings and a supplementary contribution of 0.3 % paid out of the state budget.

[330] A combined, large tax and social contribution reform resulted overall in a reduction in taxes and contributions by 1.55 p.p.

[331] People under 40 are enrolled into statutory funded pension scheme automatically every three years with a right to opt out. They can also delay enrolment in the sense that they can opt in at any time (also beyond the age of 40). Moreover, it is possible to suspend payments for up to 12 months during the period of accumulation of funds due to personal circumstances (e.g. a worsened economic situation).

[332] The AROP rate is defined as the percentage of population with income after social transfers below the at-risk-of-poverty threshold (60 % of the median household equivalised income).

single person was EUR 4,552 and the average old-age social insurance pension was only EUR 312 monthly (Sodra, 2020).[333]

The rate of severe material deprivation among older people (aged 65 and over) is 11.5 %. It decreased by 5.6 p.p. during the last decade, mainly thanks to a rather rapid pension increase in 2018-2019 and relatively low inflation.

The relative median income of older people, defined as the ratio between the median equivalised disposable income of people aged 65 and over and that of people aged 18-64, decreased from 70 % in 2008 to 69 % in 2017 and to 68 % in 2019, while the EU average was 90 %. There is a substantial gender gap in the relative median income of older people aged 65 and over. The ratio is 0.75 for men and 0.62 for women. The gender gap in pension income was 18.8 % in 2019.

The aggregate replacement ratio (the median individual pension of those aged 65-74 relative to the median individual earnings of those aged 50-59) was 43 % in Lithuania, the EU average being 57 % in 2019. It remained unchanged during the post-crisis period (from 2010 to 2019).

The high AROP rate of older people and the low aggregate replacement ratio coexist with a short pension payment duration because of low life expectancy in the country. The average life expectancy at age 65 was 17.6 years, whereas the EU average stood at 20.0 years in 2019. There was no reduction in this gap during the last decade. The level of life expectancy is particularly low for men – only 14.5 years. The number of healthy life years at age 65 in Lithuania is slightly below the EU average.

The housing cost overburden rate for older people (aged 65 and over) in Lithuania is almost half that in the EU (i.e. 4.7 % compared with 10.0 % for the EU). About 90 % of Lithuanians live in their own apartment or house. Hence, a majority of Lithuanians in old age have accommodation of their own and are not rent- or mortgage-burdened. Besides this, low-income pensioners can apply for compensation for the costs for heating, hot and drinking water under the general scheme of compensations, provided that they meet the income-testing criteria and norms for expenditure on utilities.

The low level of pension benefits motivates Lithuanians to stay in employment longer despite low healthy life expectancy. The employment rate of people aged 55 to 64 is 68.4 % (i.e. 10 p.p. higher compared with the EU average). The employment rate of people aged 55 to 64 increased by 15.4 p.p. during the last decade (by 19.2 p.p. for men and 20.1 p.p. for women). Women's employment rate in Lithuania is among the three highest in the EU and exceeds the EU average by 15 p.p.

Pension benefits are not taken into account when determining the eligibility for long-term care (LTC) services or LTC cash benefits. However, pension benefits are integrated in cost-sharing for LTC services. According to Lithuanian legislation, people receiving home-care services have to pay no more than 20 % of their income (or municipalities can relieve them of these costs). In the case of institutional LTC, the amount paid by patients shall not exceed 80 % of the person's income.[334] Most of old-age pensioners in institutional care retain 20 % of their

[333] Sodra, 2020. Statistical data website. http://atvira.sodra.lt/en-eur
[334] MISSOC: Comparative tables. https://www.missoc.org/missoc-database/comparative-tables

pension benefit for personal use. Successful economic development had a positive impact on the availability of healthcare. Self-reported unmet needs for medical examination among older people (aged 65 and over) halved from 12.1 % to 3.6 % during the last decade.

Summing up, all three aspects of pension adequacy (i.e. poverty among older people, income maintenance and pension duration) are not good enough in Lithuania, even if there have been improvements. A large proportion of retirees are at risk of poverty, their income falls sharply at retirement and older people benefit from the pension scheme for a relatively short period because of the low life expectancy at age 65.

The fundamental reason for low pension adequacy in the country is very low pension expenditure as a percentage of gross domestic product (GDP). It was 6.7 % of GDP in 2018, (i.e. almost half the EU average). Moreover, it is 0.4 p.p. lower compared with the pre-crisis year 2008.

3.2 Future adequacy

Analysis of the future adequacy of pensions is based on the prospective theoretical replacement rates (TRRs). In Lithuania, after a 40-year career, TRRs will decrease mildly, from 52.5% man and 52.3% woman in 2019 to 50.7 % for both genders in 2059. Hence, the prospective TRRs will be equalised across genders due to the extension of the statutory pensionable age to age 65 for men and women, and will decrease for both genders due to the indexation rules. However, the projected increase in the length of working careers will be concurrent with a reduction in the replacement rate among low earners and especially men. Given the currently low replacement rate, such a decline is unacceptable in terms of future pension adequacy.

Early retirement by two years will reduce TRRs for average-income earners by 6.3 p.p. However, there is an accrual of pension rights in non-contributory periods for those with career breaks due to unemployment or maternity. Thanks to this legal provision, the drop in the net TRRs is no more than 3 p.p. for employees with career breaks. TRRs for employees with short careers (20 years), in contrast, will be only 24.9 % (i.e. only half of the TRRs for full-career employees). In comparison with average-wage earners, low-wage earners will enjoy perspective TRRs higher by almost 10 p.p. in most cases.

Net TRRs are higher by 10-20 p.p. when compared with gross prospective TRRs in Lithuania, as a result of pensions not being taxed, contrary to wages.

There are two main current changes in social insurance pension legislation creating challenges for the adequacy of future pension benefits; in particular, the newly introduced pension benefit indexation and the increased mandatory insurance period for full pension.

The introduction of indexation into the system of social insurance old-age and disability pensions in 2017 represents a move towards fewer possibilities for political manipulation and greater transparency. However, the current system of indexation ensures the fiscal sustainability of the system at the expense of benefit adequacy. The indexation rules foresee automatic balancing of payments towards the wage bill, which depends on the growth in wages and the number of the employed. Hence, pension benefit adequacy may appear under threat in the context of the shrinking working population due to continuing ageing. The baseline scenario of the most recent Ageing Report projects a reduction in the benefit ratio from 33.1 in 2020 to 23.4 in 2040 (European Commission, 2018).[335] This would imply a substantial reduction in pension replacement rates and adequacy. This is due to the lack of safeguarding of social insurance pensions from a gradual deterioration in relation to the average wages of the population or that of insured people themselves.

The increase in the insurance period from 30 to 35 years for a full pension is related to the extension of the statutory pensionable age. However, it reduces the basic (general) pension component for those having a shorter contribution history. Under the new rules, the basic component for people with the required 15 years' minimum contribution history will decrease by 14 % in 2027 (2018 Pension Adequacy Report).

3.3 Challenges for future adequacy

A fundamental challenge for future pension adequacy arises from demographic developments in the population. Lithuania will be one of the fastest-ageing countries because of the highest emigration to the rest of the EU and a rather low fertility rate. The median age of the population is projected to increase from 44.5 in 2020 to 50.9 years in 2050, while figures for the EU are 43.9 and 47.6 respectively.[336] Because of all these changes, the demographic old-age dependency ratio (those aged 65 and over vs those aged 20-64) is projected to increase in Lithuania from 31.3 % to 68.4 % over the projection period from 2016 to 2056 (2018 Pension Adequacy Report). The extension of the pensionable age to 65 by 2026 may not be sufficient to reduce the impact of such a dramatic increase. On the other hand, life expectancy is too low for a further postponement of retirement.

Another challenge arises from insufficient financing of pension schemes. Lithuania is currently allocating only about half of resources in relation to GDP to old-age social security pensions compared with the EU average.

On the positive side, the social insurance pension scheme is formally rather well designed in Lithuania in terms of non-standard work, self-employment, and new forms of employment contracts coverage. However, the challenge lies in enforcing tax compliance among the self-employed. Data on income from self-employment and non-standard employment in Lithuania are very fragmented. Research is needed in order to establish the impact of self-employment on income in retirement.

Finding a financially sustainable and socially just mechanism for financing the statutory funded pension scheme remains a challenge. Individuals' contributions have been increased, albeit only to 3 % of wages.[337] Subsidies from the state are unfair, looked at from both intra- and inter-generational perspectives. Public subsidies towards funded pensions were introduced in parallel with a reduction in social insurance contributions to the PAYG social insurance

[335] European Commission, *The 2018 Ageing Report: Economic & budgetary projections for the 28 EU Member States (2016-2070)*, Institutional Paper 079, May 2018. https://ec.europa.eu/info/sites/info/files/economy-finance/ip079_en.pdf
[336] Eurostat: Demographic balances and indicators by type of projection.
[337] Note, the current 3 % contributions level from the employee's gross wage corresponds to nearly 4 % applicable before the tax reform and a total of 4.5 % contributions level (3 % from the employee's gross wage; state's contribution plus 1.5 % of the Lithuanian average gross wage) corresponds to 6 % (2+2+2) applicable before the tax reform. The current tariff for pension social insurance for the individual part of pension is 8.72 %, paid by the employee from gross wage. Thus, a 3 % contribution level is more than one third of the individual part of pension.

pension scheme, involving a breach of the inter-generational contract. Obviously, the debate on public subsidies and the requirement to revise the funding of the pension scheme will continue.

Historical data since the introduction of the statutory funded scheme in 2004 show an average annual return of 3.4 % (Bank of Lithuania, 2019).[338] At the same time, the average annual growth of wages stands at 7.8 % (Statistics Lithuania, 2019c).[339] Thus, returns on private pension assets are low relative to the improvement in employees' living standards. Information on possible pension benefits from the statutory funded scheme is very scarce. The Bank of Lithuania, the supervisory authority, publishes only data on the total number of participants and the total accumulated pension assets. The latter amount to only EUR 3000 per participant on average. People in retirement take lump-sum benefits. Annuities have so far been purchased only by 635 residents of the country.[340] There is no analysis of potential benefit amounts for the near or distant future. The statutory funded pension scheme has no institute of trustees for representing the interests of members, pension assets managers are for-profit and fees are rather high. The scheme does not guarantee defined income in old age; although designed with wide opportunities for inheriting accumulated assets, it lacks proper indexation of benefits and the system of annuities has not been developed yet.

3.4 Solidarity mechanisms

There is a very low level of solidarity in Lithuanian society as a whole. The Gini coefficient has been one of highest in the EU for many years. The income quintile ratio (S80:S20) for the population aged under 65 was 7.41 in 2018. The figure for older people was lower by 2.54 p.p. However, the S80:S20 ratio for the population aged 65 and over still was 4.65 in 2019 (i.e. the fourth highest in the EU). It increased by 0.57 p.p. during the last decade.

The redistributive capacity of the Lithuanian tax-benefit system is relatively low. Although the second progressive PIT bracket was introduced at the beginning of 2019, its effect is neutralised by a simultaneously introduced cap on social insurance contributions.

The degree of redistribution within the social insurance pension scheme is relatively strong thanks to the general (basic) component, which is not earnings-related. The general component comprises about 59 % of average old-age pension. Moreover, the pension benefits calculation formula has ceilings. Earnings above five times the average wage are not taken into account for the calculation of pension benefit points.

The social assistance pension serves as a minimum-income pension for those not protected by social insurance pension schemes. Its amount is extremely low, only EUR 140 per month as of

[338] Bank of Lithuania, *Veiklos Rodikliai: Pensijų kaupimo veiklos rodikliai – II pakopos pensijų fondų rezultatai* [Performance Indicators: Performance indicators for pension accumulation – Results of 2nd pillar pension funds], 2019. https://www.lb.lt/lt/pf-veiklos-rodikliai#ex-1-3

[339] Statistics Lithuania (2019c). *Average monthly earnings and their indices in the whole economy*. https://osp.stat.gov.lt/en/statistiniu-rodikliu-analize?hash=85138a94-47ec-4f21-8dbd-650502ae6aec#

[340] Balčiūnaitė, S., *Seimas ipusėjo svarstymus, kaip 'Sodra' mokės pensijų anuitetus* [Seimas is halfway through deliberations on how 'Sodra' will pay pension annuities], BNS 7 April 2020. https://www.diena.lt/naujienos/verslas/ekonomika/seimas-ipusejo-svarstymus-kaip-sodra-mokes-pensiju-anuitetus-961409

the beginning of 2020 (40.5 % of the AROP threshold for a single person in 2018); however, only 11,000 old people benefit from this, representing some 2 % of pensioners.

As mentioned in Section 2, the additional supplement to low social insurance pension benefit is too low to make a difference.

Two elements in the social insurance pension scheme have an indirect positive impact on lowering gender inequality. First, the state pays social insurance contributions (1.5 % of the country's average wage) on behalf of parents during their childcare leave until the child turns three years old. Working mothers predominantly apply for childcare leave. Second, widow's/widower's pensions are paid alongside the old-age pension. However, the latter pensions are very low, and single pensioners who are not widows/widowers do not receive any pension supplements. Two thirds of retired pensioners are women because of the substantially lower average lifespan of men, and the age gap of couples.

The state unfunded pension scheme appears even to reduce solidarity as such pensions are complimentary to social insurance pensions and are granted to some privileged groups of public employees. The average amounts of these supplementary benefits range from EUR 150 for scientists up to EUR 800 for judges (Leppik and Piirits, 2018).[341]

4 OPPORTUNITIES TO ADDRESS CHALLENGES

Considering the low current adequacy and the projected rapid increase of the demographic dependency ratio, the problem of ensuring sufficient funding of public pensions should be addressed.

Bearing in mind rather high taxes on wages, Lithuania could strengthen the financing of the social insurance pension scheme by allocating more resources from general revenue. The shift in the funding of the general (basic) pension component to the state's budget has opened opportunities to increase its financing. However, there is an urgent need to go further, to reform the tax system with the aim of collecting extra resources for the state budget.

The current system of indexation of social insurance pensions has to be reviewed with the aim of improving adequacy.

The statutory funded pension scheme has been operating for 15 years with a lot of attention to, and numerous reforms on, the contribution side. This could be supplemented by reforms in the way the investment is made to ensure safe, optimal returns. A proper assessment of the scheme is needed for evidence-based decisions.

Privileged state pensions do not meet the criterion of equity, and phasing them out could help improve the way risks and resources are shared within the pension system. Reducing these pensions would lead to savings in the longer term; these could be channelled to finance social assistance pensions, which are currently very low. Finally, the tax/benefit system could be reviewed to raise the incomes of all single pensioners, not only widows/widowers.

[341] Leppik, L. and Piirits, M., *Assessment of the Lithuanian State Pension System: Final report of the project SRSS/C2018/11*, 2018. https://socmin.lrv.lt/uploads/socmin/documents/files/veiklos-sritys/LITPEN%20report.pdf

5 BACKGROUND STATISTICS

5.1. Relative income	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
Relative median income ratio (65+)	0.68	0.75	0.62	-0.02	-0.03	-0.04
Income quintile share ratio (S80/S20), 65+	4.65	4.81	4.24	0.57	0.8	0.25
Relative income quintile share ratio (S80/S20), 65+ - 0-64	-1.97	-2.01	-2.18			
Aggregate Replacement Ratio (ARR) %	43	44	47	0	-1	1

5.2. Poverty and material deprivation	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
At-risk-of-poverty or social exclusion (AROPE), 65+ (%)	37.4	22.9	45	-2.5	-4.6	-1.3
At-risk-of-poverty rate (AROP), 65+ (%)	31.6	17.7	38.8	0.6	-0.5	1.2
Severe material deprivation (SMD), 65+ (%)	11.5	7.1	13.9	-5.6	-6.4	-5.1
At-risk-of-poverty or social exclusion (AROPE), 75+ (%)	41.4	21.2	50.2	-2.7	-8.9	-0.2
At-risk-of-poverty rate (AROP), 75+ (%)	34.6	14.9	43.2	0	-4.2	1.6
Severe material deprivation (SMD), 75+ (%)	13.2	7.5	15.6	-5.6	-7.6	-4.9
Relative median at-risk-of-poverty gap, 65+ (%)	20.5	19.7	20.7	4.6	7.2	4.1
At-risk-of-poverty rate (AROP), 65+: 50 % threshold (%)	18.5	9.5	23.3	4	2.6	4.9
At-risk-of-poverty rate (AROP), 65+: 70 % threshold (%)	45.7	32.8	52.4	1.5	1.2	1.7
Material and social deprivation, age 65+ (1)	27.5	18	32.4	-9.2	-14.5	-6.5

5.3. Gender difference	2019			Change 2008-2019		
Gender gap in pension income (65-79) (%) (2)			18.8			4.7
Gender gap in non-coverage rate (W-M in p.p.) (65-79)			-0.9			0

5.4. Housing and health situation	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
Housing cost overburden rate, 65+ (%)	4.7	4	5.1	0.6	2	-0.1
Self-reported unmet need for medical exam 65+ (%)	3.6	3.3	3.8	-8.5	-5.3	-10
Healthy life years at age 65 (years)	6.2	6.0	6.4	0.1	0.3	-0.1
Life expectancy at age 65	17.6	14.5	19.7	1.1	0.9	1.3

5.5 Sustainability and context	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
Employment rate, age group 55-64 (%)	68.4	69.4	67.5	15.4	9.2	20.1
Pension expenditure as % of GDP (ESSPROS) (3)			6.7			-0.2
Retirement duration from first pension (years) (4)	19.0	15.4	21.7	-0.2	0.1	-0.5
Retirement duration from end employment (years)	19.3	15.3	22.0			

Eurostat and AWG projections	2019			2059		
Old-age dependency ratio (20-64) (%)	32.8	22.6	42.5	68.1	57.2	80.2
Economic old-age dependency ratio (20-64) (%) (5)	38.0	24.9	50.9	81.2		
Gross public pensions as % of GDP (5)	7.1			8.1		
Benefit ratio (%) (5)	26.7			21.8		
Coverage ratio (% of pop aged 65+) (5)	162.3			126.4		
Gross pension ratio high / low earner		1.5	1.5		1.5	1.5

(1) change since 2014, not 2008

(2) data refer to 2010, not 2008

(3) ESPROSS data refer to 2018

(4) Change is since 2016, not 2010

(5) 2060 instead of 2059

5.6 Theoretical Replacement Rates

	Net (%)				Gross (%)			
	2019		2059		2019		2059	
	Men	Women	Men	Women	Men	Women	Men	Women
Average earning (100%)								
Base case: 40 years up to the SPA	52.5	52.3	50.7	50.7	39.9	39.8	32.7	32.7
Increased SPA: from age 25 to SPA	50.9	49.3	50.7	50.7	38.7	37.5	32.7	32.7
AWG career length case	53.7	50.3	53.7	52.5	40.8	38.3	34.6	33.9
Old base case: 40 years up to age 65	57.2	61.7	50.7	50.7	43.5	46.9	32.7	32.7
Longer career: 42 years to SPA			52.8	52.8			34.1	34.1
Shorter career: 38 years to SPA			48.6	48.6			31.3	31.3
Deferred exit: 42 years to SPA +2			59.8	59.8			38.6	38.6
Earlier exit: 38 years to SPA -2			44.4	44.4			28.7	28.7
Career break – unemployment: 3 years	51.2	51.0	47.7	47.7	38.9	38.8	30.8	30.8
Career break due to child care: 3 years	52.4	52.3	49.7	49.7	39.9	39.8	32.1	32.1
Career break care to family dependant: 3 years	49.5	49.4	48.8	48.8	37.6	37.6	31.5	31.5
Short career (20 year career)	28.2	28.1	24.9	24.9	21.4	21.4	16.1	16.1
Work 35 y, disabled 5 years prior to SPA			56.1	56.1			36.2	36.2
Early entry in the LM: from age 20 to SPA			56.0	56.0			36.1	36.1
Index: 10 years after retirement @ SPA			45.0	45.0			29.0	29.0
Extended part-time period for childcare			47.6	47.6			30.7	30.7
Survivor – full career		55.8		53.3		42.4		34.4
Survivor – short career		31.6		27.5		24.0		17.7
Survivor ratio 1*		0.54		0.53		0.53		0.53
Survivor ratio 2*		0.39		0.36		0.35		0.36
Low earnings (66%)								
Base case: 40 years up to the SPA	64.3	64.1	59.9	59.9	52.0	51.9	41.0	41.0
AWG career length case	70.0	65.3	63.3	62.0	56.6	52.8	43.4	42.5
Old base case: 40 years up to age 65	70.1	75.7	59.9	59.9	56.7	61.3	41.0	41.0
Career break – unemployment: 3 years	62.2	62.1	56.2	56.2	50.3	50.2	38.6	38.6
Career break due to child care: 3 years	64.3	64.1	59.1	59.1	52.0	51.9	40.5	40.5
Short career (20 year career)	37.0	36.9	29.4	29.4	29.9	29.9	20.2	20.2
Early entry in the LM: from age 20 to SPA			66.0	66.0			45.3	45.3
High earnings (100->200%)								
Base case: 40 years up to the SPA	34.9	34.8	33.4	33.4	25.8	25.7	20.2	20.2

**Survivor ratio 1: man base case, woman base case*

**Survivor ratio 2: man base case, woman short career case*

LUXEMBOURG

Highlights

- Pension adequacy is satisfactory in Luxembourg; for example, only 0.3 % of people aged 65 or more suffered from severe material deprivation in 2019, compared with 4.8 % in the EU. Although the gender gap is still pronounced, it does not relate to structural flaws in the pension system. The discrepancy between the minimum and the maximum pension is quite high.
- However, this rather favourable situation will have to be monitored closely, because acute financing challenges could put pension adequacy at risk in the future.
- Luxembourg could build on the 2012 reform with further measures to protect the pensions of low-earners and improve sustainability.
- Luxembourg could enhance the effective retirement age, one of the lowest in the EU[342] at present. The labour participation rate of older workers should be further encouraged.

1 GENERAL DESCRIPTION OF THE NATIONAL PENSION SYSTEM

Luxembourg has a comprehensive social security system. Both employees and the self-employed are entitled to an old-age pension.[343] The statutory pension scheme is divided into two different types of schemes: (a) the general scheme for employees and the self-employed in the private sector; and (b) special schemes for civil servants and other public sector employees.[344] Both systems are organised as mandatory pay-as-you-go (PAYG) schemes and jointly cover the whole economically active population. Despite harmonisation of contributions and benefit determinants with the general scheme since the 1998 pension reform, the civil servants' scheme is still kept separate. Financing of the public pension is based on a contribution rate that is kept fixed for a period of 10 years with a mandatory mid-term evaluation foreseen after five years. For the current period (2013-2022), the total pensions contribution rate is 24 % of gross salary, paid in equal shares of 8 % by employers, employees and the state (the self-employed pay 16 % contributions, also complemented by the 8 % state intervention). Contribution rates to the general pension regime are paid up to a maximum contributory income equal to five times the standard minimum wage (this maximum income amounted to EUR 10,709.97 per month as of 1 January 2020).

[342] EU and EU-27 refer to the current 27 Member States of the European Union.
[343] However, for self-employed activities with an income below one third of the social minimum wage, coverage is voluntary.
[344] See also http://www.mss.public.lu/publications/droit_securite_sociale/droit2017/droit_2017.pdf

For the general scheme, the law requires a minimum reserve of 1.5 times the yearly pension expenditure. As of the end of 2018, the accumulated reserve amounted to 32 % of GDP.[345] The large reserves result from continuous economic growth in recent decades and a relatively young active population (particularly driven by the large influx of cross-border workers and by sustained net migration, especially since 2011).

The legislated pensionable age is 65 (*pension de vieillesse*). For a pension at the legal retirement age of 65, a minimum of 10 years of contributions[346] has to be fulfilled. However, early retirement (*pension de vieillesse anticipée*) is possible. A person is entitled to an early old-age pension as of the age of 60 if they can show 480 months of contributory and additional non-contributory periods, of which at least 120 months must be contributory. Moreover, as of the age of 57 early retirement is possible if the person reaches a period of 480 months of contributions.

The old-age pension consists of three parts: a lump sum depending on the length of career *(majorations forfaitaires)*, an income-related component *(majorations proportionnelles)* and a (lump-sum) end-of-year allowance (*allocation de fin d'année*).

The **lump sum** for people with a full career (40 years) is determined as a percentage of a reference amount close to the social minimum income.[347] Starting from 1 January 2020, the lump sum amounts to EUR 513.15 per month for 40 years of insurance. For pensioners with shorter careers, the lump sum is reduced proportionately. The second part is an **earnings-related** pension, calculated at an accrual rate of 1.8 % of total earnings (value for 2020; to be gradually reduced to reach 1.6 % in 2052). For people whose sum of pension age and career years exceeds a specific threshold (94 in 2020), the rate is increased by 0.013 (value for 2020; to be increased to 0.025 by 2052) percentage points (p.p.) for each additional year above the threshold *(majorations échelonnées)*. The maximum accrual rate is equal to 2.05 % per year.

The pension is topped up with an end-of-year allowance. For 2020, this allowance equals EUR 808.56 per month in the case of a complete career of 40 years.

Spouses and orphans of active (salaried or self-employed) and pensioned people are also entitled to a survivor's pension under the same general regulations, and pensions rights are calculated with similar parameters. Survivor's pensions are part of the statutory pension scheme financed by contributions paid by employers, employees and state (8 % each).

Pension benefits are indexed to both the consumer price index (CPI) and (real) wage evolution. On the one hand, pensions, just as wages in general, are indexed to price evolution in a non-periodic way each time the CPI increases by more than 2.5 %. On the other hand, they are readjusted annually to the average wage evolution as computed by the *Inspection Générale de la Sécurité Sociale* (IGSS). However, full readjustment is conditional on the overall sustainability of the pension system and can be partly or fully reduced by a special law applying to adverse situations.

[345] *Fonds de Compensation Commun au Régime Général de Pension: Rapport annuel 2018, 2019*, Luxembourg. https://www.fdc.lu/fileadmin/file/fdc/Rapport_annuel_2018_final_version_web.pdf#pageMode=bookmarks
[346] Contributory periods = compulsory insurance, continuous insurance, optional insurance and retroactive purchase periods.
[347] The lump sum will gradually increase between 2013 and 2052 from 23.5 % to 28 % of this reference amount. This reinforces the basic pension character of the system.

The pension system guaranteed, in 2020, a minimum pension of EUR 1892.77 per month in the case of a full 40-year career. This minimum pension roughly corresponds to 90 % of the social minimum income. The pension could not exceed EUR 8762.81 per month in 2020.

Unemployment benefits are subject to pension contributions and thus qualify as compulsory insurance periods. Insurance periods of 24 months per child, so-called baby years,[348] are granted to either one of the parents or shared between both, and qualify as contributory compulsory insurance periods. Furthermore, up to the age of six, additional (non-contributory) insurance periods may be granted to one of the parents.

Besides the general pension scheme, parents who have devoted themselves to bringing up their children, and who cannot benefit from baby years or childrearing periods, may be granted a so-called mother's rent (*forfait d'éducation – mammerent*) of EUR 86.54 per month per child after the age of 65.

Luxembourg has three types of pre-retirement schemes, listed in the labour law.[349] The third one is applicable in the context of hazardous or arduous jobs.

1. Progressive pre-retirement (*préretraite progressive*): this scheme applies to full-time employees. The employer agrees to transform the job from full to part time and to pay pre-retirement benefits (reimbursed by the state later on provided that unemployed people have been recruited in the process). It is limited to employees of an eligible company.
2. Economic adjustment pre-retirement (*préretraite ajustement*): this scheme is a social measure, limited to employers who are affected by a business closure or after a restructuring or after transformation following technological changes.
3. Pre-retirement of shift and night workers (*préretraite des travailleurs postés et des travailleurs de nuit*): this pre-retirement scheme is important within the policy specifically targeted at workers in hazardous jobs. This scheme applies to employees from both the private and public sectors. It applies to employees aged at least 57, who have been working in shifts for 20 years or have worked 20 years on a fixed night shift. The pre-retirement benefit is equal to 85 % of past earnings in the first year, 80 % in the second year, and 75 % in the third. The earnings reference is the salary in the last three working months.

Occupational and individual pension schemes play a growing, yet still marginal, role in the pension system. Only 4.9 % of the working-age population in Luxembourg is covered by occupational pension schemes.[350]

A major atypical dimension of the labour market in Luxembourg is the importance of cross-border and migrant workers. Cross-border work represented about 46 % of total employment in Luxembourg at the end of 2019. On top of that, in 2018 56.1 % of current pensioners in the

[348] May be prorogued to 48 months when there are at least two additional children.
[349] De Coninck, A. and J. Pacolet, *ESPN Thematic Report on retirement regimes for workers in arduous or hazardous jobs. Luxembourg*, European Social Policy Network (ESPN), European Commission, Brussels, 2016.
[350] OECD, *Pensions at a Glance 2019: OECD and G20 Indicators*, OECD Publishing, Paris, 2019, p. 207. https://www.oecd-ilibrary.org/docserver/b6d3dcfc-en.pdf?expires=1585823177&id=id&accname=guest&checksum=69ED03B3C07A49F8DF7DDCE11B90F079

general pension regime had accumulated pension insurance periods in other countries. Finally, 27.3 % of the total amount of pensions paid by the general pension regime was transferred to 85,930 non-residents pensioners in 2018.[351] According to the IGSS, in its report on the financial situation of the general pension system, non-residents would receive about 45 % of total pension spending in 2060.[352]

It has to be kept in mind that about 90 % of pensioners residing abroad and 25 % of pensioners resident in Luxembourg had a working career in more than one country, and thus only receive a partial pension from Luxembourg. Most of them are entitled to additional partial pensions paid by one or more other countries where the pensioner was insured.

All this partially explains the rather moderate expenditure ratio in Luxembourg on pensions (8.5 % of GDP in 2017 compared with an EU average of 12.4 % of GDP according to Eurostat).

2 REFORM TRENDS

The pension reform introduced as of January 2013 by a law of 21 December 2012 focused on the modification of parameters of the pension formula within a long transition period of 40 years (2013-2052). The content of this reform was discussed in the 2015 Pension Adequacy Report.

In 2017, 'pre-retirement based on solidarity'[353] was abolished. Under certain conditions, this form of pre-retirement allowed employees to leave the labour market three years prior to meeting the eligibility criteria for early retirement. However, the same law eased restrictions to other pre-retirement systems (pre-retirement of shift workers and night workers as well as progressive pre-retirement).

In order to keep more people at work, the Luxembourg government introduced a draft law, also referred to as an age pact (*pacte de l'âge*) in April 2014.[354] It is for instance foreseen that companies with more than 150 employees would have to introduce a *plan de gestion des âges*. More generally, the age pact aims to improve the (low) employment rate of older people in Luxembourg, through (among other things) a larger involvement of them in professional training, better health prevention for older people (*santé au travail*), and part-time arrangements and a more flexible organisation of their working time. As of 2020, the draft law is still pending in parliament.

[351] This implies that pensioners residing in another Member State receive an average annual amount of EUR 13,443. This average amount is much lower compared with the average annual amount of EUR 32,925 (EUR 3.2 billion to some 95,800 people) paid to pensioners residing in Luxembourg.

[352] IGSS, *Bilan Technique du Régime Général d'Assurance Pension – 2016*, Ministry of Social Security, 2016. https://gouvernement.lu/dam-assets/fr/actualites/communiques/2016/12-decembre/02-bilan-assurance-pension/Bilan-technique-du-regime-general-d_assurance-pension-_-2016.pdf

[353] Loi du 30 novembre 2017 portant modification de l'alinéa 5 de l'article L. 521-14 et du Titre Vlll du Livre V du Code du travail.

[354] Projet de loi portant modification du Code du Travail et portant introduction d'un paquet de mesures en matière de politique d'âges du 03-04-2014.

Finally, a new law adopted in August 2018[355] extended the scope of occupational pension schemes to the self-employed. They now have the possibility to set up their own occupational pensions,[356] although this access is closely regulated (as is also the case for wage earners).

3 ASSESSMENT OF ADEQUACY

3.1 Current adequacy

Luxembourg pensioners are in a very favourable situation given the high replacement rate and the low at-risk-of-poverty-or-social-exclusion (AROPE) rate. In 2019, the AROPE rate for the population aged 65 and over was 9.6 %, which was much lower than the EU average of 18.5 %. Nonetheless, this rate for Luxembourg would appear to have increased by 4.2 p.p. between 2008 and 2018.[357] In addition, the severe material deprivation rate for people aged 65 and over remained very low (0.3 % compared with the EU average of 4.8 %). This result is not surprising, as the median income of people aged 65 and over in Luxembourg is 25 % higher than the corresponding figure for those aged under 65 – this is more than in any other EU country (median income is higher for those aged 65 and over in only three other EU countries, namely Greece, France and Italy).

The net theoretical replacement rate (TRR) for 2019 amounted to 99.5 % for an average-earner retiring after 40 years of contributions at age 65. Luxembourg has among the highest replacement rates in the EU.

The difference between the average pension for women and men was 46.0 % (gender pension gap) in 2019, and had declined by about 4.6 p.p. since 2010. This decline indicates that women in younger generations tend to have working careers that are more complete. This gender pension gap in Luxembourg is higher than the EU average. The gap is mainly due to differences in career length and earnings profile between men and women, still prominent among current pensioners. The size of the gap is, among other things, a reflection of the relatively wide discrepancy between minimum and maximum pensions According to IGSS figures, 20.9 % of all old-age pensions paid to men exceeded EUR 4000 per month, compared with only 6.2 % for women. Likewise, men accounted in 2018 for 92 % of the total number of pensions equal or higher than EUR 7000 per month.

Again according to the IGSS, the average old-age pension of resident men and women in the general pension regime reached respectively EUR 3632 and 2083 per month, showing that the

[355] Loi du 1er août 2018 portant:
1. transposition de la directive 2014/50/UE du Parlement européen et du Conseil du 16 avril 2014 relative aux prescriptions minimales visant à accroître la mobilité des travailleurs entre les Etats membres en améliorant l'acquisition et la préservation des droits à pension complémentaire;
2. modification de la loi modifiée du 8 juin 1999 relative aux régimes complémentaires de pension;
3. modification de la loi modifiée du 4 décembre 1967 concernant l'impôt sur le revenu.

[356] With several incentives, for instance better legal protection as regards the calculation of accrual benefits – also in cases of job mobility, or preferential tax treatment of the contributions to occupational pension regimes (e.g. tax deductibility up to a given threshold).

[357] However, this evolution is partially biased by a major break in series of EU-SILC based indicators (AROPE and others) in 2016.

gender gap is not a reflection of the high prevalence of cross-border labour, or of survivor and disability pensions.

A low employment rate for older workers (in 2019, the employment rate of workers aged 55-64 was 43.1 % compared with 59.1 % at EU level) can partly be explained by a relatively wide gap between the effective retirement age and the legal retirement age of 65 years. The effective age of retirement was 60.5 for men and 59.9 for women in 2019.[358] In 2018, the pension payment duration amounted to 22.0 years for men and 24.7 years for women.[359] This was the highest in the EU.

The difference in life expectancy at the age of 65 between men (18.8 years) and women (22.1 years) in 2019 was close to the corresponding value at EU level (18.1 and 21.6 years respectively). However, healthy life expectancy was somewhat lower for women (10.6 years) and for men (10.1 years) than the EU average (10.4 and 10.3 respectively). This implies that women will be experience substantially more non-healthy years (i.e. 22.1 minus 10.6 years, compared with 18.8 minus 10.1 for men). This makes the provision of adequate and affordable healthcare and long-term care (LTC) services more relevant, especially for women.

Luxembourg has one of the best developed LTC insurance systems, oriented especially to home care. The Luxembourg health system also provides strong protection for older people. In 2019, 99.1 % of them reported no unmet needs for medical examination. This was higher than 10 years before, and the most favourable result among all EU countries.

Private home-ownership, as a fourth pension pillar, is still an important instrument for private savings for older people (aged 65 and over) and an efficient shelter against poverty risks. In 2019 the housing cost overburden rate for people aged 65 and over reached 6.1 % in Luxembourg, lower than in the EU (10.0 %). However, the overburden rate went up considerably from 2008 (1.1 %) to 2019 (6.1 %) in Luxembourg. This is probably a reflection of the steep increase in real estate prices over this period, more pronounced in Luxembourg than in most other EU countries. This resulted in a larger overvaluation gap in the Grand-Duchy.[360]

3.2 Future adequacy

TRR projections[361] for the different earnings levels indicate that TRRs will decline for all groups in the next 40 years. In all scenarios the TRRs remain at a very high level for average and low earnings, while being lower for the higher-income group with increasing earnings throughout the career. Credits for childcare sustain pensions well, although childcare-related

[358] OECD, 2019. On the basis of national figures, the effective age of retirement for old-age pensions is 60.9 for men and 61.8 for women in 2018 (but respectively 53.6 and 52.2 for disability pensions): https://igss.gouvernement.lu/fr/statistiques/assurance-pension/serie-statistique.html.

[359] *The 2018 Ageing Report: Economic & Budgetary Projections for the 28 EU Member States (2016-2070)*, Institutional Paper 079, May 2018, p. 59: https://ec.europa.eu/info/publications/economy-finance/2018-ageing-report-economic-and-budgetary-projections-eu-member-states-2016-2070_en.

[360] European Commission, *Alert Mechanism Report 2019*, 21 November 2018, Brussels: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018DC0758&from=EN, p.27.

[361] In TRR calculations, the occupational, supplementary pension schemes are not included, since they are not mandatory and nor do they have a wide-reaching coverage. As illustrated above, the occupational, supplementary pension schemes can in general be neglected in Luxembourg, while on the contrary the reserve funds of the mandatory system are substantial.

part-time work can lead to a (mild) benefit reduction; credits for periods of unemployment also leave people with mildly reduced benefits.

In 2019, the old-age dependency ratio in Luxembourg (22.4 %) was much lower than the EU average (34 %) and that of neighbouring countries Belgium (32.2 %), France (36.1 %) and Germany (35.9 %).

3.3 Challenges for future adequacy

The 2012 pension reform contains a few semi-automatic measures, depending on the evolution of specific parameters. For instance, it is foreseen in the 2012 law that the end-of-year allowance, namely a lump sum equal to EUR 809 and paid once a year (see Section 1) would vanish as soon as the total contribution rate exceeded the current 24 %. In addition, the link between pensions and real wages would be loosened (i.e. would be limited to only half of the wage development – or even below) when general pension primary revenues (i.e. excluding property incomes) became lower than general pension expenditure (in legal terms, when the *prime de repartition pure* exceeded the global contribution rate). The two measures would contribute to reducing pensions, especially the lower ones since the end-of-year allowance is a fixed amount – it is therefore proportionately higher for lower pensions.

In addition, the 2012 reform will probably have to be supplemented by additional measures in the future – especially if the recent COVID-19 sanitary crisis turns out to have a lasting impact on GDP and on the total wage bill. The 2018 Ageing Report projections, in which the 2012 reform was taken into account, referred to gross public pension expenditure amounting to 17.9 % of GDP by 2070, or an increase of 8.9 p.p. This would be the largest increase among EU countries.

Similarly, in 2016 the IGSS underlined the need to further develop measures to guarantee the viability of the pension system in the longer term (IGSS, 2016).

It is very difficult at this stage to identify the future measures most likely to be adopted in order to address this financial challenge. No specific measure was announced in the 2018 coalition agreement,[362] for instance as regards the effective retirement age. According to the Ageing Working Group (AWG), the average exit age from the labour market was 60.4 years in Luxembourg in 2016, namely three years less than the corresponding EU figure.

Long-term sustainability could be consolidated via higher social contributions, but their impact on the situation of lower-earners compared with the recipients of much higher pensions is controversial, if only because the contribution base is capped in Luxembourg (at least in the general pension regime). The latter would therefore be less affected by higher contributions, as they would sacrifice a lower proportion of their total net incomes. Generally speaking, changes in overall parameters will be less efficient, from a pension adequacy perspective, than more targeted measures (see Section 4).

[362] Luxembourg Government, *Accord de Coalition 2018-2023*, 3 December 2018, Luxembourg, p. 108: https://gouvernement.lu/en/publications/accord-coalition/2018-2023.html.

The gender gap will probably continue to be alleviated in the future, at least if wages[363] and career durations[364] continue to converge. Similarly, it is difficult at this stage to identify major trends that would be likely to undermine the pension adequacy of people in non-standard work and the self-employed. The situation of the latter could even improve, as a law adopted in August 2018 (see Section 2) made it easier for self-employed people to put in place their own occupational pension regimes. Finally, pension duration is not frequently mentioned in the political debate.

3.4 Solidarity mechanisms

Generally speaking, the Luxembourg pension system could be considered adequate.

Pensions tend to increase for higher revenue levels, with a gradual decline of the replacement rate, however. The minimum pension in Luxembourg may seem quite high by international standards, at EUR 1892.77 per month, but account should be taken of the relatively high cost of living in Luxembourg due, in particular, to high rents and real estate prices. By contrast, the maximum pension is high in Luxembourg, at EUR 8762.81 per month. The 2012 pension reform further improved the solidarity component of the system by introducing measures in favour of vulnerable pensioners, increasing their chances of getting a minimum pension or an early pension. These mechanisms contribute to a low risk of poverty among older people.

The pension for people whose career is interrupted (e.g. due to childcare or care of older relatives) for a period of up to five years was improved by a recent measure. A voluntary pension contribution, of around EUR 100 per month,[365] makes it possible to include these periods as qualifying periods to fulfil the criteria for a minimum or early pension. For the vulnerable target group, this measure will drastically increase the chance of getting a minimum pension or early pension. The design of the recognised baby years, to be taken by either one of the parents or shared between them, is also gender-neutral.

The adequacy of the Luxembourg pension system could also be considered appropriate with respect to the different employment statuses. The discrepancy between public and private sector employees tends to decrease with time, as the impact of the aforementioned 1998 pension reform (harmonisation of benefits and contributions) gradually unfolds. Very similar conditions apply to new pensioners from the public or private sector. Self-employed people are also covered by the general pension regime, with a 16 % contribution rate topped up by an additional 8 % intervention by the state, and following the law of the 1 August 2018 on occupational pension plans[366] they can now set up on their own account occupational pension plans.

Furthermore, and more generally, spells of unemployment are considered as compulsory insurance periods. Finally, the European and international coordination mechanisms ensure

[363] Ries, R., *L'Écart Salarial Hommes/femmes au Luxembourg, un Paradoxe*?, 2 July 2013, p. 3. https://statistiques.public.lu/fr/agenda/detail-agenda/2013/07/20130702bis/RETELecartsalarial.pdf

[364] Ries, R., *Regards sur l'emploi des Femmes*, March 2014, STATEC, Luxembourg. https://statistiques.public.lu/catalogue-publications/regards/2014/PDF-03-2014.pdf

[365] Before the pension reform this was approximately EUR 300 per month.

[366] *Loi du 1er août 2018*.

that the pension rights of cross-border workers (they represent about 46 % of the total workforce) in Luxembourg and elsewhere are considered in a comprehensive manner.

This flexible definition of the 10-year insurance threshold also contributes to enhancing pension adequacy for women, who tend to have more discontinuous and shorter careers. Furthermore, generous rules apply in Luxembourg as regards the assimilation to insurance periods of periods during which parents bring up their children (in addition to the baby years: see above, Section 1). Overall indicators point to a margin for improvement regarding gender fairness, with for instance a 44.6 % pension gap in 2018 (see above), but this is not the result of structural biases in the Luxembourg pension system as there are indeed several protection mechanisms against discontinuous careers, most prominently the various aforementioned devices related to the education of children. This indicator will in addition probably continue to improve as time passes (this was clearly the case between 2010 – with a 51 % gap – and 2018), as the careers of women and men tend to converge.

As regards intergenerational fairness, the general generosity of the Luxembourg pension system may finally penalise future generations of pensioners, as its financing could prove challenging in the future. A 5 % GDP growth rate would be required in the medium term in order to avoid major drifts in pension expenditure as a percentage of GDP;[367] however, most economists assume that potential growth in Luxembourg would not exceed 3 % per year. The current COVID-19 sanitary crisis could further magnify this gap between the required and the achievable future GDP growth rate, which would further undermine the financial situation of the pension systems in the medium term.

In principle, pension benefits in Luxembourg do not affect the eligibility for LTC services or cash benefits. Like wages (or capital income and rent), pensions are subject to the 1.4 % levy (*contribution dépendance*), and the latter is applied only to the monthly contributory income in excess of EUR 535.50 per month.[368] This rather progressive levy, which is the major financing item of the LTC system, is the way an income fairness element is built into the LTC system – but on the income side and not on the benefit side, since benefits are provided to all people recognised as being dependent, regardless of age, income or residence.[369] In addition, the informal caregiver's pension insurance contributions are paid to cover or top up the periods during which the caregiver provides the assistance and care (and the caregiver receives corresponding entitlements to future pension elements), so in this respect the pension system also enhances wide access to LTC benefits.

4 OPPORTUNITIES TO ADDRESS CHALLENGES

Luxembourg faces the challenge of preserving the current level of pension adequacy in the future. The magnitude of the budgetary challenges linked to ageing calls for a broad reflection on how to reconcile future financing needs and pension adequacy, including by looking at different sources of financing.

[367] Fondation IDEA, 'Pensions, que faire?', *Idée du Mois*, No 21, 23 October 2018, Luxembourg. https://www.fondation-idea.lu/2018/10/23/idee-du-mois-n21-pensions-que-faire
[368] Namely one fourth of the minimum wage.
[369] See the MISSOC information tables. www.missoc.org

The 2012 pension reform rebalanced pensions after high and low earnings via a lump sum to moderate the impact of income-related benefit components. Luxembourg could build on the 2012 reform with further measures to protect the pensions of low-earners and improve sustainability. In addition, it is important to ensure that lower pensions in particular are protected; for instance, by reviewing and possibly strengthening the semi-automatic adjustments foreseen in the 2012 reform.

Finally, the Luxembourg authorities could raise the effective retirement age, one of the lowest in the EU at present (60.4 years, compared with 63.4 years in the EU). The labour participation rate of older workers should be further encouraged, via new training schemes, new labour incentives, a more gradual transition to pensions and, possibly, additional incentives embedded in the calculation of pensions.

5 BACKGROUND STATISTICS

5.1. Relative income	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
Relative median income ratio (65+)	1.25	1.28	1.21	0.28	0.32	0.24
Income quintile share ratio (S80/S20), 65+	4.39	3.96	4.88	1.37	0.82	2.03
Relative income quintile share ratio (S80/S20), 65+ - 0-64	-1.05	-1.57	-0.48			
Aggregate Replacement Ratio (ARR) %	86	88	75	28	34	16
5.2. Poverty and material deprivation	**2019**			**Change 2008-2019**		
	Total	Men	Women	Total	Men	Women
At-risk-of-poverty or social exclusion (AROPE), 65+ (%)	9.6	7	12.2	4.2	2.4	6.2
At-risk-of-poverty rate (AROP), 65+ (%)	9.3	6.8	11.8	3.9	2.2	5.8
Severe material deprivation (SMD), 65+ (%)	0.3	0.2	0.5	0.3	0.2	0.5
At-risk-of-poverty or social exclusion (AROPE), 75+ (%)	8.9	3.9	13.3	2.4	-0.2	5
At-risk-of-poverty rate (AROP), 75+ (%)	8.5	3.5	12.9	2	-0.6	4.6
Severe material deprivation (SMD), 75+ (%)	0.4	0.4	0.4	0.4	0.4	0.4
Relative median at-risk-of-poverty gap, 65+ (%)	30.7	24.7	31.7	15.3	9.3	16.3
At-risk-of-poverty rate (AROP), 65+: 50 % threshold (%)	6.6	4.3	8.9	4.4	2.6	6.2
At-risk-of-poverty rate (AROP), 65+: 70 % threshold (%)	13.8	11	16.7	0.7	-1.9	3.4
Material and social deprivation, age 65+ [1]	1.1	0.5	1.7	-0.7	-0.7	-0.7
5.3. Gender difference	**2019**			**Change 2008-2019**		
Gender gap in pension income (65-79) (%) [2]			46			-4.6
Gender gap in non-coverage rate (W-M in p.p.) (65-79)			7			6.6
5.4. Housing and health situation	**2019**			**Change 2008-2019**		
	Total	Men	Women	Total	Men	Women
Housing cost overburden rate, 65+ (%)	6.1	5.5	6.6	5	5.2	4.8
Self-reported unmet need for medical exam 65+ (%)	0.9	1.5	0.2	-0.7	0	-1.4
Healthy life years at age 65 (years)	10.4	10.1	10.6	-0.9	-0.6	-1.0
Life expectancy at age 65	20.5	18.8	22.1	1.1	1.4	1.1
5.5 Sustainability and context	**2019**			**Change 2008-2019**		
	Total	Men	Women	Total	Men	Women
Employment rate, age group 55-64 (%)	43.1	48.9	37.1	9	10.2	7.8
Pension expenditure as % of GDP (ESSPROS) [3]			8.5			1.1
Retirement duration from first pension (years) [4]	23.6	22.1	25.1	-0.5	-0.2	-0.6
Retirement duration from end employment (years)	24.5	22.4	26.4			
Eurostat and AWG projections	**2019**			**2059**		
Old-age dependency ratio (20-64) (%)	22.4	19.8	25.2	52.0	48.4	55.9
Economic old-age dependency ratio (20-64) (%) [5]	28.3	24.1	33.1	69.8		
Gross public pensions as % of GDP [5]	9.2			16.5		
Benefit ratio (%) [5]	52.6			45.5		
Coverage ratio (% of pop aged 65+) [5]	230.9			272.5		
Gross pension ratio high / low earner		2.0	2.0		2.0	2.0

[1] *change since 2014, not 2008*

[2] *data refer to 2010, not 2008*

[3] *ESPROSS data refer to 2018*

[4] *Change is since 2016, not 2010*

[5] *2060 instead of 2059*

5.6 Theoretical Replacement Rates

	Net (%)				Gross (%)			
	2019		2059		2019		2059	
	Men	Women	Men	Women	Men	Women	Men	Women
Average earning (100%)								
Base case: 40 years up to the SPA	99.5	99.5	92.4	92.4	88.3	88.3	79.1	79.1
Increased SPA: from age 25 to SPA	99.5	99.5	92.4	92.4	88.3	88.3	79.1	79.1
AWG career length case								
Old base case: 40 years up to age 65	99.5	99.5	92.4	92.4	88.3	88.3	79.1	79.1
Longer career: 42 years to SPA			96.5	96.5			84.5	84.5
Shorter career: 38 years to SPA			88.0	88.0			73.3	73.3
Deferred exit: 42 years to SPA +2			92.4	92.4			79.1	79.1
Earlier exit: 38 years to SPA -2								
Career break – unemployment: 3 years	95.1	95.1	87.7	87.7	82.5	82.5	73.0	73.0
Career break due to child care: 3 years	100.4	100.4	93.3	93.3	89.6	89.6	80.2	80.2
Career break care to family dependant: 3 years	96.8	96.8	90.1	90.1	84.9	84.9	76.2	76.2
Short career (20 year career)	57.8	57.8	52.3	52.3	41.3	41.3	37.2	37.2
Work 35 y, disabled 5 years prior to SPA			82.6	82.6			66.3	66.3
Early entry in the LM: from age 20 to SPA			103.0	103.0			92.9	92.9
Index: 10 years after retirement @ SPA			92.5	92.5			79.1	79.1
Extended part-time period for childcare			88.9	88.9			74.6	74.6
Survivor – full career		133.1		122.9		130.8		117.8
Survivor – short career		105.9		97.3		98.0		88.5
Survivor ratio 1*		0.80		0.80		0.74		0.74
Survivor ratio 2*		0.79		0.80		0.76		0.76
Low earnings (66%)								
Base case: 40 years up to the SPA	106.3	106.3	99.5	99.5	94.1	94.1	85.5	85.5
AWG career length case								
Old base case: 40 years up to age 65	106.3	106.3	99.5	99.5	94.1	94.1	85.5	85.5
Career break – unemployment: 3 years	101.5	101.5	93.8	93.8	88.0	88.0	79.1	79.1
Career break due to child care: 3 years	107.7	107.7	100.8	100.8	96.0	96.0	87.2	87.2
Short career (20 year career)	55.6	55.6	50.9	50.9	44.2	44.2	40.3	40.3
Early entry in the LM: from age 20 to SPA			110.0	110.0			99.3	99.3
High earnings (100->200%)								
Base case: 40 years up to the SPA	75.4	75.4	69.0	69.0	63.4	63.4	56.3	56.3

**Survivor ratio 1: man base case, woman base case*

**Survivor ratio 2: man base case, woman short career case*

HUNGARY

Highlights

- The policy goal of the government is to build a 'work-based society'. Its main efforts in pension provision are to keep people in the labour market for as long as possible, incentivise them to combine retirement and work, and maintain a streamlined system that protects retired people against inflation.
- In terms of material deprivation, the living conditions of those aged 65 and over improved rapidly in recent years in line with the general trend among new Member States, although on several key indicators Hungary is still lagging behind old Member States.
- In terms of poverty risk, those aged 65 and over are still less likely to be at risk of poverty than the same age group in the EU,[370] but more so than in 2008 or 2015.
- The effective retirement age increased rapidly between 2008 and 2019 due to the former restructuring measures (e.g. rapid raise of retirement age, abolition of early-retirement options). Extended working careers counteracted improvements in life expectancy. However, despite decreasing mortality, people could expect fewer years in retirement in 2019 than in 2008 thanks to the current rapid increase of the retirement age.

1 GENERAL DESCRIPTION OF THE NATIONAL PENSION SYSTEM

The Hungarian pension system in practice is a pay-as-you-go (PAYG) structure complemented by the negligible remnants of the almost completely de-funded (formerly statutory funded) scheme,[371] a moderate supplementary personal pension scheme[372] and some smaller long-term saving plans offered by financial institutions.

The pension contribution rate is 10 % of gross wages for employees. Since July 2020, employers pay 15.5 % of gross wages (down from 17.5 % in 2019 and the first half of 2020) as a social contribution tax (*szociális hozzájárulási adó*), which is divided annually between the pension insurance fund (PIF), the health insurance fund (HIF) and the national employment fund (NEF) by parliament. The PIF is responsible for old-age and survivor's pensions. The HIF holds the disability portfolio ('benefits for people with changed working capacity', such as disability benefit and rehabilitation benefit). Early-retirement benefits (for miners, members of the armed forces, dance artists) are paid from the national fund for family and social policy (*Nemzeti Család- és Szociálpolitikai Alap*, NFFSP).

[370] EU refers to the current 27 Member States of the European Union.
[371] There were 55,000 members in 2019, about 1.2 % of all employees.
[372] About 25 % of all employees were members in 2019.

Pension contributions only cover benefits paid by the PIF. Their rate, in effect, was 21.1 % of gross wages in the second half of 2020 – 11.1 p.p. by employers and 10 p.p. by employees. In terms of total labour costs instead of gross wages, this made up 18.0 % of total labour costs (9.5 p.p. for employers and 8.5 p.p. for employees) in the second half of 2020, which included further contributions on both the employer and the employee side. Whereas the employees' contribution rate is constant, the employer's rate is subject to annual, non-automatic corrections partly in the form of a changing rate and partly due to the annual division between the funds. The employer's rate has been decreasing in recent years. In 2013, it was 21.0 % of total labour costs, twice as high as it is today.

Due to the labour market shock of the coronavirus pandemic, the most exposed sectors got a temporary exemption from the social contribution tax.

From July 2020, the employee's contributions for pensions and healthcare were unified as a social security contribution, in the same way the social contribution tax unified the functionally separate contributions of employers back in 2012.

The former statutory funded scheme has in practice not received any mandatory contributions since 2011. New inflows made up less than 0.5 % of total assets in 2019.[373]

The minimal service period to qualify for a pension benefit is 20 years. A partial old-age pension can be gained based on a service period of 15 years, but that does not give eligibility for a minimum benefit. The service period includes non-contributory periods (university studies before 1998, mandatory military service) and periods when the government paid contributions on behalf of the insured person (maternity leave, childcare periods, and years in lower vocational school). Benefits are established by a formula based on length of service and the average indexed net monthly wage earned in and after 1988. The rate with which the entry pension replaces the calculated net monthly lifetime wage is a function of accepted service years. This scale is non-linear, favouring people with short service periods at the cost of people with medium and long service lengths.

In 2020, the pensionable age was 64½ for both genders, which was effective for those who were born in 1956. The pensionable age is currently being increased from 62 to 65, by half a year for consecutive cohorts. The transition period started in 2014 for the birth cohort of 1952 and it will end in 2022 with the birth cohort of 1957.

A special early-retirement programme offers full old-age benefits for women with 40 years of eligibility period (informally called the women-40 programme[374]). This benefit is paid out by the PIF.

Pensions are implicitly taxed: they are exempt from income tax but are calculated from net wages.

Pensions in payment are indexed by prices in a forward-looking manner. In January, benefits are raised by the inflation rate set in the annual budget of the central government. If the actual rate calculated from a special pensioners' consumer basket is higher, there is a retroactive

[373] Hungary introduced a statutory funded scheme in 1998, which was almost entirely renationalised and de-funded in 2011.
[374] This programme was introduced in 2011 with the declared aim of facilitating intra-familial help with childcare, and in this way easing the work-life balance of working mothers with small children.

adjustment in November. Adjustment is asymmetric, in that benefits are not returned if inflation proves lower than expected. In years when the economy grows by more than 3.5 % and the balance of the government budget is within the limits set by parliament, pensioners receive an extra premium by law, the amount of which depends on their regular benefit and the growth rate.

Hungary's experiment with mandatory pre-funding ended in 2011 with the almost complete de-funding of the statutory funded scheme. Alternative ways of pre-funding for retirement are personal pension schemes, the pension pre-funding account (*nyugdíj előtakarékossági számla*), and special pension-purpose life insurances.

Unlike the now-defunct mandatory funds, voluntary funds collect after-tax income. Up to a further 20 % of the membership fee paid by the employee, sums transferred or paid by another person to the member's benefit (e.g. donations), and sums credited to the private individual account that are treated as other income can be credited by the state at the expense of personal income tax. The ceiling for this credit is HUF 150,000 (about EUR 420). The property rights structure resembles mutual savings associations. Members are not clients but co-owners of the fund holding non-tradeable property rights. Prior to reaching retirement age, reserves can be taken up only after a 10-year waiting period under prohibitive taxes: the amount taken up is subject to income tax (15 %) and social contribution tax (15.5 %). Taking into account that the individual is responsible for the payment of the social contribution tax, the base of the income tax and the social contribution tax is 87 %. This burden is gradually eased year by year from the 11th year of the waiting period, resulting in full tax exemption after 20 years.

The pension pre-funding account (*nyugdíj előtakarékossági számla*) is a special-purpose securities account, which offers more freedom to the client in terms of depositing and portfolio decisions than voluntary funds. It is supported by the same 20 % tax credit, although its upper ceiling is lower, HUF 100,000-130,000 (EUR 280-360), depending on the expected year of retirement. The accounts are still in the phase of accumulation and the way these savings will be turned into annuities is unspecified. Take-up is costly before retirement and a minimal accumulation period of 10 years is required. Yields become subject to income tax (15 %) and social contribution tax (15.5 %) if the client retires and takes up the savings before the accumulation period reaches 10 years. If the 10-year rule is violated and the account owner does not retire at the time of take-up, the taxes (income tax and social contribution tax) mentioned are levied on that part of the take-up which exceeds the individual contributions made earlier to the account. Taking into account that the individual is responsible for the payment of the social contribution tax, the base of the income tax and the social contribution tax is 87 %. In addition, all tax deductions, topped up by 20 % penalty, have to be paid back.

The special pension-related life insurance schemes are supported by the same 20 % tax credit, the upper ceiling of which is HUF 130,000 (EUR 360) per year. The surrender value can be accessed before retirement but the 20 % penalty on tax credits apply here too, and a 15 % interest tax also applies, which gradually decreases to 0 % after 10 years.

Pension benefits and labour income from the public sector cannot be combined, so workers taking up a job in the public sector after retirement must defer their benefits (the benefits are suspended). In the private sector, parallel income streams of pension benefits and labour income are allowed. This option is unconstrained if the pensioner has reached the retirement age. Before 2019, labour income was generally subject to an earnings limit equivalent to 18 months of the minimum wage if the beneficiary received one of the early-retirement benefits (e.g. for the women-40 pensions) or if their employment was not governed by a labour contract (e.g. they worked as a sole proprietor). The latter constraint was lifted by 1 January 2019 for private sector earnings and by 1 July 2020 for public sector earnings.

Workers in all legal categories of self-employment and on non-standard labour contracts (part-time employees, employees with fixed-term contracts, temporary agency workers, casual and seasonal workers, apprentices) are covered by both old-age and survivor's pension insurance. The same rules apply to these groups as to people with a standard labour contract. According to the earlier legislation, contracts before 1998 were also covered by pension insurance. However, two types of student contracts, the student employment contract (*hallgatói munkaszerződés*) and students on summer practice in vocational schools (*szakközépiskolai tanulók egybefüggő nyári gyakorlata*) did not give pension entitlements.

Self-employment and non-standard labour contracts are frequently combined with legal but tax-avoiding practices and tax-evading informal payments. Research shows the particular salience of the minimum wage and the guaranteed wage minimum (the minimum wage of workers employed in a position requiring at least a secondary level of education) in the wage distribution.[375] [376]

2 REFORM TRENDS

The pension system went through frequent and sometimes dramatic changes between 1992 and 2012. Against this background, recent years have been calm in this respect. Recent reforms are mostly transitional steps set out by previous legislation such as the increase in the retirement age and the phasing-out of below-retirement-age benefits. In addition, some previous measures have been completed. The tax waivers and the abolition of the earnings limit for pensioners complementing their pensions with labour income have been extended to ever larger groups. The institutional rearrangement of social risks has been continued.

The ongoing transition, which was legislated for in 2009, increases the retirement age by birth cohorts. The last cohort to retire at the age of 62 was born in 1951. Starting with those born in 1952 and ending with those born in 1957, the retirement age increases by half a year for each birth cohort. There are two steps remaining of the transition: the raising of the retirement age for the 1956 cohort to 64½ years in 2020 and for the 1957 cohort to 65 years in 2022.

[375] Benedek, D., Elek, P. and Köllő J., 'Tax avoidance, tax evasion, black and grey employment', in: K. Fazekas, P. Benczúr and Á. Telegdy (eds.), *The Hungarian Labour Market 2013*, Budapest: Institute of Economics, Hungarian Academy of Sciences, 2013, pp. 161-178.

[376] Indirect evidence that these legally binding wages are complemented with other forms of payment is the inelasticity of employment, activity and the size of the moonlight economy to drastic changes in the regulation of the minimum wage. As a kind of natural experiment, the amount of the minimum wage nearly doubled in two steps between 2000 and 2002 (from HUF 25,500 to HUF 50,000: that is from 29 % of the average wage to 43 %). Generally, such a shock is expected to negatively affect economic activity and employment as well as to increase unemployment and informality. However, as labour market data show, no such consequences arose. Even such a radical shift induced just marginal effects, if at all, on employment, activity and moonlighting. Instead, the proportion of the taxed and the tax-avoiding or tax-evading income changed. In fact, intervention to the minimum wage and the guaranteed wage minimum became a policy tool of increasing the coverage of wages.

The phasing-out process of below-retirement-age benefits can be seen in the number of beneficiaries. The number of recipients of early-retirement allotments decreased by 1 % from 2017 to 2018, and that of people with changed working capacity shrank by 7 %.

Easing the conditions for working pensioners in 2018 and 2019 were mentioned above: the abolition of sanctions for obtaining earnings for retirees of the women-40 scheme was extended to members of pensioner cooperatives from July 2017, for all pensioners working in the private sector from 2019, and for all other retirees from July 2020.

As a result, labour force participation increased rapidly in the older working-age brackets. Its rate grew from 49 % in 2008 to 76 % by 2019 in the 55-59 age group; and it more than tripled from 13 % to 43 % among those aged 60-64.[377] Early retirement below the age of 55 practically ceased to exist; it decreased significantly for those under the age of 60; and among cohorts recently passing 60 more and more are staying in the labour market.

During this period, unemployment in the 60-64 age group grew from 2.8 % in 2008 to 7.6 %, above the level among younger age groups, in 2014; but it fell to 2.1 %, below average, by 2019.

In the 55-64 age bracket, the employment rate grew from 31 % to 56.7 % in the decade between 2008 and 2019,[378] which was the fastest growth within the EU.

The trends are also shown in the dynamics of the effective retirement age (the average age of exit from the labour market). Calculated using the method adopted by the International Labour Organization,[379] it increased by 3.5 years from 58.3 to 61.8 years between 2008 and 2018.

Extended working careers counterbalanced the improvements in life expectancy. The entire gain in longer lives, and even more, was added to the active section of the lifecycle, not to retirement. In 2017, people had a life expectancy of 19.3 years at the age of the effective retirement age. In 2008, at a lower average exit age, the then corresponding life expectancy was 21.0 years.

A closer look reveals that people currently reaching retirement age are different from those who were at the same age two decades ago. In 1997, 8 % of those aged 55-64 held a tertiary degree and another 20 % had a secondary degree. By 2019, these rates had grown to 19 % and 62 % respectively. It is reasonable to argue that improvements in the exit age, during the two decades between the end of the 1990s and the 2010s, were established by major developments in education that started around 1955. Between this year and 1975, the rate of those who never even finished primary school among those then aged 20-24 dropped from 14 % to 2 %, whereas the rate of people who collected a secondary school degree grew from 2 % to 35 % in the same age group over the same period.

This process of improving education rates has been continuing since. In 2019, more than half of the 25-34 and 35-44 age groups had a secondary school degree as their highest educational attainment and nearly one third held a tertiary degree. Those aged 55-64 in the 2040s will be

[377] Hungarian Central Statistical Office [HCSO], 2_1_29i table.
[378] Eurostat *lfsa_ergan* table.
[379] Latulippe, D., 'Effective retirement age and the duration of retirement in the industrial countries between 1950 and 1990', *ILO Issues in Social Protection Discussion Papers* 2, International Labour Organization, Geneva, 1996.

better educated than people of the same age today, which gives the opportunity to raise the retirement age even further.

The development was selective by gender due to the women-40 programme, which opened the gate of earlier exit to women but not to men. The increase in employment was 28 p.p. among men and 20 p.p. among women. The gender gap in the age of leaving the labour market, which decreased from 2.4 years in 1992 to below 0.4 years in 2011, widened once again to 1.4 years by 2018.

Another reform trend is the institutional rearrangement of various social risks, their administration and their financing. During the 'profile cleaning' in 2012, risks related to leaving the labour market due to old age were left under the control of the PIF. Health-related exits, that is due to the various forms of permanent and temporary disabilities, were passed to the HIF. Retirement during active age in selected professions – such as miners, members of the armed forces (based on previous entitlement), beneficiaries due to hazardous working conditions (based on previous entitlement) and ballet dancers – that cannot be pursued through the entire active life were moved to the NFFSP.

The reorganisation of governance followed a different logic, that of the separation of cash flows and in-kind services. The agencies responsible for the management of the cash benefits of the PIF and HIF were merged and integrated into the state treasury. The administration of the in-kind units of healthcare was taken over by the Ministry of Human Capacities.

The rearrangement of contributions is still ongoing. As a first step, the employer's contribution rates were unified in 2012. The various rates earmarked for separate social risks, such as old age, ill-health and unemployment, were merged into a single contribution rate. As mentioned above, the amount collected is annually divided among the PIF, the HIF and the NEF. From 1 July 2020, a similar fusion of social risks took place on the employee side. The previous assignment of contribution rates to various risks was replaced by a single rate and the sum is annually divided by parliament.

3 ASSESSMENT OF ADEQUACY

3.1 Current adequacy

The expressed policy goal of the current government, in charge since 2010, is to build a 'work-based society'. Its main efforts in pension provision are to: keep people in the labour market for as long as possible; incentivise them to combine retirement and work; and maintain a streamlined system that supports the living standards of retired people, protecting them against inflation.

The living conditions of older age groups improved rapidly in recent years in line with the general trend among new Member States, although on several key indicators Hungary is still lagging behind old Member States. In terms of material deprivation, poverty among older people significantly decreased. In terms of poverty risk, both the relative position of Hungary in a cross-country comparison and the trends are the opposite. Whereas older people in

Hungary are more exposed to deprivation than their EU counterparts, albeit less so than in the past, they are still less likely to be at risk of poverty (although more so than some years ago).

In 2019, 8.3 % of GDP was spent on social protection in the categories of old age and survivorship. The rate was down from 9.9 % in 2008, making it the sharpest drop in the EU over this period. This amount finances a system that offers wide coverage. Downsizing did not result in omitting people; it was achieved partly by raising the effective retirement age and partly by tying pensions in payment to consumer prices.

In January 2019, the statutory pension scheme granted 2 million old-age pensions (about 21 % of the total population) and another 125,000 people (about 1.3 %) were paid a survivor's benefit as their main or exclusive allotment (survivor's benefits can also be paid as supplements to old-age pensions). Altogether, 92 % of the population above the standard retirement age received old-age benefits and another 5 % were paid survivor's, disability or other pension-like benefits.[380]

Public transfers represented 79 % of the disposable income of older people in 2016 – more than the average of the 22 EU Member States that are also members of the Organization for Economic Co-operation and Development (OECD), but less than in 2014. It decreased by 10 p.p. in line with the increasing effective retirement age and with the combination of work and retirement becoming more frequent. In contrast, labour income more than doubled from 9 % to 20 % as a share of older people's income between the two surveys, in 2014 and 2016.[381]

Material and social deprivation affected 14.8 % of men and 19.7 % of women aged 65 and over in 2019.[382] Measured by a more restrictive indicator, the severe material deprivation rate, 4.8 % of men and 6.8 % of women were poor among people aged 65 and older.[383] The data for those aged 75 and over shows another picture: in 2019, 4.1 % of men were exposed to severe material deprivation, and 8.1 % of women. These rates were higher than the EU average, but closer to them than in the past. The material and social deprivation rate among those aged 65 and over practically halved during the course of four years: it was still 25.6 % for men and 36.4 for women in the corresponding age group in 2014. The severe material deprivation rate also shrank from 11.8 % and 15.9 %, respectively for men and women, in 2008.

Over 90 % of the older population live in their own homes, adding the imputed rent to their resource portfolio. About 1 in 10 face difficulties in covering housing costs (9.1 % in 2008, 8 % in 2018 and 2.6 in 2019).[384]

In 2019, the at-risk-of-poverty (AROP) rate[385] was 13.1 % for women and 7.8 % for men aged 65 and over. Among people aged 75 or more, it was 14 % and 6.5 % respectively for women and men. These are lower than the national average and lower than among any other age group in Hungary. They are also lower than the average in the EU (18.2 % and 13.4 % respectively) for those aged 65 and over. However, in recent years there has been a significant increase in

[380] *Nyugdíjak és Egyéb Ellátások* [Pensions and other Pension-like Benefits], Hungarian Central Statistical Office, Budapest, 2019. Hereafter referred to as [HCSO Pensions, 2019].
[381] OECD Pensions at a Glance database.
[382] Eurostat *ilc_mdsd07* table.
[383] Eurostat *ilc_mddd11* table.
[384] Eurostat *ilc_lvho07a* table.
[385] Eurostat *ilc_li02* table; cut-off point: 60 % of median income.

these rates, which were 4.8 % (women 65+), 4.1 % (men 65+), 4.0 % (women 75+) and 2.3 % (men 75+) in 2015. The AROP rate more than doubled for most of these categories during the course of three years.

Hungarian figures reveal a comparatively modest gender gap in poverty risk but a wider, although decreasing, difference in material deprivation. In 2019, the gap between the average pensions of men and women (the gender pension gap) was 10.6 % among the population aged 65-79 (see Section 5 'Background statistics'). This was almost 18.6 p.p. lower than the EU average.[386]

The gap is produced by a combination of gender differences in coverage rate, contributory period, average wages over the lifecycle, and the length of the beneficiary period. In the Hungarian case, the gender gap is negligible in coverage[387] and it is relatively low in wages (the unadjusted pay gap was 10.6 % in 2019).[388] However, the overall earnings gap, which includes employment effects in addition to the effect of wage differentials, is wider (in 2014, the unadjusted pay gap was 15.1 % and the overall earnings gap was 32 %).[389]

Pension benefits are taken into account in the cost-sharing of long-term care services. Social care is financed by the government and local governments, but care providers may charge user fees. The exact amount varies from service to service. Formulas for its calculation are set out in regulations, taking the user's personal income, typically their pension, into account. The maximum fee is 80 % of monthly income for residential care, and 50 % for rehabilitative care. In 2019, 35 % of the operational costs of residential care centres were covered by fees charged to clients or their families. The burden on the care recipient in other services is smaller. Only 3.6 % of the operational costs of day-care centres are collected from visitors; the corresponding rate for home care and meals-on-wheels catering (combined) is 26 %.[390]

3.2 Future adequacy

Entry pensions are relatively high compared with last wages. A hypothetical worker earning the average wage throughout an uninterrupted career of 40 years and retiring at the pensionable age received more than 87 % of their last wage in net terms in 2019. This reflects only a minor drop, especially if the costs of having a paid job and the value of household labour after retirement are also taken into account. Adding the utility of leisure to this, such high net replacement rates imply a strong retirement incentive.

The projections also reveal that the benefit formula is broadly insensitive to regular child-related career breaks. Carers, who are mostly women, can expect the same theoretical replacement rates (TRRs) in 2059, irrespective of spending three years or no time at all at home with small children, while they are a bit lower if this break extends to a 10-year period of part-time work.

[386] Eurostat *ilc_pnp13* table.
[387] Eurostat *ilc_pnp14* table.
[388] Eurostat earn_gr_gpgr2 table.
[389] Eurostat *TEQGES01* table.
[390] CSO Yearbook of Welfare Statistics, 2018.

An increasing pension budget is projected in relation to the GDP in the long run (8.3 % in 2019 compared with 12.4 % in 2070).[391] This is a result mainly of the growing number of people reaching the eligible age to retire, while the gradual introduction of the 13th month pension (full monthly amount from 2024) will contribute to this. The increasing retirement age (64 in 2019 and 65 from the second half of 2021) will slightly mitigate the effects of them. Also, the continuous application of the price index, rather than the increase in real wages, supports fiscal sustainability.

The currently modest gender pension gap might increase over time. First, the difference in entry benefits is growing as a consequence of the widening gap in the effective retirement age. Old-age pensions established in 2018 were 17 % higher for men than women.[392] In 2014 the gap was still 8.2 %, and only 6.4 % back in 2013. Second, pensions in payment diverge from entry pensions during retirement if indexation is based on prices, not wages. Whereas entry pensions follow increases in real wages, pensions in payment grow only in accordance with the price index. Due to mortality differences between genders, this affects women more than it does men. This combination has the potential to increase the gender pension gap in the long run.

3.3 Challenges for future adequacy

Income inequalities among those aged 65 and over slightly rose until 2018, then decreased in 2019. The S80:S20 income quintile ratio, which compares the total income of the richest quintile with that of the poorest, grew from 2.8 (2014) to 3.1 (2019), although it remained below the EU average (which was 4.3 in the corresponding age group in 2019).[393] Whereas the S50:S20 indicator, which compares the middle with the bottom quartile, decreased from 6.3 (2014) to 2.5 (2019), the S80:S50 ratio increased from 1.2 in 2014 (and 1.0 in 2012) to 1.5 in 2018 and then fell to 1 in 2019.[394] These trends apply to the disposable income of those aged 65 and over and not only their pensions.

The driving forces behind these developments are partly the labour market and partly policies. The former has a more immediate effect: working pensioners combine wages and benefits and the rapid growth of wages amplify the differences. The relevant policies are the flat tax rate that replaced progressive income taxation in 2011 and the abolition of the contribution ceiling in 2013. The single tax rate results in a wider scale of net wages that the benefit formula is based on. They create new inequalities. Abandoning the cap on contributions unleashes already existing ones and lets them enter the pension system. Both measures favour high-earning groups. Since they are not retroactive, they do not change pension eligibilities collected in the past, and the consequences take time to build up.[395] Also, they would last a long time even if the measures were reversed.

[391] European Commission, *The 2018 Ageing Report: Economic and Budgetary Projections for the 28 EU Member States (2016-2070)*, Publications Office of the European Union, Luxembourg, 2018.
[392] [HCSO Pensions, 2019], p. 11 and 2015 Statistical Yearbook of the Central Administration of the National Pension Insurance, p. 63.
[393] Eurostat *ilc_di11* table.
[394] Eurostat *ilc_di11d* and *ilc_di11e* tables.
[395] Cseres-Gergely, Z. and Simonovits, A., 'A személyi jövedelemadó reformjának hatása a társadalombiztosítási nyugdíjakra' [The impact of personal income tax reform on public pensions], *Közgazdasági Szemle* 58, 2011, pp. 1029-1044.

A similar, although one-time, development is a recent surge in net wages. Pensions in payment are indexed to prices, which separates the recipients from workers, whose purchasing power increases by the growth of wages. The latter typically grow faster than prices do. The gap widens throughout the length of retirement and it widens especially quickly when real wages grow quickly. This is what happened between 2015 and 2019 when real wages increased by more than 50 %.[396] Such a change produces about the same effect as a 2 % annual real wage growth through 21 years, which was the expected length of a woman's retirement career in 2017.[397] The average net replacement rate, which compares the average net benefit with the average net wage, decreased from 68 % in 2014 to 55 % in 2018.

The relative position of pensioners thus considerably changed over a short period of time.

In the long run, this will also increase the inequalities among pensioners. New entrants will bring in more and more of the wage spike with them, while pensions in payment will still be indexed to consumer prices. The effect will intensify inequalities through a period of about half of the replacement cycle of the pensioner population, but its consequences will only fade away by the time most pensioners will be those people who are currently still of an active age.

3.4 Solidarity mechanisms

Particularly vulnerable groups are women who do not qualify for the women-40 programme and people working in the informal sector.

The women-40 scheme creates a gender-specific gap, not between genders but within one, among women. In 2018, women eligible for retirement under the women-40 conditions were on average 59.5 years old. They collected 41.2 service years and their entry pension was 29 % higher than that of other women, who on average were 4.3 years older at retirement but collected 22 % fewer service years.[398] The gap between the two groups of women is wider than the gap between men and women (the two groups of women combined).

Tax evasion and tax avoidance affect current revenues and future expenditure of the pension system. It is a frequent practice that the wage set in the labour contract is lower than the actual remuneration. The covered wage bill generally (a theoretical amount of aggregate gross wages based on contributions collected and the contribution rules) oscillates around three quarters of the actual wage bill.[399] A consequence of widespread tax evasion and tax avoidance is that, although most social provisions are available for the self-employed and most people in non-standard employment, the amount of the provisions, especially when conditioned on contributions, is a risk factor for poverty.

4 OPPORTUNITIES TO ADDRESS CHALLENGES

The next wave of demographic pressure in likely to come in the early 2040s, when the relatively large cohorts born in the 1970s will reach pensionable age. In order to be better prepared, they need to increase their savings and invest in the human capital of their children (education and

[396] HCSO 2.1.47 table.
[397] Calculation based on OECD labour data and ILO methodology.
[398] [HCSO Pensions, 2019], p. 8.
[399] Calculation based on HCSO 2.1.38 table and annual budgets of the government.

health) as well as their own (retraining and health). This would expand their labour market career by making them healthier and better trained, increase their PAYG pensions, and complete their benefits (by dissaving their accumulated assets). A broad reflection and coherent public policies to stimulate pension savings and human capital investment are called for.

Improving the health status of the general population and of older workers through health promotion and healthy ageing policies is another critical success factor to facilitate longer working careers in the long term.

Raising the pensionable age is a difficult political process. The automation of the process in the form of tying the pensionable age to some independently observable demographic indicators, such as life expectancy at birth, healthy life expectancy at 65 years or a pre-set expected length of retirement, would make the adjustment easier.

5 BACKGROUND STATISTICS

5.1. Relative income	2019 Total	2019 Men	2019 Women	Change 2008-2019 Total	Change 2008-2019 Men	Change 2008-2019 Women
Relative median income ratio (65+)	0.9	0.96	0.87	-0.1	-0.11	-0.11
Income quintile share ratio (S80/S20), 65+	3.1	3.12	3.01	0.49	0.45	0.46
Relative income quintile share ratio (S80/S20), 65+ - 0-64	-1.41	-1.42	-1.46			
Aggregate Replacement Ratio (ARR) %	55	54	55	-6	-7	-6

5.2. Poverty and material deprivation	2019 Total	2019 Men	2019 Women	Change 2008-2019 Total	Change 2008-2019 Men	Change 2008-2019 Women
At-risk-of-poverty or social exclusion (AROPE), 65+ (%)	14.4	10.5	16.8	-3.1	-3.3	-2.7
At-risk-of-poverty rate (AROP), 65+ (%)	11.1	7.8	13.1	6.8	5.1	7.9
Severe material deprivation (SMD), 65+ (%)	6	4.8	6.8	-8.4	-7	-9.1
At-risk-of-poverty or social exclusion (AROPE), 75+ (%)	15.3	9.3	18.5	-2.6	-3.6	-1.7
At-risk-of-poverty rate (AROP), 75+ (%)	11.4	6.5	14	7.5	4.9	9
Severe material deprivation (SMD), 75+ (%)	6.7	4.1	8.1	-7.9	-7.4	-7.9
Relative median at-risk-of-poverty gap, 65+ (%)	9.6	9.4	9.7	-0.6	-0.8	-0.5
At-risk-of-poverty rate (AROP), 65+: 50 % threshold (%)	3.7	2.4	4.5	2.2	1.7	2.6
At-risk-of-poverty rate (AROP), 65+: 70 % threshold (%)	21.7	16.6	24.8	11.2	9.2	12.6
Material and social deprivation, age 65+ (1)	17.8	14.8	19.7	-14.7	-10.8	-16.7

5.3. Gender difference	2019	Change 2008-2019
Gender gap in pension income (65-79) (%) (2)	10.6	-4.2
Gender gap in non-coverage rate (W-M in p.p.) (65-79)	0	-0.6

5.4. Housing and health situation	2019 Total	2019 Men	2019 Women	Change 2008-2019 Total	Change 2008-2019 Men	Change 2008-2019 Women
Housing cost overburden rate, 65+ (%)	2.6	2	3	-6.5	-3.7	-8.1
Self-reported unmet need for medical exam 65+ (%)	6.3	7	5.8	-3.9	-2.2	-5
Healthy life years at age 65 (years)	7.1	6.7	7.4	1.1	1.1	1.0
Life expectancy at age 65	16.8	14.6	18.5	0.4	0.7	0.4

5.5 Sustainability and context	2019 Total	2019 Men	2019 Women	Change 2008-2019 Total	Change 2008-2019 Men	Change 2008-2019 Women
Employment rate, age group 55-64 (%)	56.7	69	46.2	25.8	31.3	20.9
Pension expenditure as % of GDP (ESSPROS) (3)			8.5			-1.4
Retirement duration from first pension (years) (4)	18.1	15.1	20.8	-0.9	-0.7	-1.0
Retirement duration from end employment (years)	18.3	15.5	20.4			

Eurostat and AWG projections	2019 Total	2019 Men	2019 Women	2059 Total	2059 Men	2059 Women
Old-age dependency ratio (20-64) (%)	31.6	24.1	39.2	56.4	48.9	64.3
Economic old-age dependency ratio (20-64) (%) (5)	40.3	27.6	55.8	66.1		
Gross public pensions as % of GDP (5)	8.3			11.8		
Benefit ratio (%)(5)	37.5			38.4		
Coverage ratio (% of pop aged 65+)(5)	137.3			119.9		
Gross pension ratio high / low earner		2.1	2.1		2.2	2.2

(1) change since 2014, not 2008

(2) data refer to 2010, not 2008

(3) ESPROSS data refer to 2018

(4) Change is since 2016, not 2010

(5) 2060 instead of 2059

5.6 Theoretical Replacement Rates

	Net (%)				Gross (%)			
	2019		2059		2019		2059	
	Men	Women	Men	Women	Men	Women	Men	Women
Average earning (100%)								
Base case: 40 years up to the SPA	87.2	87.2	90.2	90.2	58.0	58.0	60.0	60.0
Increased SPA: from age 25 to SPA	85.6	85.6	90.2	90.2	56.9	56.9	60.0	60.0
AWG career length case	89.4	84.0	97.0	90.2	59.5	55.8	64.5	60.0
Old base case: 40 years up to age 65	95.1	95.1	90.2	90.2	63.2	63.2	60.0	60.0
Longer career: 42 years to SPA			94.7	94.7			63.0	63.0
Shorter career: 38 years to SPA			86.8	86.8			57.7	57.7
Deferred exit: 42 years to SPA +2			106.1	106.1			70.6	70.6
Earlier exit: 38 years to SPA -2								
Career break – unemployment: 3 years	85.8	85.8	85.1	85.1	57.0	57.0	56.6	56.6
Career break due to child care: 3 years	87.2	87.2	90.2	90.2	58.0	58.0	60.0	60.0
Career break care to family dependant: 3 years	87.0	87.0	90.2	90.2	57.8	57.8	60.0	60.0
Short career (20 year career)	56.6	56.6	59.8	59.8	37.6	37.6	39.7	39.7
Work 35 y, disabled 5 years prior to SPA			82.4	82.4			54.8	54.8
Early entry in the LM: from age 20 to SPA			101.5	101.5			67.5	67.5
Index: 10 years after retirement @ SPA			75.8	75.8			50.4	50.4
Extended part-time period for childcare			81.9	81.9			54.5	54.5
Survivor – full career		113.4		117.3		75.4		78.0
Survivor – short career		82.8		86.9		55.0		57.8
Survivor ratio 1*		0.65		0.65		0.65		0.65
Survivor ratio 2*		0.58		0.58		0.58		0.58
Low earnings (66%)								
Base case: 40 years up to the SPA	92.1	92.1	90.2	90.2	61.2	61.2	60.0	60.0
AWG career length case	94.4	88.6	97.0	90.2	62.8	58.9	64.5	60.0
Old base case: 40 years up to age 65	100.4	100.4	90.2	90.2	66.7	66.7	60.0	60.0
Career break – unemployment: 3 years	90.2	90.2	85.1	85.1	60.0	60.0	56.6	56.6
Career break due to child care: 3 years	92.1	92.1	90.2	90.2	61.2	61.2	60.0	60.0
Short career (20 year career)	57.8	57.8	59.8	59.8	38.4	38.4	39.7	39.7
Early entry in the LM: from age 20 to SPA			101.6	101.6			67.5	67.5
High earnings (100->200%)								
Base case: 40 years up to the SPA	64.2	64.2	65.2	65.2	42.7	42.7	43.3	43.3

**Survivor ratio 1: man base case, woman base case*

**Survivor ratio 2: man base case, woman short career case*

MALTA

Highlights

- The median equivalised disposable income of people aged 65 or above is 71 % that of people aged 18-64, in contrast to 90 % for the EU.[400]
- The state contributory pension is pegged to a maximum pensionable income, annually adjusted for the cost of living. Both contributions and benefits are capped. The contributory pension scheme also provides for flat-rate pension rates for pensioners on a low pensionable income and service pension beneficiaries. In addition to state pensions, the take-up of supplementary pension schemes is gradually increasing.
- Thanks to reforms introduced since 2014, the adequacy and sustainability of Malta's state pension system has improved. The national minimum pension has increased by four times the inflation rate during this time. Together with other changes (such as the increase in childcare credits and the introduction of education credits), the extension of the minimum pension eligibility, a pension increase for working beyond the early retirement age and the increase in widows' pensions have resulted in higher pensions for different groups of pensioners.
- Malta should continue to promote family-friendly measures to help more women return to the workforce and introduce measures to help more women qualify for a contributory pension.

1 GENERAL DESCRIPTION OF THE NATIONAL PENSION SYSTEM

1.1 Statutory pension scheme

Malta's statutory pension is divided into two streams: the contributory scheme, and the non-contributory scheme. The contributory scheme is based on weekly payments (contributions[401]) during a person's working life. The non-contributory scheme is based on a means test and is meant to cover those who are not covered by the contributory scheme.

[400] EU refers to the current 27 Member States of the European Union.

[401] The term contributions is the term consistently used in this report since this is the term used in Maltese law. The term is used to indicate that the scheme is, at least partly, funded by those covered by it, in contrast to other schemes, known as non-contributory, which are not even partly covered by the people entitled to benefit from them. The contribution is not meant to cover pensions only, but also unemployment and medical care. However, a person's contribution is not assigned to these other segments of the welfare state in any proportion and all the contributions are paid into one fund, known as the consolidated fund, in which all government income is placed.

The contributory scheme is mandatory and all employees, self-occupied and self-employed people[402] acquire social insurance rights through the payment of a weekly contribution as laid down by the Social Security Act. Contributions are payable by all gainfully occupied people between the age of 16 and their pension age. The scheme provides for different types of contributions to reflect the different types of people in employment. Employed people pay class one contributions, while the self-employed (and self-occupied) pay class two contributions. Class one contributions are shared by the employee, the employer and the state, whilst class two contributions are shared only by the self-employed (and self-occupied) and the state (since there is no employer in this case).

Contributory retirement pensions can be divided into two schemes, flat-rate pensions and two-thirds pensions. Flat-rate pensions are awarded to pensioners who also receive a service pension[403] and to pensioners who have a low pensionable income. Contributory two-thirds pensions are awarded to all other pensioners.

Entitlement for a full contributory pension is primarily dependent on when a person reaches pension age according to year of birth:

- between 1952 and 1955, the pension age is 62 years;
- between 1956 and 1958, it is 63 years;
- between 1959 and 1961, it is 64 years;
- on 1 January 1962 or after, it is 65 years.

Provided the full contributory period is satisfied, however, a person who reaches 61 years of age can opt for earlier retirement as follows:

- a full contributory period of 35 years paid or credited contributions for a person born during the calendar years 1952 to 1961 (the total number of social security contributions required for this period is 1820);
- a full contributory period of 40 years paid or credited contributions for a person born during the calendar years 1962 to 1968 (the total number of social security contributions required for this period is 2080); and
- a full contributory period of 41 years paid or credited contributions for a person born on or after 1 January 1969 (the total number of social security contributions required for this period is 2132).[404]

Incentives exist to attract people employed in the private sector, as well as public servants and self-employed people, to postpone their retirement and continue in employment beyond 61 years of age for a maximum of four years in return for a percentage increase in their pensions,

[402] Maltese law distinguishes between self-occupied and self-employed people. Self-occupied people are those who have an independent income which is not linked to a job (e.g. property owners who receive rents), whilst self-employed people are those who gainfully employ themselves in a trade or profession.
[403] Service pensions were payable to people employed in the civil service before the introduction of the two-thirds pension scheme. See: https://socialsecurity.gov.mt/wp-content/uploads/2021/01/Treasury-Pensions-Manual-V3_1.pdf.
[404] See https://www.servizz.gov.mt/en/Pages/Inclusion_-Equality-and-Social-Welfare/Social-Solidarity/Benefits-and-Services/WEB641/default.aspx and https://socialsecurity.gov.mt/en/information-and-applications-for-benefits-and-services/contributory-pensions/retirement-pension/

provided full payment of contributions is satisfied. The percentage increase is pegged to 5 % for one additional year, up to a maximum of a 23 % increase for four additional years.

Under certain conditions, contributory pensions are also extended to people suffering from a medical condition which renders them permanently incapable of any full-time and/or any part-time employment.[405] The applicable pension rates are not earnings-related but based on the yearly average of contributions paid and/or credited and the civil status of the claimant. These pensions are known as invalidity pensions.

Contributory pensions are also paid to widows who survive their spouse, provided the late spouse satisfies the minimum contribution conditions. Widows under pension age are awarded five sixths of the two-thirds pension rate previously paid to late spouse even in cases of widows carrying out a full-time gainful occupation. Widows in receipt of such a pension are also eligible for an additional weekly increase of EUR 10 per child in the household under the age of 18. If a widow remarries, a flat-rate widow's pension will continue to be paid.

Contributory pensions are commonly referred to as two-thirds pensions, a name that derives from the fact that pensions were capped at two thirds of the maximum salaries in 1981 – therefore at MTL 6750 (EUR 15,727.50) per year. All pension rates, including the capped two-thirds maximum rate and the maximum pensionable income, have since been increased annually through the cost of living allowance (COLA) mechanism,[406] and since 2016 by annual increases as specified in the annual budgets over and above the increase through the COLA mechanism. To this effect in 2020 all contributory and non-contributory pensioners received EUR 364 more than they received in 2019.

The government recognised that the MLT 6750 cap was becoming inadequate despite the COLA increases and this was partially addressed by the additional increases mentioned above in order to improve the adequacy of pensions. According to the Malta National Statistics Office (NSO), the average annual basic salary of employees for the first quarter of 2019 was estimated at EUR 19,390, and this tallies with the maximum pensionable income of EUR 19,017 capped for 2020 applicable for people born on or before 31 December 1961. The maximum pensionable income for people born on or after 1 January 1962 is theoretically set at EUR 24,986 and therefore this cohort are paying a higher rate of contributions than those born before then.

This cohort also have different retirement conditions, including a higher pension age and a longer contributory period – 40 years for people born between 1962 and 1968, and 41 years for people born on or after 1 January 1969. Thus, the current difference in the maximum

[405] The conditions for a person who is under retirement age to be eligible for an invalidity pension are as follows: (a) the applicant has been continuously in full-time, or regular part-time, employment, or self-occupied, or registered for work under part 1of the unemployment register for a period of not less than 12 months prior to the date of application; (b) the applicant has been certified incapable for suitable regular full-time or part-time employment by a medical panel appointed by law; (c) the incapacity is considered by the medical panel as prohibiting an individual from suitable full-time or regular part-time employment or self-occupation for not more than three years and not less than one year; and (d) on the date of claim for the invalidity pension, the applicant has at least 250 paid social security contributions, and paid or credited at least an average of 20 social security contributions per year from the age of 19 or 18 as the case may be (or since 1964/65) till the date of the claim. See: https://www.servizz.gov.mt/en/Pages/Inclusion_-Equality-and-Social-Welfare/Social-Solidarity/Benefits-and-Services/WEB638/default.aspx.

[406] The COLA mechanism is a mechanism, agreed upon with all the social parties, on the cost of living allowance payable annually to all wage and salary earners. The amount is also being added to all state pensions.

pensionable income and the payment of contributions between the above-mentioned cohorts explains why the current maximum two-thirds pension rate is lower than the theoretical maximum two-thirds pension rate due to the post 1 January 1962 cohort. This is a transitional issue that affects an ever-decreasing share of the labour force given the different retirement conditions mentioned above.

The highest basic salary was recorded in the financial and insurance activities sector. Average annual salaries varied from EUR 35,584 among managers to EUR 12,441 among people employed in elementary occupations.[407] However, it is to be noted that the payment of contributions, 10 % by employees and 15 % by self-employed people, in 2020 was also capped as mentioned above, at EUR 19,017, thus giving a maximum two-thirds pension of EUR 12,678 that reflects payment of 10 % contributions pegged to EUR 19,017.

On the other hand, if a person satisfies a capital and income means test, is over 60, and does not qualify for a contributory retirement pension because they do not satisfy the minimum number of contributions paid or credited required to qualify, unemployed people who are residents in Malta may be entitled to a non-contributory old-age pension. The non-contributory scheme has made possible the allocation of more than one benefit at the same time, thus providing simultaneous coverage to specific groups of people requiring additional coverage.

It is possible for a person to continue working when the statutory pension age is reached even if a contributory pension is in payment. Up to 2016, all the income received was taxable at normal income tax rates. As from 2017, the tax-free component of a retired person is equal to their retirement pension entitlement.

The coverage rate of statutory pensions in Malta is 100 %. All people who are formally enrolled in the labour force are covered by state pensions (first-pillar pensions).

All the contributions paid by Maltese workers are assumed in the consolidated fund, which is how the account to which all government income is credited is known in Maltese law. Pensions are paid from this account.

Voluntary occupational pension schemes were launched through Legal Notice 228 of 2017,[408] with the objective of incentivising investment in additional pensions. The latest data available in 2020 show that a total of 975 people (383 men and 592 women) have invested in these schemes.

Personal pension retirement schemes (third-pillar pensions) have also been available, with the banking sector promoting various schemes over the last two decades. The latest available data

[407] News Release No 101/2019 of 27 June 2019. https://nso.gov.mt/en/News_Releases/View_by_Unit/Unit_C2/Labour_Market_Statistics/Documents/2019/News2019_101.pdf. Precise data on how many people are affected by the cap are not available, but Table 10 of the NSO News release mentions that the average annual wage in the lowest-paid sectors (wholesale and retail trade, transportation and storage, accommodation and food service activities) is EUR 16,379. Table 10 groups occupations by economic sector, whilst Table 14 groups by occupation. The figures in both tables represent basic salaries and do not include bonuses etc. Thus, in terms of Table 10, the 1987 cap in fact affects all pensioners, including those receiving low pensions. But the same is not true if Table 14 is used.

[408] *Voluntary Occupational Pension Scheme Rules*, L.N. 228/2017, 2017. http://justiceservices.gov.mt/DownloadDocument.aspx?app=lp&itemid=28641&l=1

for 2020 show that a total of 6467 people (3629 men and 2838 women) have invested in these schemes.

2 REFORM TRENDS

The most significant pension reforms in Malta took place in 2014, when important changes to the Social Security Act were enacted. These included favourable conditions for those who invest in private retirement schemes. In 2016, survivors started to be entitled to the full pension of the deceased spouse if they were eligible for a contributory retirement pension in their own right provided it was lower than their late spouse's.

In the budget for 2019, the following measures were introduced:

- All social security pensions, namely retirement pensions, widow's pensions and invalidity pensions, as well as non-contributory old-age pensions, were increased by EUR 2.17 per week in addition to the COLA adjustment of EUR 2.33.
- The tax-exemption cap on the maximum income for pensions was increased to EUR 13,434.
- The amount deducted from social security for people receiving a service pension was reduced by an additional EUR 200: thus, the total exempted went up to EUR 2466.
- Pensioners who received a service pension, and who reached the age of 72 years, had their social security pensions revised by exempting 50 % of the amount of the service pension that had been commutated; as a result of the new measure the exempted amount was increased to 75 %.
- People, mostly women, who had not paid enough contributions to qualify for a minimum pension started to receive an increase of EUR 50 in their flat-rate bonus. Thus, those who paid more than a year of contributions, but fewer than five years, had their bonus increased to EUR 200, and those who had paid more than five years of contributions started to receive EUR 300 per year.
- The incentives given to employees in the private sector to postpone their retirement in return for an increase in pension entitlement was extended to public service and public sector employees.
- Government savings bonds were further issued for people aged 62 and over.

In the budget for 2020, the following measures were introduced.

- All social security pensions, namely retirement pensions, widow's pensions and invalidity pensions, as well as non-contributory old-age pensions, were increased by EUR 3.51 per week in addition to the COLA adjustment of EUR 3.49.
- To ensure that pensions continued to be tax-free, the exempt threshold for pension income was increased to EUR 15,798 in the case of a married couple receiving one pension and to EUR 13,798 in other cases.

- Ex-uniformed personnel who on retirement from service take up another employment are given the opportunity to have their pensionable income assessed on the income earned when in uniformed service instead of the last 11, 12 or 13 years, if more beneficial.
- Employees in the public services or public sector who, despite having accumulated enough contributions at the age of 61 years between 2016 and 2018, chose to defer their pension, will have their pension rate adjusted to take into account the accumulated years.
- The amount deducted from social security for people receiving a service pension was decreased by an additional EUR 200; thus, the total exempted went up to EUR 2666.

In addition, it was announced that the home equity release scheme which had been mentioned in the 2019 budget, aimed at releasing the value of the immovable property owned by seniors while allowing them to continue to live in their home, would be rolled out during 2020.

3 ASSESSMENT OF ADEQUACY

3.1 Current adequacy

The annual increases over the last several years in Malta’s pensions, and other budgetary measures not targeting pensioners directly, have strengthened the adequacy of pensions and the standard of living of pensioners and older people.

Budgetary measures not targeting pensioners directly include the following.

- The senior citizen’s grant awarded to people over the age of 75 who do not reside in a state-owned residence for older people was increased from EUR 300 to EUR 350 for people over the age of 80.
- People who worked and paid contributions but do not qualify for a contributory retirement pension are eligible for an annual bonus up to a maximum of EUR 300 and will remain eligible beyond the age of 75.
- Beneficiaries over the age of 65 who are eligible for a supplementary allowance, whose total annual income puts them at risk of poverty, benefit from an additional EUR 150 annually over and above the normal supplementary allowance rate.
- A home equity release scheme, which had been mentioned in the 2019 budget and was aimed at releasing the value of the immovable property owned by seniors while allowing them to continue to live in their home, would be rolled out during 2020.

The aggregate replacement ratio (i.e. the ratio of the median individual gross pension of people aged 65-74 to the median individual gross earnings of people aged 50-59) has increased considerably: it was only 44 % in 2008 and was 58 % in 2019 (i.e. slightly above the EU average of 57 %). This increase was much stronger for men – 14 percentage points (p.p.) – than for women (8 p.p.), resulting in significantly different values in 2019: 57 % for men versus 47 % for women.

In terms of the total income of those aged 65 and over, and not just their pensions, Eurostat figures suggest that the median equivalised disposable income compared with that of people aged 18-64 remained stable between 2008 and 2019, at 71 %. The situation of men has slightly improved (by 2 p.p.) whereas that of women has declined (by 4 p.p.). In 2019, the ratio was 75 % for men and 69 % for women.

In 2019, the at-risk-of-poverty-or-social-exclusion (AROPE) rate for those aged 65 and over was 29.1 %. Between 2008 and 2019, the AROPE rate increased much less for men (by 1.3 p.p., to 27.4 % in 2019) than for women (by 4.6 p.p., to 30.5 %).[409] The evolution (total and by gender) of the at-risk-of-poverty (AROP) rate is quite similar to that of AROPE. As for the figures related to severe material deprivation, which are much lower in absolute terms, they slightly decreased for those aged 65 and over during the period 2008-2019 (by 0.5 p.p.), especially for women (by 0.9 p.p. as against an increase of 0.1 p.p. for men).

The evolution of the new EU indicator of material and social deprivation for those aged 65 and over is quite encouraging. Between 2014 and 2019, the rate decreased by 11.6 p.p. (12.3 p.p. for men and 11.1 p.p. for women). In 2019, the figure for those aged 65 and over was 10.4 % – with the figure for women (11.7 %) again much higher than for men (8.8 %).

The relative poverty gap for those aged 65 and over showed a marked improvement for both men and women over the 2008-2019 period. An overall reduction of 7.4 p.p. was recorded – a decline of 8.1 p.p. for men, again stronger than the one observed for women (5.3 p.p.).

The gender gap in pensions was 42.6 % for the 65-79 age group in 2019, whereas the EU average was 29.5 %. Compared with the situation in 2010, it had more than doubled: it was then only 21.1 %, which was then much lower than the EU average (35.3 %). This increase in the gender gap in pensions can be attributed to the introduction of several measures by the Maltese government in these past several years aimed at increasing the number of women who qualify for a contributory retirement pension, and therefore is a transitional issue.

The measures include the introduction of free childcare facilities, an increase in the award of childrearing credits for gaps in contribution periods, the introduction of credits for periods of further education (mainly tertiary), the option to pay up to a maximum of five years arrears of contributions, and an increase in the rate of the national minimum pension.

In the short term these measures have increased the gender pension gap, due to an increase in the number of women becoming eligible for a contributory retirement pension after benefiting from the measures mentioned (not eligible without such measures). As a result, the majority of such new women pensioners are drawing a reduced national minimum pension, given they satisfied the minimum contribution period as a result of the measures. Most men draw a pension that is closer or equal to the maximum two-thirds pension rate because most of them satisfy the maximum contribution period required for a full contributory retirement pension rate.

[409] We observe the same evolution for the population aged 75+, with differences between men and women slightly more pronounced.

Contrary to the evolution of the other indicators discussed above, since 2010 the gender gap in the non-coverage rate (share of older people without any pension) has improved (i.e. it has decreased significantly, from 36.6 % to 10.4 % in 2019).

Over the past few years, the situation of pensioners who receive the lowest pensions (generally through the non-contributory system) has improved. The gap between the salaries of middle-salaried people and their pension entitlements is significant and a completely new lifestyle would have to be adopted where a two-person household depends on one pension income (one breadwinner). This, however, is a transitional issue since the size of this cohort is constantly decreasing given that the number of two-person households earning two pension incomes is constantly increasing – partly as a result of the increasing number of women in employment or self-employment and the measures targeting women as mentioned above.

It is also pertinent to note that, with a view to achieving further adequacy, sustainability and social solidarity, article 64B of the Social Security Act (Cap.318) states that an ongoing review of the pension system is to be carried out and recommendations tabled in parliament every five years. This provision also implies that, apart from strengthening adequacy, sustainability and social solidarity, it also has the objective of achieving a stable proportion between the contribution periods and the expected period during which a pension will be paid. This also ensures that policymakers have better visibility of the implications of demographic challenges for the pension system. Furthermore, Maltese people are also encouraged by the government through fiscal incentives to invest in supplementary pensions to enhance their income when they retire.[410]

The current pension system is in a transitional phase as a result of the amendments made to the Social Security Act in 2006. Such amendments mainly targeted the sustainability of the system: while they increased in a gradual manner the pension age and introduced childrearing credits, they also increased the contribution period required for a full pension from 30 years for those born on or before 31 December 1951, to 35 years for those born between 1 January 1952 and 31 December 1961 and to 40 years for those born on or after 1 January 1962. Changes were also made to the maximum pensionable incomes by distinguishing between those born on 31 December 1961 and before and those born on or after 1 January 1962; currently EUR 19,017 and EUR 24,986 respectively. This translates into two caps, for maximum two-thirds pensions and for maximum contributions due, with the latter paying a higher weekly rate of contributions apart from the 40-year requirement for a full pension.

As a result, pensioners born up to 31 December 1961 are currently entitled to a pension which is two thirds of a maximum pensionable income of EUR 19,017 (i.e. EUR 243.81 per week), whereas those born on or after 1 January 1962 are theoretically eligible for a pension worked out on two thirds of a maximum pensionable income of EUR 24,986 (i.e. EUR 320.33 per week). This reflects the longer contribution period, a higher pension age and a higher contribution rate paid.

[410] See Ministry of Finance Budget Speech 2020, Section 2.18. https://mfin.gov.mt/en/The-Budget/Documents/Budget_Speech_English_2020.pdf

3.2 Future adequacy

The adequacy of the pension system using theoretical replacement rates (TRRs) is best assessed by looking at the variant of an increased statutory pensionable age. The net TRR stood at 78.1 % of the net average wage in 2019, while the prospective 2059 net TRR is projected at 76.1 %. This scenario shows a minimal decline in respective TRRs and is in line with the two-thirds pension principle.

A widow's pension is also payable in full, without any deductions even if the widow is carrying out a full-time gainful occupation.

3.3 Challenges for future adequacy

On the basis of the facts discussed in earlier sections of this report, the challenges for future adequacy can be summarised as follows.

- How to continue to exercise positive discrimination in favour of people who are entitled to the lowest pensions. The non-contributory pensions regime discussed in Section 1 is of course very helpful to people who have to depend on it, but it certainly is not enough for them to have a decent standard of living.
- How to ensure that people who are prepared to continue working after the official retiring age are not hindered by intra-institution regulations that disincentivise them to go on working.
- How to ensure that non-standard workers and self-employed people enjoy equal duties and entitlements especially in terms of the amounts they pay in contributions. The current regime for employees is based on a tripartite contribution by the worker, the employer and the state whilst the self-employed pay higher rates because there is no employer involved. Given the contribution of the self-employed to the economy and the risks they take, the state ought to recognise their contribution to the economy and reduce the contribution rates to match that of employees who do not risk as much.
- How to help more individuals realise that the social security pensions will not be adequate for their retirement, and therefore to be more ready to invest in private insurance schemes. It is a fact that third-pillar pensions have not taken on in Malta for reasons explained elsewhere in this report. It would be beneficial to all parties if more targeted incentives packages were to be introduced to encourage individuals to invest in third-pillar pension schemes.

3.4 Solidarity mechanisms

Different employment status

Self-employed people in Malta draw the same pensions as employed people if they satisfy the requirements established as to the minimum number of contributions payable.
Part-time workers, however, suffer because they would not have contributed the required number of contributions. This negatively affects women who either (a) were not gainfully employed after marriage, and the couple therefore drew only one pension, or (b) did not work for a period when they had to look after their young children, and the couple therefore drew a reduced pension. A number of people who are currently reaching retiring age, especially those in category (a), are now realising the disparity but cannot do anything about it.

People with different career lengths, income groups and education levels

The fact that Malta's two-thirds pension is capped puts everybody at par when maximum pensions are worked out. For people in the lower economic strata the difference may not be huge, but for high-earners and people whose educational levels allowed them to earn high salaries, the sudden loss of income effectively means that they suffer from a considerable loss in their living standards, often resulting in having to give up services that were closely linked to their profession and lifestyle. This affects 45.7 % of the working population and shows that such cohorts should also invest in third-pillar pensions. It is also pertinent to note that a good number of current pensioners benefit from a service pension (civil servants, members of the armed and police forces, members of the judiciary and members of parliament) whereas others own properties which they rent out.

Gender

The gender gap in pensions for people aged 65-79 for 2019 was 42.6 % (EU average: 29.5 %). Compared with the situation in 2010, it had considerably worsened: it was then 21.9 %, much lower than the EU average (33.9 %). As highlighted in Section 3.1, all other indicators examined in this report (AROPE, AROP, severe material deprivation and material and social deprivation) also show that the situation of women is much less favourable than that of men and has in fact largely deteriorated during the last decade. The only positive evolution is that in the gender gap in non-coverage rate, which has improved (i.e. it has decreased significantly, from 36.6 % to 10.8 %).[411]

Generations (cohorts, using the base case TRR comparison)

The major difference in respect of generation cohorts in how the maximum pension is worked out has already been discussed above in Section 3.1 (c). As a result of the pension reforms, people who were born on 31 December 1961 and before are assessed on a lower maximum

[411] David Spiteri Gingell, one of the people very directly involved in pension reform, stated the following about gender bias, when asked about the potential of this gender pension gap: 'De facto, our pay-as-you-go system is gender discriminatory because the system is based on the social model that there is one person who works uninterruptedly'. 'To attain the full pension, one needs to have 40 years of contributory history which, given woman's tradition role of raising the family, makes it gender discriminatory', he says. See https://www.independent.com.mt/articles/2019-03-10/local-news/Malta-s-pension-system-stronger-than-ever-more-work-to-be-done-David-Spiteri-Gingell-6736204800

pensionable income that corresponds to the contributions paid, which explains why people born up to 31 December 1961 receive a lower pension than those born after that date.

4 OPPORTUNITIES TO ADDRESS CHALLENGES

To improve women's pensions and tackle the gender pension gap, Malta should continue to promote family-friendly measures to help more women return to the workforce and introduce measures to help more women qualify for a contributory pension.

In order to promote longer working lives, Malta could consider incentives for working pensioners, such as enhancing the possibilities to earn additional pension rights while working and receiving a pension.

To enhance the transparency and predictability of pension indexation, Malta could consider introducing a mechanism for automatically adjusting the value of pension benefits to developments in wages or prices, or a combination of the two.

To further enhance the income-replacement capacity of the pension system, Malta should continue to promote investment in supplementary pension schemes for future pensioners.

5 BACKGROUND STATISTICS

5.1. Relative income	2019 Total	2019 Men	2019 Women	Change 2008-2019 Total	Change 2008-2019 Men	Change 2008-2019 Women
Relative median income ratio (65+)	0.71	0.75	0.69	-0.02	0.02	-0.04
Income quintile share ratio (S80/S20), 65+	3.11	3.24	2.98	-0.56	-0.5	-0.61
Relative income quintile share ratio (S80/S20), 65+ - 0-64	-1.15	-1.03	-1.27			
Aggregate Replacement Ratio (ARR) %	58	57	47	17	14	8
5.2. Poverty and material deprivation	**Total**	**Men**	**Women**	**Total**	**Men**	**Women**
At-risk-of-poverty or social exclusion (AROPE), 65+ (%)	29.1	27.4	30.5	3.1	1.3	4.6
At-risk-of-poverty rate (AROP), 65+ (%)	27.7	25.9	29.3	3.4	0.8	5.7
Severe material deprivation (SMD), 65+ (%)	2.6	2.3	2.9	-0.5	0.1	-0.9
At-risk-of-poverty or social exclusion (AROPE), 75+ (%)	27.7	24.2	30.4	0.9	-3	3.8
At-risk-of-poverty rate (AROP), 75+ (%)	26.8	22.9	29.7	1.9	-3.9	6
Severe material deprivation (SMD), 75+ (%)	2	1.6	2.3	-1.5	0.1	-2.5
Relative median at-risk-of-poverty gap, 65+ (%)	11.5	11.9	11.3	-7.4	-8.1	-5.3
At-risk-of-poverty rate (AROP), 65+: 50 % threshold (%)	9.9	9.7	10.1	-2.5	-3.6	-1.6
At-risk-of-poverty rate (AROP), 65+: 70 % threshold (%)	42.1	39.2	44.7	1	-0.3	2.5
Material and social deprivation, age 65+ (1)	10.4	8.8	11.7	-11.6	-12.3	-11.1
5.3. Gender difference		**2019**			**Change 2008-2019**	
Gender gap in pension income (65-79) (%) (2)			42.6			21.5
Gender gap in non-coverage rate (W-M in p.p.) (65-79)			10.8			-25.8
5.4. Housing and health situation	**Total**	**Men**	**Women**	**Total**	**Men**	**Women**
Housing cost overburden rate, 65+ (%)	1.2	1.3	1	-3	-2.6	-3.5
Self-reported unmet need for medical exam 65+ (%)	0.8	1.2	0.5	-0.7	-0.2	-1
Healthy life years at age 65 (years)	14.8	14.4	15.1	3.7	3.9	3.5
Life expectancy at age 65	20.8	19.2	22.3	2.1	2.1	2.2
5.5 Sustainability and context	**Total**	**Men**	**Women**	**Total**	**Men**	**Women**
Employment rate, age group 55-64 (%)	51.1	66.3	35.4	21	18.4	22.7
Pension expenditure as % of GDP (ESSPROS) (3)			7.8			-1.2
Retirement duration from first pension (years) (4)	22.9	21.4	24.2	-0.9	-1.1	-0.5
Retirement duration from end employment (years)	22.9	21.0	25.0			
Eurostat and AWG projections		**2019**			**2059**	
Old-age dependency ratio (20-64) (%)	29.6	25.7	33.9	54.7	51.5	58.6
Economic old-age dependency ratio (20-64) (%) (5)	34.1	25.7	46.5	65.9		
Gross public pensions as % of GDP (5)	7.1			9.9		
Benefit ratio (%)(5)	44.9			34.5		
Coverage ratio (% of pop aged 65+)(5)	98.1			98.1		
Gross pension ratio high / low earner		1.2	1.2		2.4	2.4

(1) change since 2014, not 2008
(2) data refer to 2010, not 2008
(3) ESPROSS data refer to 2018
(4) Change is since 2016, not 2010
(5) 2060 instead of 2059

5.6 Theoretical Replacement Rates

	Net (%)				Gross (%)			
	2019		2059		2019		2059	
	Men	Women	Men	Women	Men	Women	Men	Women
Average earning (100%)								
Base case: 40 years up to the SPA	78.1	78.1	76.1	76.1	60.5	60.5	58.5	58.5
Increased SPA: from age 25 to SPA	78.1	78.1	76.1	76.1	60.5	60.5	58.5	58.5
AWG career length case	78.1	74.4	86.9	79.8	60.5	57.4	68.2	61.5
Old base case: 40 years up to age 65	78.1	78.1	76.1	76.1	60.5	60.5	58.5	58.5
Longer career: 42 years to SPA			79.7	79.7			61.4	61.4
Shorter career: 38 years to SPA			72.5	72.5			55.2	55.2
Deferred exit: 42 years to SPA +2			75.3	75.3			58.5	58.5
Earlier exit: 38 years to SPA -2			72.4	72.4			55.2	55.2
Career break – unemployment: 3 years	78.1	78.1	76.1	76.1	60.5	60.5	58.5	58.5
Career break due to child care: 3 years	78.1	78.1	76.1	76.1	60.5	60.5	58.5	58.5
Career break care to family dependant: 3 years	78.1	78.1	76.1	76.1	60.5	60.5	58.5	58.5
Short career (20 year career)	40.5	40.5	37.1	37.1	31.3	31.3	28.6	28.6
Work 35 y, disabled 5 years prior to SPA			76.1	76.1			58.5	58.5
Early entry in the LM: from age 20 to SPA			88.6	88.6			71.9	71.9
Index: 10 years after retirement @ SPA			81.6	81.6			66.1	66.1
Extended part-time period for childcare			69.9	69.9			53.8	53.8
Survivor – full career		78.1		76.1		60.5		58.5
Survivor – short career		78.1		76.1		60.5		58.5
Survivor ratio 1*								
Survivor ratio 2*								
Low earnings (66%)								
Base case: 40 years up to the SPA	86.6	86.6	71.0	71.0	72.9	72.9	59.4	59.4
AWG career length case	86.6	82.3	82.3	74.6	72.9	69.2	69.2	62.4
Old base case: 40 years up to age 65	86.6	86.6	71.0	71.0	72.9	72.9	59.4	59.4
Career break – unemployment: 3 years	86.6	86.6	71.0	71.0	72.9	72.9	59.4	59.4
Career break due to child care: 3 years	86.6	86.6	71.0	71.0	72.9	72.9	59.4	59.4
Short career (20 year career)	49.5	49.5	34.6	34.6	41.6	41.6	29.0	29.0
Early entry in the LM: from age 20 to SPA			85.4	85.4			72.9	72.9
High earnings (100->200%)								
Base case: 40 years up to the SPA	42.5	42.5	59.2	59.2	30.3	30.3	48.0	48.0

**Survivor ratio 1: man base case, woman base case*

**Survivor ratio 2: man base case, woman short career case*

THE NETHERLANDS

Highlights

- The Dutch statutory pension system protects older people from poverty and social exclusion; together, the statutory and occupational pension systems provide robust income replacement in retirement. The Netherlands has one of the lowest at-risk-of-poverty-or-social-exclusion (AROPE) rates for older people in the EU.[412]
- A 2019 reform slowed the rate of increase in the pensionable age legislated for in 2015. The pensionable age will remain unchanged in 2020 and 2021 (at 66 and 4 months), and gradually rise to 67 by 2024. Starting in 2025, the pensionable age will rise in line with increases in life expectancy, but at a slower rate than previously decided.
- Occupational pensioners sustained income losses between 2009 and 2019 because of the effects of the financial crisis on funded occupational pensions. Many occupational pension schemes responded to investment losses and low interest rates by freezing, and sometimes reducing, benefits.
- The ongoing reform of occupational pensions remains a priority for the Dutch government and social partners. The legitimacy of the system is being jeopardised by 10 years of pension rights freezes and cuts because of the 2008 financial crisis and historically low interest rates. The June 2019 pension agreement in principle is a major step toward effective reform.

1 GENERAL DESCRIPTION OF THE NATIONAL PENSION SYSTEM

1.1 Statutory pensions

The Dutch pension system is a true multi-pillar system in the sense that retirees draw pension benefits from all three pillars. The statutory pension scheme (AOW) pays a flat-rate cash benefit to all people older than 66 and 4 months who have lived in the Netherlands for 50 years between the ages of 15 and 65 (the pension is reduced by 2 % for each year of non-residence). In 2018, 81 % of AOW pensioners received a full pension. The AOW provided 46.27 % of the income of those 65 and older in 2018, thus providing effective protection against poverty and social exclusion in retirement.[413] Early retirement is not possible. The pensionable age will increase gradually to 67 in 2024 (see discussion below), but pensioners are allowed to combine AOW benefits with employment.

[412] EU refers to the current 27 Member States of the European Union.
[413] Calculated from statline: www.cbs.nl

AOW pensions are pay-as-you-go (PAYG) financed: the contribution rate has been fixed at 17.90 % since 1997 (the statutory maximum is 18.25 %) and is integrated into the first and second bracket of the personal income tax system for those below the pensionable age (the contribution is paid on personal taxable income below the taxable income ceiling of EUR 34,712 (2020 figure). AOW contributions cover 70 % of expenditure; general revenues finance the rest.

In 2020, single pensioners received EUR 1327.91 per month (gross), including the vacation supplement of EUR 72.04 (paid in May each year), which was 70 % of the minimum wage for a single person. Married and cohabiting pensioners received EUR 911.01 each, including the vacation supplement of EUR 51.46, which was 50 % of the minimum wage. Singles pay a monthly health insurance contribution of EUR 68.44 per month, whereas married/cohabiting pensioners pay EUR 46.84 (for both categories, the contribution rate is 5.45 % of AOW income). Pensioners with a spouse/partner younger than the pensionable age with little or no income or a child younger than 18 also receive supplements. AOW benefits are indexed to the net minimum wage twice per year.

Pensioners who do not qualify for a full AOW pension and have little or no other income are eligible for an AIO (*aanvullende inkomensvoorziening ouderen*) supplement that brings the monthly net benefit up to the minimum income determined by government.[414]

1.2 Occupational pensions

Occupational pension schemes (except for schemes for the free professions) are negotiated and managed by employers and unions as part of collective agreements. Legislation on the extension of collective agreements to entire sectors and the wide coverage (80 % of the population aged 15-64) of such agreements ensure very high participation. Workers in the hotel, restaurant and catering sector are less likely to participate in an occupational pension scheme, as are the solo self-employed (*zzp'ers*) and those who work few hours per week at part-time jobs.

Funded occupational pension schemes cover about 80 % of employees. The large majority of occupational schemes are organised as not-for-profit pension funds (there were 220 in 2019); the remainder are organised as life insurance products. Occupational pension schemes are collectively organised, quasi-mandatory, and solidaristic.[415] Pension schemes may be organised at the firm, sectoral, or professional level. Occupational pensions are closely integrated with the AOW; specific pension targets vary but generally aim to pay a defined benefit bringing the total pension (including a full AOW) up to 70 % of average wages for 40 years of service. Employers typically pay two thirds of the pension contribution, and employees the rest. All participants in the same scheme pay the same contribution rate (this is likely to change in the near term). Contribution rates usually range from 15 % to 25 % of qualifying income above the AOW offset (*franchise*), which represents the income insured by the AOW

[414] The amount varies according to family status: those with a child under 18 receive a higher amount; those who cohabit receive a lower amount.

[415] Collective bargaining coverage is very high (about 80 %). Nearly all collective agreements include mandatory participation in an occupational pension scheme. Most occupational pension schemes provide collective benefits based on risk-pooling, so all occupational pension scheme members share the risks associated with investments and longevity.

scheme (there is wide variation across schemes concerning the level of the income ceiling for contributions and benefit accrual). Participants may accrue up to 1.875 % of their eligible salary below EUR 100,000. Most schemes base their pensionable age on the pensionable age under the AOW.

Occupational pension schemes are fully funded: the regulatory framework (*financieel toetsingskader*, FTK) requires pension funds (in most cases) to have assets equal to at least 105 %[416] of all current and future liabilities. If the coverage ratio falls below 90 %, pension funds are required to implement rights cuts. As discussed below, the current government suspended this requirement temporarily for 2020 so that affected pension funds would not have to cut pension accrual or pay-outs.

At the end of December 2019, occupational pension fund assets totalled EUR 1.554 trillion, and the coverage ratio (*beleidsdekkingsgraad*) was 102.1 % of liabilities (the present value of accumulated pension rights). 75 pension funds were below the required minimum coverage ratio, affecting 3.9 million active participants (employees) and 2.3 million occupational pensioners (see discussion below).[417] These statistics reflect a significant improvement in the financial performance of pension funds in the past several years, largely because of rising equity prices. At the end of December 2016, the average coverage rate was 97.5 %, with 61 % of funds below the minimum.[418]

Occupational pension schemes are nominally defined-benefit (DB) in that they typically promise a specific nominal benefit to participants. In reality, however, most schemes are hybrid DB and defined-contribution in the sense that the administrative boards of pension schemes may choose among several levers, including benefit cuts, to restore solvency if assets fall below the legally required level of 104.2 % of liabilities. Pension funds are not legally required to index pension accrual and pay-outs to inflation and/or wages. Instead, the indexation of both accrual and benefits is conditional on pension fund solvency.

Many pension funds have frozen pension accrual and/or pay-outs in order to restore solvency. The situation of ABP, the largest pension fund (for public sector workers) illustrates the effect of this type of policy: between 2008 and 2019, pension accrual and pay-outs were about 19 % lower than they would have been if indexation had been granted.[419] Many pension schemes have also raised contributions to help restore solvency. For example, ABP raised contributions from 18.8 % to 24.9 % in 2020.

Most occupational pension schemes have phased out early retirement. Many collectively negotiated occupational pensions offer flexibility concerning partial or full early retirement, but there is wide variation across collective agreements. The social partners have introduced measures in most pension schemes that allow flexible retirement, mainly by combining part-time work with a partial pension. Because the AOW does not allow early retirement, workers in arduous and/or hazardous jobs can only retire early (either fully or partially) if their

[416] Complex regulations mean that the required minimum coverage ratio is 104.2 % for most occupational pension schemes.
[417] https://www.dnb.nl/actueel/nieuws-statistiek/snb-2020/financiele-positie-pensioenfondsen-verbeterd-januari-2020/. The coverage rate referred to here is the policy funding ratio, which is the 12-month average funding ratio based on daily market information.
[418] 'Pensioenfondsen onder water', Het Financieele Dagblad, 1 February 2017.
[419] https://www.abp.nl/over-abp/financiele-situatie/indexatie.aspx

occupational pension scheme includes special provisions for older workers or allows flexible retirement. The sectors typically considered to include arduous and/or hazardous jobs (for example, the construction sector) include such provisions.[420]

1.3 Personal schemes

Because of the coverage of the statutory and occupational pension systems, personal pension savings arrangements are not very extensive, except for the self-employed and those wishing to supplement their first- and second-pillar pension benefits. In the second half of the 2000s, the size of the third pillar was about 5 % of all pension savings. According to a recent survey, about 75 % of the solo self-employed (self-employed without personnel; *zzp'ers*) have retirement savings. The proportion is smaller for women who are solo self-employed, at about two thirds.[421] Many solo self-employed people have pension rights in an occupational scheme because of previous employment; but, as a group, the solo self-employed tend to have lower accumulated retirement savings than workers who are mainly covered by occupational pension schemes. About 12 % of those in the labour market are solo self-employed, an increase of 4 percentage points (p.p.) since 2003.[422]

2 REFORM TRENDS

The AOW pension has been a target of reform for three decades because of rising expenditure. In 2000, AOW expenditure was EUR 19.1 billion (4.2 % of GDP), and it has risen to about EUR 38.5 billion in 2019 (4.7 % of GDP).[423] A 2012 law, revised in 2015, raises the statutory pensionable age from 65 to 67 between 2013 and 2021 and links the retirement age to life expectancy starting in 2022.[424] This reform resulted in considerable savings for the public budget: EUR 4 billion between 2013 and 2018.[425] The reform was controversial, however, with both unions and employers strongly opposing the scope and speed of the planned increases in the pensionable age.

The pension agreement (*pensioenakkoord*)[426] negotiated by the government and social partners (see details below) and announced in June 2019 slows the implementation of this reform. Parliament acted quickly to implement the agreement, adopting legislation in July 2019. The law took effect in January 2020 and means that the statutory pensionable age remains 66 years and 4 months until the end of 2021, thereafter rising to 66 and 7 months in 2022, 66 and 10 months in 2023, and 67 in 2024. In 2025, the pensionable age will be partially linked to changes in life expectancy (the pensionable age will increase by two thirds of the rate of increase in life expectancy).[427]

[420] Anderson, K., *ESPN Thematic Report on Retirement regimes for workers in arduous or hazardous jobs – The Netherlands,* European Social Policy Network (ESPN), European Commission, Brussels, 2016.
[421] https://www.cbs.nl/nl-nl/nieuws/2017/28/kwart-zzp-ers-heeft-geen-pensioenvoorziening
[422] https://www.cbs.nl/nl-nl/dossier/dossier-zzp/hoofdcategorieen/ontwikkelingen-zzp
[423] Figures are from the State Budget (*Rijksbegroting*) 2002 and 2020.
[424] Wet verhoging AOW- en pensioenrichtleeftijd (Wet VAP).
[425] https://www.cbs.nl/en-gb/news/2018/37/raised-state-pension-age-curbs-spending-on-benefits
[426] Anderson, K., 'New Dutch agreement in principle on a major reform of the pension system', *ESPN Flash Report* 2019/41, European Social Policy Network (ESPN), European Commission, Brussels, 2019.
[427] Staatsblad van het Koninkrijk der Nederlanden, 5 July 2019.

The June 2019 pension agreement caps more than nine years of discussion about how to reform statutory and occupational pensions. The pension agreement mainly affects occupational pensions schemes, although it included important changes to the statutory pensionable age (see above).

The first major change is that the new pension contract will no longer provide fixed benefits. The move from a DB to a collective defined-contribution system implies a number of fundamental changes in the funding system.

The entire capital of a pension fund will be collectively invested according to the 'prudent person principle'. These investments will be in line with the risk profile of participants. So, younger participants, with a longer investment horizon, are exposed to a higher risk/reward and older generations' pensions are relatively riskless and therefore more stable.

To balance the risk throughout the economic cycle and thus ensure solidarity between generations, the new contract will include a collective solidarity reserve to smooth large downfalls or upticks.

The projected benefit, current premiums and a number of other parameters will be calculated using a measure for projected returns. These projected returns will be calculated on the basis of realistic expectations about economic and financial developments.

Because the new solidarity-based pension scheme no longer works with hard entitlements, strict buffer requirements are no longer necessary. This also takes away the need to work with a (risk-free) rate for discounting future benefits and funding ratios.

Second, the pension agreement would abolish the 'average contribution rate', which has been heavily criticised. In the incumbent system, employees pay the same contribution and accrue the same pension rights independent of their age. This system may be considered as disadvantageous for younger participants, because the younger participant's contributions have a longer investment horizon than those of older workers. This is especially a problem when workers change jobs or move into self-employment, as is becoming increasingly common. As it would be detrimental for the labour market position of older employees if their premiums rose, the decision was made to keep the contribution rate unchanged. Instead, the accrual rate will become higher for younger employees. A year worked when young will thus yield more pension rights than a year worked close to retirement age.

In addition to these key provisions, the pension agreement includes changes in tax law to make it easier for employers to offer up to three years of early retirement for workers in arduous jobs. The shift to a more flexible pension contract and the abolition of the average contribution rate would also make it more attractive for the self-employed to join occupational pension funds.

Pension reform is a central goal of the four-party centre-right coalition government (VVD, D66, CDA and CU) in office since October 2017. Unions and employers have responded positively to the announcement of the pension agreement, and members of the three largest union federations (the FNV, CNV and VCP), have ratified the agreement. In general, there is wide support in parliament for the revision of the pension system.

A steering committee consisting of representatives of the government and social partners will work out the details of the agreement. The agreement is expected to be implemented in 2022. However, the effects of the COVID-19 crisis on employment and government finances are likely to complicate this process.

3 ASSESSMENT OF ADEQUACY

3.1 Current adequacy

The Netherlands has a very strong record concerning pension adequacy. Only 1.6 % of those aged 65 and older were severely materially deprived in 2019 – an increase of 1.2 p.p. since 2008. The rate for those aged 75 or older was 2.0 %, an increase of 1.8 p.p. since 2008. 10.8 % of those aged 65 and older were at risk of poverty (AROP) in 2019, an increase of 1.4 p.p. since 2008. The risk of poverty for older Dutch men and women was very similar (10.8 % for women and 10.9 % for men). The AROP rate for those aged 75 and older was 14.2 %, which reflected an increase of 3.1 p.p. compared with 2008. The depth of poverty for those aged 65 and older was also fairly low: the relative poverty gap for this group was 13.1 % in 2019.[428]

The Netherlands' good performance concerning adequacy is a direct consequence of the universal coverage of the AOW pension and the AOW's link to the net minimum wage. Although close to 20 % of pensioners do not receive a full AOW, the widespread coverage of occupational pensions helps to compensate for this, as do various income supplements for pensioners with insufficient income from sources other than the AOW.

12.3 % of those aged 65 and over experienced housing cost overburden, compared with the EU average of 9.8 %. There is a gender effect here, with 14.8 % of women aged 65 and over versus 9.5 % of men reporting housing cost overburden. Self-reported unmet need for medical treatment is low compared with the EU average, with 1.1 % of women aged 65 and over reporting this, compared with 0.7 % of men.[429]

Pensioners in the Netherlands also fare well in comparison with the rest of the population. The median income of those aged 65 years and older is 81 % of the median income of the 18-64 age group, which reflects a very slight decrease (3 p.p.) since 2008. The highest 20 % of the income distribution received 302 % of the income of the bottom 20 % of the income distribution, which is slightly lower (by 2 p.p.) compared with 2008. Finally, the aggregate replacement rate for older people is 53 %, reflecting a small increase (6 p.p.) compared with 2008.

The gender gap created by the statutory pension is mild because of the universal, flat-rate character of benefits. However, occupational pensions pay benefits based on lifetime earnings from employment, and because these have been (and still are) lower for women it is here that the gender gap in the overall pension package emerges. Women's labour force participation is high, but most women tend to work part time. In 2001, 87 % of men aged 65 and over had occupational pension income compared with 52 % of women. The corresponding figures for

[428] All data in this paragraph are from Section 5 'Background statistics'.
[429] All data in this paragraph are from Section 5 'Background statistics'.

2017 were 92 % and 65 %.[430] The gender gap in pension income for those aged 65-79 was 42.1 % in 2019, a decrease of 3.0 p.p. since 2010. The relatively large gender gap reflects lower overall earnings due to the comparatively late entrance of women into the paid labour market compared with other EU Member States, as well as women's tendency to work part time. These trends do not affect statutory pension income, but they have a significant influence on occupational pension income.

The Netherlands has a comprehensive long-term care scheme financed by income-related contributions and cost-sharing. Pensioners, like other income-earners, pay 9.65 % of their income below a ceiling of EUR 34,712 (for 2020) to the long-term care scheme. Pensioners who use the long-term care system are subject to cost sharing according to two income-related categories: the 'high' contribution and the 'low' contribution. For those in residential care, the maximum high contribution is EUR 2419.40 per month and the low contribution is EUR 168.0 to EUR 881.60 per month. All people in residential care pay the low contribution for the first four months. Those with a partner at home and/or a dependent child below age 27 pay the low contribution, as do people receiving care at home. All others in residential care pay the high contribution, which is calculated on the basis of taxable income from two years before moving to residential care, as well as 4 % of taxable savings/investments. The rationale behind the high contribution is that residents with good incomes should pay most of their income to the care institution, except for amounts needed for incidental expenses and required spending, such as health insurance premiums. A single pensioner reaches the maximum high contribution if they have no taxable savings and a net income of about EUR 45,000.

3.2 Future adequacy

According to the theoretical replacement rate (TRR) projections, the replacement rates for similar careers will experience a notable reduction between 2019 and 2059, albeit from a very high starting point. In the base case (40-year career until the standard pensionable age), the net reduction would be 25.9 p.p. for average earners. Workers' ability to stay in the labour market until the standard pensionable age (69 in 2059) will be key.[431]

There is a very strong political consensus to maintain the structure of the statutory pension. However, financial sustainability remains a concern. AOW expenditure has risen by more than 25 % since 2008, and projected increases in life expectancy will create additional pressure on pension financing. Life expectancy at age 65 is 20 years (2017 figure), and this is very likely to increase in the coming decades. Recent reforms are designed to reduce the growth of current and future spending by raising the statutory retirement age, but these are unlikely to counteract all of the future financial effects of rising longevity. Additional increases in the statutory retirement age and/or increases in the general revenue financing of the AOW are therefore likely in the medium to long term. Continued efforts to increase the labour market participation of older people will be important elements in these reform strategies. Recent reforms have

[430] https://www.cbs.nl/nl-nl/nieuws/2019/27/vrouwen-hebben-steeds-vaker-aanvullend-pensioen

[431] In case of early exit, workers would only be entitled to the occupational pension benefit at retirement, explaining the very low TRRs in the AWG and earlier retirement cases, although they would gain entitlement to the public pension when reaching pensionable age.

contributed to a steady increase in the average retirement age, from 60.7 in 2002 to 65 in 2018, according to the Central Bureau of Statistics.[432]

The gender pension gap in occupational pensions remains a challenge. The AOW is gender-neutral in the sense that flat-rate benefits are the same for all residents, although there are different benefit levels for single people and co-habiting partners. The sizeable gender pension gap in occupational pensions reflects the prevalence of part-time employment among women and the gender pay gap on the labour market. Full-time and part-time workers are treated equally in pension schemes, so part-time workers earn pension rights on equal terms with full-time workers. However, women's tendency to work part-time means that their lifetime earnings are lower than men's, not just because they work fewer hours, but also because women are underrepresented in higher-paying jobs. Policymakers are very aware of this challenge, but there is little support for relying on occupational pension policy to compensate for gender-related labour market inequalities. Instead, recent legislation is designed to modernise conditions for combining work and care,[433] including collective agreements. A recent survey of 97 of the largest collective agreements found that 40 of these included paid leave for pregnancy and maternity.[434]

The ongoing process of reforming occupational pensions will also have implications for pension adequacy. The agreement in principle from June 2019 between the government and social partners was planned to be implemented via legislation in 2020, including the abolition of the average premium principle. When it is implemented, the reforms will also improve transparency and intergenerational fairness. Older workers benefit more than younger ones from the average premium approach, and the goal is to move toward a benefit formula that is more closely linked to contributions and therefore generationally neutral (Anderson, K., 2019).

3.3 Challenges for future adequacy

AOW expenditure has risen by about 25 % since 2008, and increases in life expectancy will create additional pressure on pension financing. Current life expectancy at age 65 is 20 years, and this is forecast to increase to 22.45 by 2040.[435] Recent reforms are designed to reduce current and future spending by raising the pensionable age, but these are unlikely to counteract all of the future financial effects of rising longevity. As discussed, the government adopted legislation in 2019 to slow the increase in the pensionable age because of strong public opposition. Additional increases in the pensionable age are thus unlikely in the short term, increasing the likelihood that the general revenue share of AOW financing will increase. Continued efforts to increase the labour market participation of older people will be important elements in these reform strategies.

[432] https://www.cbs.nl/nl-nl/nieuws/2019/32/werknemers-in-2018-gemiddeld-65-jaar-bij-pensionering.

[433] The *Law on the Modernisation of Leave and Working Time* (Wet modernisering regelingen voor verlof en arbeidstijden) with effect from 1 January 2015; and the *Law on Flexibly Work* (Wet flexibel werken) with effect from 1 January 2016.

[434] Torenvliet, B., Houtkoop, A. and Junger-van Hoorn, E.C., *Arbeid en Zorg 2017: Een onderzoek naar cao-bepalingen gerelateerd aan de Wet modernisering regelingen voor verlof en arbeidstijden en de Wet flexibel werken*, Ministerie van Sociale Zaken en Werkgelegenheid, 2018.

[435] https://www.cbs.nl/nl-nl/maatwerk/2019/47/prognose-levensverwachting-op-65e-en-67e-verjaardag (accessed 17 April 2020)

Occupational pensions perform well with regard to coverage of part-time employees, because pension accrual is adjusted to working hours and exclusion of part-time employees is illegal. The self-employed, especially the solo self-employed (*zzp'ers*), however, often under-insure themselves. The AOW provides this group with a robust minimum income in retirement, but coverage of the solo self-employed is patchy. The 2019 pension agreement aims to rectify this by exploring the possibility of voluntary pension coverage, but it is far from certain whether this will be achieved.

3.4 Solidarity mechanisms

There are strong redistributive elements in both the AOW and occupational pensions. The AOW's financing structure means that those with income from work pay a fairly high contribution rate (17.9 %) but only on income below EUR 35,375.[436] The contribution is incorporated into the income tax system, so all people with income from work pay into the system, including the self-employed. This means that those with income from work finance benefits for all AOW pensioners regardless of previous income from employment. In addition, the general revenue share of AOW financing (currently 30 % of costs) ensures that higher income taxpayers (including pensioners) pay a higher share of overall costs. Moreover, the flat-rate AOW pension is high enough to lift more pensioners out of poverty (as discussed), and it is particularly important for the solo self-employed with insufficient private retirement savings.

The occupational pension system also includes strong elements of solidarity, chiefly because of their collective structure. The majority of occupational pension schemes provide obligatory coverage to all employees of a firm or the firms in a specific sector. The Pension Act requires pension schemes to treat all participants equally (for example, part-time and full-time employees), so even those with non-standard employment contracts are included when there is a company or sectoral pension scheme. Finally, many occupational pension schemes include provisions for early retirement (Anderson, K., 2017) and the continuation of pension contributions during unemployment. Many collective agreements (for example, in the construction sector) also include provisions to ensure the sustainable employment of older workers. These measures are designed to ensure that older workers can stay in employment longer.

Recent and planned reforms are designed to reduce the unintended redistribution from younger to older workers in the occupational pension scheme. In 2015, a ceiling on the tax deductibility of occupational pension contributions was introduced, at EUR 100,000, and the annual accrual rate was reduced from 2.0 % to 1.875 % in average salary DB schemes. The previous rules (no limit on pensionable salary eligible for tax breaks and the higher accrual rate) benefited higher-income workers disproportionately. The June 2019 principled agreement also foresees the modification of the average contributions system in order to reduce the negative effects for younger and low-wage workers compared with high-wage/older workers.

[436] This ceiling is roughly equal to modal income, and about 20 % below average income. Dutch policymakers use modal income as their reference point rather than average income.

4 OPPORTUNITIES TO ADDRESS CHALLENGES

The key challenge for the Netherlands is to ensure the financial sustainability of both statutory and occupational pensions. Rising life expectancy and projected increases in the old-age dependency ratio will require additional sources of financing. One option is for the government to consider gradually increasing the share of general revenue financing in the statutory pension scheme (currently about 30 %), thereby relieving pressure on employment-based sources of revenue. Furthermore, pensioners do not pay statutory pension contributions, resulting in an effective income tax rate that is considerably lower compared with those of working age. This is unlikely to be sustainable in the long run.

The ongoing reform of the occupational pension pillar, implementing the agreement reached in principle in June 2019, should remain a priority.

Recent efforts to improve conditions for combining care and employment should also continue. This will help to reduce the gender pension gap by increasing women's work income and their occupational pension accrual.

5 BACKGROUND STATISTICS

5.1. Relative income	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
Relative median income ratio (65+)	0.8	0.83	0.8	-0.04	-0.02	-0.04
Income quintile share ratio (S80/S20), 65+	3.03	3.17	2.88	-0.19	-0.25	-0.18
Relative income quintile share ratio (S80/S20), 65+ - 0-64	-1.08	-1.02	-1.14			
Aggregate Replacement Ratio (ARR) %	51	54	55	8	5	4
5.2. Poverty and material deprivation	**2019**			**Change 2008-2019**		
	Total	Men	Women	Total	Men	Women
At-risk-of-poverty or social exclusion (AROPE), 65+ (%)	12.6	12	13.1	2.9	1.9	3.6
At-risk-of-poverty rate (AROP), 65+ (%)	11.8	11.4	12.1	2.4	1.8	2.9
Severe material deprivation (SMD), 65+ (%)	1.1	1	1.2	0.7	0.4	0.9
At-risk-of-poverty or social exclusion (AROPE), 75+ (%)	14	13.1	14.7	2.7	-0.2	4.6
At-risk-of-poverty rate (AROP), 75+ (%)	13.4	12.8	13.9	2.3	-0.1	3.8
Severe material deprivation (SMD), 75+ (%)	0.6	0.3	0.9	0.4	-0.2	0.9
Relative median at-risk-of-poverty gap, 65+ (%)	14.2	13	14.3	-0.3	1.5	-3
At-risk-of-poverty rate (AROP), 65+: 50 % threshold (%)	4.8	4.5	5.1	0.5	0.6	0.5
At-risk-of-poverty rate (AROP), 65+: 70 % threshold (%)	26.1	24.3	27.7	4.5	4.7	4.6
Material and social deprivation, age 65+ (1)	4.8	4.1	5.3	0.3	0.2	0.3
5.3. Gender difference	**2019**			**Change 2008-2019**		
Gender gap in pension income (65-79) (%) (2)			42.1			-3
Gender gap in non-coverage rate (W-M in p.p.) (65-79)			0.1			0.7
5.4. Housing and health situation	**2019**			**Change 2008-2019**		
	Total	Men	Women	Total	Men	Women
Housing cost overburden rate, 65+ (%)	12.5	9.7	14.9	-3.3	-1.1	-4.8
Self-reported unmet need for medical exam 65+ (%)	1.1	1.5	0.7	0.4	1	-0.1
Healthy life years at age 65 (years)	9.9	10.2	9.6	0.1	0.3	-0.1
Life expectancy at age 65	20	18.7	21.1	0.8	1.3	0.4
5.5 Sustainability and context	**2019**			**Change 2008-2019**		
	Total	Men	Women	Total	Men	Women
Employment rate, age group 55-64 (%)	69.7	78.3	61.2	19.7	16.7	22.9
Pension expenditure as % of GDP (ESSPROS) (3)			11.3			1.2
Retirement duration from first pension (years) (4)	19.2	18.0	20.3	-0.7	-0.5	-0.8
Retirement duration from end employment (years)	20.1	18.2	22.0			
Eurostat and AWG projections	**2019**			**2059**		
Old-age dependency ratio (20-64) (%)	32.6	30.0	35.2	51.0	47.4	54.6
Economic old-age dependency ratio (20-64) (%) (5)	36.3	30.5	42.8	57.0		
Gross public pensions as % of GDP (5)	6.8			8.9		
Benefit ratio (%)(5)	37.2			35.8		
Coverage ratio (% of pop aged 65+)(5)	118.0			102.9		
Gross pension ratio high / low earner		2.8	2.8		2.0	2.0

(1) change since 2014, not 2008

(2) data refer to 2010, not 2008

(3) ESPROSS data refer to 2018

(4) Change is since 2016, not 2010

(5) 2060 instead of 2059

5.6 Theoretical Replacement Rates

	Net (%)				Gross (%)			
	2019		2059		2019		2059	
	Men	Women	Men	Women	Men	Women	Men	Women
Average earning (100%)								
Base case: 40 years up to the SPA	106.1	106.1	80.2	80.2	93.2	93.2	69.1	69.1
Increased SPA: from age 25 to SPA	107.4	107.4	82.1	82.1	95.0	95.0	70.9	70.9
AWG career length case	109.7	108.0	33.4	31.9	97.8	95.7	28.8	27.5
Old base case: 40 years up to age 65			30.4	30.4			26.1	26.1
Longer career: 42 years to SPA			81.1	81.1			70.0	70.0
Shorter career: 38 years to SPA			79.2	79.2			68.2	68.2
Deferred exit: 42 years to SPA +2			81.1	81.1			70.0	70.0
Earlier exit: 38 years to SPA -2			29.3	29.3			25.2	25.2
Career break – unemployment: 3 years	102.1	102.1	78.3	78.3	89.2	89.2	67.4	67.4
Career break due to child care: 3 years	102.1	102.1	78.5	78.5	89.2	89.2	67.5	67.5
Career break care to family dependant: 3 years	102.1	102.1	77.7	77.7	89.2	89.2	66.9	66.9
Short career (20 year career)	81.2	81.2	65.4	65.4	66.8	66.8	56.3	56.3
Work 35 y, disabled 5 years prior to SPA			76.3	76.3			65.7	65.7
Early entry in the LM: from age 20 to SPA			84.2	84.2			73.0	73.0
Index: 10 years after retirement @ SPA			76.0	76.0			65.4	65.4
Extended part-time period for childcare			73.4	73.4			63.2	63.2
Survivor – full career		128.1				129.5		
Survivor – short career		112.7				103.1		
Survivor ratio 1*		0.70				0.81		
Survivor ratio 2*		0.73				0.77		
Low earnings (66%)								
Base case: 40 years up to the SPA	100.8	100.8	77.6	77.6	95.7	95.7	74.6	74.6
AWG career length case	102.9	102.0	10.8	10.3	98.6	97.3	10.4	9.9
Old base case: 40 years up to age 65			9.8	9.8			9.4	9.4
Career break – unemployment: 3 years	99.0	99.0	76.9	76.9	93.1	93.1	74.0	74.0
Career break due to child care: 3 years	99.0	99.0	77.0	77.0	93.1	93.1	74.0	74.0
Short career (20 year career)	87.7	87.7	72.7	72.7	78.9	78.9	70.0	70.0
Early entry in the LM: from age 20 to SPA			110.0	110.0			110.2	110.2
High earnings (100->200%)								
Base case: 40 years up to the SPA	102.3	102.3	65.4	65.4	90.8	90.8	48.9	48.9

**Survivor ratio 1: man base case, woman base case*

**Survivor ratio 2: man base case, woman short career case*

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Highlights

- According to indicators on the average relative income of people aged 65 and over, the Austrian statutory pension scheme provides rather generous benefits from an international comparative point of view.
- However, the Austrian statutory pension scheme shows enduring challenges of substantial income inequality and people with discontinuous careers and low work income will in future face an even higher risk of receiving low pensions.
- Reforms decided in 2016 and 2019 on the minimum level of benefits address the problem of income inequality within public pensions to some degree, however not in an all-encompassing and structural manner.
- A more all-encompassing redesign of the Austrian statutory pension system would be necessary to increase future financial sustainability and social inclusiveness. However, such a reform currently does not appear to be on the political agenda.

1 GENERAL DESCRIPTION OF THE NATIONAL PENSION SYSTEM

By far the most important source for the provision of retirement income in Austria is the statutory pension scheme (*Gesetzliche Pensionsversicherung*). It provides old-age pensions, surviving dependant's pensions, as well as invalidity pensions. The statutory pension system includes, in principle, all people in gainful employment[437] including most categories of self-employed people, with the exception of some civil servants, who have traditionally been covered by their own systems.[438]

Apart from the statutory pension scheme, three other major instruments providing pension income exist in Austria, but all of them are in practice of rather limited importance. The 'new severance pay scheme' (*Abfertigung Neu*), introduced in 2003, is a statutory funded scheme. Supplementary pension schemes exist in form of occupational pensions based on works agreements and personal pension schemes, where public subsidies are available within the 'premium-aided pension savings scheme' (*Prämienbegünstigte Zukunftsvorsorge*).

The statutory pension system is organised as an unfunded pay-as-you-go (PAYG) scheme. It is at first instance financed by insurance contributions, which however only have to be paid for earned income up to a specific ceiling – the 'maximum contributions basis'

[437] Employees with wages below the so-called marginal earnings threshold (*Geringfügigkeitsgrenze*) (in 2020, EUR 460.66 per month gross) may opt in to the old-age insurance scheme on a voluntary basis.

[438] However, under the Act on the Harmonisation of Austrian Pension Systems, which took effect on 1 January 2005, uniform pension laws were envisaged for all gainfully employed people, including federal civil servants. Civil servants of the federal provinces (*Bundesländer*) have different regulations.

(*Höchstbeitragsgrundlage*), which in 2020 amounted to monthly gross earnings of EUR 5370.[439] Although the statutory pension system is at first instance financed from insurance contributions, tax-financed funds play some role as well. In 2018, the overall share coming from the federal budget amounted to about EUR 9.37 billion, which equals around 2.44 % of GDP or 22 % of the overall spending of the statutory pension system.[440]

The Austrian statutory pension system is a defined-benefit (DB) scheme. The formula for the calculation of benefits underwent substantial reforms in the early 2000s, however being subject to a number of different transitional arrangements.[441] From a mid-term perspective, the effect will be a largely linear benefit formula, whereby the contribution base on which the replacement rate is applied was expanded from the best 15 years with the highest earnings to lifetime earnings. Apart from that, the accrual rate was reduced from 2 % to 1.78 % per year. Consequently, the maximum replacement rate at pensionable age, amounting to 80 % of the assessment base, will be reached after an insurance history of 45 years, instead of 40 years before the reform.

The pensionable age is 65 for men and 60 for women. The latter will be gradually raised as from 2024, also reaching 65 years in 2033. For benefit recipients of regular old-age pensions (i.e. who have reached pensionable age), it is possible to combine a pension and earned income from work without deductions. On the other hand, by not claiming a pension and working beyond the pensionable age, it is possible to increase the pension benefit further. For every year of further employment, the replacement rate increases by another 1.78 p.p. per year, and only 50 % of normal insurance contributions have to be paid (although they are taken into account at the usual level within the pension account). Furthermore, a pension bonus is granted, increasing the pension originally calculated at pensionable age by 4.2 % per year of ongoing employment.

Different schemes of early retirement exist in Austria, to which access until recently (see Section 2) was progressively tightened over the last decade. The total number of recipients of different types of early old-age pension increased from 105,500 in December 2008 to 120,000 in December 2012, but then decreased to 74,500 in December 2018. The number of recipients of early old-age pensions in December 2018 was 30 % lower than in December 2008. During the same time the number of recipients of normal old-age pensions (including invalidity pensions, from age 60 for women and 65 for men) increased from 1,324,970 to 1,639,570 or by 24 %. Overall, the share of early pensions in all old-age pensions diminished from around 7.4 % in 2008 to 4.3 % in 2018.[442]

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[439] This means that gross earnings above the ceiling are not part of the contribution base. The yearly maximum contributions base (for employees including Christmas pay and holiday pay) was EUR 75,180 gross in 2020.

[440] Federal Ministry of Social Affairs, Health, Care and Consumer Protection, OPIS Database (*Online Pensions Information System*) https://www.dnet.at/opis/Default.aspx (accessed 8 April 2020) and own calculations.

[441] For a more detailed assessment see e.g. Knell, M. *et al.*, 'The Austrian pension system – how recent reforms have changed fiscal sustainability and pension benefits', in: *Monetary Policy & the Economy Q2/06*, Austrian National Bank, 2006, pp. 69-93; Blank, F., Logeay, C., Türk, E., Wöss, J. and Zwiener, R., *Alterssicherung in Deutschland und Österreich: Vom nachbarn lernen?*, WSI-Report No 27, 1/2016: https://www.boeckler.de/pdf/p_wsi_report_27_2016.pdf (accessed 8 April 2020).

[442] Hauptverband der Österreichischen Sozialversicherungsträger, *Jahresbericht der Osterreichischen Sozialversicherung*, Vienna, 2019, p. 66. https://www.sozialversicherung.at/cdscontent/load?contentid=10008.684097&version=1561377321 (accessed 8 April 2020).

The most important of the different options for early retirement for a long time used to be 'pensions subject to very long insurance periods' (*Langzeitversichertenpension*).[443] From 2014, access to this scheme was considerably tightened: The respective retirement age has been increased to 62 for men and, in a first step, to 57 for women and will be further increased to 62. The number of required contribution months for women has been also increased stepwise from 504 to 540 months. Additionally the number of periods which count as "substitution insurance periods" has been reduced.[444] The number of recipients of this scheme between 2008 and 2013 increased from around 64,500 to around 90,500 or by 41 %, but then decreased to around 24,700 in 2018 (down 73 % compared with 2013).

Early retirement in form of the 'heavy labour pension' (*Schwerarbeiterpension*) is specifically targeted at workers in arduous or hazardous jobs (WAHJ). In contrast to pensions subject to very long insurance periods, the number of retirees entering early retirement through this pathway has increased significantly since 2013. The number of beneficiaries rose from around 4500 in December 2013 to around 27,600 in December 2018 (an increase of more than 500 %).

Another option for early retirement is the 'corridor pension' (*Korridorpension*). The corridor pension – under specific circumstances – allows early retirement from the age of 62. Early retirement according to this scheme comes with deductions.[445] The number of recipients of a corridor pension rose from around 15,000 in December 2013 to around 20,150 in December 2018, or by around 35 %.

While receiving any of the above-mentioned forms of early retirement, working is only possible up to the marginal earnings threshold. Receiving an income above this threshold entails a mandatory insurance and a complete loss of the early-retirement pension.

Apart from these options for early retirement, it is worth mentioning that invalidity pensions also used to play a major role as an option for early exit from the labour market in Austria. However, access to invalidity pension has been considerably tightened over recent years and the number of recipients declined from around 204,000 in December 2013 to around 153,000 in December 2018 (which equals a reduction by around 25 %). It is worth mentioning that it is also possible to work and receive an invalidity pension at the same time, but in this case the invalidity pension will be partly reduced depending on the income. The largest possible reduction is 50 %.[446]

About 500,000 people receive surviving dependant's pensions, which can be combined with other pension benefits.[447]

The Austrian statutory pension system does not provide an unconditional minimum pension. However, the 'means-tested equalisation supplement' (*Ausgleichszulage*) may – on a partly

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[443] Within this scheme, men used to have the opportunity to retire without deductions from the age of 60, and women from the age of 55, if their insurance periods totaled 45 contributory years (men) or 40 contributory years (women).
[444] But see below Section 2 for a recent reform, effective from January 2020, which again eased access to this scheme to some degree.
[445] For details see: https://www.sozialversicherung.at/cdscontent/load?contentid=10008.636763&version=1579779522 (accessed 8 April 2020).
[446] For details see: https://www.oesterreich.gv.at/themen/menschen_mit_behinderungen/pension_und_behinderung/Seite.1280500.html (accessed 8 April 2020).
[447] Hauptverband der Österreichischen Sozialversicherungsträger, 2019, p. 55 and own calculations.

means-tested basis – apply to people who are in principle eligible for a pension entitlement. This means that pensions of low benefit level may be raised to the 'equalisation supplement reference rate'[448] (ESRR; *Ausgleichszulagenrichtsatz*) in case of financial indigence.[449]

In addition to the traditional PAYG statutory pension scheme, a statutory funded scheme was introduced in 2003 in form of the 'new severance pay scheme' (*Abfertigung neu*). Employers are obliged to pay 1.53 % of the monthly gross salary to a staff provision fund set up especially for this purpose. Employees have the option to withdraw their savings in case of termination of a work contract (if specific preconditions are fulfilled) or to keep them until pensionable age in order to have them transferred into a pension benefit. Reportedly only 50 % of all people who meet the conditions for early withdrawal do not withdraw their savings before retirement age.

Occupational and personal pension schemes are of rather limited importance in Austria, although coverage and the accumulated funds have increased over time. In the last quarter of 2019, about 859,000 people (or around 22.3 % of employees) were entitled to receive an additional pension from an occupational scheme in the future, and about 109,000 people (which equals around 6.6 % of the population aged 65 and above) were already beneficiaries.[450]

Regarding personal pension schemes since 2003, public subsidies are available within the premium-aided pension savings scheme. However, the impact of the premium-aided pension savings scheme on the level of future pensions is likely to be rather limited. The number of related contracts even declined in recent years and the average annual insurance premium is very low.[451]

Overall, the PAYG statutory pension scheme is by far the most important of the different instruments as a source for retirement income provision. In 2018 benefits paid from funded pension schemes only amounted to 0.2 % of GDP.[452]

Regarding self-employed people and non-standard workers (including platform workers) it is fair to say that coverage by the Austrian statutory pension scheme is – in principle – comprehensive. It is worth noting that, since the mid-1990s, reforms in Austria have been aimed at integrating all types of earned income from employment into social security.[453] In doing so, the coverage of pension insurance – and the obligation to pay social insurance

[448] In 2020, the ESRR for a single person amounted to EUR 966.65 per month. When calculating the monthly net benefit in pensions according to ESRR, it has to be taken into account that pensions are granted 14 times per year and that gross pensions are subject to insurance contributions for health insurance amounting to 5.1 %. When calculating the net minimum pension according to a monthly average (12 months per year), this results in a minimum net benefit of EUR 1070.24 for a single person, and EUR 1629.70 for a couple. For every dependent child in the household the ESRR is increased by a net EUR 165.13 (12 months per year).

[449] Older people who have no pension rights can apply for minimum-income benefits from the social assistance schemes of the federal provinces. Social assistance provides a lower benefit level than the means-tested equalisation supplement of the pension system and means testing against income and also assets takes place.

[450] FMA/Österreichische Finanzmarktaufsicht, *Quartalsbericht Q4 2019*: *Pensionskassen*, Vienna, 2019a. https://www.fma.gv.at/download.php?d=4298 (accessed 8 April 2020) and own calculations.

[451] 1,198,530 of such contracts on savings plans existed at the end of 2018 (see FMA 2019b), covering only about 18 % of the population aged below 60. Furthermore, the level of premiums paid to such schemes typically appears to be rather low. In 2018, the average premium amounted to about EUR 700 per year. (Source: FMA 2019b and own calculations.)

[452] OECDStat, *Funded Pensions Indicators*. http://stats.oecd.org/Index.aspx?DatasetCode=PNNI_NEW (accessed 8 April 2020).

[453] For details see: Fink, M., *ESPN Thematic Report on Access to social protection of people working as self-employed or on non-standard contracts*, European Social Policy Network (ESPN), European Commission, Brussels, 2017.

contributions – was extended to newly self-employed people and freelance contractors in 1996. Furthermore, employees with income below the marginal earnings threshold[454] can opt in to pension insurance.

2 REFORM TRENDS

The most important reforms to the Austrian pension system took place in 2001, 2003, 2004 and 2014, aimed at the primary goal of increasing future financial sustainability (Knell *et al.*, 2006; Blank *et al.*, 2016). Other important reforms legislated before 2017 dealt with the different schemes of early retirement and with invalidity pensions, literally all of them with the aims of tightening access to these schemes and increasing the effective retirement age.[455]

More recent reforms were limited both in scope and number, and to some degree took a different direction from earlier reforms. In fact, all major political parties (except the Neos), in an ad hoc parliamentary decision just before the national elections of September 2019, agreed on a measure opposed to increasing the effective retirement age. It was decided that deductions will not apply anymore to a number of different types of early-retirement and invalidity pensions from January 2020 in cases of 45 years of insured employment, of which five years can be credited for bringing up children. As a consequence, pensions subject to very long insurance periods may now be granted as from the age of 62 without the yearly deductions of 4.2 %, heavy labour pensions as from the age of 60 without the yearly deductions of 1.8 %, and invalidity pensions without the yearly deductions of 4.2 % (but in sum max. 13.8 %). As of 2022, deduction-free early retirement pensions will be abolished again.

Although there has been no all-encompassing debate on the distributional impact on pensions, some measures were taken to raise the lowest pensions. Low benefits were repeatedly (in 2013, 2014, 2018, 2019 and 2020) indexed at an above-standard rate. In 2016 it was decided to increase the ESRR from EUR 883 to EUR 1000 per month where 30 or more contribution years had been reached (effective from 1 January 2017 to 31 December 2019). In a related manner, a new pension bonus was decided in July 2019, effective from 1 January 2020. Under the pension bonus, the gross ESRR (granted 14 times per year) is increased from (values for 2020) EUR 966.65 to EUR 1080 per month for singles with an insurance record of at least 30 years, to EUR 1315 for singles with an insurance record of at least 40 years, and from EUR 1524.99 to EUR 1782 for couples where one person has an insurance record of at least 40 years. Apart from insurance from gainful employment, one year of military service or alternative service and five years of raising children may also be taken into account when calculating the insurance record for the pension bonus. According to estimates, around 45,000 people, or around 2.7 % of the Austrian population aged 65 or over, will benefit from the reform and the yearly costs are estimated to amount to around EUR 60 million.

[454] The marginal earnings threshold in 2020 amounted to EUR 460.66 per month gross for employees. For details regarding opting in to pension and health insurance, see: https://www.pensionsversicherung.at/cdscontent/?contentid=10007.707786&portal=pvaportal (accessed 17 April 2020).
[455] *Pension Adequacy Report 2018: Current and future income adequacy in old age in the EU – Country profiles, Volume II*, European Commission, Brussels, 2018, p. 191: https://ec.europa.eu/social/BlobServlet?docId=19418&langId=en (accessed 8 April 2020).

Regarding financial sustainability, the question of adding automatic stabilisers to the statutory pension system (e.g. by linking the statutory pension age to life expectancy) has been popping up now and then in Austria for more than a decade. However, the current Austrian government has not announced any plans pointing towards the introduction of such instruments.

Regarding the second and the third pillar, it is evident that decision-makers did not place an emphasis on the further development of related instruments. The funded third pillar, in particular, is very reluctantly supported by politicians since the financial and economic crisis. Public subsidies within the premium-aided pension savings scheme of the third pillar were cut by 50 % as of April 2012 and since then no new attempts have been made to promote the third pillar.

Overall, it is fair to say that the scope of reform regarding pensions has been rather limited in Austria during recent years. The main trend was to increase benefit levels for people with long insurance records. These measures did not derive from an all-encompassing strategy of both safeguarding financial sustainability and ensuring solidarity and adequacy, but were much more of an ad hoc nature, following strategies of electoral credit-claiming by political parties.

3 ASSESSMENT OF ADEQUACY

3.1 Current adequacy

When compared with other Member States, the Austrian pension system produces high aggregate replacement ratios (AT 62 %; EU[456] average 58 %) and median relative income ratios of those aged 65 and over (AT 95 %; EU average 91 %).[457] The Austrian pension system, by international standards, also shows a rather long average pension payment duration and retirement duration, combined with comparatively high theoretical replacement rates (TRRs) for continuous employment careers.

The rate of severe material deprivation of people aged 65 and over, at 1.3 %, is substantially lower than the EU average (4.8 %). A related situation holds for the indicator of material and social deprivation, with 3.3 % of people aged 65 and over being affected in Austria in 2019, against 12.4 % in the EU. Housing situations are also rather favourable, with a housing cost overburden rate of 5.6 % (2019), which was substantially lower than the EU average (10.0 %). Furthermore, self-reported unmet need for medical examination, at 0.6 %, is a very rare phenomenon in Austria (EU 3.7 %), but a comparatively low number of healthy life years at the age of 65 (around 7.7 years both for men and women) points to problems in ill-health prevention.

At the same time, it is fair to say that the Austrian pension system – in spite of the high average incomes of people of pensionable age – also produces a substantial degree of old-age income inequality. The S80:S20 income quintile ratio for people aged 65 and over amounted to 3.94 in 2019. This was lower than the EU average (4.24), but still substantially higher than in the Member States with the lowest income inequality among older people. The problem of income

[456] EU refers to the current 27 Member States of the European Union.
[457] Data for 2018; see Section 5 'Background statistics'.

inequality of older people also becomes evident in a high gender gap in pension income (for those aged 65-79), amounting to 36.4 % in Austria in 2019 (EU 29.5 %), which has not reduced significantly during recent years.

Problematic outcomes concerning women are also indicated by gender-specific at-risk-of-poverty rates. For men, the at risk-of-poverty rate[458] in 2018, both for those aged 65 and over (9.6 %) and for those aged 75 and over (8.8 %), was considerably lower than the EU average (65+ and 75+, 13.4 %). However, the at-risk-of-poverty rates for women in Austria aged 65 and over (17.2 %) and aged 75 and over (18.5 %) was close to the EU average (65+, 18.2 %; 75+, 19.9 %). This very substantial gender-specific inequality in outcomes regarding relative income poverty applies even though the Austrian pension system is one of the costliest in all EU Member States, with spending on gross public pensions amounting to 14.3 % of GDP in 2018 (EU average 12.4 %).

From a longitudinal *ex post* perspective, the at-risk-of-poverty rates of older people generally show a positive development in Austria. The at-risk-of-poverty rate for people aged 65 and over fell by 5 percentage points (p.p.) between 2008 and 2019, from 18.9 % to 13.9 %. For those aged 75 and over, it fell from 19.7 % in 2008 to 14.6 % in 2018, or by 5.1 p.p. However, it should be noted that this development does not derive from a lasting uniform trend. The reduction in the at-risk-of-poverty rate took place especially between 2008 and 2015, but came to an end after that. Furthermore, the relative median at-risk-of-poverty gap for older people (65+) also did not decrease persistently over time. It increased from 18.2 % in 2008 to 20.7 % in 2013. Then it fell to 16.1 % in 2016, but after that it rose again to 19.6 % in 2019. The relative at-risk-of-poverty gap of older people in Austria regularly exceeds the EU average, which amounted to 17.4 % in 2018. Also, the difference in the at-risk-of-poverty rates of older people according to gender has not been reduced in a lasting way during the last 10 years in Austria. In 2008 the at-risk-of-poverty rate of women aged 65 and over (22.4 %) exceeded that of men (14.1 %) by 59 %. This gap then decreased to 41 % in 2015, but afterwards showed a steep increase to 91 % in 2018. This differentiation was much larger in Austria than the EU average, which was around 33% in 2018.

Overall, the data and developments addressed above indicate that the Austrian pension system – on average – provides rather generous benefits from an international comparative point of view. However, at the same time it shows enduring challenges of substantial income inequality and rather low benefits for groups of people with earlier discontinuous and/or low-income employment, many of whom in practice are women. The recent reform introducing a pension bonus, together with a higher minimum pension for groups with long insurance records, will mitigate this problem to some degree. However, the impact is likely to be limited, as the number of people meeting the related conditions is expected to be rather low (see Section 2).

3.2 Future adequacy

According to projections, TRRs will remain high in Austria in the future. The rates will also remain high for people whose careers are interrupted for short periods due to childcare, unemployment, and family care. However, the TRRs for average-earners will remain at about

[458] Defined as an income below 60 % of the median of national equivalised household income.

the same level as TRRs for low-wage earners, whereas high-earners will see their replacement rates decrease. This means that the full implementation of pension reforms decided in the past will not lead to much higher progressivity in the pension system.

Through the 'principle of equivalence'[459] (of contributions and benefits), the Austrian statutory pension system will continue to reproduce substantial inequalities of earned income in public old-age pensions. At the same time, the Austrian quasi-minimum pension via the means-tested equalisation supplement provides benefits below the at-risk-of-poverty threshold[460] (see Section 3.4). However, it has a positive effect in reducing the at-risk-of-poverty gap of older people considerably, which anyhow – as shown above (Section 3.1) – still tends to be higher in Austria than the EU average.

3.3 Challenges for future adequacy

The ongoing differentiation of chances and risks in the labour market comes with a growing divergence concerning continuity of employment and levels of earned income. And rising numbers of single-person businesses and people in non-standard employment further contribute to this challenge. Empirical studies show that unemployment, discontinuous employment, low-wage and low-income employment, as well as different types of non-standard employment, tend to be concentrated on specific socio-demographic groups.[461] The groups most affected by these phenomena include people with low formal qualification, people with a migration background, women, and more recently also young people at the beginning of their employment career. Within the Austrian statutory pension system, unemployment, discontinuous employment and low-income employment translate into comparatively lower pension benefits in old age. This link was strengthened even further by the pension reforms of the early 2000s, when the contribution base used to calculate pensions was expanded from the best 15 years to lifetime earnings. Overall, the Austrian pension system will continue to show comparatively high TRRs for continuous employment careers. However, at the same time people or groups who cannot meet these criteria will face comparatively lower pension benefits. Overall, this points to the likelihood that the growing insider-outsider divide in the labour market will be replicated in pension benefits, if no more far-reaching measures are taken in pension policies to counteract such a development.

3.4 Solidarity mechanisms

As already noted above, the principle of equivalence was strengthened with the pension reforms of the early 2000s, through the expansion of the assessment base from the best 15 years to lifetime earnings. This step substantially reduced pension benefits, although probably most among high-earners.

[459] The notion that the level of benefits should in the first instance reflect the level and duration of earlier insurance contributions.
[460] Defined as 60 % of the median of the national equivalised household income.
[461] Eppel, R., Horvath, T. and Mahringer, H., Die Struktur und Dynamik von Arbeitslosigkeit, Atypischer Beschäftigung und Niedriglohnbeschäftigung in der Längsschnittanalyse 2000/2010, Austrian Institute of Economic Research, Vienna, 2013: https://www.wifo.ac.at/jart/prj3/wifo/resources/person_dokument/person_dokument.jart?publikationsid=46669&mime_type=application/pdf (accessed 8 April 2020).

However, within the same reforms the minimum number of contribution years due to gainful work required for an old-age pension was reduced to seven years (formerly 15 years). Therefore, the minimum eligibility criteria for a pension are seven contribution years (gainful work) and at least eight years of other pension-qualifying periods (e.g. child-raising, unemployment, military service). This contributes to a reduction in the non-coverage rate and has a positive redistributive impact. Furthermore, the assessment base for time spent bringing up children was raised from EUR 650 per month to EUR 1350 per month, and then further increased on a yearly base to EUR 1922.59 in 2020. This measure also has a positive redistributive impact and to some degree mitigates the, in that respect adverse, effects of expanding the assessment base.

One other important redistributive element of the Austrian pension scheme, already repeatedly addressed above, is the means-tested equalisation supplement, which defines a minimum pension for people who are, in principle, eligible for a pension. In December 2018 for 8.8 % of all pensions an equalisation supplement was granted (Hauptverband der Österreichischen Sozialversicherungsträger, 2019, p. 66). The share was lower for direct old-age pensions (i.e. excluding invalidity pensions and survivor's pensions), amounting to 6.2 %. In 2018 more than two thirds of all recipients of an equalisation supplement were women. The role of the equalisation supplement is also unequally distributed across different professional groups. For (earlier) white-collar workers (*Angestellte*), the share of pensions raised via an equalisation supplement recently (2018) amounted to 3.3 %, whereas the related number for blue-collar workers amounted to 12.1 %. The share of equalisation supplements in all pensions is also above average for earlier self-employed people (7.2 %) and also – to a much larger degree – for earlier farmers (20.2 %). The equalisation supplement granted in addition to a low standard pension in 2018 on average amounted to EUR 313 per month. Again, differentiations according to professional groups exist. For earlier white-collar workers, low-standard pensions on average were increased by EUR 262 per month, for blue-collar workers by EUR 294, for self-employed people by EUR 330 and for farmers by EUR 425. This means that low-standard pensions are often increased by some substantial degree via an equalisation supplement, and that this instrument to some degree reduces differentiations according to earlier employment status, career length, income group, education level and gender. Nonetheless, it should be noted that the system of equalisation supplements does not provide benefits preventing relative income poverty. For example, for a single person the net yearly minimum pension benefit according to the ESRR currently amounts to EUR 12,843, whereas the at-risk-of-poverty threshold[462] amounts to EUR 15,108. Still, it is evident that the equalisation supplement mitigates the depth of income poverty to a substantial degree, as it reduces the relative at-risk-of-poverty gap.

The issue of solidarity mechanisms between generations (i.e. inter-generational solidarity) appears to be a complicated one, which might come with substantial future challenges in the Austrian case. This is caused by the fact that the Austrian statutory pension system is a pure PAYG scheme, whereby those generations of working age have to bear the costs of current pensions. Projections indicate that these costs will increase in future due to demographic

[462] Defined as 60 % of the median of equivalised household incomes.

change, whereas pension benefits will be comparatively less generous in the future for the younger generations due to the reforms of the early 2000s.

4 OPPORTUNITIES TO ADDRESS CHALLENGES

Given the large differentiation of benefit levels within the statutory pension system, a detailed assessment of the current and likely future distributional impact of the statutory pension system should be carried out. Such an analysis is partly missing in the case of Austria at the time of writing, but it would be a precondition for future evidence-based policymaking in this area. Results from such research could then interlink with (to a larger degree already available) research results on the current and likely future financial sustainability of the pension system, thereby allowing for policy recommendations that would promote both social adequacy and financial sustainability.

A staged closure of early-exit pathways from the labour market should be pursued. In doing so, the long-term habit of turning old-age unemployment into different schemes of early retirement would come to an end, and (hopefully) even more emphasis would then be given to pro-active measures aimed at a further increase in the employment rates of older people.

5 BACKGROUND STATISTICS

5.1. Relative income	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
Relative median income ratio (65+)	0.98	1.02	0.95	0.1	0.06	0.11
Income quintile share ratio (S80/S20), 65+	3.94	3.84	3.87	-0.26	-0.13	-0.4
Relative income quintile share ratio (S80/S20), 65+ - 0-64	-0.26	-0.34	-0.32			
Aggregate Replacement Ratio (ARR) %	65	65	59	4	4	3
5.2. Poverty and material deprivation	**2019**			**Change 2008-2019**		
	Total	Men	Women	Total	Men	Women
At-risk-of-poverty or social exclusion (AROPE), 65+ (%)	14.5	9.9	18	-6.7	-6.6	-6.6
At-risk-of-poverty rate (AROP), 65+ (%)	13.9	9.6	17.2	-5	-4.5	-5.2
Severe material deprivation (SMD), 65+ (%)	1.3	1	1.5	-3.1	-2.4	-3.6
At-risk-of-poverty or social exclusion (AROPE), 75+ (%)	15.1	8.8	19.2	-6.9	-7.9	-5.7
At-risk-of-poverty rate (AROP), 75+ (%)	14.6	8.7	18.5	-5.1	-6.1	-4
Severe material deprivation (SMD), 75+ (%)	0.8	0.3	1.1	-3.3	-1.7	-4.3
Relative median at-risk-of-poverty gap, 65+ (%)	19.6	24.2	18.1	1.4	2.2	1
At-risk-of-poverty rate (AROP), 65+: 50 % threshold (%)	8.2	6.7	9.3	-2.3	-1.6	-2.7
At-risk-of-poverty rate (AROP), 65+: 70 % threshold (%)	21.3	15.1	26.1	-6.5	-6.1	-6.4
Material and social deprivation, age 65+ (1)	3.3	2.2	4.1	-1.6	-1.5	-1.7
5.3. Gender difference		**2019**			**Change 2008-2019**	
Gender gap in pension income (65-79) (%) (2)			36.4			-4.6
Gender gap in non-coverage rate (W-M in p.p.) (65-79)			10.5			-2.4
5.4. Housing and health situation	**2019**			**Change 2008-2019**		
	Total	Men	Women	Total	Men	Women
Housing cost overburden rate, 65+ (%)	5.6	4.2	6.7	-11.2	-6.1	-14.8
Self-reported unmet need for medical exam 65+ (%)	0.6	0.4	0.8	-2.3	-2.9	-1.8
Healthy life years at age 65 (years)	7.7	7.7	7.7	0.2	0.3	0.2
Life expectancy at age 65	20.1	18.5	21.6	0.5	0.8	0.5
5.5 Sustainability and context	**2019**			**Change 2008-2019**		
	Total	Men	Women	Total	Men	Women
Employment rate, age group 55-64 (%)	54.5	63.1	46	15.7	14.2	16.7
Pension expenditure as % of GDP (ESSPROS) (3)			14.2			1.2
Retirement duration from first pension (years) (4)	22.9	19.8	25.5	-0.3	0.0	-0.3
Retirement duration from end employment (years)	22.3	19.8	24.7			
Eurostat and AWG projections		**2019**			**2059**	
Old-age dependency ratio (20-64) (%)	30.5	26.3	34.7	54.5	48.5	60.6
Economic old-age dependency ratio (20-64) (%) (5)	37.0	30.3	44.5	66.0		
Gross public pensions as % of GDP (5)	13.3			14.6		
Benefit ratio (%) (5)	53.6			44.0		
Coverage ratio (% of pop aged 65+) (5)	145.1			119.9		
Gross pension ratio high / low earner		2.7	2.5		2.2	2.2

(1) change since 2014, not 2008
(2) data refer to 2010, not 2008
(3) ESPROSS data refer to 2018
(4) Change is since 2016, not 2010
(5) 2060 instead of 2059

5.6 Theoretical Replacement Rates

	Net (%)				Gross (%)			
	2019		2059		2019		2059	
	Men	Women	Men	Women	Men	Women	Men	Women
Average earning (100%)								
Base case: 40 years up to the SPA	83.6	84.4	84.1	84.1	70.1	71.1	70.9	70.9
Increased SPA: from age 25 to SPA	82.5	76.5	84.1	84.1	70.1	62.2	70.9	70.9
AWG career length case	84.3	88.6	82.2	79.8	71.0	75.8	68.8	66.2
Old base case: 40 years up to age 65	83.6	91.3	84.1	84.1	70.1	78.9	70.9	70.9
Longer career: 42 years to SPA			87.3	87.3			74.5	74.5
Shorter career: 38 years to SPA			81.0	81.0			67.4	67.4
Deferred exit: 42 years to SPA +2			93.0	93.0			80.8	80.8
Earlier exit: 38 years to SPA -2								
Career break – unemployment: 3 years	82.9	82.9	82.5	82.5	69.4	69.4	69.2	69.2
Career break due to child care: 3 years	82.2	84.6	84.7	84.7	68.6	71.3	71.7	71.7
Career break care to family dependant: 3 years	82.9	82.8	82.0	82.0	69.4	69.3	68.6	68.6
Short career (20 year career)	46.2	46.2	48.3	48.3	34.0	34.0	35.4	35.4
Work 35 y, disabled 5 years prior to SPA			67.4	67.4			53.5	53.5
Early entry in the LM: from age 20 to SPA			92.1	92.1			79.8	79.8
Index: 10 years after retirement @ SPA			75.1	75.1			60.7	60.7
Extended part-time period for childcare			79.4	79.4			65.6	65.6
Survivor – full career		110.2		110.3		99.1		99.3
Survivor – short career		75.9		77.7		61.5		63.8
Survivor ratio 1*		0.74		0.74		0.70		0.70
Survivor ratio 2*		0.62		0.62		0.59		0.59
Low earnings (66%)								
Base case: 40 years up to the SPA	82.5	83.3	84.1	84.1	70.1	71.1	70.9	70.9
AWG career length case	83.3	87.8	82.0	79.6	71.0	75.8	68.8	66.2
Old base case: 40 years up to age 65	82.5	90.8	84.1	84.1	70.1	78.9	70.9	70.9
Career break – unemployment: 3 years	81.7	81.7	82.4	82.4	69.4	69.4	69.2	69.2
Career break due to child care: 3 years	82.5	86.7	87.7	87.7	70.2	74.6	74.7	74.7
Short career (20 year career)	62.6	62.6	61.8	61.8	51.5	51.5	50.0	50.0
Early entry in the LM: from age 20 to SPA			92.7	92.7			79.8	79.8
High earnings (100->200%)								
Base case: 40 years up to the SPA	76.2	71.8	64.9	64.9	63.9	59.4	52.7	52.7

**Survivor ratio 1: man base case, woman base case*

**Survivor ratio 2: man base case, woman short career case*

POLAND

Highlights

- From 2009, old-age pensions in Poland have been granted predominantly according to new system rules based on the defined-contribution (DC) principle. The new system offers less generous benefits. As a result, the risk of poverty has increased, but remains close to the EU[463] average. In the future, an increase in the risk of poverty can be expected, as replacement rates decline further.
- Between 2017 and 2019, an increased inflow of newly granted pensions could be observed (around 1 million new pensions in three years). This includes the effects of lowering pensionable ages to 60 for women and 65 for men. At the same time the rise in the employment rate of people aged 55-64 stagnated and the number of working pensioners increased. This increased the pension system dependency rate.
- The new voluntary occupational employee capital plans (PPKs) with auto-enrolment may improve future adequacy, if people decide to use their savings for annuity payments. However, the participation in voluntary savings, including the PPKs, is lower than expected.
- In order to improve the adequacy of future pensions it is important to promote longer working lives, including working beyond the pensionable age, combined with increased savings in occupational and voluntary plans; in the longer run, a return to a higher pensionable age is recommended.

1 GENERAL DESCRIPTION OF THE NATIONAL PENSION SYSTEM

The largest general statutory pension scheme in Poland covers employees and the self-employed outside agriculture. It is administered by the Social Insurance Institution (*Zakład Ubezpieczeń Społecznych*, ZUS). In 2020 the scheme covered 15.74 million insured people (66.6 % of people of working age, 20-64).[464]

Within this system, people born before 1949, as well as those who accrued full pension rights before 2009, receive old pay-as-you-go (PAYG) defined-benefit (DB) pensions. Those born after 1948 are covered by the new system rules based on the DC principle.

The statutory pension system is financed from contributions (19.52 % of gross salary) paid in equal shares by employees and employers. The contribution is divided between two or three accounts.

[463] EU refers to the current 27 Member States of the European Union.
[464] https://stat.gov.pl/obszary-tematyczne/ludnosc/ludnosc/ludnosc-stan-i-struktura-ludnosci-oraz-ruch-naturalny-w-przekroju-terytorialnym-stan-w-dniu-30-06-2020,6,28.html

There are two accounts in the non-financial DC scheme managed by ZUS, as follows.

- NDC1 account (12.22 % of gross salary), which is revalorised according to the growth in wages. Pension rights accrued before 1999 were recalculated into initial capital and credited to that account.
- NDC2 account (7.3 % of gross salary – or 4.38 % for those who decided to save part of their pension contribution in a funded account), revalorised in line with average five-year GDP growth. In cases of death, the value of this account can be transferred to the account of an heir.

Insured workers can also have a third account in a statutory funded scheme. This is a voluntary personal funded DC pension account (FDC) in open pension funds (*otwarty fundusz emerytalny*, OFE). Since 2011, this account is supplemented with 2.92 % of gross salary, paid from the mandatory social insurance contribution. The FDC account was mandatory until 2014. In 2014 all workers had to choose to pay contributions to FDC or NDC2 accounts (the latter being the default option). Government bonds equivalent to the value of the FDC account in February 2014 (52 % of assets) were also removed from the FDC account and credited to the NDC2. The FDC option is voluntary for new entrants to the labour market. Starting 10 years before reaching pensionable age, assets accumulated by an individual in the FDC account are gradually transferred to the NDC2 account. Pensions are paid from NDC1 and NDC2 accounts.

In November 2020, there were 15.4 million people with FDC accounts (98.1 % of all insured people), including those who have paid accumulated contributions after 1998, even if they are not currently insured or contributing to the FDC. In the same month, the contributions of 2.59 million people were credited to their FDC accounts (which represented 16.7 % of all FDC members). The OECD estimates the coverage of FDC accounts was 66.4 % of the working-age population. In November 2020, the assets accumulated in FDC accounts amounted to PLN 138.3 billion (EUR 30.7 billion), PLN 15 billion less than in 2018, mostly invested in shares of companies listed on the regulated market.

Old-age pensions are calculated by dividing the value of pension accounts by unisex life expectancy at retirement age. The pensionable age was lowered in 2017 and is equal to 60 for women and 65 for men. The life-expectancy factor is calculated by Statistics Poland and adjusted annually.

There is no minimum insurance period for claiming a pension. However, in order to have a right to the guaranteed minimum pension, a minimum insurance period of 25 years for men and 20 years for women is required. The minimum pension from March 2020 amounted to PLN 1200 (EUR 264) per month. There is an increasing group of people who receive pensions below the minimum, due to shorter working lives. In March 2020 it was 443,075 people (7.5 % of old-age pensioners), of which 85.6 % were women.[465]

Extensive early retirement possibilities that existed before 2008 were abolished. Since 2009 early retirement is possible in the form of a bridging pension for workers who had worked

[465] ZUS information note: https://www.zus.pl/documents/10182/2452302/3_E+niższe+niz+najniższe+XII+2018.pdf/88a1190e-3708-ee62-ee5a-1287a99c98d4

before 1999 in arduous or hazardous conditions. In 2018, the number of workers working in such conditions (including those who started work after 1998) was 329,000.[466] 31,400 people received bridging pensions in December 2019. This scheme will gradually phase out as soon as all workers who worked before 1999 reach retirement age. Only miners, covered by the rules of the old DB scheme, have permanent early retirement. There are no other early retirement possibilities within the general pension system.

After reaching the pensionable age, people can combine the old-age pension with earnings from work without any restrictions. If a pensioner wants to combine pension and earnings, they need to terminate their work contract for a minimum of one day and then be re-employed, as a completed work certificate is needed to claim a pension. If a pensioner is below pensionable age, their pension is reduced when their earnings are between 70 % and 130 % of the average wage, and completely suspended when earnings are higher than 130 % of the average. Any pension contributions paid by working pensioners are recalculated to a part of an old-age pension, upon request of a pensioner (after employment is terminated or after at least 12 months of working). The number of working pensioners has increased in recent years, first due to lower new pensions granted in the new NDC system, and second due to labour market demand combined with a shrinking working-age population and a reduced retirement age. In December 2018 there were 747,200 working pensioners, compared with 575,500 three years before.[467]

Farmers have a separate agricultural social insurance fund (*kasa rolniczego ubezpieczenia społecznego*, KRUS) with 1.23 million contributors and 1.14 million pensioners at the end of 2018.[468] The KRUS is financed mainly from taxes and only in small part from contributions. KRUS pensions are calculated on the basis of contributory years, with the reference level related to the minimum pension, which means that the benefits are not linked to the level of income, but to the length of being a farmer. For other non-contributory pensions, benefits are based on DB principles.

Overall, social insurance coverage is high in Poland. In 2018 the ZUS and KRUS schemes between them covered 71.6 % of people of working age (20-64), which was slightly below the employment rate in this age group (74 % in 2018). As indicated in the national ESPN report on access to social protection for people working as self-employed or on non-standard contracts, the coverage of social protection benefits for these groups of workers in Poland is similar to that of labour-code workers, with the exception of those working under a civil-code contract for a specific task. However, as the self-employed and civil-law contractors can choose their contribution rates and typically choose to pay the lowest rate available, their benefits are correspondingly lower than those for labour-code workers. A self-employed person's average pension is at least one fifth lower than the average for all pensioners.[469]

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466 ZUS information note available at: https://www.zus.pl/documents/10182/2452302/Szczególne+warunki.pdf/eb391570-b893-fb6a-6be2-2c6e8398b941; and ZUF, *Basic Information on Social Insurance, 2018*. https://www.zus.pl/documents/10182/167633/Ważniejsze+informacje+z+Zakresu+Ubezpieczeń+Społecznych+2018+r..pdf/de3f5026-98b6-a925-a664-cbd890449ee0

467 ZUS, *Working Pensioners*, 2018. https://www.zus.pl/documents/10182/2422424/Pracujący+emeryci+raport.pdf/1e3bd82c-988c-83e4-bf8e-d60f2447d28f

468 KRUS quarterly information, 4th quarter 2018. https://www.krus.gov.pl/fileadmin/moje_dokumenty/dokumenty/statystyki-BE/KIS/2018/KIS_IV_kwartal_2018.pdf

469 Chłoń-Domińczak, A., Topińska, I. and Sowa, A., *Access to Social Protection of People Working as Self-employed or on Non-standard Contracts: Poland*, European Social Policy Network (ESPN), Brussels, European Commission, 2017.

There are also separate tax-financed schemes for uniformed services such as the military, police and prison services, as well as state provision for judges and prosecutors. Access to benefits in these systems is linked to seniority. For those who entered the armed forces before 2014, the minimum service for claiming a pension is 15 years and for those who joined the military or police services after 2014 it is 25 years.

All pensions in payment are indexed once a year according to the consumer price index – measured as the higher of the general or pensioners' households – topped up by 20 % of the real growth of average earnings in the previous year. Indexation can be higher if agreed by the social partners. In recent years, indexation rules also included a minimum nominal increase in pensions (see Section 2). Pensions are subject to personal income tax.

Supplementary pension schemes consist of both occupational and personal pension schemes. These schemes are DC savings schemes, which allow different types of pay-outs (lump-sum payments, scheduled withdrawals) after reaching pensionable age for supplementary pension schemes (60 years for both men and women).

Occupational pension schemes include employee pension plans (*pracownicze programy emerytalne*, PPE) introduced in 1999. In December 2019 there were 612,856 participants in PPEs (2.6 % of the working-age population, or 3.9 % of socially insured people). The new PPKs (*pracownicze plany kapitałowe*) were introduced in 2019.[470] The PPKs in their first year of operations covered large employers. In subsequent years the PPKs will gradually extend to all employers. At the end of 2019 there were 328,926 participants of this scheme (see Section 2).[471] The PPKs are an auto-enrolment-based scheme, in order to ensure a higher coverage.

Personal pension schemes in Poland comprise individual retirement accounts (*indywidualne konta emerytalne*, IKE) and individual pension protection accounts (*indywidualne konta zabezpieczenia emerytalnego*, IKZE). Their coverage is also low and falling, albeit higher than for occupational schemes: in June 2020 there were 861,565 IKE accounts (3.6 % or 5.4 % of the working-age and socially insured population respectively) and 546,659 IKZE accounts (2.3 % and 3.4 % respectively).[472] In 2019 payments were only made into around 40 % of the IKE and IKZE accounts. This all means that these schemes play a negligible role in the current retirement income provision. Most of the income of pensioners comes from the public pension provision.

2 REFORM TRENDS

The most important changes introduced in the pension system in the period between 2017 and 2020 were in four major areas. First, the **changes affecting the pensionable age**, which included reducing the pensionable age to 60 years for women and 65 years for men, effective from October 2017. The 55-year pensionable age for military and police personnel who joined

[470] PPK is a long-term savings vehicle, which participants can use for a variety of purposes at pay-out: including upgrading their pension level, paying off a mortgage or providing better healthcare.
[471] Polish Financial Supervision Authority, *Zbiorcza Informacja Statystyczna Dotycząca Funkcjonowania PPK w IV Kwartale 2019 r.* [Statistical Information on PPKs in 4th quarter 2019]. https://www.knf.gov.pl/?articleId=69284&p_id=18
[472] The membership of IKE and IKZE partially overlaps, hence the total coverage of personal pension schemes is hard to estimate: https://www.knf.gov.pl/aktualnosci?articleId=69084&p_id=18

the forces after 2013 was removed in 2019. It is also a reversal of the regulations that were introduced in 2013.

The reduction in the pensionable age led to an increase in the number of new old-age pensions. In 2017, 2018 and 2019, there were respectively 417,000, 354,600 and 302,300 new pensions granted per year, compared with 229,400 in 2016 (ZUF, 2018). This means that in the period of three years the number of newly granted pensions reached around 1 million (that is around 18.53 % of all pensions in payment in 2018).

Second, there were changes that affected **pension levels and pension expenditure**. These included the ad hoc increases in pension indexation following a mixed quota (guaranteed minimum increase) and percentage formula. In 2018, pensions were increased by 2.98 % without a guaranteed minimum increase. In 2019, pensions were increased by 2.86 %, but the monthly increase could not be lower than PLN 70 (EUR 15). The minimum pension was raised to PLN 1100 (EUR 242) from PLN 1029.80 (EUR 226) in 2018. In 2020 pensions were increased by 3.56 % and no less than PLN 70 (EUR 15). The minimum pension from March 2020 was raised to PLN 1200 (EUR 264). This means that the total increase in pensions between 2017 and 2020 ranged from 9.6 % for those pensioners who have higher pensions to 20 % for people who receive minimum benefits.

Furthermore, an additional 13th pension payment in the amount of one monthly minimum pension was paid in May 2019 and in April 2020. The 13th pension was introduced to the pension system in 2019[473] as a part of pre-election promises and was made regular in 2020.[474] There are also plans to introduce a 14th pension payment in November 2021.[475]

The raising of the minimum pension and the guaranteed minimum increase strengthened the role of minimum pensions as a poverty-protection instrument but weakened the link between lifetime contributions and pensions, which is the core assumption of the NDC system.

There were also changes affecting selected groups of pensioners. From October 2017, the pensions of people who served in the security service were reduced to the level not exceeding average pension, by assuming that all years of service before 1989 were counted as zero in the benefit calculation. As a result, the pensions of around 50,000 people were significantly reduced. These regulations from February 2018 are awaiting the decision of the constitutional court.[476]

From March 2019, a new supplementary parent benefit (*rodzicielskie świadczenie uzupełniające*) or a 'mother 4+ pension', is paid from the state budget. It is equal to a minimum pension and paid to mothers (and under some conditions to fathers) who have raised four or

[473] *Ustawa z Dnia 4 Kwietnia 2019 r.: O jednorazowym świadczeniu pieniężnym dla emerytów i rencistów w 2019 r.*: http://prawo.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=WDU20190000743

[474] *Ustawa z Dnia 9 Stycznia 2020 r.: O dodatkowym rocznym świadczeniu pieniężnym dla emerytów i rencistów*: http://prawo.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=WDU20200000321

[475] The law regulating this payment is currently being discussed in the parliament: *Rządowy projekt ustawy o kolejnym w 2021 r. dodatkowym rocznym świadczeniu pieniężnym dla emerytów i rencistów*: https://www.sejm.gov.pl/Sejm9.nsf/PrzebiegProc.xsp?nr=280

[476] The meeting of the constitutional court on that subject was planned for 21 April 2020, subject to the COVID-19 lockdown.

more children and are not eligible for an old-age pension or whose pension is below the minimum. In June 2019, such pensions were granted to around 50,000 parents.

The third group of changes related to the **financing of pensions and pension savings**. The new type of employer-based long-term savings – the PPKs – were introduced in 2019, based on auto-enrolment. From July 2019 the scheme covered employees in large companies and from January 2020 medium-sized companies (with 50 or more employees). From July 2020 it was extended to companies with 20 or more employees, and from January 2021 to all other companies and public sector institutions. In the first stage, around 39 % of employees decided to stay in the PPKs. The participation was lower than initially expected, which is partially attributed to a lack of trust, caused by the previous rollback of the mandatory funded pension schemes.[477]

The government also proposed to close the mandatory FDC part of the system and transfer the remaining assets either to the demographic reserve fund with a corresponding increase in the NDC1 account, or to an IKE with a 15 % conversion fee, which was expected to take place in November 2020.[478]

Finally, there were also changes in the rules for **contribution payments** by the self-employed in order to increase coverage and reduce the contribution burden for the self-employed with lower incomes (including platform workers). From 2019, those self-employed people whose monthly income does not exceed the minimum wage can pay contributions on the basis of their actual income and not the standard level (60 % of average wage in the economy). From February 2020 it was extended to those self-employed people whose revenue in 2019 was below PLN 120,000 (EUR 26,370). It is expected that 320,000 self-employed people will benefit from this solution.

Additionally, with the COVID-19 pandemic, the social insurance contributions for self-employed people whose revenue is below 300 % of average wage, the smallest companies (with nine or fewer employees) and some sectors (such as hospitality and entertainment) were temporarily paid from public funds. Other employers can also request the postponement or prolongation of their contribution payments.

3 ASSESSMENT OF ADEQUACY

3.1 Current adequacy

A significant share of pensions currently in payment come from the old DB system, and those that are calculated according to the NDC rules still have a large part related to the initial capital (DB pension rights accrued until the end of 1998). Thus, the current adequacy of pension benefits does not reflect potential developments in the future, when pensions will be calculated according to the principles established in 1999. Therefore, the current adequacy of the Polish

[477] See, for example, a statement by the deputy president of the Polish development fund, responsible for the implementation of the PPKs in Poland: https://praca.gazetaprawna.pl/artykuly/1441315,uczestnictwo-w-ppk-na-poziomie-40-proc-to-bedzie-dobry-wynik-z-czasem-partycypacja-powinna-rosnac.html.
[478] However, the law has not yet been adopted by the parliament, and given the impact of the COVID-19 lockdown on the financial markets, there are suggestions to postpone this change.

pension system remains close to the EU average, which reflects the generosity of the pension formula in the old DB system.

Recent changes in the pensionable age have an impact on the adequacy of pensions. The higher inflow to old-age pensions after the reduction in the pensionable age is combined with the stagnation of the employment rate of people in the 55-64 age group, particularly women. In 2019, the employment rate of women in this age group remained at 39.2 % and the distance to the EU average widened. For men, the employment rate increased to 61.0 %, which was less than the increase observed in the EU. At the same time, the number of working pensioners also rose, as people retired at a lower age and combined work with retirement, as presented in Section 1. There were more than 170,000 more working pensioners at the end of 2018 compared with 2015. The difference in pensionable age also leads to a widening gender pension gap. The average pension awarded for the first time and paid in January 2019 was PLN 2079.37 (EUR 457), but there is a significant gap between benefits for men and women after the lowering of the retirement age, as benefits are linked to life expectancy. For women, the average newly granted pension was PLN 1681.26 (EUR 370), and for men it was PLN 2710.61 (EUR 596) (i.e. women's average newly granted pension was about 60 % of men's).

Given the increase in the share of pensioners receiving benefits according to the new rules, the pension adequacy indicators in 2019 showed a decline in the **relative income** of pensioners.[479] In 2019, the median income of people aged 65 and over compared with those aged 18-64 was 88 % (a decline of 9 p.p. compared with 2008); it was higher for older men compared with women (94 % vs 84 % respectively). The S80:S20 income quintile ratio of people aged 65 and over in Poland was below the EU average (3.56 vs 4.24).

This again can be explained by a gradual phasing-in of the new system rules. The aggregate replacement ratio (ARR) in 2019 was 60 % (65 % for men and 58 % for women), also close to the EU average. The gender gap in ARR reflects differences in career histories. The ARR increased from 2008 by 4 p.p., which is the combined result of a stable mechanism of old-age pension indexation and the relatively small growth of wages of workers in the 55-59 age group. The ratio between average old-age pensions and average wages between 2016 and 2018 declined from 60.3 % to 56.4 % (ZUF, 2018).

The **poverty and material deprivation** of older people in Poland is close to the EU average. The at-risk-of-poverty-or-social-exclusion (AROPE) rate of people aged 65 and over was 19.2 % in 2019, and was higher for women compared with men (22.6 % vs 14.0 %), which was a substantial decrease compared with 2008 (7.7 p.p.), mainly thanks to the reduction in the rate of severe material deprivation to 4.1 % (16.7 p.p. lower compared with 2008). However, the at-risk-of-poverty (AROP) rate of people aged 65 and over in 2019 was 17.4 %, 5.8 p.p. higher than in 2008 and close to the rate of the working-age population (18-64), at 15.5 %. It should be noted that people aged 75 and over in Poland have lower AROPE and AROP rates compared with those aged 65 and over. People aged 75 years and over receive a care supplement to their pension of PLN 229.91 (EUR 50.53), which contributes to a lower AROP rate for people in this age group: at 17 %, it is 0.4 p.p. lower than for people aged 65 and over.

[479] See Section 5 for detailed data.

The relative poverty gap of people aged 65 and over in 2019 was 18.1 %, which was below the EU average but an increase, of 7 p.p., compared with 2008. The relative poverty gap is sensitive to the threshold limit. The increase in the AROP rate at the 75 % threshold in Poland is high (+7 p.p.) whereas the EU average was stable. This indicates that changes in the pension system gradually shift pension levels below 75 % of median income, particularly in the case of women.

The **gender gap** in pension income for people aged 65-79 in Poland was 21.7 % in 2019, which was well below the EU average (29.5 %). Between 2010 and 2019 the gender gap decreased by 2.1 p.p. There is also a small, negative (-1.2 p.p.) gender gap in non-coverage rate, which indicates slightly poorer access to pensions by men. This may be explained by the fact that women more frequently work in the public sector, while men more frequently are self-employed or work in the informal sector.

While there is no specific reference income in Poland for older people, the consumer prices that are taken into account for the indexation of pensions are based on the higher of the average annual consumer price increase for pensioner households or that for all households. This means that the specific needs of pensioner households are taken into account when calculating pension increases.

The **housing situation** of older people in Poland is relatively favourable; 6.8 % of people aged 65 and over experienced housing cost overburden in 2019 (compared with 10.0 % in the EU), which was a decline of 4 p.p. from 2008. Among women, 8.3 % faced housing cost overburden, which was almost twice as high as in the case of men (4.4 %).

The **health situation** among people aged 65 and over in Poland is worse compared with the EU average. Life expectancy at 65 is 15.8 years for men and 20.1 years for women, which is below the EU average by 2.3 years and 1.5 years respectively. The number of healthy life years (8.1 years for men and 9 years for women) is also below the EU level. A large group of people aged 65 and over reports unmet need for health examination (8.5 %) which is more than twice the EU average (3.7 %). SHARE data for Poland indicate that around 30 % of people aged 75-79 face difficulties in activities of daily living (ADLs), and in the case of those aged 85 and over it increases to almost 70 %, which is much higher compared with the majority of EU countries.

Older people who require **long-term care** (LTC) may request a stay in public LTC facilities. The provision of LTC places in Poland is limited (around 1 % of the 65+ population is covered by residential LTC) and the overwhelming majority of care is provided by the family. Residential LTC is available in the health sector and social services sector.

Health sector nursing and care services are financed from the social health insurance system. Nursing and care units can be private, non-governmental or public, operating on the basis of a contract for service provision with the national health fund. In residential care, co-funding for accommodation and catering is required. A monthly payment is set at 250 % of the minimum pension but cannot exceed 70 % of residents' monthly income from an old-age pension.

In the social services sector, LTC services are managed locally by districts (*poviats*) (most of residential care) or local communities (*gminas*) in the case of some residential care and home care services. Services are financed from local government budgets and out-of-pocket payments. Residential services are financed by care recipients or their families up to the level of 70 % of individual incomes, and local government co-funding is possible for those who cannot afford it. According to data from the Ministry of Family, Labour and Social Policy, local governments at least partially cover the costs of 60 % of residential care recipients.[480]

3.2 Future adequacy

The Polish pension system is currently in a transitional phase. The analysis of indicators related to the situation of current pensioners shows clearly that the pensions paid provide sufficient protection against income poverty. The transition to future pension levels is gradual, as people who worked before 1999 have their pension rights accumulated until the end of 1998 based on the old DB pension formula. Pensions that are currently granted are based on the new system rules, but still include the part that is related to the old system. However, the level of pension granted according to the new rules is lower compared with the old rules and this tendency will be observed in the future.

Future theoretical replacement rates (TRRs) for Poland reflect the projected outcomes of the pension system that closely links benefits to contributions and the remaining life expectancy at retirement age. The declining size of the labour force, due to population ageing, will have an impact on the growth of the wage bill used for the revalorisation of the NDC1 accounts. At the same time, the life expectancy at retirement age will be increasing, given that there are no plans to increase pensionable age. These factors will result in a strong decline in TRRs. In the base case (i.e. a 40-year career until the standard pensionable age), the net TRR will be nearly halved, decreasing by 33.3 p.p. for men and 28.2 p.p. for women. The projected TRRs for low-earners are equally low, pointing to potentially high risks of old-age poverty.

There are also important considerations regarding pension adequacy for women. A large share of the low-benefit risk for women stems from differences during their labour market career. As women tend to have both shorter working lives and lower wages, this is a combined effect that leads to lower pension savings, which combined with five-year lower pensionable age will contribute to the widening gender pension gap.

3.3 Challenges for future adequacy

The TRR projections for Poland indicate that the replacement rate will be significantly reduced for future pensioners. The drop will be particularly large for women, mainly due to their lower pensionable age. According to the projections, a majority of women and a significant share of men are likely to receive pensions at the minimum level.[481] The gender pension gap is likely to be high, as women have shorter working lives and they also earn less than men.

[480] For details see: Sowa-Kofta, A., *ESPN Thematic Report on Contribution to the 2021 SPC-COM report on long-term care for older people in the EU*, European Social Policy Network (ESPN), European Commission, Brussels, 2020.
[481] https://ibs.org.pl/app/uploads/2017/02/Tyrowicz-Wiek-emerytalny-i-wydatki-na-emerytury.pdf.

The risk of poverty in old age is particularly high for self-employed people, who mostly pay contributions based on the declared income of 60 % of minimum wage[482] as well as people working on civil contracts, whose income is close to or below the minimum wage.

Another group that requires attention are people who receive pensions below the guaranteed minimum, as they have worked less than 20 years (women) or 25 years (men). As highlighted in Section 1, the number of such pensions is relatively large and has increased quickly in recent years, particularly among women, who withdrew from the labour market relatively early – according to an information note of the ZUS, around half of the people who receive pensions below the minimum level had their benefits calculated based on the initial capital (which means that they did not contribute after 1998).

3.4 Solidarity mechanisms

The pension system in Poland is based on the DC principle. This means that individual pensions are directly dependent on the lifetime contributions to the old-age insurance system and on life expectancy at retirement age. Therefore, differences in lifetime earnings will be reflected directly in differences in pension levels.

There are two types of solidarity mechanisms that exist in the pension system. First, there is the provision of contributions for selected, socially justified, career breaks. Second, there is a minimum pension guarantee that is an instrument to protect pensioners against poverty.

Pension contributions are paid from public funds for career breaks such as maternity, paternity and parental leave, periods of unemployment and periods of care for family members who have disabilities.

Pensioners who were self-employed as well as those working on civil law commission contracts (*umowa-zlecenie*) can expect lower pensions, if they paid lower contributions, compared with regular workers.[483] The gap for those working on civil law commission contracts (*umowa-zlecenie*) will be declining, as from 2017 people working on such contracts have a guaranteed minimum hourly income and they are covered by social insurance based on all contracts in order to ensure that their contribution base is at least at the minimum wage level. In the case of self-employed people, the pension gap compared with regular workers is likely to remain or even increase, with the reduced contributions for some of the self-employed. In 2019, the average monthly old-age pension of self-employed people was PLN 1727 (EUR 384) compared with the overall average of PLN 2353 (EUR 517).[484]

There are also some mechanisms to reduce the gender gap in pensions. Pensions are calculated by using unisex life expectancy. However, the main factor differentiating current and future pensions is the difference in retirement age. In December 2018, the average old-age pension

[482] 60 % of the minimum wage is the lowest contribution base that the self-employed can declare. Most self-employed people pay contributions on this base.
[483] Civil-law contractors, similar to self-employed people, can declare a higher contribution base. If they receive remuneration described in the contract with exact quota, hour stake or accord stake, the assessment will be based on such remuneration. In such a case, it can be higher than the minimum wage.
[484] ZUS, quarterly report, 4th quarter 2019.

was PLN 2837 (EUR 624) for men and PLN 1894 (EUR 416) for women and, as discussed earlier, this gap may widen in the future (ZUS, 2018).

The main instrument of poverty prevention in old age is **the minimum pension**, which tops up the old-age benefit. The top-up is financed from the state budget. As indicated in Section 1, from March 2020 the minimum monthly pension amounted to PLN 1200 (EUR 264). In order to receive this benefit, people have to have an insurance period of not less than 20 years (women) and 25 years (men). Additionally, as mentioned in Section 3, pensioners aged 75 and above receive a monthly care supplement to their pension of PLN 229.91 (EUR 50.53).

Those people whose net income is below the **social assistance** minimum – that is, PLN 701 (EUR 154) per month for people living alone and PLN 528 (EUR 116) in the case of those living in families – can qualify for a permanent cash benefit from social assistance or other in-kind support (food, medicines etc.).

Those people who worked before 1999 have their pension accounts credited with the **initial capital** that reflects the pension rights accrued in the old DB system. As a result, income replacement levels gradually change to the level fully based on the new pension system. This also means that there will be a gradually widening cohort difference in observed replacement rates, which is also visible between current and future TRRs.

Pensions in payment are indexed according to a mixed **indexation factor**, 80 % consumer price index and 20 % wages. In the long run this leads to a decline in the level of pensions in payment relative to average wages and thus an increased risk of relative poverty among the oldest pensioners, predominantly women. Widows can also claim survivor’s pensions, which protect their income in the case of short or no working careers (more than 1 million women aged 50 and over benefit from this).

4 OPPORTUNITIES TO ADDRESS CHALLENGES

Given the pension system design, the most effective policies to increase the adequacy of pension payments are related to increasing lifetime earnings and working lives as well as postponing retirement age, as pensions depend mainly on lifetime contributions and life expectancy (unisex) at the age of retirement.

Therefore, the policies that would mitigate the risk of low adequacy could include:

- promoting longer working lives over the entire life-course, particularly in the case of people with lower qualifications and low earnings through lifelong learning and investment in human capital;
- improving the reconciliation of work and family lives, including better access to early childhood education and care, promoting equal roles of mothers and fathers;
- policies raising the employability of workers aged over 50, through promoting better working conditions and adequate age management in companies;
- raising and equalising pensionable ages for men and women;

- promoting higher participation in various forms of supplementary, employer-based or personal pension savings that would complement pensions paid from the mandatory system, including the PPE, PPK, IKE and IKZE; and
- developing an annuities market that would enable using the supplementary old-age savings to purchase lifetime annuities to supplement the mandatory old-age pensions.

5 BACKGROUND STATISTICS

	2019			Change 2008-2019		
5.1. Relative income	Total	Men	Women	Total	Men	Women
Relative median income ratio (65+)	0.88	0.94	0.84	-0.09	-0.11	-0.08
Income quintile share ratio (S80/S20), 65+	3.56	3.4	3.59	0.15	-0.1	0.29
Relative income quintile share ratio (S80/S20), 65+ - 0-64	-0.96	-1.27	-0.79			
Aggregate Replacement Ratio (ARR) %	60	65	58	4	0	5
	2019			Change 2008-2019		
5.2. Poverty and material deprivation	Total	Men	Women	Total	Men	Women
At-risk-of-poverty or social exclusion (AROPE), 65+ (%)	19.2	14	22.6	-7.7	-7.8	-7.3
At-risk-of-poverty rate (AROP), 65+ (%)	17.4	12.6	20.6	5.7	3.7	7.2
Severe material deprivation (SMD), 65+ (%)	4.1	2.8	5	-16.7	-14.8	-17.8
At-risk-of-poverty or social exclusion (AROPE), 75+ (%)	18.6	12.2	21.9	-8	-7.8	-8
At-risk-of-poverty rate (AROP), 75+ (%)	17	11.4	19.9	7	5.1	8.1
Severe material deprivation (SMD), 75+ (%)	3.6	1.7	4.5	-17.1	-14.1	-18.6
Relative median at-risk-of-poverty gap, 65+ (%)	18.1	18.2	17.9	4.3	5.4	4.1
At-risk-of-poverty rate (AROP), 65+: 50 % threshold (%)	9.2	6.8	10.8	4	3	4.8
At-risk-of-poverty rate (AROP), 65+: 70 % threshold (%)	27.1	20.4	31.5	5.5	3.5	7.1
Material and social deprivation, age 65+ [1]	10.4	6.7	12.8	-9.7	-8.7	-10.3
5.3. Gender difference	2019			Change 2008-2019		
Gender gap in pension income (65-79) (%) [2]			21.7			-2.1
Gender gap in non-coverage rate (W-M in p.p.) (65-79)			-1.2			-2
	2019			Change 2008-2019		
5.4. Housing and health situation	Total	Men	Women	Total	Men	Women
Housing cost overburden rate, 65+ (%)	6.8	4.4	8.3	-4	-2.2	-5
Self-reported unmet need for medical exam 65+ (%)	8.5	8.4	8.6	-5.6	-4.5	-6.3
Healthy life years at age 65 (years)	8.6	8.1	9.0	1.2	1.1	1.3
Life expectancy at age 65	18.2	15.8	20.1	1	1	1
	2019			Change 2008-2019		
5.5 Sustainability and context	Total	Men	Women	Total	Men	Women
Employment rate, age group 55-64 (%)	49.5	61	39.2	17.9	16.9	18.5
Pension expenditure as % of GDP (ESSPROS) [3]			10.8			-0.1
Retirement duration from first pension (years) [4]	20.4	16.1	24.1	0.0	-0.3	0.5
Retirement duration from end employment (years)	19.7	15.9	23.1			
Eurostat and AWG projections	2019			2059		
Old-age dependency ratio (20-64) (%)	28.4	22.5	34.2	67.3	58.5	76.5
Economic old-age dependency ratio (20-64) (%) [5]	39.5	27.5	54.1	89.0		
Gross public pensions as % of GDP [5]	10.6			10.8		
Benefit ratio (%) [5]	43.8			23.9		
Coverage ratio (% of pop aged 65+) [5]	141.5			114.7		
Gross pension ratio high / low earner		1.9	1.9		2.3	2.3

[1] *change since 2014, not 2008*
[2] *data refer to 2010, not 2008*
[3] *ESPROSS data refer to 2018*
[4] *Change is since 2016, not 2010*
[5] *2060 instead of 2059*

5.6 Theoretical Replacement Rates

	Net (%)				Gross (%)			
	2019		2059		2019		2059	
	Men	Women	Men	Women	Men	Women	Men	Women
Average earning (100%)								
Base case: 40 years up to the SPA	71.6	60.6	38.3	32.4	72.0	60.8	37.9	31.9
Increased SPA: from age 25 to SPA	71.6	58.6	38.3	30.1	72.0	58.8	37.9	29.6
AWG career length case	73.6	60.6	38.8	30.8	74.2	60.8	38.4	30.3
Old base case: 40 years up to age 65	71.6	71.6	38.3	38.3	72.0	72.0	37.9	37.9
Longer career: 42 years to SPA			39.7	33.6			39.3	33.1
Shorter career: 38 years to SPA			36.6	31.0			36.2	30.5
Deferred exit: 42 years to SPA +2			39.7	33.8			39.3	33.1
Earlier exit: 38 years to SPA -2								
Career break – unemployment: 3 years	71.6	60.6	35.9	30.4	72.0	60.8	35.5	29.9
Career break due to child care: 3 years	71.6	60.6	37.6	31.8	72.0	60.8	37.2	31.3
Career break care to family dependant: 3 years								
Short career (20 year career)	38.3	32.7	19.9	16.9	37.9	32.2	19.2	16.2
Work 35 y, disabled 5 years prior to SPA			65.9	65.9			65.9	65.9
Early entry in the LM: from age 20 to SPA			42.5	32.4			42.2	31.9
Index: 10 years after retirement @ SPA			35.2	29.8			34.7	29.3
Extended part-time period for childcare			34.5	29.2			34.1	28.7
Survivor – full career		61.0		32.7		61.2		30.9
Survivor – short career		61.0		32.7		61.2		30.9
Survivor ratio 1*		0.46		0.50		0.46		0.50
Survivor ratio 2*		0.52		0.60		0.52		0.60
Low earnings (66%)								
Base case: 40 years up to the SPA	81.1	69.2	38.5	32.6	80.5	68.3	37.9	31.9
AWG career length case	83.1	69.4	39.0	31.1	82.5	68.6	38.4	30.3
Old base case: 40 years up to age 65	81.1	81.1	38.5	38.5	80.5	80.5	37.9	37.9
Career break – unemployment: 3 years	81.1	69.2	36.3	30.8	80.5	68.3	35.7	30.0
Career break due to child care: 3 years	81.1	69.2	38.0	32.2	80.5	68.3	37.4	31.5
Short career (20 year career)	45.2	40.8	20.2	17.3	43.8	39.4	19.2	16.2
Early entry in the LM: from age 20 to SPA			42.7	32.6			42.2	31.9
High earnings (100->200%)								
Base case: 40 years up to the SPA	52.5	44.3	54.3	49.6	51.7	43.5	28.7	24.1

**Survivor ratio 1: man base case, woman base case*

**Survivor ratio 2: man base case, woman short career case*

PORTUGAL

Highlights

- The Portuguese pension system provides wide coverage. However, although pension adequacy indicators show an improvement between 2008 and 2019, benefits are low and do not ensure an adequate protection for all older people against poverty and social exclusion. In 2019, the at-risk-of-poverty rate for the age group 65+ was 17.3 % in Portugal (15.1 % for men and 18.9 % for women) above the EU[485] average of 16.1 % (13.4 % for men and 18.2 % for women), even though this has decreased by 5 percentage points since 2008.
- Since the major reform of 2007 and the introduction of a sustainability factor, as well as other revisions, the pensionable age has been increasing in line with life expectancy from 65, to 66 years and 6 months in 2021.
- Ensuring future pensions are adequate requires labour market segmentation and the generally low levels of wages characterising the Portuguese labour market to be addressed, which also impacts people's financial capacity to contribute to supplementary pension schemes.
- Developing a comprehensive national strategy on supporting extended working lives and on the consolidation of an adequate and sustainable pension system should be a priority.

1 GENERAL DESCRIPTION OF THE NATIONAL PENSION SYSTEM

The pension system in Portugal consists of a statutory pension scheme (with two distinct schemes: one that covers private sector workers, with the exception of lawyers and solicitors who remain covered by their own scheme, and public sector employees registered since January 2006;[486] and the CGA,[487] that covers civil servants who had started working in the public sector before 2006) and supplementary pension schemes: the public capitalisation scheme, voluntary occupational pension schemes and personal pension schemes.

The **statutory pension scheme** has two branches: a Pay-As-You-Go (PAYG) scheme and a non-contributory regime, subject to means-testing.

The PAYG scheme is a mandatory regime based on earnings and financed by **social contributions**, complemented by a small fraction of the value added tax ('social' VAT), both earmarked revenues for the contributory system. Currently, the global contribution rate for

[485] EU and EU-27 refer to the current 27 Member States of the European Union.
[486] The general regime of social security subsystem.
[487] CGA (*Caixa Geral de Aposentações)* subsystem subscribers enrolled since September 1993 are subject to the same rules as those of the general regime of social security. The pension scheme of these employees was closed in 2007 and has been phasing out in a convergence process towards the general regime of social security since 2005.

employees in general, including for those with intermittent, part-time and fixed-term contracts is 34.75 % of gross earnings (11 % to be paid by the worker and 23.75 % by the employer), of which 20.21 % is earmarked for old-age benefits, 4.29 % for invalidity benefits and 2.44 % for death benefits. All these schemes include pensions.

As regards the self-employed in general, the global rate of contribution is 21.4 % of gross revenue. For self-employed engaged exclusively in commercial or industrial activities and proprietors of single-member limited liability companies it is 25.2 % of annual income.

In January 2019, a new contributory regime for self-employed workers came into force. Contributory rates for the self-employed decreased and became close to the contributory rate for employees in general, including those with intermittent and fixed-term contracts, part-time and temporary workers (see Section 1). Other changes introduced by the new regime include the reduction in the number of months considered for calculating the contributions to be paid from 12 to three months; calculating the annual amount of contributions by applying contribution rates to the annual relevant income rather than to a tax band; and the establishment of a minimum monthly contribution of EUR 20.

Another change relates to the contributory role of legal persons and natural persons with business activity benefiting, in a calendar year, from over 50 % of a self-employed person's aggregate amount of activity. They now have to contribute to social security 7 % of their income if it represents between 50 % and 80 % of their aggregate activity, and 10 % if it is over 80 %.

There is also a contributory voluntary insurance scheme covering some categories, such as high-performance athletes, volunteers, or research fellows, usually these workers pay a contributions rate of 26.9 % (covering the risk of disability, old age and death), 27.4 % (to also cover occupational disease) or 29.6 % (to cover illness, disability, old age and death) contributions.

A share of social security (SS) contributions is transferred to the Social Security Financial Stabilisation Fund (FEFSS), whenever the contributory regime of the social security system has a surplus or when the economic situation allows. The FEFSS steps in if the SS budget comes under pressure. From 2017, an extra part of the real estate tax began to be allocated to the FEFSS; and from 2018, a small part of corporate income tax revenue also started to be transferred to the social security budget as revenue of the FEFSS. Since 2020, an additional solidarity revenue supported by the banking sector was also assigned to the FEFSS. In general, retirement conditions for the self-employed and for people in non-standard employment are similar to those of the general system for the employed.

At the end of 2018, there were **2,927,393[488] SS pensions and 642,300[489] CGA pensioners**. In this year old-age pensions accounted for 69.7 % of the total social security pensions. In 2014 the retirement age was increased by 12 months and since then, the legal pension age has increased in line with the life-expectancy indicator rising to age 65. In 2020, the legal age for

[488] https://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_indicadores&indOcorrCod=0004325&contexto=bd&selTab=tab2 (all hyperlinks accessed 08 April 2020).

[489] Source: http://www.cga.pt/relatoriocontas.asp?L=PT

access to old-age pension was 66 years and five months. In 2021 it increased to 66 years and six months.

As from 2015, **early retirement** can be claimed if the insured person is at least 60 and has 40 years of contributions. Before 2019, the penalty[490] for early retirement was composed of: a reduction rate of 0.5 % for each month prior to the normal age of retirement; and the sustainability factor (15.2 % in 2020),[491] which takes into account the average life-expectancy indicator. Each contributory year above 40 years reduces the penalty by four months. In all cases, the minimum age of retirement is 60 years old. The sustainability factor is applied in this case.

For workers with very long careers (i.e. workers who are at least 60 years old and have worked for 48 years or more; or workers who are at least 60 years old and have worked for 46 years or more, provided they started working and paying contributions at the age of 16 or younger) early retirement can be claimed and the sustainability factor is not applied. (Decree-Law 73/2018, September 17, extended the scope of Decree-Law 126-B/2017, October 6)

A 'New-flexibility' scheme was introduced on 1 January 2019 (approved by Decree-Law 119/2018, December 27) to applicants aged 60 or more who have contributed for 40 years at the age of 60. In these cases the sustainability factor is not applied, but the reduction rate of 0.5 % for each month prior to the normal age of retirement does.

There is a special pathway to retirement for long-term unemployed older workers who used the maximum length of time of unemployment benefit, including the means-tested social unemployment benefit. If unemployment occurs after the age of 57, retirement is allowed (if at least 15 years of contributions have been completed), without penalties (but the sustainability factor is applied), at the age of 62. If unemployment occurs between the ages of 52 and 56, retirement is allowed with 22 years of insurance, with penalties, at the age of 57.[492]

There are also **special retirement conditions** for people with arduous jobs, such as miners, seafarers in fisheries, maritime workers of the merchant navy, coastal navigation and coastal fishery, air traffic controllers, professional classical and contemporary dancers, embroiderers from Madeira Island and harbour workers. These professionals may request early retirement within the specific conditions set up for each activity as regards age and contributory records, but they always have to comply with the 15-year (successive or not) record of social security contributions or for any other social protection scheme which entitles them to a retirement pension. Minimum benefits for pensions are defined by law accordingly to the length of contributory record, and the difference between the actual statutory pension and the minimums (social supplement) will be financed by state transfers without any means-testing.

Old-age pensions can be **combined with income from work**, except if the pension is a result of the replacement of a previous (total) disability pension. An early-retirement pension may not be combined with income from work during the first three years after the old-age pension

[490] According to the established by Decree-Law 187/2007 of 10 May updated and amended in several occasions.
[491] Pensions subject to the application of the sustainability factor are thus cut by the respective percentage on a permanent basis.
[492] The reduction factor is cancelled as soon as the beneficiary reaches the normal age of access to the pension – http://www.seg-social.pt/pensao-de-velhice

has been accessed, whenever that income is a result of any activity or work undertaken in the same company or group where the beneficiary was working.

If an old-age pensioner decides to develop a professional activity, in addition to paying a lower contribution rate, the monthly amount of their pension is increased by 1/14th of 2 % of the total record of remunerations. The increase takes effect on 1 January of each year taking into account the previous year's remunerations. Overall, accrual of pension rights is possible for those working beyond the statutory retirement age up to the age of 70.

The non-contributory regime provides means-tested benefits – the old-age social pension – for those whose contributory records do not qualify for the earnings-related scheme or with a broader personal scope – solidarity supplement for older people (CSI).

For instance, the CSI, i.e. the solidarity supplement for older people (CSI) that has been in place since early 2006, is a measure designed to provide a basic safety net for older people (non-contributory or general scheme) based on the principle of social justice, and to increase the effectiveness of anti-poverty initiatives in this segment of the population. Its income threshold is updated periodically taking into account prices, economic growth and the distribution of wealth. The measure may also reimburse medical costs to its beneficiaries, as well as dental care through the issuing of dentist-cheques. The CSI was recently amended, removing the income of the pensioners' descendants (up to the third income echelon) considered in the means test.

As regards **supplementary pension schemes**, the occupational pension market in Portugal is provided by a few private-funded schemes which may be set up at the initiative of a company, and groups of social or professional associations. According to the Social Security Framework Law, the complementary schemes of collective initiatives must treat genders equally. 3.8 % of the working-age population (15-64 years) are covered by a voluntary occupational scheme and approximately 17 % are covered by voluntary-personal schemes.[493] These beneficiaries enjoy a tax deduction of up to EUR 400/year.[494]

As well, it should take into to account the public capitalisation scheme (*regime público de capitalização*) that is a regime of individual voluntary adhesion, whose organisation and management is the responsibility of the State. This scheme aims to provide complementary benefits to those provided by the social security system, with a view to strengthening the social protection of beneficiaries.

2 REFORM TRENDS

In the last few decades, the Portuguese pension system has undergone changes aimed at increasing its **sustainability**. For instance, the sustainability factor was redesigned in 2013, changing the reference year of the average life expectancy to 65 from 2006 to 2000. However,

[493] OECD, *Pensions at a Glance 2019: OECD and G20 Indicators*, OECD Publishing, Paris, 2019. https://doi.org/10.1787/b6d3dcfc-en

[494] For a person under the age of 35 of age. 350EUR if a person is aged between 35 and 50 years; and EUR 300 per taxable person over the age of 50.

since then it was applied only to early-retirement pensions and more recently only to some early-retirement pensions.

The latest changes to the pension system regard the **revision of the early-retirement regime**,[495] with the aim of protecting very long careers and rewarding early market entries. As mentioned in Section 1, as from October 2019, the sustainability factor is not applied to applicants aged 60 or more with 40 years of contributions by the age of 60. Workers aged 60 or more with at least 46 years of contributions who started their working life at the age of 16 or younger can take early retirement without any penalties whatsoever.

Another change in recent years concerns **extraordinary uprates** of pensions. This first took effect in August 2017 and concerned pensioners whose total pension amount was equal or lower than EUR 631.98/month (1.5 times the social support index in 2017) 'as a way of compensating the loss of purchase power caused by the suspension, between 2011-2015, of the pension update regime (…) and to increase the income of pensioners with lower pensions'.[496] In general terms, the uprate for those pensioners consisted of a nominal increase of at most EUR 10/month. However, the nominal increase was reduced to at most EUR 6/month for pensions uprated during the 2011-2015 period. A similar measure was applied in 2018, 2019 and 2020. This logic was abandoned in 2021, with all pensioners with pensions entitlements up to EUR 658.22/month (1.5 times the social support index in 2021) receiving an uprate of EUR 10/month.

In overall terms, recent Portuguese governments have been publicly highlighting the challenges that the sustainability of the public pension regime faces, namely the need to **diversify its funding sources**. Even if funding imbalances registered between 2012 and 2017 have been addressed mainly by transferring funds from the state budget, the prior government focus was on the recovery of the labour market: employment and wage increases. Besides, as was previously stated, from 2017 an extra part of the real estate tax started to be allocated to the FEFSS; and as from 2018, a small part of corporate income tax revenue also started to be transferred to the social security budget as revenue of the FEFSS. Since 2020, an additional solidarity revenue supported by the banking sector was also assigned to the FEFSS.

The recent economic upswing interrupted the need for such transfers and, along with tax earmarking, allowed for a significant increase in the transfers to the FEFSS after a decade of decline.[497] This may have reinforced the opinions of government officials who, at times, have considered that the most crucial input for the sustainability of social security is the performance of the economy.

This perspective also seems to be reflected in the text of the latest major planning options (GOP) issued by the government. Indeed, the first sentence of the text regarding the GOP for

[495] The changes, applied in phases, were concretised through the publication of Portaria No 126-B/2017, de 6 de outubro, Diário da República, 1.ª série — No 193 — 6 de *outubro* de 2017. https://dre.pt/application/file/a/108269513; of *Portaria No 119/2018, de 27 de dezembro, Diário da República, 1.ª série — No 249 — 27 de dezembro de 2018.* https://dre.pt/application/file/a/117503851 and of Decreto-Lei No 108/2019, de 13 de agosto, Diário da República, 1.ª série — No 154 — 13 de agosto de 2019. https://dre.pt/application/file/a/123919548

[496] *Decreto regulamentar No 6-A/2017, de 31 de julho, Diário da República, 1.ª série — No 146 — 31 de julho de 2017.* https://dre.pt/application/file/a/107793083

[497] Perista, P., *ESPN Thematic Report on Financing social protection – Portugal*, European Social Policy Network (ESPN), Brussels, European Commission, 2019.

2020-2023 emphasises that economic and social policies presented within are underpinned by economic growth.[498] In its opinion, the Portuguese Economic and Social Council (CES) has been addressing this issue. Although acknowledging that economic growth and the evolution of the labour market are indeed key variables, the CES calls for a deeper and overarching debate over the sustainability of social security.[499]

Despite recent improvements, the prospect of the FEFSS being depleted are still a reality, as emphasised by recent studies.[500] Even if with varying timescales and degrees of severity, they point out the risk of an increase in the deficit of the contributory pension system within a few decades and also to an exhaustion of the stabilisation fund a few years after.

Different instances, at both the national[501] and international[502] levels, have warned that the balance of the pension system (and of social security as a whole) can be extremely cyclical. Considering the increasing pressure exerted by demographic ageing, along with the balance-deteriorating effects of some measures adopted and the absence of substantive measures capable of achieving balance, and despite the changes made to the scheme for self-employed workers and the diversification of the revenue sources earmarked for the FEFSS, they fear that the overall sustainability of the pension system has not been strengthened in the long term.

3 ASSESSMENT OF ADEQUACY

3.1 Current adequacy

In 2019, the at-risk-of-poverty-or-social-exclusion rate (AROPE) for age group 65+ was 20.0 % in Portugal (17.2 % for men and 21.9 % for women) which represents a decrease of almost 8 p.p. compared with 2008. This decrease runs in parallel to a decrease in the poverty or social exclusion rate for the overall population, at 21.6 % in 2019 (20.8 % for men and 22.2 % for women). The AROPE 65+ is higher than the EU average of 18.5 % (15.5 % for men and 20.9 % for women). Also, the at-risk-of-poverty rate (AROP) for the age group 65+ decreased by about 5 p.p. between 2008 and 2019 where it stood at 17.3 % (15.1 % for men and 18.9 % for women) (see Section 5 'Background statistics'). However, it should be mentioned that the AROP 65+ in 2019 was still higher than in 2012 when it stood at 14.6 %.

Old-age income, deriving especially from pensions, tends to be relatively stable. On the contrary, the overall decrease in the average working-age income especially during the first

[498] Presidência do Conselho de Ministros, Proposta de Lei No 4/XIV – *Grandes Opções do Plano para* 2020-2023, 2019. http://app.parlamento.pt/webutils/docs/doc.pdf?path=6148523063446f764c324679595842774f6a63334e7a637664326c756157357059326c6864476c3259584d7657456c574c33526c654852766379397a4d4777304c56684a5669356b62324d3d&fich=ppl4-XIV.doc&Inline=true

[499] Conselho Económico e Social, *Parecer sobre Grandes Opções do Plano para 2020-2023*, 2019. http://www.ces.pt/storage/app/uploads/public/5de/f8e/d04/5def8ed046b22778456864.pdf

[500] E.g. Moreira, A., Azevedo, A. B., Manso, L. P., Nicola, R. (2019), *Financial and Social Sustainability of the Portuguese Pension System*, Lisboa, Fundação Francisco Manuel dos Santos. https://www.ffms.pt/FileDownload/440b6d88-1170-483b-8002-b9dbb697d72a/estudo-completo-em-versao-inglesa

[501] E.g. Conselho Económico e Social, *Parecer sobre Grandes Opções do Plano para 2020-2023*, 2019. http://www.ces.pt/storage/app/uploads/public/5de/f8e/d04/5def8ed046b22778456864.pdf

[502] E.g. European Commission, *Commission Staff Working Document Country Report Portugal 2020 accompanying the document Communication from the Commission to the European Parliament, the European Council, the Council, the European Central Bank and the Eurogroup*, COM(2020) 150, (2020). https://ec.europa.eu/info/sites/info/files/2020-european_semester_country-report-portugal_en.pdf

half of the decade and the consequent decrease in the poverty threshold may have contributed to a decline in the AROP 65+ rate, together with demographic dynamics. In contrast, the increase of the poverty threshold in more recent years is likely to have contributed to the increase or a more modest decrease in AROP 65+. In 2019 the relative median at-risk-of-poverty gap (65+) stood at 15.8 %, representing relative stability (a decrease of 1.9 p.p.) compared with 2008 and with no differences in terms of gender.

During the same period, however, the severe material deprivation rate among those aged 65 and above has gradually decreased, from 10.1 % in 2008 to 5.4 % in 2019, signalling that poverty reduction was not only a matter of changing thresholds. This was also due to the 2007 Social Security Law reform (which will mainly affect future pensioners), and the CSI, introduced in 2006. The CSI aims at closing the gap between the level of old-age income and the (national) poverty line and has contributed to reducing old-age poverty. After that period, the austerity policies have made a strong impact on pensions and reversed this evolution, even though the lowest pensions have remained relatively protected from the cuts.

The ceiling for the measure remained unchanged between 2012 and 2015. However, due to the decrease in the poverty threshold, the ceiling was above it. This was not the case in following years, despite the increase in the CSI's ceiling. Currently it is set at EUR 5,258.63/year for one person and EUR 9202.60/year for a couple. In 2018, the poverty threshold stood at EUR 6014/year. It should be kept in mind that, in 2017, the average pension in Portugal was 4578.3/year; 5236.7/year if only including old-age pensions.[503]

A national study[504] attempted to define the levels of income which would be necessary for different strata of population to live with dignity in Portuguese society. For the population aged 65+ the levels of income which were defined to be 'adequate income' in April 2017 were EUR 634/month (i.e. over EUR 7600/year), for a person living alone, and EUR 1007/month (i.e. over EUR 12,000/year) for a couple (both aged 65+). These amounts are clearly above both the poverty threshold and the ceiling defined for the CSI.

The severe material deprivation (SMD) rate for age group 65+ receded by 3.9 p.p. between 2008 and 2019, where it stood at 5.4 % (4.3 % for men and 6.2 % for women) even if the housing cost overburden rate for those aged 65+ increased in the same period by 1.2 p.p. to 3.2 % (compared with an EU average of 10.0 %). Portuguese women aged 65+ experienced a higher increase than men 65+ (+1.6 p.p. and +0.7 p.p., respectively, to 3.7 % and 2.5 %, also respectively) (see Section 5 'Background statistics').

In 2019, the income quintile share ratio (S80/S20) of older people (65+) remained high without much variation since 2008, standing at 5.2 compared with the EU average of 4.2. In spite of decreasing by 8.1 p.p. since 2008, the gender gap in pension income (65-79) still stood at 27.1 % in 2019, about the same as the EU[505]average. Similarly, the relative median income ratio (65+

[503] Source: https://www.pordata.pt/Portugal/Pens%C3%A3o+m%C3%A9dia+anual+da+Seguran%C3%A7a+Social+total++de+sobreviv%C3%AAncia++de+invalidez+e+de+velhice-706

[504] Pereirinha, J. (coord.), *Rendimento Adequado em Portugal – Quanto é necessário para uma pessoa viver com dignidade em Portugal?*, Universidade de Lisboa/Universidade Católica Portuguesa/EAPN, Rede Europeia Anti-Pobreza em Portugal, 2017. http://www.rendimentoadequado.org.pt/images/rap/pdfs/Brochura%20raP%20_%20FINAL.pdf

[505] EU and EU-27 refer to the current 27 Member States of the European Union.

over 18-64) for women stood at 89 % and the aggregate replacement ratio (ARR) stood at 61 % compared with 96 % and 72 %, respectively, for men. In total the figures were 92 % and 68 %, respectively (see Section 5 ‘Background statistics’).

In old age, many people are likely to need some kind of regular care. In 2019, women at the age of 65 could expect to live 6.9 healthy years (10.3 in the EU, on average) which means that 68.9 % of their additional 22.0 years of life expectancy would be spent with some kind of illness or limitation (the EU average is 51.9 % and 21.6 years, respectively). As for men, they could expect to live 7.9 healthy years (10.2 in the EU, on average) which means that 56.4 % of their additional 18.2 years of life expectancy would be spent with some kind of illness or limitation (the EU average is 43.7 % and 18.1 years, respectively). Within this context it is worrying that the self-reported unmet need for medical examination (65+)[506] increased by 1.7 p.p. between 2008 and 2019 standing at 3.7 %, equalling the EU average.

Access to long-term care (LTC) is therefore of the utmost relevance, especially in a country with the sixth oldest population in the world.[507] Pension benefits are not taken into account either when determining eligibility for the dependency supplement or when determining eligibility for LTC services. Users are expected to co-pay for these services, subject to means-testing that varies according to personal or family income (including pension benefits) and to the level of care and dependency. In 2020, the amount of the dependency supplement ranged between EUR 95.31 and EUR 190.61, depending on the beneficiary’s level of dependency recognised by the social security services. It may represent a significant increase in the income of pensioners’ with (very) low pensions. However, it will barely have an impact on poverty.

3.2 Future adequacy

The analysis of the theoretical replacement rates (TRRs) for Portugal confirms the already initiated long-run decrease arising from the redesign of the sustainability factor in 2013 and its application from 2014 (although since then it has been applied only to early pensions).

In 2059 the projected net replacement rates continue to be higher than gross replacement rates (GRR), which reflect fiscal impacts on income in the transition from work to retirement. The net TRR after a standard 40-year career is set to decrease by about 10 p.p. among average and low earners, and over 20 p.p. among high earners.

Career interruption for childcare or long-term care and unemployment leads to a mild pension reduction. However, the net TRR for disability pensions is particularly penalising for those compelled to leave the labour market five years prior to the national standard pensionable age (SPA): 67 % compared with the 84.6 % in a base case of a 40-year career with the person retiring at the national SPA or even for those with a shorter career of 38 years, whose NRR amounts to 82.1 %. From October 2017, the sustainability factor for disability pensions on the date of their conversion to old-age pension was abolished, which should have a significant effect on the TRR for this case.

[506] Source: Eurostat, table hlth_silc_08.
[507] Rodrigues, T., *Envelhecimento e Políticas de Saúde*, Lisboa, Fundação Francisco Manuel dos Santos, 2018.

A recent study[508] on the financial and social sustainability of the Portuguese pension system emphasises that cutting future benefits would not delay future deficits but could reduce their size. However, cutting future benefits would bring negative consequences for social sustainability. In comparison, increasing social security contributions of workers and employers by 1.5 p.p. would be more effective in extending the life of the FEFSS but would not impact on the future ability of the pension system to provide adequate pensions and protect pensioners against a significant drop in income or the risk of poverty (*social sustainability*). Increasing the pensionable age by three years would extend the life of FEFSS beyond 2070, while the introduction of a 'Swedish-style' notional defined-contribution scheme, complemented by a mandatory funded pension scheme and a guaranteed pension would result in the '*pronounced improvement in the financial situation of the social security contributory regime, with a large reduction in the size of deficits in the system'*. However, the authors alert that '*the success of the new system in improving the financial situation of the social security contributory regime would, however, be achieved at the expense of a considerable reduction in the adequacy of pensions and, above all, in the scheme's ability to protect pensioners from an abrupt drop when transitioning to retirement'*.

3.3 Challenges for future adequacy

Demography is a pressing challenge in Portugal, faced with an increasing number of older people who are living longer, and increasing old-age dependency ratio (20-64). The old-age dependency ratio, currently standing 37.6 % is expected to increase to 68.8 % in 2050. Within this context, a major challenge for the future adequacy of pensions involves the balance between the system's financial sustainability and pension adequacy. The country is characterised by the persistence of important structural constraints that concretely impact the potential protection of the pension system against poverty.

First, the prevalence of a significant number of (very) low pensions (e.g. arising from short or interrupted years of contribution, from low and/or irregular salaries) linked to the late emergence of a structured social security system which disproportionally affect women (see Section 3.4).

Thus, as seen above, the older population is still a relatively vulnerable group to poverty and social exclusion in Portugal and indeed its situation worsened during the economic and financial crisis (see Section 3.1). Adverse impacts in terms of social policy and social protection and of pension adequacy, in particular, may arise if this is not borne in mind while discussing sustainability. As it was acknowledged by the CES, 'the objective of sustainability cannot overcome the objective of adequacy especially considering that pensions are the main source of income of the older population and the high number of pensioners with low pensions'.[509]

[508] Moreira, A., Azevedo, A. B., Manso, L. P. and Nicola, R., *Financial and Social Sustainability of the Portuguese Pension System*, Lisboa, Fundação Francisco Manuel dos Santos, 2019. https://www.ffms.pt/FileDownload/440b6d88-1170-483b-8002-b9dbb697d72a/estudo-completo-em-versao-inglesa

[509] CES – Conselho Económico e Social, *Parecer sobre o Programa Nacional de Reformas*, 2016. http://www.ces.pt/download/1940/Parecer%20do%20CES%20sobre%20PNR_aprovado%20em%20Plenario_9maio2016.pdf

Second, the low levels of salaries, despite the sustained increase of the minimum wage in the last few years and the general increase in labour incomes that accompanied it, characterising the Portuguese labour market which, in turn, continues to lead to low pension levels, even if replacement rates are good. In 2018 the in-work at-risk-of-poverty rate stood at 9.6 %. As emphasised by the ILO 'the minimum wage is low in absolute terms compared to other European countries [and] relatively high compared to the median wage in Portugal, but relatively similar compared to the average wage [further noting that] nearly half of wage earners are paid no more than 125 per cent of the minimum wage'.[510]

Such a situation also has an indirect impact on people's financial capacity to undertake supplementary pension schemes. Even though it has increased in the last years, only around 17 % of the working-age population (15-64 years) are covered by voluntary-personal schemes. Voluntary occupational schemes can hardly play a significant complementary role as they only cover 3.8 % of the working-age population.

Third, the significant labour market segmentation, which has even led to a European Council country-specific recommendation in 2019, must also be taken into account. Statistics demonstrate that part-time workers, workers with temporary contracts and the self-employed are groups with increased vulnerability to in-work poverty. Again, women more than men are affected by poverty, low salaries and labour market segmentation.

A reason for a new contributory regime coming into force for self-employed workers in January 2019 (see Section 2) is the need to ensure that self-employed workers make an acceptable contribution and to ensure future protection for these workers. The specific characteristics of self-employment and non-standard employment increase the concern around their pensions' adequacy. As emphasised by the Minister of Labour, Solidarity and Social Security when launching the new regime, 'allowing 80 % of self-employed workers to make contributions equivalent to the lowest contributory tier may seem interesting but exposes people dramatically. In the future, we would have again a new generation with minimum pensions'.[511]

Overall, there are aspects related to the future adequacy of pensions that remain understudied. As emphasised by the study on the financial and social sustainability of the Portuguese pension system, while reflecting upon future directions for research, 'special attention should also be paid to the existence of pension gaps by gender and to individuals' labour market history, with a particular focus on individuals in false self-employment or with precarious attachment to the labour market'.[512]

3.4 Solidarity mechanisms

In Portugal, the grounds for a full welfare state were laid down only after the end of the political dictatorship in 1974, i.e. when elsewhere the model had already started struggling regarding its

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[510] ILO – International Labour Organization, *Decent work in Portugal 2008–18: From crisis to recovery*, ILO, 2018. https://www.ilo.org/global/publications/books/WCMS_646867/lang--en/index.htm

[511] 'Recibos verdes: alterações não podem prejudicar contas da Segurança Social', in *Negócios* 26/10/2016. http://www.jornaldenegocios.pt/economia/seguranca-social/detalhe/recibos-verdes-alteracoes-nao-podem-prejudicar-contas-da-seguranca-social?ref=Finan%C3%A7as%20P%C3%BAblicas_outros

[512] Moreira, A., Azevedo, A. B., Manso, L. P., Nicola, R., *Financial and Social Sustainability of the Portuguese Pension System*, Lisboa, Fundação Francisco Manuel dos Santos, 2019. https://www.ffms.pt/FileDownload/440b6d88-1170-483b-8002-b9dbb697d72a/estudo-completo-em-versao-inglesa

sustainability. By that time, a significant proportion of workers, especially women, had no (or scarce and/or intermittent) contributions record.

This was a main reason for the creation of a non-contributory scheme, along with the PAYG scheme. As mentioned above in Section 1, these two branches remain in place to this day. Both schemes have minimum benefits that provide very low levels of income. In 2020, the minimum monthly pension of the social security's PAYG scheme[513] is EUR 275.20 for those with contributions of less than 15 years.[514] The means-tested minimum monthly pension of the social security's non-contributory scheme (the so-called social pension) is EUR 211.79 in 2020.[515] As mentioned in Section 3.1, low pensions may be topped by the CSI. In 2019, women represented around 70 % of CSI beneficiaries.[516]

There are also survivor's pensions. In general, a spouse is entitled to 60 % of their deceased spouse's pension or the pension they would be entitled to at the time of death. Women represent 81.4 %[517] of beneficiaries.

As seen above (see Section 3.1), in 2019, the aggregate replacement ratio (ARR) for women was 61 % compared with 72 % for men and the gender gap in pension income (65-79) was 27.1 %. Likewise, the situation of women aged 65+ is consistently unfavourable compared to men across all poverty and social exclusion indicators.

There are special rules for workers with long careers (see Section 1). There are no contribution ceilings but there is a ceiling for the monthly benefit standing at 12 times the social support index (EUR 5,265.72 in 2020), except if the reference wage has been consistently above that amount throughout their contributory career.

As mentioned in Section 2, extraordinary uprates of pensions have taken effect every year from 2017 to 2020. This decision followed the government's explicit political commitment to increase the income of pensioners with lower pensions linked to its desire to reverse the growing levels of poverty among older people between 2013 and 2016 (from 14.6 % to 18.3 %), after the steady and consistent fall registered over the past decades.

Government officials have also voiced concerns regarding the situation of self-employed workers in old-age.[518] As they emphasised during the process that led to the new regime for self-employed workers (see Section 3.3), there was a definite risk that, in the future, many of these workers would have access only to minimum pensions.

Finally, it should be mentioned that beneficiaries of social security benefits (e.g. unemployment benefit, parental leave, etc.) continue to build up pension credits.

[513] There are different figures for the discontinued CGA scheme (see Section 1).
[514] EUR 288.79 for contribution records of 15 up to 20 years; EUR 318.67 for contribution records of 21 up to 30 years; and EUR 398.34 for contribution records of at least 31 years.
[515] However, it should be mentioned that these amounts may be lower in cases of early retirement.
[516] http://www.seg-social.pt/estatisticas (accessed 1 April 2020).
[517] http://www.seg-social.pt/estatisticas (accessed 1 April 2020).
[518] 'Recibos verdes: alterações não podem prejudicar contas da Segurança Social', in *Negócios* 26/10/2016. http://www.jornaldenegocios.pt/economia/seguranca-social/detalhe/recibos-verdes-alteracoes-nao-podem-prejudicar-contas-da-seguranca-social?ref=Finan%C3%A7as%20P%C3%BAblicas_outros (accessed 8 April 2020).

4 OPPORTUNITIES TO ADDRESS CHALLENGES

A coherent and holistic approach to addressing challenges in the Portuguese pension system is called for, which should lead to consistent and continuing reforms towards relieving of old-age poverty and supporting extended working lives. Other possible directions of action include:

- improving the adequacy of the pension system in the long run, including incentivising supplementary pension schemes. Making supplementary pension saving broader and more inclusive requires a serious commitment towards reducing labour market segmentation and wage inequalities throughout working lives;
- strengthening the transparency, harmonisation and simplification of the present pension system, namely the introduction and coexistence of diverse means-tested mechanisms;
- assessing the effectiveness of the existing means-tested benefits related to their major goal of tackling poverty among older people;
- enhancing women's and men's rights to social protection in old-age, regardless of their family situation;
- ensuring that flexible pathways to retirement are transparent, consistent and fair;
- reinforcing mechanisms for gradual retirement and partial retirement, while ensuring continued accumulation of pension credits, thus making it more attractive for older workers to continue contributing and allowing for a flexible transition into retirement;
- adopting gender-sensitive policies and incentives to extend working life, which need to consider that older men and women do not have the same opportunities or resources to organise their lives as was possible previously.

5 BACKGROUND STATISTICS

5.1. Relative income	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
Relative median income ratio (65+)	0.92	0.96	0.89	0.09	0.07	0.12
Income quintile share ratio (S80/S20), 65+	5.21	5.36	5.05	-0.16	-0.06	-0.12
Relative income quintile share ratio (S80/S20), 65+ - 0-64	0.07	0.17	-0.05			
Aggregate Replacement Ratio (ARR) %	68	72	61	17	6	12
5.2. Poverty and material deprivation	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
At-risk-of-poverty or social exclusion (AROPE), 65+ (%)	20	17.2	21.9	-7.7	-7.4	-8
At-risk-of-poverty rate (AROP), 65+ (%)	17.3	15.1	18.9	-5	-4.1	-5.6
Severe material deprivation (SMD), 65+ (%)	5.4	4.3	6.2	-4.7	-4.3	-5.1
At-risk-of-poverty or social exclusion (AROPE), 75+ (%)	22.4	18.5	24.9	-9.1	-9.9	-8.6
At-risk-of-poverty rate (AROP), 75+ (%)	20.2	16.8	22.3	-5.5	-6.8	-4.7
Severe material deprivation (SMD), 75+ (%)	5.1	3.7	6	-6.3	-5.1	-7.1
Relative median at-risk-of-poverty gap, 65+ (%)	15.8	15.4	16.3	-1.9	-2	-1.6
At-risk-of-poverty rate (AROP), 65+: 50 % threshold (%)	8.4	7.2	9.3	-3.3	-2.9	-3.5
At-risk-of-poverty rate (AROP), 65+: 70 % threshold (%)	28.7	25.8	30.8	-7.8	-5.6	-9.4
Material and social deprivation, age 65+ (1)	14.8	11.9	16.9	-10.7	-9.6	-11.5
5.3. Gender difference	2019			Change 2008-2019		
Gender gap in pension income (65-79) (%) (2)			27.1			-8.1
Gender gap in non-coverage rate (W-M in p.p.) (65-79)			5.2			3.1
5.4. Housing and health situation	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
Housing cost overburden rate, 65+ (%)	3.2	2.5	3.7	1.2	0.7	1.6
Self-reported unmet need for medical exam 65+ (%)	3.7	2.8	4.3	1.7	1.4	1.9
Healthy life years at age 65 (years)	7.3	7.9	6.9	1.2	1.2	1.3
Life expectancy at age 65	20.3	18.2	22	1.4	1.2	1.4
5.5 Sustainability and context	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
Employment rate, age group 55-64 (%)	60.4	66.5	55.1	9.7	8.2	11.1
Pension expenditure as % of GDP (ESSPROS) (3)			13.4			1.9
Retirement duration from first pension (years) (4)	19.9	18.2	21.4	-0.9	-0.8	-0.9
Retirement duration from end employment (years)	20.8	18.6	22.8			
Eurostat and AWG projections	2019			2059		
Old-age dependency ratio (20-64) (%)	37.0	32.2	41.4	68.3	59.6	76.1
Economic old-age dependency ratio (20-64) (%) (5)	43.3	33.6	53.0	78.6		
Gross public pensions as % of GDP (5)	12.7			10.7		
Benefit ratio (%) (5)	58.9			34.9		
Coverage ratio (% of pop aged 65+) (5)	117.6			99.1		
Gross pension ratio high / low earner		2.7	2.7		2.2	2.2

(1) change since 2014, not 2008

(2) data refer to 2010, not 2008

(3) ESPROSS data refer to 2018

(4) Change is since 2016, not 2010

(5) 2060 instead of 2059

5.6 Theoretical Replacement Rates

	Net (%)				Gross (%)			
	2019		2059		2019		2059	
	Men	Women	Men	Women	Men	Women	Men	Women
Average earning (100%)								
Base case: 40 years up to the SPA	95.8	95.8	84.6	84.6	77.9	77.9	67.6	67.6
Increased SPA: from age 25 to SPA	98.3	98.3	91.7	91.7	80.0	80.0	74.6	74.6
AWG career length case	84.2	79.8	68.5	64.2	65.6	61.2	50.3	47.1
Old base case: 40 years up to age 65	79.3	79.3	51.4	51.4	60.8	60.8	37.6	37.6
Longer career: 42 years to SPA			88.1	88.1			71.1	71.1
Shorter career: 38 years to SPA			82.1	82.1			65.0	65.0
Deferred exit: 42 years to SPA +2			100.4	100.4			83.6	83.6
Earlier exit: 38 years to SPA -2								
Career break – unemployment: 3 years	95.0	95.0	83.3	83.3	77.3	77.3	66.5	66.5
Career break due to child care: 3 years	94.5	94.5	82.0	82.0	76.9	76.9	65.4	65.4
Career break care to family dependant: 3 years	78.8	78.8	75.2	75.2	60.4	60.4	57.7	57.7
Short career (20 year career)	42.8	42.8	28.3	28.3	31.4	31.4	20.7	20.7
Work 35 y, disabled 5 years prior to SPA			67.0	67.0			53.1	53.1
Early entry in the LM: from age 20 to SPA			84.6	84.6			67.6	67.6
Index: 10 years after retirement @ SPA			65.6	65.6			49.6	49.6
Extended part-time period for childcare			82.0	82.0			65.4	65.4
Survivor – full career		159.6		139.9		124.7		108.1
Survivor – short career		106.6		83.6		78.1		61.3
Survivor ratio 1*		0.83		0.83		0.80		0.80
Survivor ratio 2*		0.72		0.70		0.71		0.69
Low earnings (66%)								
Base case: 40 years up to the SPA	96.9	96.9	87.0	87.0	78.2	78.2	68.3	68.3
AWG career length case	81.5	76.1	64.8	60.6	65.8	61.4	50.9	47.6
Old base case: 40 years up to age 65	75.7	75.7	48.5	48.5	61.1	61.1	38.0	38.0
Career break – unemployment: 3 years	96.1	96.1	85.6	85.6	77.5	77.5	67.2	67.2
Career break due to child care: 3 years	95.6	95.6	84.1	84.1	77.1	77.1	66.0	66.0
Short career (20 year career)	44.1	44.1	26.7	26.7	35.6	35.6	20.9	20.9
Early entry in the LM: from age 20 to SPA			87.0	87.0			68.3	68.3
High earnings (100->200%)								
Base case: 40 years up to the SPA	91.2	91.2	68.5	68.5	70.1	70.1	51.1	51.1

**Survivor ratio 1: man base case, woman base case*

**Survivor ratio 2: man base case, woman short career case*

ROMANIA

Highlights

- Romania's pension adequacy has been on a downward trend over the last few years, compared to an improvement in the level of welfare indicators among the working age population. Poverty and material deprivation levels of older people (65 years +) have increased from 2015 and remain high compared with EU[519] averages, despite the adoption of successive measures aimed at increasing pension benefits during the last few years. However, replacement of work incomes stands at a satisfactory level compared to the EU average.
- The duration of working lives is currently lower than the EU average and with high gender disparities. Equalising the pensionable age for men and women along with encouraging employment and extending work beyond the pensionable age would increase the prospect for longer working lives.
- Measures undertaken between 2017 and the beginning of 2020, aimed at addressing some aspects related to distributional equity between low income and high-income pensioners and between occupational categories must be reinforced, in order to tackle increasing disparities between benefits. In addition, incentives for the self-employed to enrol in the public pension system need to be built in, as a way to prevent a steep decrease in pension coverage.
- Finally, reforms that will take effect in the near future are likely to positively impact the adequacy of pension benefits, while the sustainability of the pension system in the long run needs to be improved.

1 GENERAL DESCRIPTION OF THE NATIONAL PENSION SYSTEM

The Romanian social insurance pension system combines a pay-as-you-go (PAYG) earnings-related public scheme (i.e. the statutory pension scheme), with two, privately managed, funded components: a statutory funded scheme and a personal pension scheme. Along with the main social insurance PAYG scheme, several special schemes coexist. Also, there are a few professional groups such as lawyers, solicitors and the clergy who have alternative, separate pension schemes in place.

Coverage

Participation in the public pension scheme is mandatory for most types of contracts and employment categories and voluntary (based on an individual social insurance contract) for anyone who might want to enrol. In November 2019, 65 % of the employed population were

519 EU and EU-27 refer to the current 27 Member States of the European Union.

insured under the PAYG component (i.e. 5,433,533 persons, out of which 41,421 had an individual social insurance contract), corresponding to 4,954,879 pensioners.[520]

The statutory funded scheme is compulsory for all those who are less than 35 years old and optional for those between 35 and 45 years old, while opting out is not permitted (Governmental Emergency Ordinance, GEO 1/2020). In November 2019, the number of participants with payments during the current month was 3,955,438,[521] representing approximately 73 % of the total number of those insured in the public scheme.

Finally, participants to the personal pension schemes, based on voluntary and privately managed pension funds, have increased steadily in the last few years, reaching 497,765 in November 2019 (approximately 9 % of the total number of those insured within the PAYG public pension scheme).

Contributions

The legislation on pensions differentiates between normal and arduous and hazardous working conditions (i.e. referred to as special and difficult working conditions). The social contribution is 25 % of gross wages for normal working condition, while additional contributions are requested for special and difficult working conditions. The contribution for normal working conditions is paid entirely by the employees and is divided between the PAYG scheme (21.25 %) and the statutory funded scheme (3.75 %), if employees are enrolled in the statutory funded component. The employers are requested to pay additional contributions of 8 %, and 4 % of the gross wage for special and difficult working conditions. Contribution to personal pension schemes is elective, and tax-deductible up to EUR 400 per year per participant, for both employer and employee.

The minimum contribution period required to draw a pension is 15 years. Entitlement to a full pension is reached after a standard contribution period of 35 years for men (since 2015) and 31 years and three months for women (in January 2020; increasing to 35 years by 2030).

Types of benefits

The statutory pension scheme grants five types of benefits: (a) old age, (b) early retirement, (c) partial early retirement, (d) invalidity and (e) survivors. *The old-age pension* is granted upon reaching the pensionable age[522] and meeting the minimum contributory period. A complete standard contributory period and reaching the pensionable age entitle beneficiaries to a full pension benefit. Individuals can take early retirement five years prior to the pensionable age under two different regimes: *early retirement (ER),* when the contribution period of an individual is at least eight years higher than the standard contribution period and *partial early retirement (PER),* when the contribution period has been completed or exceeded by less than eight years (with penalties for each missing year until the standard retirement age). Once the pensionable age is reached, beneficiaries of partial early retirement become automatically entitled to a full old age benefit. Deferring retirement (beyond the pensionable age) is

[520] National House of Public Pensions, www.cnpp.ro/ statistics.
[521] The Financial Supervisory Authority, https://asfromania.ro/.
[522] 65 years for men since January 2015 and 61 years and 3 months for women in January 2020 – planned to increase to 63 years by 2030.

encouraged (there is 50 % increase in the number of the monthly pension points), though the employment contract has to be renewed in order to continue work beyond the pensionable age. Cumulating incomes from pension with work incomes is permitted for old-age pensioners and limited to certain work activities for all other categories of pensioners.

The invalidity pension is granted when an insured person loses at least half of their working capacity (with pension credits for each month missing up to the full contribution period, depending on the degree of invalidity). *The survivor pension* is granted to the insured person's children up to 16 years of age or graduation age but at most 26 years of age and/or to their spouse when they reach the retirement age and if the marriage lasted for at least 10 years. This condition does not apply if the death of the spouse resulted from an accident at work or an occupational disease.

Benefits

The PAYG component provides benefits based on a points system. The benefit is calculated by multiplying the lifetime average number of points (i.e. the relation between an individual's gross income and the average gross salary in a given year) by the point value.

The self-employed and non-standard employees (including day labourers and platform workers) benefit from the same contribution and retirement conditions as those with standard employment. Unlike the employees, the self-employed are allowed to choose the monthly level of insured income, provided that it is above the minimum. A low proportion of the self-employed are insured in the pension system, despite the high number of employed falling under this category (15 % of Romanian workers were self-employed in 2018 with the vast majority of them (65 %) working in agriculture): 11 % of the self-employed were insured in 2017, whereas approximately 90 % of them were insured at a level below the minimum wage[523]). The platform workers' access to pension benefits derives from their employment status, as the platform work can be carried out either as self-employed or as employees of a third party (which has in turn a contract with the platform). However, the number of workers with platform work as their main job is low (less than 2 % of the total adult population[524]).

Special pension rights were reintroduced in 2015 mainly as a result of Parliament's initiative and are granted to several occupational categories in the public sector: 1) military personnel, police and national security system personnel, 2) magistrates, 3) specialised auxiliary personnel from the courts and prosecutor's offices, 4) workers in civil aeronautics, 5) parliamentary civil servants, 6) Court of Accounts personnel, 7) diplomats, and 8) deputies and senators. Benefits are calculated as a percentage (between 65 % and 85 %) of the average monthly gross income earned before retirement (i.e. during the last month, last 12 months or six months within the last five years before retirement) and are subject to shorter contribution periods and lower retirement ages compared to benefits within the PAYG scheme.

[523] European Social Policy Network expert / SPC WGPA Secretariat calculations based on data provided by Eurostat and National House of Public Pensions.
[524] Pesole, A., Urzí Brancati, M.C, Fernández-Macías, E., Biagi, F. and González Vázquez, I., *Platform Workers in Europe*, Publications Office of the European Union, Luxembourg, 2018, p. 19.

For all pensioners, *a minimum benefit* (social indemnity for pensioners, SIP) is guaranteed, payable from the general budget, thus limiting the strain on the social insurance budget.

2 REFORM TRENDS

A range of important reforms have been undertaken between 2017 and the beginning of 2020, with significant consequences on *the financing, adequacy*, and *the design of the pension system*. Moreover, a new law on pensions adopted in July 2019 and coming into force incrementally between 2019 and 2021, introduces completely new provisions within the PAYG scheme. The law endorses 1) *a pension point annual increase*, 2) a *new pension formula* and 3) a *new mechanism for calculating the minimum benefit*.

The level of benefits has increased significantly over the last few years, mainly as a result of successive indexations of the pension point and of the minimum benefit. While an amendment to the pension legislation allowed the government to set the actual value of the pension point (bypassing the indexation mechanism (L 160/2017)), both the pension point and SIP increased between 2017 and 2020 (the pension point reaching 1.442 Lei (i.e. EUR 0.30), and SIP reaching 800 Lei (i.e. EUR 164.11). Also, pension taxation has been lowered over the last few years, as the contribution for health insurance is paid out of the state budget for all pension benefits and the minimum taxable pension income doubled in February 2017. In addition, the level of benefit taxation diminished in 2018, when the income tax decreased from 16 % to 10 %, in line with the decrease of taxation for all incomes. Yet since 2017 the minimum taxable pension remained unchanged, weakening the effect of lowering the taxation for higher benefits: the share of taxable benefits increased from less than 5 % in 2017 to approximately 16 % in January 2020.[525]

A significant increase in the level of pension adequacy is expected with the full effect of *the new law on pensions* coming into force. The new law introduces a new formula, in which the number of accumulated pension points is no longer adjusted by the standard contributory period (SCP), varying between 25 years and 35 years, depending on gender and year of retirement. It is adjusted instead by a standard parameter (i.e. 25, which represents an average of the SCP over the last four reforms on pensions). While the SCP increased systematically over the years and it has always been lower for women than for men, the new formula equalises the contribution conditions across genders and cohorts of pensioners. The new formula along with the increase of the pension point will result in an increase of all benefits. The new law on pensions replaces the SIP with a minimum benefit calculated as a percentage ranging between 45 and 75 % of the gross minimum wage, depending on the number of years worked in addition to the minimum period. While this is expected to increase the minimum benefit (SIP) by 40 % to 130 %,[526] the new mechanism will ensure a better adequacy of the minimum benefit (up to now increased on an ad-hoc basis) and will reward those workers with longer careers on low incomes more. Survivors' pension income is also likely to increase, given that a survivor

[525] ESPN calculations based on data provided by the National House of Public Pensions (www.cnpp.ro).
[526] European Social Policy Network expert / SPC WGPA Secretariat calculations based on the value of the gross minimum wage in January 2020.

supplement granted additionally to the spouse's own pension benefit is foreseen to come into force as a consequence of the new law.

The law maintains different retirement ages for men and women, decreasing further the pensionable age for women with at least three children (by six years or more, depending on the number of children raised). At the same time, while the option to resort to the specific pensionable age is still available to women, the Labour code was amended in 2018, allowing them to opt for the extension of the work contract over the standard retirement age[527] and thus to leave the labour market under similar circumstances as men (GEO 96/2018).

The financing of pension benefits was reformed in 2018; the total social contribution for pensions for normal working conditions decreased from 26.3 % to 25 % of the gross wage and the payment was transferred entirely under the responsibility of the employees (GEO 79/2017). Consequently, the contribution level for self-employed and employees increased from 10.5 % to 25 % of the gross wage.[528] whereas the income tax decreased from 16 % to 10 %. A subsequent increase of about 20 % of gross wages, granted by all public employers and most of the private ones, along with a reduction in income tax compensated for the increase in the level of pension contribution borne by the employees. The transfer of contribution to employees triggered an increase in the pension budget revenues in 2018.[529]

The minimum income threshold for mandatory insurance contributions was set at the level of the gross minimum wage for part time work in 2017 (GO 4/2017). Taxation of part-time contracts at the level of the minimum wage, regardless of the number of hours worked resulted in a decrease in the number of part-time contracts and has been abolished from January 2020 (L 263/2019).

The contribution transferred to the *statutory funded scheme* has decreased from 5.1 % to 3.75 % of gross wages in January 2018, as a way to compensate for the increase in gross wages after transferring the social contributions to employees and to maintain the same level of transferred funds as before the reforms. Also, the choice to opt out of the statutory funded scheme after minimum of five years participation was introduced in 2019 (GEO 114/2018). However, the statutory funded pension scheme remained stable, as the number of beneficiaries who opted out was less than 600 (out of approximately four million active beneficiaries in total) and a new GO which came into force in 2020 (GEO 1/2020) abolishes the chance to opt out and restores the conditions related to the minimum capital required for pension fund management companies prior to these reforms (i.e. GEO 114/2018, GEO 38/2019).

The design of the pension system is likely to change in the near future, due to some attempts to reform the special pensions and to the sanctioning of occupational pensions. In 2019, the new endorsed Administrative Code (GEO 57/2019) introduced a special benefit (old age indemnity) for public officials at local and county level granted in addition to the pension rights. Although initially, the provision was foreseen to come into force in 2020, the government prorogued it

[527] Prior to this amendment to the Labour code, women's employment contract terminated automatically upon the cumulative fulfilment of the standard retirement age and the minimum contribution period.
[528] The self-employed were previously allowed to choose between paying the whole pension contribution or only the employees' part.
[529] Fiscal Council, *The Annual Rapport of the Fiscal Council*, 2018. http://www.consiliulfiscal.ro/raport2018final.pdf

until January 2022 by means of a governmental emergency ordinance (GEO 226/2020). In 2020, the government, along with most political parties, endorsed the scrapping of most of the special schemes, except the schemes for the military and the police[530]. The legislative draft was approved in the Chamber of Deputies, but it was rejected by the Constitutional Court (decision from the 6th of May 2020)[531], while the government has not announce yet any intention to resume the process. Furthermore, in December 2020, the Constitutional Court ruled as unconstitutional the examination of the law approved by Parliament in June 2020 aimed at increasing taxation of special pension rights. A law on *occupational pensions* came into force in 2020 (L1/2020), responding both to the need to offer an alternative to the special pension rights granted in the public sector and to diversify pension incomes, currently overwhelmingly based on the public pension system and on mandatory social contributions. Fiscal facilities for supporting occupational schemes are expected to be enacted shortly.

3 ASSESSMENT OF ADEQUACY[532]

3.1 Current adequacy

Poverty prevention. In Romania, the population aged 65+ was, during 2009-2019, better off – in terms of all welfare indicators – compared with the overall population or the age group 25-54 years. Overall, the risk of poverty for the population aged 65+ improved during and after the economic crisis until 2013, when the trend reversed. From 26.5 % in 2008, it decreased to 14.4 % in 2012, and has increased constantly since. The AROP rate reached 25.1 % in 2019. The years 2015 and 2019 were marked by a higher rate of increase in AROP among older people (24 % in 2015). This was higher than the risk of poverty of the total population in 2019 (23.8 %) and the poverty rate of the 18-64 population (21.3 %).

All other combined welfare indicators – at-risk-of-poverty-or-social-exclusion (AROPE) and severe material deprivation (SMD) – decreased constantly between 2008 and 2019 (apart from in 2013 and 2016 for AROPE, and 2016 for SMD, when the situation stagnated, compared to the previous year). The rate of decrease of these indicators is among the highest across Europe, as Romania is still among those countries with the highest proportion of the population exposed to poverty or social exclusion, respectively to severe material deprivation. Yet starting in 2017, for the first time since 2010, the values of SMD and AROPE were higher for older people (65 years +) compared to the total population: SMD reached 15.9 % in 2019 among those over 65 years old compared to 14.5 % for the overall population and AROPE reached 33.9 % among older people compared to 31.2 % for the overall population.

Even though the pension point, and as a consequence pension benefits, have increased significantly since 2014, the increase rate did not exceed – in real terms – the increase rate of the minimum wage. Along with the relative depreciation of pensions compared with incomes

[530] The schemes for military and police workers cover the vast majority of special pension beneficiaries (92 %), receiving the biggest part of the budget (i.e. 87 % of the total budget for special pensions). Starting with January 2016, the state military pension system is no longer part of the public pension system and operates as an independent system.
[531] The law was deemed as unconstitutional for being adopted without due regard for the legislative process (it was previously rejected by the Senate), and for its heterogeneous character, as it endorses the elimination of pension benefits for different occupational categories.
[532] For most of the indicators employed in this part of the analysis, see Section 5 'Background statistics'.

from work, the aggregate replacement ration (ARR) started to decrease as well. In 2019, ARR was 42 %, compared to its 2013 value of 68 %; for the first time since 2008 ARR had a lower value than the European average. In addition, social benefits have depreciated since 2014, the erosion shown by a decreasing ARR.

What remains worrying is the huge gender gap in the AROP rate of older people (17.3 % for men and 30.4 % for women). The gender gap in pensions was 21.8 % in 2019, yet decreasing by 6.5 p.p. from 2010. The high gender gap and the big differences between men and women in the AROP rates, indicates an important distributional distortion of the pension system. This conclusion is also supported by the gender pay gap[533] (i.e. 3 % in 2018, in industry, construction and services, except public administration and defence) and by the gender gap in pensions (21.8 % in 2019). The gender gap in pensions is highest for old-age pensions (28.5 % in 2019),[534] followed by invalidity pensions (19.24 %) and early retirement benefits (approximately 13.9 %). The gender gap in pensions is also due to women's longer non-contributory periods and lower pensionable age and effective contributory period.

The non-monetary adequacy of pensions remains a challenge for the Romanian older population. While the proportion of the population aged 65+ which experience housing cost overburden is slightly higher than that of the entire population (10.7 % among older people compared to 8.6 % of the total population, in 2019) and it steadily decreased since 2012, it is still above the European average value. Overcrowding is lower among older people compared with the overall population (in 2019, 18.1 % compared with 45.8 %), yet the proportion of older people experiencing overcrowding is three times higher than the European average. In addition, the percentage of older people reporting unmet need for medical examinations was 16 % in 2019, given the weak coverage of medical services in rural areas, where the large majority of the population is older. This is also in line with a general deterioration in the number of healthy life years at age 65; between 2008 and 2019, the number of healthy life years at the age 65 decreased by 1.3 years for men and 1.6 years for women.

Income replacement

During 2010-2014, Romania had the second highest relative median income ratio (65+ age group) across Europe, with a median income of older people higher than for the population below 65 years. Since 2015 it has deteriorated: in 2019, its value was below the European average (i.e. 83 % compared with 90 % the European average), while the gender differences were standing at 12 p.p., significantly higher than the European average of 6 p.p. This holds true also for the ARR, which increased constantly until 2014, when it started to decrease. As with the previous indicator, the ARR used to be among the highest across Europe, even after 2014, despite its constant deterioration; in 2019, its value decreased below the European average (42 % compared to 57 %). High values of the ARR and median income ratio were the consequence of a constant increase in pensions from 2008. Increases in pensions exceeded by far increases in average/median work-related income until 2014, when the minimum wage started to increase at a higher pace than the pension benefits. Inequality among older people is lower than at the level of the whole population; while Romania has had over the period 2008-

[533] Eurostat, tesem180.
[534] As provided by the National House of Public Pensions.

2019 one of the highest S80/S20 income quintile share ratios across Europe, the inequality among older people is not among the highest in Europe, even if above the EU average. Inequality among older people increased consistently during 2012-2015, dropping by 29 p.p. in 2016 compared with 2015 (reflected also by the slight decrease of the relative poverty gap in 2016). Its value remained at the same level during 2016-2019 (i.e. 4.4 % in 2019).

Pension duration. Pension payment duration, approximated by life expectancy at 65 years and the average age for old-age retirement (2012), is lower than the European average. For 2012, the pension payment duration was 19.6 years for men and 25.8 years for women.[535] The average age for old-age retirement pension in 2012 was 56.9 years and the median retirement age 57 years (European Commission, 2018, p.222). In 2019, the real average retirement age was 60 years and 5 months for men and 58 years and 4 months for women as opposed to 58 years and 4 months for men and 56 years and 6 months for women in 2012.[536]

Access to long term care (LTC). While the cumulation of pension benefits with LTC is permitted, long-term care is granted based on the assessment of four categories of need (i.e. disability, invalidity, old age and health performance status). A range of medical service are provided under the framework of invalidity. In addition, pensioners who lost the ability to work completely (i.e. with severe invalidity) are granted, additionally to their own pension benefit, an informal carer allowance, calculated as a percentage (i.e. 80 %) of the pension point. The minimum pension benefit is taken into consideration as a reference income for the costs charged on older people for home care, an income higher than the minimum benefit triggering the recipient's obligation to pay. The costs for residential care are payable for recipients who earn an income, within a limit amounting to maximum 60 % of their income and supplemented by r contributions from relatives, if there are family members with maintenance obligations and incomes higher than the minimum gross wage.

3.2 Future adequacy

Under all scenarios, between 2019 and 2059, the theoretical replacement rate (TRR) will decrease. For low-wage earners the TRR will decrease from 82.7 % to 52.0 % for men and from 85.8 % to 51.1 % for women, for a career of 40 years up to the SPA. For average incomes, the TRR decreases from 85.3 % to 52.0 % for men and from 81.7 % to 51.1 % for women, for a career of 40 years up to SPA.

In the event of a three year career break for unemployment or childcare the TRRs are set to be 48.3 % for men and 47.5 % for women in 2059.

Significant transformation of the pension system resulting from recent reforms will partially address the decreasing replacement rates in the near future. Thus, it is likely that the replacement rate for high wage earners will be higher, as the contributions cap was removed in 2017, whereas the pension income may increase for employees benefiting from occupational pensions, once these schemes become effective. Likewise, the decline in the replacement rate of low-income pensioners will be tempered through linking the minimum benefit to the

[535] European Commission, *Pension Adequacy Report 2018: current and future income adequacy in old age in the EU. Volume II – Country Profiles*, Publications Office of the European Union, Luxembourg, 2018, p. 222.
[536] Data source: National House of Public Pensions.

minimum wage, starting from September 2021. Overall, under the new law coming into force in September 2021, the adequacy of benefits will be better preserved after retirement, given that the transition to an indexation formula based solely on inflation, scheduled to be reached in 2030, will be aborted and an indexation formula, based on growth in wages and inflation, will be introduced instead. However, the incentives to defer retirement are lacking in the new legislation on pensions and the disincentives for early retirement are rather weak. Therefore, sustaining a longer working life remains a priority for future policies on pensions.

3.3 Challenges for future adequacy

Along with an increasing demographic dependency, Romania will undergo a substantial increase in the level of effective economic dependency, by 2070 reaching a ratio of five employed for every four inactive aged over 65 years.[537] The duration of working life[538] is on the increase (after declining dramatically at the beginning of 2000). Yet, it is still 2.7 years lower than the EU average (33.5 years, compared to the European average of 36.2 in 2018), driven by smaller employment rates and lower retirement ages. Both the employment rates and the effective retirement ages increased during the last few years. The gender gap in the duration of working life remains problematic (6.5 years, as compared to 4.9 years, the EU average), hampering the future adequacy of women's benefits. At the same time, the pension payment duration is among the lowest across Europe and it is expected to continue to remain among the lowest, as the increase in retirement age will probably exceed the increase in life expectancy. Thus, in terms of the working life/retirement duration ratio, Romania is below the EU average. The disincentives for early retirement and especially the incentives to extend the working life duration are still weak.

Another challenge for the future adequacy of the pension system derives from the low coverage of social insurance among the self-employed. While similar contribution and retirement rules apply to all categories of employed, there aren't sufficient incentives for the self-employed to register in the public pension scheme and to declare their real income. In 2018, the level of contribution and the minimum insurable income increased, leaving even more self-employed without insurance for pension. Therefore, the gap between employees and self-employed will deepen in terms of both coverage and adequacy of benefits.

3.4 Solidarity mechanisms

As the pension formula takes into account lifetime earnings, the pension benefits are tightly linked to contributions. Nevertheless, the retirement conditions may differ, depending on work conditions, gender and year of retirement, whereas a series of redistributive elements alter the link between contributions and benefits. In addition, the special pension schemes granted within the public sector provide benefits based on more advantageous pension formulas, ensuring a higher replacement rate as compared to benefits in the mainstream PAYG scheme.

[537] European Commission, The 2018 Ageing Report: Economic & Budgetary Projections for the 28 EU Member States (2016-2070), *Institutional papers*, 2018, No 079, p. 38

[538] Eurostat, [lfsi_dwl_a]

The pension system redistributes through granting 1) a *minimum pension benefit* (i.e. social indemnity for pensioners), 2) survivors' pensions and 3) pension credits (i.e. assumed years of career and pension points/contributions) for several non-contributory periods (i.e. maternity/paternity, tertiary education, military service, unemployment, incapacity to work and medical leave), while 4) capping, at the same time, the insurable income to five times the average gross wage (until 2017). The survivor benefit, which cover approximately 10 % of the total number of pension benefit recipients, amounted to approximately 52 % of the average benefit, whereas the pension accruals for most of the non-contributory periods are rather low (i.e. 0.25 pension points).

While women are among the main beneficiaries of the redistributive elements, they are also benefiting from a pension formula, which allows the accumulation of pension accruals in shorter standard contributory periods as compared to men (until 2030, when the standard contributory period will be equal across genders). Despite this, women's pension benefits were 25 % lower than men's benefits in 2018, reflecting shorter careers and a negative impact of lower SPA on women's work career. The new law on pensions, which equalizes the contribution conditions for men and women, is likely to increase the gender gap in pensions, as the lower SPA is maintained and even reduced further for women raising three children or more.

Former agriculture worker pensioners were integrated into the PAYG scheme in 2001, with benefits lower than those of the social insurance pensioners, given that the time worked in agriculture was assimilated to contributory periods in order to be converted into benefits. They remained among the worst-off older people, though their number has decreased rapidly over the last few years.[539] Their benefits stand at approx. 40 % of the average pension benefit, while more than 85 % of the beneficiaries receive the minimum benefit, and women comprise the vast majority of them (i.e. approximately 80 %).[540] In contrast, the adequacy of the benefits granted to pensioners with work time in arduous and hazardous jobs is positively impacted, as they are granted with additional pension points, a lower retirement age and shorter contribution periods, in return for higher contribution rates paid by employers.[541]

The differences in the level of benefits between occupational categories which fall under the special pensions and social insurance pensioners has become increasingly significant over the last few years, prompting attempts aimed at abolishing part of the special pension schemes (section on reforms).[542] At the same time, a significant part of pension benefit stands at the minimum level (i.e. 16 % in 2019). However, given that inequality among older people remained relatively stable over the last few years, the indexation of the minimum benefit and the decrease in the share of taxable benefits have managed to tackle, to a certain extent, the increasing disparities between benefits.

[539] The share of agriculture pensioners in total pensioners decreased from 17 % in 2008 to 8 % in 2019.
[540] National House of Public Pensions, https://www.cnpp.ro/web/guest/indicatori-statistici-pilon-i.
[541] The estimation is based entirely on the interpretation of the specific retirement rules, as the National House of Public Pensions does not publish disaggregated data on this category of pensioners.
[542] The benefits vary from a minimum of 3,915 Lei (EUR 821) for military pensions to 18,716 Lei (EUR 3,918) for magistrates in December 2019, as compared to 1326 Lei (i.e. EUR 278) in the main PAYG scheme.

4 OPPORTUNITIES TO ADDRESS CHALLENGES

Addressing some aspects related to the distributional equity of the public pension system and the need to preserve the future adequacy of benefits is crucial, given the unfavourable demographical projections and the significant decrease of the replacement rates projected in the coming decades. In this context, the main challenges are to increase the duration of working life and to address the differences in contributions and retirement conditions between men and women, between the self-employed and employees and between different occupational categories.

Increasing the duration of working life can be addressed by completing the equalisation of the pensionable ages for men and women, which would positively impact both the gender pension gap and sustainability, labour market policies aimed to boost the employment of women, older workers and persons with partial/mild invalidity, and fine-tuned incentives to extend work beyond the pensionable age.

In addition to the steps already taken to diminish inequities between categories of pensioners, the ongoing debate on special pensions should eventually result in a policy approach that balances the expectation that certain job categories should benefit from special pension rules and the need to maintain the contributory nature of benefits.

To prevent a steep decrease in coverage due to the large proportion of the labour force working as self-employed (especially agricultural workers), pension contribution requirements should be fine-tuned to incentivise the low-income self-employed to enrol in the system and to contribute according to their real income.

Finally, an important challenge that will need to be addressed soon will be the increase in pension costs starting September 2021, when the new law on pensions will take effect.

5 BACKGROUND STATISTICS

5.1. Relative income	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
Relative median income ratio (65+)	0.83	0.92	0.8	-0.02	0	0.02
Income quintile share ratio (S80/S20), 65+	4.39	4	4.53	-0.59	-0.41	-0.66
Relative income quintile share ratio (S80/S20), 65+ - 0-64	-3.43	-3.88	-3.21			
Aggregate Replacement Ratio (ARR) %	42	43	41	-8	-12	-4
5.2. Poverty and material deprivation	**2019**			**Change 2008-2019**		
	Total	Men	Women	Total	Men	Women
At-risk-of-poverty or social exclusion (AROPE), 65+ (%)	33.9	26.5	38.9	-15.5	-18.8	-13.3
At-risk-of-poverty rate (AROP), 65+ (%)	25.1	17.3	30.4	-1.4	-3.3	-0.1
Severe material deprivation (SMD), 65+ (%)	15.9	13.5	17.6	-23.1	-23.1	-23.1
At-risk-of-poverty or social exclusion (AROPE), 75+ (%)	41.4	30.1	47.6	-12.5	-19.5	-8.8
At-risk-of-poverty rate (AROP), 75+ (%)	33.3	22.2	39.3	3.4	-0.4	5
Severe material deprivation (SMD), 75+ (%)	18.8	13	22	-23.5	-25.9	-22.3
Relative median at-risk-of-poverty gap, 65+ (%)	23.5	18.4	24.2	0.1	-4.1	0.2
At-risk-of-poverty rate (AROP), 65+: 50 % threshold (%)	15.5	9.2	19.7	-0.7	-2.9	0.7
At-risk-of-poverty rate (AROP), 65+: 70 % threshold (%)	33.2	25.6	38.3	-2.5	-3.4	-2
Material and social deprivation, age 65+ [(1)]	49.8	44.7	53.2	-10.6	-10.5	-10.6
5.3. Gender difference	**2019**			**Change 2008-2019**		
Gender gap in pension income (65-79) (%) [(2)]			21.8			-6.5
Gender gap in non-coverage rate (W-M in p.p.) (65-79)			5.1			-2.8
5.4. Housing and health situation	**2019**			**Change 2008-2019**		
	Total	Men	Women	Total	Men	Women
Housing cost overburden rate, 65+ (%)	10.7	7.5	12.9	-16.6	-13.8	-18.5
Self-reported unmet need for medical exam 65+ (%)	16	12.7	18.3	-15.1	-14.8	-15.2
Healthy life years at age 65 (years)	6.6	6.7	6.5	-1.4	-1.3	-1.6
Life expectancy at age 65	16.7	14.7	18.4	0.6	0.5	0.7
5.5 Sustainability and context	**2019**			**Change 2008-2019**		
	Total	Men	Women	Total	Men	Women
Employment rate, age group 55-64 (%)	47.8	60.1	36.5	4.7	7.1	2.1
Pension expenditure as % of GDP (ESSPROS) [(3)]			7.9			1.1
Retirement duration from first pension (years) [(4)]	19.3	16.1	22.3	-0.5	-0.2	-0.8
Retirement duration from end employment (years)	17.7	15.2	20.3			
Eurostat and AWG projections	**2019**			**2059**		
Old-age dependency ratio (20-64) (%)	30.6	24.4	37.0	64.6	54.3	76.2
Economic old-age dependency ratio (20-64) (%) [(5)]	40.1	27.8	56.6	82.0		
Gross public pensions as % of GDP [(5)]	8.1			13.8		
Benefit ratio (%) [(5)]	32.5			33.8		
Coverage ratio (% of pop aged 65+) [(5)]	141.7			116.3		
Gross pension ratio high / low earner		3.0	2.5		2.2	2.2

[(1)] *change since 2014, not 2008*

[(2)] *data refer to 2010, not 2008*

[(3)] *ESPROSS data refer to 2018*

[(4)] *Change is since 2016, not 2010*

[(5)] *2060 instead of 2059*

5.6 Theoretical Replacement Rates

	Net (%)				Gross (%)			
	2019		2059		2019		2059	
	Men	Women	Men	Women	Men	Women	Men	Women
Average earning (100%)								
Base case: 40 years up to the SPA	85.3	81.7	52.0	51.1	58.5	52.4	30.4	29.9
Increased SPA: from age 25 to SPA	75.4	76.2	52.0	49.4	52.9	52.5	30.4	28.9
AWG career length case	73.2	67.9	51.5	30.1	51.2	47.5	30.1	28.9
Old base case: 40 years up to age 65	85.3	81.7	52.0	53.8	58.5	52.4	30.4	31.5
Longer career: 42 years to SPA			53.8	52.9			31.4	30.9
Shorter career: 38 years to SPA			50.2	49.4			29.4	28.9
Deferred exit: 42 years to SPA +2			59.3	58.3			34.7	34.1
Earlier exit: 38 years to SPA -2			45.7	42.7			26.7	25.0
Career break – unemployment: 3 years	82.0	78.4	48.3	47.5	56.2	51.1	28.2	27.8
Career break due to child care: 3 years	84.1	78.7	48.9	48.1	57.8	52.1	28.6	28.1
Career break care to family dependant: 3 years	84.1	78.7	48.1	47.3	57.8	52.1	28.1	27.7
Short career (20 year career)	49.4	50.8	25.9	25.4	36.0	37.0	15.1	14.9
Work 35 y, disabled 5 years prior to SPA			71.5	70.3			41.8	41.1
Early entry in the LM: from age 20 to SPA			53.6	53.7			31.3	31.4
Index: 10 years after retirement @ SPA			46.4	45.7			27.1	26.7
Extended part-time period for childcare			44.4	43.7			26.0	25.6
Survivor – full career		101.0		65.6		70.0		38.4
Survivor – short career		71.2		39.9		50.0		23.3
Survivor ratio 1*		0.70		0.70				
Survivor ratio 2*		0.63		0.63				
Low earnings (66%)								
Base case: 40 years up to the SPA	82.7	85.8	52.0	51.1	48.4	50.2	30.4	29.9
AWG career length case	81.5	71.9	51.5	49.4	56.0	50.2	30.1	28.9
Old base case: 40 years up to age 65	82.7	85.8	52.0	53.8	48.4	50.2	30.4	31.5
Career break – unemployment: 3 years	82.0	78.4	48.3	47.6	56.2	51.1	28.3	27.8
Career break due to child care: 3 years	81.6	82.7	49.2	48.4	47.7	49.9	28.8	28.3
Short career (20 year career)	48.9	51.7	25.9	25.4	35.7	37.5	15.1	14.9
Early entry in the LM: from age 20 to SPA			53.6	53.7			31.4	31.4
High earnings (100->200%)								
Base case: 40 years up to the SPA	56.5	48.8	37.6	37.0	48.9	42.3	22.0	21.6

**Survivor ratio 1: man base case, woman base case*

**Survivor ratio 2: man base case, woman short career case*

SLOVENIA

Highlights

- The Slovenian pension system is doing quite well at protecting older people against material and social deprivation, with material and deprivation indicators below the EU-27 average.
- The 2012 pension reform (Pension and Disability Insurance Act, 2012) and the latest (2019 and 2020) amendments brought some changes that have had positive effects on the current and future adequacy of pensions.
- The pension adequacy challenge concerns especially those with incomplete or short working careers, those working in intermittent jobs or with low levels of contributions, and the self-employed.
- Based on in-depth analysis and continuous dialogue with stakeholders, the Government will have to search for equilibrium between pension adequacy and long-term sustainability of the system. A balance should also be found between the importance of particular pension pillars, making coordinated actions in many areas, such as education, healthcare, long-term care and the labour market, in order to effectively implement agreed changes in practice with the final aim of a financially sustainable system that enables adequate pensions to all pensioners.

1 GENERAL DESCRIPTION OF THE NATIONAL PENSION SYSTEM

The Slovenian statutory pension and disability insurance system (first pillar) is a pay-as-you-go (PAYG) one. It is uniform and mandatory for all employed people and other people generating income from employment or other gainful activity. The self-employed are thus insured against all risks and pay a joint contribution rate of 24.35 % from their assessed income (revenues minus expenditures[543]). Most of the non-standard work contracts are covered by social security insurance (particularly pension, disability and health insurance as well as insurance against accidents at work and occupational injuries), and the same or similar contribution rates apply for workers on permanent full-time employment contracts. However, low insurance bases entitle those not on permanent full-time employment contracts to low pension benefits. Inactive people may join the system on a voluntary basis. They are all included in the insurance scheme under the same act – Pension and Disability Insurance Act (2012) (henceforth: ZPIZ-2) – and are covered by the same insurance provider (the Pension and Disability Insurance Institute of Slovenia, IPDI). The system is financed through social security contributions and direct transfers from the central state budget covering the deficit. The total contribution rate for pension and disability insurance is 24.35 % of a gross salary,

[543] Most self-insured pay the lowest employed minimum contribution EUR 256.24 (2020).

without a ceiling (the employee's contribution is 15.50 % and the employer's 8.85 %). Transfers from the central government budget amounted to 16.7 % of the total 2019 revenues of the Pension and Disability Insurance Institute of Slovenia (IPDI). The scheme includes: a) the right to a pension (old-age, early-retirement, disability, survivors' and partial pension); b) disability insurance entitlements (such as occupational rehabilitation, temporary benefits, etc.); c) the right to a yearly bonus; and d) the right to an assistance and attendance allowance.[544] There are also some special schemes covering workers in arduous and hazardous jobs (working in mines, ironworks, coke ovens, non-ferrous metallurgy, transport, nuclear installations, arts, textiles, defence, police, etc.), farmers, war veterans and war disabled, the blind, recipients of administrative pensions, etc.[545]

The legislated pensionable age was gradually equalised at 65 years (in 2016 for men and in 2020 for women) – from 63 years for men and 61 years for women in 2012.

Since 2013, the minimum age requirement for early retirement has risen from 58 years and four months for men and from 58 years for women to 60 years for both sexes (for men in 2018, for women in 2019). With the so-called 'added period' abolished (credited years of military service, tertiary education, and registered unemployment spells), a significant pathway to early retirement was eliminated. There are additional restrictions regarding special provisions that enable early retirement without incurring a reduced pension. The most important one is related to childrearing: the ZPIZ-2 has practically limited this provision to women, shrunk the number of months by which the minimum age condition is decreased, and introduced additional conditions, such as a sufficient number of years worked.[546] On the other hand, the retirement age for men can be decreased by two-thirds of the military service period. It can also be decreased in the case of those who started working before the age of 18, but with restrictions regarding a sufficiently long insurance period (40 years of work). In this case, the lowest age at retirement was decreased from 60 to 57 for women and 58 for men).

The minimum pension is provided through the minimum pension assessment base that is fixed at 76.5 % of the national average net salary, increased by the percentage of pension adjustment from January 1 of the current year. As pensions, it is adjusted during the year. There is also a maximum pension assessment base that is four times higher.

The deductions for early retirement amount to 0.3 % per month for retirement prior to the age of 65 (up to a maximum of 18 %). The accrual rates for later retirement amount to 3 % per additional year for up to three years. A deferred pension is thus allowed and is not limited in time, but after additional three years the accrual rate is no longer increased and is set at the 1,36

[544] The assistance and attendance allowance is a cash benefit granted to a beneficiary who is unable to independently meet all or the majority of his/her basic vital needs.

[545] Articles 198-213č (ZPIZ-2) cover the entitlement to the occupational pension for workers in arduous and hazardous jobs, while Article 161 deals with the rights arising from the Pension and Disability Insurance under special conditions or due to the default in payment of contributions. The Republic of Slovenia provides funds from the national budget to settle the liabilities based on Article 161.

[546] Women have to fulfil at least 38 years of work (pension qualifying period without a purchased period), while the retirement age (65 years) may be reduced by a maximum of 48 months for child-raising. In the case of 40 years of work, the retirement age of 60 years may be reduced equally. According to ZPIZ-1, the partners agreed which of them would use the right to reduce the retirement age due to childrearing. According to ZPIZ-2, men have the right to reduce their retirement age only if they were beneficiaries of the parental leave salary compensation (the minimum retirement age is 61 for those with at least 38 years of work and 58 years for those with 40 years of work).

% for women and 1,28 % (in the year 2021) for men. If the person who fulfilled the conditions for old-age pension continues to work with full-time insurance, they may apply for and receive 40 % of their old-age pension per month in addition to current earnings. They may enjoy this right under the same conditions for up to three years. After three years they can receive 20 % of their old-age pension in addition to other earnings.

The use of nominal salary changes for the calculation of valorisation coefficients[547] (without also considering the nominal changes in pensions, as of 2012) has stopped a decrease in accrual rates. This was an important step towards the stabilisation of replacement rates and preventing a further decrease in the first (initial) pensions at retirement. However, first (initial) pensions continued to decrease until 2019 due to an increasing number of best consecutive years (from 18 to 24 years) for the calculation of the pension assessment base. Additionally, the indexation of pensions was changed from 100 % salary growth to 60 % of salary growth and 40 % of the consumer price index growth.

Supplementary pensions consist of mandatory schemes for public employees and those employed in hazardous or arduous occupations, as well as various collective voluntary schemes organised by employers. They cover 58 % of all employees. A special scheme for workers employed in hazardous or arduous occupations offers these workers bridging pensions up to their standard pensionable age (SPA) should they retire early.

The importance of occupational and personal pension insurance differed hugely. At the end of December 2016, occupational supplementary pension schemes had 495,993 members, while the personal ones had 18,175 members. The total amount of savings reached EUR 2045 million, with an almost equal split between mandatory and voluntary pension funds. The average monthly premium in voluntary pension funds was EUR 66.55 (or 4.2 % of the average national gross salary).

At the end of 2016, almost 20,000 annuities were paid in both schemes, of which more than 17,000 were accelerated ones.[548] In 2016, the average monthly lifetime annuity amounted to EUR 68, compared with the average monthly accelerated annuity of EUR 126. Despite a relatively short saving period of 15 years, the average lifetime annuity increased the average pension for new old-age pensioners (EUR 646) by 10.5 %. This positive outcome of the supplementary pension system is only superficial; namely, only a small proportion of all new pensioners receive lifetime annuities. It can be expected that the importance of lifetime annuities will gradually increase in the future because of increasing saved amounts.

The personal pension scheme, access to which does not depend on an employment contract, is poorly developed in Slovenia, and there have been almost no analyses conducted. There is no comprehensive definition of what belongs to the third pillar, and the available data covers only a part of it.[549] In 2016, there were 9,767 insured people (pension and annuity insurance

[547] Valorisation coefficients are used for the determination of the pension assessment base. They are applied to salaries earned in different years to make them comparable in the year before retirement.
[548] Accelerated annuity means that the major part of collected premiums is being paid in a specified (short) period, while the remaining smaller part is paid as lifetime annuity.
[549] Zavarovalno združenje Slovenije [Slovenian Insurance Association], *Statistični zavarovalniški bilten 2016 [2016 Statistical Insurance Bulletin]*, Ljubljana, 2016a. https://www.zav-zdruzenje.si/publikacija/statisticni-zavarovalniski-bilten-2016/ (accessed 6 April 2020).

according to the Insurance Act (2015) providing life annuity pay-outs), 6966 of whom paid premiums (the average monthly premium was EUR 66.8 or 4.2 % of the average gross salary, while the average amount saved was EUR 15,752).[550] With some parts of life insurance added (endowment insurance, mixed insurance, annuity insurance, other life insurance, unit-linked life insurance, and capital redemption insurance), these numbers would be substantially higher at 154,428 insured people whose monthly premiums averaged EUR 267.2 in 2016.

Taking into account the number of insured people in the first pillar (891,002 on average in 2016) as well as active policies in the second (385,138 people at the end of 2016) and third pillar (6966-154,428 people at the end of 2016), the coverage rates of different pension schemes, as shares of the population aged 15-64, were 65 %, 28 %, and 0.5-11.3 %, respectively.

2 REFORM TRENDS

The primary aim of the 2012 pension reform (ZPIZ-2) has been the system's short and medium-term sustainability, as well as the adequacy of future pensions, rather than its long-term sustainability. Estimates revealed that, while the reform ensured sustainability in the medium term, major challenges to long-term sustainability remain. Pension expenditures are projected to reach 16.1 % in 2060.[551] Though some minor adjustments of the ZPIZ-2 cannot be ruled out, the current regulation was expected to provide a stable pension environment within a 10-year period.

After two major amendments to ZPIZ-2 in December 2015 and April 2017,[552] and two important documents presented in 2016 (White Paper on Pensions and Older Workers and the Labour Market in Slovenia), the Slovenian Government continued with serious work on future pension reform.[553] Following an intensive debate with social partners, the starting points for the renovation of the pension and disability insurance system in Slovenia were prepared and unanimously approved by the Economic and Social Council on 7 July 2017.[554] The agreed key aims of the further development of the pension system were: a) gradual achievement of decent pension levels at the minimum replacement rate of 70 %; b) financial sustainability; c) system transparency; and d) raising the confidence of all generations in the pension system.

Zavarovalno združenje Slovenije [Slovenian Insurance Association], *Statistični podatki 2016* [2016 Statistical data], Ljubljana, 2016b. https://www.zav-zdruzenje.si/statistika// (accessed 6 April 2020).

[550] Insurance Act [Zakon o zavarovalništvu (ZZavar-1)], *Official Gazette of the Republic of Slovenia*, Nos 93/2015 and 2/2019. http://www.pisrs.si/Pis.web/pregledPredpisa?id=ZAKO6183 (accessed 6 April 2020).

[551] European Commission and Economic Policy Committee (EPC), *The 2021 Ageing Report – Economic and budgetary projections for the 27 EU Member States (2019-2070)*, https://ec.europa.eu/info/publications/2021-ageing-report-economic-and-budgetary-projections-eu-member-states-2019-2070_en.

[552] They dealt with the dual status of pensioners who continue working beyond the retirement age and occupational insurance (ZPIZ-2B amendment), and increased minimum old-age and disability pension to EUR 500 per month for pensioners who had fulfilled the full retirement conditions (ZPIZ-2C amendment)

[553] Ministry of Labour, Family, Social Affairs and Equal Opportunities, *Bela knjiga o pokojninah [White Paper on pensions]*, Ljubljana, April 2016a. https://www.gov.si/assets/ministrstva/MDDSZ/pokojnine/Bela-knjiga-o-pokojninah.pdf (accessed 6 April 2020); Ministry of Labour, Family, Social Affairs and Equal Opportunities, *Starejši in trg dela v Sloveniji [Older workers and the labour market in Slovenia]*, Ljubljana, 2016b. http://www.utzo.si/wp-content/uploads/2018/05/Starej%C5%A1i-in-trg-dela-v-Sloveniji.pdf (accessed 6 April 2020).

[554] Government of the Republic of Slovenia, *Izhodišča za prenovo Sistema pokojninskega in invalidskega zavarovanja v Republiki Sloveniji* [Starting points for the recast of the Pension and Disability Insurance System in the Republic of Slovenia], Ljubljana, 2017. https://www.racunovodja.com/Clanek/9762 (accessed 29 March 2020).

As a response to repeated critical remarks made by the European Commission on Slovenia's progress in reforming the pension system stating that 'No progress – No concrete measures have been taken to ensure the long-term sustainability and adequacy of the pension system',[555] on 13 March 2019, the Ministry of Labour, Family, Social Affairs and Equal Opportunities (MLFSAEO) presented amendments to the Pension and Disability Insurance Act) aimed at increasing the adequacy of pensions paid under the PAYG scheme.[556]

On 3 October 2019, the Government adopted amendments to the Pension and Disability Insurance Act and the Labour Market Regulation Act.[557] Both acts were finally approved by the Slovenian Parliament on 29 November 2019.[558] They pursue two basic objectives: 1) to prolong work activity, and 2) ensure a decent income in old age, and so improve the social situation of all pension and disability insurance beneficiaries. Particular attention is paid to improving the socio-economic situation of the most vulnerable groups within the pension system.[559]

The main changes to the legislation on statutory pension and disability insurance (ZPIZ-2) include the following.

- The replacement rate for men will be gradually increased to 63.5 % (it remains at the current level of 63.5 % for women; it would have been decreased to 60.25 %) for a pension qualifying period of 40 years, with an additional accrual rate of 1.36 % for taking care of a child in its first year (for a maximum of three children). For both sexes, the rate is increased from 26 % to 29.5 % for the first 15 years of insurance (for men it is gradually increasing until 1 January 2023, when the rate will be equalised by gender). Increased replacement rates will also effect the survivors', widower and invalidity pensions.
- People who meet the retirement conditions but decide to remain in employment are entitled to receive a part of their pension, subject to payment of all social security contributions on their earnings. In the first three years of full-time employment after meeting the conditions for old-age retirement, the employee can receive 40 % (previously 20 %) of the old-age pension as an additional incentive to remain in

[555] European Commission, *Commission staff working document – Country Report Slovenia 2019 accompanying the document Communication from the Commission to the European Parliament, the European Council, the Council, the European Central bank and the Eurogroup*, 2019 European Semester: Assessment of progress on structural reforms, prevention and correction of macroeconomic imbalances, and results of in-depth reviews under Regulation (EU) No 1176/2011,{COM(2019) 150 final}, Brussels, 2019, pp.43-44, https://ec.europa.eu/info/publications/2019-european-semester-country-reports_en (accessed 30 March 2020).
[556] Ministry of Labour, Family, Social Affairs and Equal Opportunities, *Predstavljene novosti na področju socialnega varstva, trga dela in pokojninskega Sistema* [Featured news in the areas of social protection, labour market and pension system], *Novice*, Ljubljana, 13 March 2019a. http://mddsz.arhiv-spletisc.gov.si/si/medijsko_sredisce/novica/8584/index.html (accessed 30 March 2020).
[557] Ministry of Labour, Family, Social Affairs and Equal Opportunities, *Popravke pokojninske zakonodaje in zakonodaje na trgu dela potrdila Vlada* [Amendments to the pension and labour market legislation have been approved by the Government], *Novice*, Ljubljana, 3 October 2019b. https://www.gov.si/novice/2019-10-03-popravke-pokojninske-zakonodaje-in-zakonodaje-na-trgu-dela-potrdila-vlada-rs/ (accessed 30 March 2020).
[558] Ministry of Labour, Family, Social Affairs and Equal Opportunities. *Potrjena pokojninska zakonodaja in zakonodaja o urejanju trga dela* [Pension and labour-market legislation approved], *Novice*, Ljubljana, 2 December 2019c. https://www.gov.si/novice/2019-12-02-potrjena-pokojninska-zakonodaja-in-zakonodaja-o-urejanju-trga-dela/ (accessed 30 March 2020).
[559] Majcen, B., 'Slovenia is improving pension adequacy', *ESPN Flash Report* 2019/62, European Social Policy Network (ESPN), European Commission, Brussels, 2019.

employment. The accrual rate for these three years has been reduced to 3 % (from the previous 4 %). In the fourth and all subsequent years of further insurance, the proportion of the pension received is decreased to 20 %, and the accrual rate returns to its normal level of 1.36 %.

Higher and additional accrual rates are expected to result in higher pensions − an increase of between 13.5 % and 10.9 % for men, and between 1.7 % and 9.3 % for women, depending on the length of the pension qualifying period (from the minimum of 15 years to 40 years). The adequacy of pensions will increase but, at the same time, the long-term financial sustainability of the pension system will be significantly weakened: pension expenditure, as a share of GDP, is expected to increase by more than two percentage points (p.p.) by 2070.[560]

An ongoing national debate regarding possible future sources of financing the pension and disability insurance system does not foresee any changes in the existing financing principle where the supplementary pension insurance is determined primarily in terms of upgrading income at retirement.[561] Social contributions will obviously remain the most important source of the IPDI receipts in the future.

3 ASSESSMENT OF ADEQUACY

3.1 Current adequacy

The 2012 pension reform (ZPIZ-2) and subsequent amendments introduced several changes that had positive and negative effects on the adequacy of new and future pensions (see Sections 2 and 3). Additionally, financial consolidation measures introduced during the years of economic crisis have had an important negative impact on current pensions, the minimum income provision for older people, and future pensions. These measures included: an indexation freeze and a temporary reduction of the annual supplement; a reduced paternity/parental leave earnings-compensation rate and maximum amount; a substantial decrease in the pension premium for the compulsory supplementary insurance; and fewer paid premiums in the voluntary supplementary schemes. Furthermore, changes in social assistance benefits, caused by the Social Assistance Benefits Act (2010) and implemented in January 2012, had an additional negative impact on the adequacy of pensions for those with low pensions and incomes of older people without any pensions.[562]

[560] Ministry of Labour, Family, Social Affairs and Equal Opportunities, *Ocena javnofinančnih posledic predlaganih sprememb pokojninske zakonodaje* [Assessment of the fiscal impact of the proposed changes to the pension legislation], Ljubljana, 10 September 2019d. https://www.gov.si/novice/2019-09-10-nadaljujejo-se-usklajevanja-predloga-sprememb-zakona-o-pokojninskem-in-invalidskem-zavarovanju/ (accessed 30 March 2020).

[561] The establishment of the Demographic Reserve Fund (DRF), into which the *Kapitalska družba* should have had to be redesigned by the end of 2015, is still open. The most important challenge – from which sources the *Kapitalska družba* could increase its current portfolio – hinders the establishment of the DRF. It is not realistic to expect the DRF to be established in the very near future and be able to cover the substantial part of the projected increasing IPDI deficit.

[562] Social Assistance Benefits Act [Zakon o socialno varstvenih prejemkih (ZSVarPre)], Official Gazette of the Republic of Slovenia, No 61/10, 26 July 2010, with amendments. http://pisrs.si/Pis.web/pregledPredpisa?id=ZAKO5609 (accessed 6 April 2020).

To evaluate the joint outcome of all these measures on the current pension adequacy and its changes compared to the PAR 2018 (that covers the years 2016-2018), one should analyse the relevant adequacy indicators included in Section 5 'Background statistics'.

Compared with the EU[563] average, the Slovenian pension system produces lower aggregate replacement ratios (43 % compared with 57 %)[564] and lower median relative incomes of people aged 65+ (83 % compared with 90 %). Still, as regards income inequality among the population aged 65+, the income quintile share ratio (S80/S20) for Slovenia is lower than the EU average (3.35 and 4.24, respectively). In the observed period (2008-2019), these ratios further decreased (by -0.25 in Slovenia compared to an increase of 0.25 in the EU on average).

The Slovenian at-risk-of-poverty-or-social-exclusion (AROPE) rates for age groups 65+ and 75+ are higher than the EU average (20.5 % and 24.4 %, respectively, for Slovenia, compared with the EU averages of 18.5 % and 19.5 %, respectively). This is due to especially high rates for women in Slovenia (25 % and 30.5 %, respectively, compared with the EU averages of 20.9 % and 22.6 %, respectively). The proportion of older people in Slovenia experiencing severe material deprivation (SMD) are close to, or lower than, the EU average for both age groups. This reflects an overall high material standard of living in Slovenia, particularly compared with eastern European EU Member States. A relatively high material standard of living of older people in Slovenia is additionally confirmed by the average share of the population aged 65+ living in overcrowded households (3.9 % in Slovenia compared with 4.8 % in the EU), and a much lower housing cost overburden rate (4.9 % in Slovenia compared with 10 % in the EU-).

In the years 2008-2019, the relative incomes of older people increased only slightly. The relative median income ratio increased by one p.p. (-4 p.p. for men and +1 p.p. for women), with almost no change in the aggregate replacement ratio. This almost stable situation was mainly due to the impact of the economic crisis on the earnings of the working-age population that exceeded the effect of the pension indexation freeze (one of the financial consolidation measures) and revisions in the social assistance benefits. The positive change for women may be attributed to the increased statutory and effective retirement age and thus higher old-age pensions.

The same explanation holds for the changes in the relative at-risk-of-poverty indicator. The at-risk-of-poverty (AROP) rate decreased by 2.7 and 3.6 p.p. for the age groups 65+ and 75+, respectively, mainly due to a decreased AROP for women. The improvement in severe material deprivation (SMD) for both genders (by -3.8 p.p. for both men and women in the age group 65+) may be explained by: a) changes in the structure of pensioners (older women cohorts, with low pensions due to short contributing periods and low salaries, were replaced by younger ones with longer contributing periods and higher salaries; and increased minimum old-age and disability pension to EUR 500 per month in 2017 for pensioners with full retirement conditions); and b) a higher share of 'old-age pensioners' (i.e. people receiving an old-age

[563] EU and EU-27 refer to the current 27 Member States of the European Union.

[564] As the Slovenian pensions are virtually exempt from personal income tax and payment of social security contributions, the aggregate gross replacement ratio has to be interpreted with caution. The net aggregate replacement ratio would, therefore, be a much better indicator.

pension) in all pensioners (who include people receiving an old-age pension as well as people receiving a disability pension or a survival pension).

The relative income indicators, as well as indicators of the risk of poverty and material deprivation, show a positive movement in the pension adequacy, especially for women. It can be concluded that a joint effect of ZPIZ-2 reform (2012) and subsequent revisions, as well as the financial consolidation measures, have had an overall positive effect. However, the changes in these adequacy indicators in a two-year period (2016-2019) show a deterioration that may be attributed to increased salaries of the working population and not to decreased incomes of older people. The observed negative changes in the relative median income ratio, 65+ over 18-64 (from 96 % to 87 % for men, and from 84 % to 80 % for women), increased AROPE and AROP indicators, a decreased SMD for the population 65+ (from 5.8 % to 3.9 %), as well as the housing cost overburden rate for the population 65+ (from 5.6 % to 4.9 %), confirm this statement.

Special attention should be paid to the pensions of the self-employed and non-standard workers. The adequacy of their pensions is a serious problem in particular.[565] Relatively short insurance periods have negative consequences for the long-term social security of workers on fixed-term contracts, including casual and seasonal workers, temporary agency workers, workers on civil contracts, etc. If unable to earn a (decent) pension, they will live in poverty in their old age.

The amendments to legislation regulating labour market brought measures that stimulate the conclusion of permanent employment contracts, support self-employment among the formerly unemployed, hinder the conclusion of non-standard contracts, detect and punish disguised employment/'bogus' work, and increase the social security of workers on non-standard contracts.

Revisions, based on the 'all work counts' principle, have undoubtedly increased the social security of non-standard workers. For workers on civil contracts and students performing student work, the future total pension insurance period has been increased, which will result in higher pensions. On the contrary, a higher social security contribution base for the self-employed and some non-standard workers has immediately decreased their disposable income with no effect on their future pensions since they remain below the minimum pension base.

The gender pension gap (12.3 % for people aged 65-79 in Slovenia in 2019) was 17.2 p.p. lower than the EU average. A steadily decreasing trend can be observed: the mean pension gender gap decreased from 25.3 % to 12.3 % in the years 2008-2019. As the current gender pay gap is substantially lower and taking into account the measures of the 2012 pension reform, a further narrowing of the gender pension gap can be expected.

The social part of long-term care (LTC) services is partially subsidised by the state or the municipality. Access to publicly subsidised LTC services is means-tested. Based on the Decree

[565] The minimum insurance base for the self-employed was EUR 870 in 2016, while the average insurance base from which they paid their social security contributions was EUR 1,074. Furthermore, most self-insured pay the lowest employed minimum contribution. It is evident from the comparison with the average Slovenian gross salary of the same year EUR 1,558 that the self-employed will, on average, gain substantially lower pensions than those employed with an employment contract.

on the Criteria for Defining Exemptions in the Payment of Social Assistance Services, the competent local Centre for Social Work decides on the partial or complete exemption of the user from the payment for services. The Decree defines: a) the social security threshold, set as the amount of money that must remain at the disposal of the user of the services after paying for them and b) the ability to pay, which is defined as the maximum amount that the user is able to contribute to the payment of LTC services. If the amount paid by the user (and/or another liable person) does not cover the service costs, the difference is covered by the local community or central government budget. If the user of the LTC service, asking for the exemption from payment, is the owner of a property, the issuing of the written order on an exemption from payment is subject to the prohibition to sell or mortgage that property in order for the local community to be able to reimburse the amount paid for the institutional care from the user's legacy. If the user asks for exemption from payment of home care LTC services, the prohibition to sell or mortgage applies only to the real estate that is not the user's permanent residence.

3.2 Future adequacy

The current pension act (ZPIZ-2) introduced a radical change by completely decoupling the valorisation and indexation mechanisms. This change, together with the incentives for extending working careers, can boost the adequacy of pensions, provided that both the effective retirement age and the career length are increased.

In November 2019, the Slovenian Parliament approved amendments to the Pension and Disability Insurance Act that will increase pension benefits and improve the status of employed pensioners. These amendments will increase the adequacy of pensions but weaken the long-term financial sustainability of the pension system. Namely, the pension expenditure, as a share of GDP, is expected to increase by more than two p.p. by 2070.[566] Since no additional sources have been identified to cover this increase, the higher expenses will most probably have to be paid by future generations.

However, there are provisions in the ZPIZ-2 that are likely to have a negative impact on the future adequacy of pensions. The theoretical replacement rates (TRRs) are projected to slightly increase for men from 60.3 % in 2019 to 61.7 % to 2059, while they are projected to decrease for women from 66.3 % in 2019 to 61.7 % in 2059.

The methodology for calculating the pension assessment base acts to the detriment of low-income earners, with the TRRs decreasing from 69.3 % in 2019 to 65.3 % in 2059 for men and from 75.1 % to 65.3 % for women (but is compensated by the minimum pension assessment base). The period taken into account for calculating the pension assessment base was extended from 18 years to 24 years, which lowered the pension base. With new generations of pensioners, this negative effect will gain in significance. Due to a much higher share of women, compared with men, with their pensions calculated from the minimum pension assessment base, the average decrease in the pension assessment base will be lower for women. Additionally, data

[566] Ministry of Labour, Family, Social Affairs and Equal Opportunities, *Ocena javnofinančnih posledic predlaganih sprememb pokojninske zakonodaje* [Assessment of the fiscal impact of the proposed changes to the pension legislation], Ljubljana, 10 September 2019d. https://www.gov.si/novice/2019-09-10-nadaljujejo-se-usklajevanja-predloga-sprememb-zakona-o-pokojninskem-in-invalidskem-zavarovanju/ (accessed 30 March 2020).

on the working years of younger generations reveal substantially lower values compared with those for older generations.[567] Young generations will thus have a lower number of working years at the retirement age, and consequently lower pensions. This certainly raises the question of the future adequacy of pension outcomes for different career patterns.

3.3 Challenges for future adequacy

It can be concluded that the design of the Slovenian pension and social security systems prevents significant negative pressures on the future adequacy of pensions. However, the adequacy challenge especially concerns pensioners with incomplete or short working careers, self-employed, those working in intermittent jobs, and those with a low level of contributions. As the number of people working part-time or on fixed-term labour contracts increased during the economic crisis, the adequacy problem will be more prevalent in future years.

With the penultimate (end of 2019) amendments to the Pension and Disability Insurance Act, the Slovenian Government increased the importance of the first pension pillar at the expense of a substantially decreased long-term sustainability of the pension system. In designing the new pension reform, the Slovenian Government will have to search for equilibrium on the importance of particular pension pillars, pursuing coordinated action in many areas, such as education, healthcare, long-term care and the labour market, in order to effectively implement it in practice with the ultimate aim of a financially sustainable system that enables adequate pensions to all pensioners.

3.4 Solidarity mechanisms

There are quite important redistributive elements in the Slovenian public pension scheme. The minimum pension is provided through the minimum pension assessment base that is fixed at 76.5 % of the average net salary, increased by the percentage of pension adjustment from 1 January of the current year (the maximum pension assessment base is four times higher). With a minimum pension assessment base of EUR 858.46 in 2019, pensioners with a working life of 40 years and a pension assessment base lower than the minimum one are lifted above the AROP threshold. Additionally, from 1 October 2017, the Act Amending the Pension and Disability Insurance Act (ZPIZ-2C, 2017) increased the guaranteed old-age and disability pension to EUR 500 per month for the pensioners with full retirement conditions.[568] Adjusted by 3.2 % it amounts to EUR 555.76 from 1 January 2020. According to the information provided by the Ministry of Labour, Family, Social Affairs and Equal Opportunities, the number of affected pensioners was estimated to be 45,291 (or 46 % of all pensioners with a pension between EUR 400 and EUR 500).

Pension provisions for people forced to leave the labour market early due to disability, have an important positive impact on pension adequacy. The so-called 'working years' (two-thirds of the period between the onset of disability of a person and the age of 60, plus 2.5 years) mitigates

[567] Pension and Disability Insurance Institute of Slovenia, *Letno poročilo 2019 [2019 Annual Report]*, Ljubljana, 2020, Table II.4, p.12.

[568] Act Amending the Pension and Disability Insurance Act [Zakon o spremembah in dopolnitvah Zakona o pokojninskem in invalidskem zavarovanju (ZPIZ-2C)], *Official Gazette of the Republic of Slovenia*, No 23/17. https://www.uradni-list.si/glasilo-uradni-list-rs/vsebina/2017-01-1209/zakon-o-spremembi-in-dopolnitvah-zakona-o-pokojninskem-in-invalidskem-zavarovanju-zpiz-2c (adopted 25 April 2017).

a decrease in the replacement rates. Maternity/paternity/parental leave does not have any impact on working careers and the gender pension gap because the social security contributions are paid from the salary compensation that is equal to the average monthly gross salary in the 12 months before the leave. Unemployed people receive unemployment benefit for up to 25 months (the maximum duration applies to those older than 58 and insured for more than 28 years) and are additionally credited with pension contributions if, after the cessation of entitlement to unemployment benefit, they have less than a year until retirement. The solidarity mechanism for the self-employed and non-standard workers arises from the minimum pension assessment base. Almost 70 % of the self-employed pay social security contributions from the minimum base (60 % of the national average salary) and will thus be entitled to the old-age pension, assessed from the minimum pension assessment base. All this, applies even more to non-standard workers, whose low level of time in work is an additional problem.

4 OPPORTUNITIES TO ADDRESS CHALLENGES

The latest pension reform increased the importance of the public pillar, with positive effects on future adequacy; however, the long-term sustainability will deteriorate further due to the increasing dependency ratio. Possible solutions may be found in extended working careers and higher pensionable age, strengthening the link between contributions and benefits, while preserving distributive elements of the system, and adjusted indexation rules. In relation to the existing occupational defined-contribution schemes, finding the optimal combination of both pillars is a challenge. Successful implementation of changes possibly agreed in the future will crucially depend on:

a) The timely results of in-depth analyses in many areas,
b) continuous public debate with all relevant stakeholders on demographic changes and their effects on pensions, healthcare, long-term care and the education system as well as on the labour market,
c) coordinated actions in all these areas based on the Strategy for a Long-Lived Society, which provides a framework for holistic action (concerning employment or work activity, healthy and safe living for all generations, inclusion in society, and creating an environment for lifelong activity) and preparation of action plans in the respective areas.[569]
d) Ex-ante budgetary supplement for the self-employed with low contributions which are not covered through minimum pensions in order to mitigate the impact of future low pensions.

[569] Government of the Republic of Slovenia, Ministry of Labour, Family, Social Affairs and Equal Opportunities, and Institute of Macroeconomic Analysis and Development, *Strategija dolgožive družbe [Strategy for a Long-Lived Society]*, Ljubljana, 2017. http://www.umar.gov.si/fileadmin/user_upload/publikacije/kratke_analize/Strategija_dolgozive_druzbe/Strategija_dolgozive_druzbe.pdf (accessed 3 March 2020).

5 BACKGROUND STATISTICS

5.1. Relative income	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
Relative median income ratio (65+)	0.83	0.87	0.8	-0.01	-0.04	0.01
Income quintile share ratio (S80/S20), 65+	3.35	3.22	3.37	-0.25	0	-0.33
Relative income quintile share ratio (S80/S20), 65+ - 0-64	0.01	-0.16	0.08			
Aggregate Replacement Ratio (ARR) %	43	43	44	-1	-7	4
5.2. Poverty and material deprivation	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
At-risk-of-poverty or social exclusion (AROPE), 65+ (%)	20.5	14.6	25	-3.9	-0.4	-5.5
At-risk-of-poverty rate (AROP), 65+ (%)	18.6	12.9	23	-2.7	1.2	-4.5
Severe material deprivation (SMD), 65+ (%)	3.9	3.1	4.6	-3.5	-2.6	-3.8
At-risk-of-poverty or social exclusion (AROPE), 75+ (%)	24.4	14.6	30.5	-3.7	-0.7	-3.7
At-risk-of-poverty rate (AROP), 75+ (%)	22.3	12.7	28.1	-3.6	0.3	-4.1
Severe material deprivation (SMD), 75+ (%)	4	2.6	4.9	-2.7	-1.4	-3
Relative median at-risk-of-poverty gap, 65+ (%)	16.1	15.4	16.2	-3.5	-2.7	-4.3
At-risk-of-poverty rate (AROP), 65+: 50 % threshold (%)	9	6.2	11.2	-3.4	0	-5.2
At-risk-of-poverty rate (AROP), 65+: 70 % threshold (%)	29.8	23.7	34.5	-1.3	3	-3.3
Material and social deprivation, age 65+ (1)	9.2	6.8	11.1	-6.9	-7.4	-6.4
5.3. Gender difference	2019			Change 2008-2019		
Gender gap in pension income (65-79) (%) (2)			12.3			-13
Gender gap in non-coverage rate (W-M in p.p.) (65-79)			-3.7			4
5.4. Housing and health situation	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
Housing cost overburden rate, 65+ (%)	4.9	4.3	5.4	-1.7	-0.2	-2.6
Self-reported unmet need for medical exam 65+ (%)	5	5.5	4.6	4.7	5.3	4.2
Healthy life years at age 65 (years)	8.6	8.7	8.6	-0.7	-0.5	-0.8
Life expectancy at age 65	20	17.8	21.8	1.2	1.4	1.3
5.5 Sustainability and context	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
Employment rate, age group 55-64 (%)	48.6	53.2	44	15.8	8.5	22.9
Pension expenditure as % of GDP (ESSPROS) (3)			10.3			0.9
Retirement duration from first pension (years) (4)	23.2	20.4	26.1	-0.3	-0.1	-0.4
Retirement duration from end employment (years)	22.3	19.9	24.4			
Eurostat and AWG projections	2019			2059		
Old-age dependency ratio (20-64) (%)	32.7	26.9	39.0	62.0	56.5	68.3
Economic old-age dependency ratio (20-64) (%) (5)	42.5	33.1	53.5	75.6		
Gross public pensions as % of GDP (5)	10.0			16.1		
Benefit ratio (%) (5)	30.8			33.6		
Coverage ratio (% of pop aged 65+) (5)	148.7			124.0		
Gross pension ratio high / low earner		2.5	2.5		2.5	2.5

(1) *change since 2014, not 2008*
(2) *data refer to 2010, not 2008*
(3) *ESPROSS data refer to 2018*
(4) *Change is since 2016, not 2010*
(5) *2060 instead of 2059*

5.6 Theoretical Replacement Rates

	Net (%)				Gross (%)			
	2019		2059		2019		2059	
	Men	Women	Men	Women	Men	Women	Men	Women
Average earning (100%)								
Base case: 40 years up to the SPA	60.3	66.3	61.7	61.7	39.6	43.5	40.8	40.8
Increased SPA: from age 25 to SPA	60.3	66.3	61.7	61.7	39.6	43.5	40.8	40.8
AWG career length case	57.1	64.9	63.9	61.7	37.5	42.6	42.4	40.8
Old base case: 40 years up to age 65	60.3	66.3	61.7	61.7	39.6	43.5	40.8	40.8
Longer career: 42 years to SPA			66.5	66.5			44.4	44.4
Shorter career: 38 years to SPA			59.4	59.4			39.0	39.0
Deferred exit: 42 years to SPA +2			66.5	66.5			44.4	44.4
Earlier exit: 38 years to SPA -2								
Career break – unemployment: 3 years	57.1	62.8	61.7	61.7	37.5	41.2	40.8	40.8
Career break due to child care: 3 years	59.0	65.3	60.5	60.5	38.7	42.8	39.9	39.9
Career break care to family dependant: 3 years	56.5	62.5	58.2	58.2	37.0	41.0	38.2	38.2
Short career (20 year career)	36.3	40.0	38.5	38.5	23.7	26.1	24.7	24.7
Work 35 y, disabled 5 years prior to SPA			61.7	61.7			40.8	40.8
Early entry in the LM: from age 20 to SPA			70.8	70.8			48.0	48.0
Index: 10 years after retirement @ SPA			58.5	58.5			38.4	38.4
Extended part-time period for childcare			60.5	60.5			39.9	39.9
Survivor – full career		72.5		83.6		47.6		40.8
Survivor – short career		45.1		83.6		29.5		28.5
Survivor ratio 1*		0.57		0.66		0.57		0.88
Survivor ratio 2*		0.45		0.40		0.45		0.30
Low earnings (66%)								
Base case: 40 years up to the SPA	69.3	75.1	65.3	65.3	46.7	51.6	44.1	44.1
AWG career length case	64.5	73.5	67.7	65.3	44.3	50.5	45.8	44.1
Old base case: 40 years up to age 65	69.3	75.1	65.3	65.3	46.7	51.6	44.1	44.1
Career break – unemployment: 3 years	64.5	71.2	65.3	65.3	44.3	48.9	44.1	44.1
Career break due to child care: 3 years	68.1	75.0	63.9	63.9	46.7	51.5	43.2	43.2
Short career (20 year career)	41.2	45.3	39.8	39.8	28.2	31.0	26.9	26.9
Early entry in the LM: from age 20 to SPA			75.5	75.5			51.7	51.7
High earnings (100->200%)								
Base case: 40 years up to the SPA	58.8	64.4	54.6	54.6	39.5	43.8	36.7	36.7

**Survivor ratio 1: man base case, woman base case*

**Survivor ratio 2: man base case, woman short career case*

SLOVAKIA

Highlights

- Older Slovaks face a lower risk of poverty or social exclusion (14.2 %) than the EU average (18.5 %), while the level of income replacement from pensions (53 %) is slightly lower than the EU-27 average (57 %).
- In 2019, future pensionable age was capped at 64 years, after which no further increases are foreseen.
- In 2020, a thirteenth monthly payment for recipients of various types of pensions was introduced, to be paid at the end of each year.
- Future pension adequacy is expected to remain stable in the long run. But there are concerns about the effects of the recent changes in terms of the adequacy of pensions and sustainability of the pension system.

1 GENERAL DESCRIPTION OF THE NATIONAL PENSION SYSTEM

A three-pillar pension system operates in Slovakia. The statutory pension scheme is represented by the insurance-based mandatory defined-benefit pay-as-you-go (PAYG) pension scheme administered by a statutory public body – the Social Insurance Agency. The statutory funded pension scheme is based on individual accounts. The supplementary pension scheme (personal pension scheme) is designed for supplementary savings and is voluntary (except for certain professional groups). Pension benefits from the first pillar still represent the major source of old-age income.

1.1 Statutory pension scheme (PAYG)

The first component is financed primarily through pension insurance contributions paid by the economically active part of the population. Two modalities of contributing are used, depending on whether insured persons are covered only by the first pillar or by the first and the second pillars. Employees presently contribute 4 %. Employers contribute 14 %. If employees also participate in the funded pension scheme, part of the employers' contributions (5 % in 2020) is transferred into this scheme. The minimum contribution period for pension entitlements is 15 years. The pension component has a mixed content based on restricted solidarity and earnings-related principles.

Since 2017, pensionable age has been linked to changes in life expectancy at the reference age, with the goal of improving the long-term sustainability of the pension system. In 2019, a cap on pensionable age increases was introduced (64 years). It is expected that this threshold will be reached in 2030. From 2020 onwards, the pensionable age is set for all insured persons, depending on their date of birth, sex and the number of children raised.

Early retirement is possible 2 years prior to pensionable age, conditional on a 15-year insurance record and entitlement exceeding the subsistence minimum by at least 1.2 times. The amount of an early old-age pension is reduced by 0.5 % for every 30 days before pensionable age.

A minimum old-age pension (within the first pillar) was introduced in 2015. The conditions allowing beneficiaries to boost their pension to the level of the minimum pension include a 30-year of pension insurance record and having total pension income below the amount of the minimum pension. Old-age beneficiaries qualify for the minimum pension even if they have been awarded an early old-age pension or an invalidity pension after reaching pensionable age.

The Christmas bonus, established in 2006, represents a form of special supplement to pensions (old-age pension, early old-age pension, invalidity pension, social pension, widow and widower pension), funded from the state budget. In 2019, the amount of the bonus was doubled, with a maximum value of EUR 200.

Solidarity within the first pillar has been strengthened: from July 2015, the assessment base[570] for the self-employed was increased from 50 % of average monthly taxable income (in the previous year) to 67.3 %. In addition, the maximum amount of the assessment base has grown: between 2013 and 2016 there was a ceiling of five times the average monthly wage, but since January 2017 that ceiling has been seven times the average monthly wage.

In the statutory pension scheme, unlimited deferment is possible. The amount of a deferred old-age pension is increased by 0.5 % for every 30 days of deferment. The accumulation of an old-age pension with earnings is possible, and so most working pensioners combine a pension with their earnings, while a deferred pension is not a common option. The accumulation of an old-age pension with earnings gives the right to a recalculation of the pension, whereby only half of the earnings is taken into account.

1.2 Statutory funded pension scheme

The decision whether to participate in the statutory funded pension scheme (second pillar) or to stay in only the first (PAYG) pillar has to be taken before the age of 35. Once enrolled (opt-in, no automatic registration), it is not possible to leave the second pillar. In 2020, the contribution rate for saving was 5 % (financed from the employer's pension insurance contributions). The contribution rate will be increased gradually by 0.25 percentage points (p.p.) in each subsequent year, to reach the target level of 6 % in 2024. Nearly half of the economically active population participates in the second pillar.[571]

The pay-out phase started effectively in 2015, 10 years after the launch of the pension reform. Payments from the second pillar are made in the form of an annuity, a temporary pension or a programmed withdrawal. The average level of a life annuity in the period from 2015 to 2017 was EUR 24 per month. The relatively strict rules used to mean that almost all savers (more than 90 %) had to receive their pensions from the second pillar as an annuity. After an

[570] The assessment base represents a basis for the calculation of insurance contributions. Old-age pension contributions by employees to the first pillar equal 4 % of the assessment base. Contributions paid by the self-employed represent 18 % of the assessment base.

[571] Fodor, J. and Cenker, J., 'Default strategy in pension saving: The case of Slovakia', *Economic Analysis 51*, Institute for Financial Policy, Bratislava, 2019.

amendment to the law in 2018, if the total retirement income is above the average monthly old-age pension paid from the first pillar (EUR 464.60 in 2020), the saver can apply for a one-off withdrawal of their statutory funded pension entitlement. As a result of these changes, up to 63 % of savers were eligible for a one-off withdrawal in 2019 (compared with 9 % of savers before the change). The average level of a life annuity after reform is EUR 23 per month (2019). Pension in the form of an annuity from the second pillar is now paid to 22 % of (mainly low-income) savers.

1.3 Supplementary pension scheme

This is open to employees, the self-employed and other voluntary savers. Employee contributions into supplementary pension plans are tax deductible, up to EUR 180 a month Employers who contribute to their employees' supplementary pension saving can benefit from tax deductions for up to 6 % of the employee's gross wage. There are no classic occupational pensions in Slovakia; however, participation in supplementary pension insurance is mandatory for specified categories of employees, such as certain arduous jobs (for example, miners) and artistic professions. The employer is obliged to contribute in this case.[572] Conditions for the entitlement are 10 years' working in this category and attainment of the age of 55 years.[573] Supplementary pensions covered 833,596 persons in 2019, representing approximately 23 % of the working-age population.[574]

1.4 Calculation and indexation of benefits

The amount of old-age benefit depends on an individual's average earnings and the length of the contribution period. It is calculated as the product of the average personal pension point, the contributory period and the current pension point value. The personal pension point for a given year represents the ratio of individual earnings to economy-wide average earnings; the current pension point value is regularly established by the Social Insurance Agency and in 2020 represented EUR 13.6361.

In the period 2013-2017, pensions were indexed annually, taking into account year-on-year changes in wages and consumer prices, with a growing weight of inflation (10 % more every year). However, in 2017 the pensions were indexed by a fixed amount, calculated as an average of 2 % for each type of pension. Since 2018, pensions have been indexed reflecting only the year-on-year growth of consumer prices in pensioner households. Based on increased general public concern about the adequacy of pensions, a minimum rate of pension benefit increase was defined. In the period 2018-2021, it is 2 % of the average sum of the pension benefit under the first (PAYG) pillar. In 2020, the old-age pension was increased by at least EUR 9.

A minimum pension (within the statutory pension scheme) is a top-up to the old-age pension. As of 1 January 2020, the equivalent of 33 % of the average monthly wage two years previously is granted to persons with at least 30 years of insurance. Each additional year up to 39 qualified years of insurance brings an additional increase in the amount of 2 % of the subsistence

[572] Obligations are on the employers' side, but employees may also contribute.
[573] For other employees, a condition for the entitlement is reaching retirement age.
[574] https://www.employment.gov.sk/sk/socialne-poistenie-dochodkovy-system/dochodkovy-system/iii-pilier-doplnkove-dochodkove-sporenie/zhodnotenie-majetku/

minimum level (determined for an adult) and each additional year over 39 qualified years of insurance brings an additional increase of 3 % of the subsistence minimum level. The basic level of minimum pension is indexed to the average wage, and the bonus for additional years of paid insurance is indexed to the subsistence minimum.[575]

Self-employed and non-standard workers do not show coverage gaps in terms of old-age pension. The problem arises from the fact that a significant proportion of the self-employed (approximately 79 % in 2019) pay only minimum social contributions, which will lead to low future pensions from the statutory pension scheme. This form of 'moral hazard' was supported by the introduction of the minimum income pension and, recently, by the fact (mentioned above) that it is indexed to the average wage.

2 REFORM TRENDS

In recent years, pension reforms have focused on three major aspects of the pension system: pensionable age, indexation of pension benefits and support for low-income pensioners.

Since 2017, the retirement age has been gradually increased in line with average life expectancy at the reference age, with the goal of improving the long-term sustainability of the pension system. This process was partly revised in 2019. In March 2019, the act on a maximum retirement age of 64 years was passed by the Slovak Parliament.[576] While the retirement age is capped at 64 for men, women are allowed to retire 6 months earlier for every child, with a maximum reduction of 18 months. The reason behind this step was to protect older people who work in arduous conditions and women who have raised children.

Although the retirement age is determined directly through a table in the Act on Social Insurance, there is a cap (64 years), after which no further increase is envisaged.

A new way of indexation was launched in 2018 (see Section 1).

As regards support for low-income pensioners, the focus has been on changes in minimum pensions and the Christmas bonus. A minimum pension was introduced in 2015 and in 2019 the basic amount was changed. As of 1 January 2020, an amount equivalent to 33 % of the average monthly wage, calculated two years before the year in which the minimum pension is provided, is granted to persons with at least 30 years of insurance. As a result, the basic amount has increased by 17 %. In 2020, the minimum pension was EUR 334.30. There is also a bonus for additional years of paid insurance (see Section 1).

As already mentioned in Section 1, the Christmas bonus was doubled in 2019, with a maximum value of EUR 200. At the same time, its coverage was extended. Pensioners with pension benefit lower than 65 % of the average national wage are now entitled to a Christmas bonus (formerly, it was 60 % of the average national wage). The Christmas bonus is a one-off benefit with a rather limited amount, but it is interpreted as a declaration of interest in the living

[575] The subsistence minimum represents a minimum income threshold, set by law, below which there is 'material need'. It is used as a reference point for various social policy measures.
[576] The Act entered into force on 1 July 2019.

conditions of older people and a reinforcement of the redistributive orientation of the Slovak pension system.

In 2020, shortly before the general election, the Slovak Parliament passed a law introducing a thirteenth monthly pension for the recipients of various types of pensions.[577] The law defines one extra payment per year in the amount of the average monthly benefit for a given type of pension; this will replace the Christmas bonus. It will be paid at the end of each year. In addition to old-age pensioners, recipients of invalidity and survivor pensions are entitled to the benefit. It means that all pensioners will receive the bonus (up to 1.5 million pensioners). According to the Council for Budget Responsibility, the measure further damages the budgetary outlook for 2020, by introducing additional expenditure of EUR 432 million.[578]

As the measure was fast-tracked, some experts consider that it was not approved in accordance with the law. The president of the Slovak Republic has referred to the Constitutional Court regarding the way the law was passed in parliament.[579]

The government subsequently approved changes that link the amount of the thirteenth pension to individual pension levels. For pensioners on a total pension below the subsistence minimum, the maximum amount of the thirteenth pension will be EUR 300. For recipients of higher pensions, the thirteenth pension will be reduced as income rises to a minimum value of EUR 50.

Most of the reforms introduced between 2017 and 2020 focused on pension adequacy, solidarity and redistribution. The aim of defining a minimum growth rate of pension benefit was to ensure that pension adequacy does not deteriorate from one year to the next. The changes to the minimum pension aimed at increasing both its amount and its coverage. The increase in the Christmas bonus strengthened solidarity with low-income pensioners.

The introduction of the thirteenth pension was motivated by similar arguments; but it was adopted as part of a general election campaign, and there was no serious discussion of its impact in terms of redistribution and financial sustainability, as the projections and analyses of the Council for Budget Responsibility have repeatedly shown. Much the same can be said of the move to cap the retirement age at 64. Furthermore, the argument that the cap on the retirement age will protect older persons in arduous working conditions may be rendered obsolete by developments in the world of work. The fact that Slovakia belongs to those Organisation for Economic Co-operation and Development (OECD) countries with the largest shares of jobs at risk of automation suggests that the arduous working conditions could improve or cease to exist.[580]

Compared to the last projection (2018), estimated expenditure on pensions in 2070 has increased by 4 p.p. of GDP – from 9.8 % of GDP to 13.8 %.[581] Of this, an increase of 2.9 % of GDP was triggered by the measures adopted in the pension scheme – mainly the cap on retirement age, the increase in minimum pensions and the change in their indexation, the

577 https://spectator.sme.sk/c/22334599/parliament-rejects-istanbul-and-approves-13th-pensions.html
578 https://ekonomika.sme.sk/c/22337255/rozpoctova-rada-zapocitala-trinaste-dochodky-deficit-moze-prekrocit-24-percenta-hdp.html
579 https://spectator.sme.sk/c/22356309/caputova-to-not-veto-13th-pensions.html
580 Nedelkoska, L. and Quintini, G., *Automation, Skill Use and Training*, OECD Employment, Social and Migration Working Papers, No 202, OECD Publishing, Paris, 2018.
581 Stability Programme of the Slovak Republic for 2020 to 2023 (May 2020).

change in reduction in first pillar pension for participants in the second pillar and the doubling of the Christmas bonus. Thus, in 2070, the deficit of the pension system is projected to be 6.9 % of GDP.

3 ASSESSMENT OF ADEQUACY

3.1 Current adequacy[582]

The rate of people aged 65 or over at risk of poverty or social exclusion (AROPE) was 14.2 % in 2019, well below the EU average (18.5 %). The incidence of AROPE among the old-age population has decreased by 7.7 p.p. since 2008. When looking at the narrower age group of the oldest people (aged 75+), one can see that the risk increases slightly with age. In 2019, 15.3 % of persons aged 75 or over were at risk of poverty or social exclusion. The situation of women was worse, particularly in the higher age group: in 2018, the AROPE rate among women aged 75 or over was 18.3 %, compared to 10.3 % for men.

In 2019, 8.7 % of persons aged 65 or over were at risk of poverty (8.7 % also among persons aged 75 or over), compared to 10.7 % among persons aged 18-64 and 18.3 % among children. The at-risk-of-poverty (AROP) rate for persons aged 65 or over has decreased by 1.2 p.p. since 2008, following the general improvement in living conditions. The incidence of severe material deprivation (SMD) among people aged 65 or over was the same as the incidence of SMD in the total population (7.9 %) in 2019. It decreased by 8.7 p.p. in the period 2008-2018.

A comparison of the overall income situation of older people with the income situation of the younger age group shows a relative median income ratio (65+ age group) of 85 % in 2019. This was below the EU average (90 %). In the period 2008-2019, the ratio increased by 0.06 p.p. The aggregate replacement ratio, which shows the level of retired persons' pensions as a share of the level of earnings of people in the decade before retirement, was 53 % in 2019, having remained unchanged between 2008 and 2018, and is still below the EU average (57 %).

The gender gap in pensions was 11.6 % in Slovakia in 2019, significantly lower than the EU-27 average (29.5 %).[583] It has decreased by 2.6 p.p. since 2010. The gap is influenced by the shorter working lives of women (the pension age of women was lower in the past), lower employment rates, and prevailing employment in less-remunerative jobs and sectors, with a lower share in higher management positions.

The housing costs overburden rate for persons aged 65 or more was 4.0 % in 2019, compared with 10.0 % in the EU as a whole. The rate decreased significantly (by 9.9 p.p.) in the period 2008-2019. The largest drop (of 7.1 p.p.) occurred between 2017 and 2018. The housing costs overburden rate for the total population also declined, although to a lesser extent (by 4.3. p.p.). There is no plausible explanation for this development yet (in terms of social policy reforms that could contribute to the significant fall in the rate).

[582] See Annex 5 'Background statistics'.

[583] Three factors may contribute to the fact that the gap is well below the EU average. In general, Slovakia shows one of the lowest income inequalities in the EU. As a result, income differences among inhabitants are smaller than in the majority of the EU countries. Furthermore, the female employment rate – although lower than that of men – is above the EU average. The low proportion of women on part-time contracts also contributes to this.

Older people tend to spend a larger part of their income on heating bills and face a higher risk of living in homes with inadequate heating. This is, in particular, the case for households composed of one person aged 65 or over. In 2018, 7.2 % of them were unable to keep the home adequately warm, compared with 4.8 % of the total population. The situation of poor older persons who live alone is worse: inability to keep the home adequately warm was reported by 10.8 % in 2018.[584]

As regards health conditions, the incidence of unmet need for medical care among older people increased slightly in the period 2008-2019 (by 2.1 p.p.), to stand at 8.4 % in 2019. Life expectancy at age 65 is below the EU average both for men (15.4 in Slovakia; 18.1 in the EU) and women (19.3; 21.6). The number of healthy life years at age 65 (both for men and women) is significantly lower in Slovakia (4.6 for men and 4.7 for women in 2019) than in the EU as whole (10.2 for men and 10.4 for women).

Pension benefits are not taken into account when determining eligibility and cost sharing for long-term care (LTC) services. However, the Act on Social Services defines a minimum amount of income that must remain at a service recipient's disposal after the deduction of fees for services. For example, after paying charges for home care services, a recipient's income must amount to at least 1.65 times the subsistence minimum (for an adult). After paying fees for residential service provided for a whole year, a recipient's income must in no case be less than 25 % of the subsistence minimum.

Receipt of pension benefit plays a role when determining the amount of attendance service benefit, which is granted to persons who care for long-term dependent relatives. The amount of the benefit is differentiated according to whether the caregiver is of working age or not.

3.2 Future adequacy

The theoretical replacement rates (TRRs) suggest that the future adequacy of pensions in Slovakia will remain stable. In the period 2019-2059, the net TRR for the base case (i.e. 40-year career at average earnings until the standard pensionable age) will decrease by 0.3 p.p. The timing of retirement has massive implications for replacement rates. Thus, deferring retirement by only 2 years would result in a gain of 11.8 p.p. compared to the base case, whereas retiring 2 years before the standard pensionable age would trigger a loss of 11.3 p.p.

Future adequacy also depends on the sustainability of the pensions system. In demographic terms, sustainability is at risk due to the fact that the old-age dependency ratio in Slovakia is projected to become one of the highest in the EU. The sustainability of the pension system has also been endangered by some of the recent reforms. The introduction of the retirement age cap could, all things being equal, reduce future pensions, because of the shorter contributory periods (see Section 2). It could also contribute to growth of government debt in the long run, undermining the economic foundations of the system. As a result, it will put pressure on the other pension system parameters, including contribution rates and replacement rates.

Approval of the thirteenth pension in 2020 increases the future adequacy of pensions, but at a high fiscal cost (though mitigated by the subsequent modifications introduced by the

[584] Eurostat.

government). The question is whether increasing the redistributive orientation of the pension system could be achieved more effectively by other means.

3.3 Challenges for future adequacy

Eligibility conditions are the same for all working persons (with the exception of members of the armed forces). The same holds true for mechanisms for the calculation of benefit levels. Differences arise in relation to expected levels of old-age pensions and, thus, pension adequacy. As the majority of self-employed persons (more than 70 %) pay old-age contributions from the so-called minimum assessment base, there is a significant risk that the level of their future pensions will be quite low. In this respect, the introduction of a minimum old-age pension is of great relevance. In relation to people on non-standard contracts, it plays but a minor role, as there are qualifying conditions (at least 30 years of insurance).

The pension system in Slovakia is characterised by only a small difference in pension income between men and women. On the other hand, future old-age pensions will also be influenced by the length of employment. In Slovakia, the employment rate of women aged 20-49 and with young children is very low, on account of the small share of children aged 0-3 in formal childcare, also caused by the shortage of affordable pre-school facilities. Long parental leave and low participation by men in parental leave contribute to the shorter working lives of women.

Future adequacy is also at risk from conservative saving strategies adopted by the majority of insurers in the statutory funded pension scheme (the second pillar of the old-age pension system). When participating in the scheme, part of the mandatory pension insurance is transferred to an investment account. The problem is that many savers are passive, investing entirely in guaranteed bond funds that have smaller yields, compared with investments in equities (Fodor and Cenker, 2019). As a result, the passive investment in guaranteed bonds increases the risk of inadequate future pension. In 2019, savings in guaranteed bonds accounted for around 70 % of the total. Conservative saving strategies are typical of participants aged over 35.

The statutory funded pension scheme faces other difficulties, too. In general, its results lag behind expectations.[585] The most prominent reasons for this include strong political influence, the raising of unrealistic expectations and an underestimation of the behavioural aspects of saving behaviour, as well as an overestimation of the benefits of competition in the small market (Odór and Povala, 2019).

3.4 Solidarity mechanisms

Solidarity mechanisms have been reinforced by several measures.

A ‘solidarity element’ is embedded in the formula for old-age pension benefit, which is calculated as the product of the average personal pension point, the contributory period and the current pension point value. There is a coefficient that reduces personal pension points that are

[585] Odór, Ľ. and Povala, P., ‘Sporiteľ na prvom mieste. Ako zreformovať druhý dôchodkový pilier na Slovensku? [Putting the saver first: How to reform the second pillar in Slovakia]’, draft, 2019.

higher than 1.25. Similarly, there is a coefficient that increases personal pension points that are lower than 1.

A minimum old-age pension, introduced in 2015, provides a guarantee of a certain income standard for nearly all old-age pensioners, and thus contributes to a redistribution of public resources toward the least well-off. The objective of the minimum pension is to make sure that any insured person who has carried out gainful activity throughout most of their working life receives a pension income at such a level that they would not depend on assistance in material need.

As the minimum pension was linked to the subsistence minimum (until 2019), the question of its adequacy arose in relation to debates about the adequacy of the subsistence minimum itself. The subsistence minimum was challenged by experts due to its lack of adequacy, transparency and indexation mechanisms. This had direct consequences for the adequacy of the minimum pension, where it served as a reference category. As of 2020, the starting amount of the minimum pension is calculated as a percentage of the average wage. This change increases minimum pension adequacy and, at the same time, promotes more adequate indexation.[586]

The redistributive orientation of the Slovak pension system was partially reinforced also by the so-called Christmas bonus, a one-off supplement to pensions (old-age pension, early old-age pension, invalidity pension, social pension, widow and widower pension) paid to pensioners with income of below 65 % of the average national wage. The Christmas bonus as a one-off benefit was replaced in 2020 by the thirteenth pension, which is a benefit provided on a regular basis (see above).

4 OPPORTUNITIES TO ADDRESS CHALLENGES

In order to promote the stability of the pension system, new reform proposals should be assessed in terms of its pros and cons. At the same time, more effort is needed to reach a consensus across the political spectrum.

More effort is needed to stabilise the second pension pillar and make the saving habits of participants an explicit objective of policy discussions.

Discussions regarding pension adequacy in Slovakia should focus more on the pension formula that provides the basis for the calculation of old-age pensions. It attracts little attention, as other parameters and mechanisms have been modified in recent years. The formula consists of the average personal earnings point, the period of pension insurance and the current pension value. At least the average personal earnings point and the indexation of pensions in payment should become subjects for expert discussions in relation to the adequacy of pensions.

In addition, the pension-related risks of various occupational categories should be explored and discussed.

[586] There are also bonuses for additional years of paid insurance which remain linked to the subsistence minimum.

5 BACKGROUND STATISTICS

5.1. Relative income	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
Relative median income ratio (65+)	0.85	0.87	0.85	0.06	0.04	0.08
Income quintile share ratio (S80/S20), 65+	2.48	2.34	2.55	0.15	0.15	0.19
Relative income quintile share ratio (S80/S20), 65+ - 0-64	-1.04	-1.25	-0.88			
Aggregate Replacement Ratio (ARR) %	53	50	58	-1	-4	3
5.2. Poverty and material deprivation	**2019**			**Change 2008-2019**		
	Total	Men	Women	Total	Men	Women
At-risk-of-poverty or social exclusion (AROPE), 65+ (%)	14.2	10.4	16.7	-7.7	-5.3	-8.9
At-risk-of-poverty rate (AROP), 65+ (%)	8.7	6.1	10.5	-1.2	2.3	-2.9
Severe material deprivation (SMD), 65+ (%)	7.9	6.6	8.8	-7.4	-6.5	-7.7
At-risk-of-poverty or social exclusion (AROPE), 75+ (%)	15.3	10.3	18.3	-10.5	-8.2	-11.3
At-risk-of-poverty rate (AROP), 75+ (%)	8.7	4.5	11.3	-3.5	0.8	-5.2
Severe material deprivation (SMD), 75+ (%)	9.1	8	9.8	-8.7	-7.5	-9.1
Relative median at-risk-of-poverty gap, 65+ (%)	12.4	12.1	12.6	3	3.9	3
At-risk-of-poverty rate (AROP), 65+: 50 % threshold (%)	3.2	2.1	3.9	0.3	1	0
At-risk-of-poverty rate (AROP), 65+: 70 % threshold (%)	19.5	14.8	22.7	-3.7	2.5	-6.9
Material and social deprivation, age 65+ (1)	13.3	10.5	15.2	-7.5	-7.3	-7.5
5.3. Gender difference	**2019**			**Change 2008-2019**		
Gender gap in pension income (65-79) (%) (2)			11.6			2.6
Gender gap in non-coverage rate (W-M in p.p.) (65-79)			-0.7			-0.2
5.4. Housing and health situation	**2019**			**Change 2008-2019**		
	Total	Men	Women	Total	Men	Women
Housing cost overburden rate, 65+ (%)	4	1.5	5.6	-9.9	-5.9	-12.2
Self-reported unmet need for medical exam 65+ (%)	8.4	8.2	8.6	2.1	1.3	2.6
Healthy life years at age 65 (years)	4.7	4.6	4.7	1.9	1.6	2.0
Life expectancy at age 65	17.6	15.4	19.3	1.5	1.6	1.5
5.5 Sustainability and context	**2019**			**Change 2008-2019**		
	Total	Men	Women	Total	Men	Women
Employment rate, age group 55-64 (%)	57	60.3	53.9	17.8	3.6	29.7
Pension expenditure as % of GDP (ESSPROS) (3)			8			1.6
Retirement duration from first pension (years) (4)	19.7	16.9	21.9	-0.3	-0.4	-0.7
Retirement duration from end employment (years)	20.1	17.4	22.2			
Eurostat and AWG projections	**2019**			**2059**		
Old-age dependency ratio (20-64) (%)	25.3	19.9	30.8	65.9	58.4	73.8
Economic old-age dependency ratio (20-64) (%) (5)	32.9	23.3	44.6	90.4		
Gross public pensions as % of GDP (5)	8.3			14.5		
Benefit ratio (%)(5)	37.0			31.9		
Coverage ratio (% of pop aged 65+)(5)	156.2			123.3		
Gross pension ratio high / low earner		2.0	2.0		1.9	1.9

(1) *change since 2014, not 2008*
(2) *data refer to 2010, not 2008*
(3) *ESPROSS data refer to 2018*
(4) *Change is since 2016, not 2010*
(5) *2060 instead of 2059*

5.6 Theoretical Replacement Rates

	Net (%)				Gross (%)			
	2019		2059		2019		2059	
	Men	Women	Men	Women	Men	Women	Men	Women
Average earning (100%)								
Base case: 40 years up to the SPA	67.4	67.4	67.1	67.1	51.3	51.3	51.1	51.1
Increased SPA: from age 25 to SPA	63.2	63.2	65.4	65.4	48.1	48.1	49.8	49.8
AWG career length case	65.9	57.5	63.1		50.1	43.8	48.1	
Old base case: 40 years up to age 65	77.5	77.5	71.1	71.1	59.0	59.0	54.2	54.2
Longer career: 42 years to SPA			70.5	70.5			53.7	53.7
Shorter career: 38 years to SPA			63.8	63.8			48.5	48.5
Deferred exit: 42 years to SPA +2			78.9	78.9			60.1	60.1
Earlier exit: 38 years to SPA -2			55.8	55.8			42.5	42.5
Career break – unemployment: 3 years	67.4	67.4	62.1	62.1	51.3	51.3	47.3	47.3
Career break due to child care: 3 years	67.4	67.4	65.5	65.5	51.3	51.3	49.9	49.9
Career break care to family dependant: 3 years	64.4	64.4	64.4	64.4	49.6	49.6	49.6	49.6
Short career (20 year career)	33.7	33.7	33.6	33.6	25.7	25.7	25.6	25.6
Work 35 y, disabled 5 years prior to SPA			67.1	67.1			51.1	51.1
Early entry in the LM: from age 20 to SPA			73.8	73.8			56.2	56.2
Index: 10 years after retirement @ SPA			58.4	58.4			44.4	44.4
Extended part-time period for childcare			60.9	60.9			46.4	46.4
Survivor – full career		87.6		87.3		66.7		66.4
Survivor – short career		57.3		57.1		43.6		43.4
Survivor ratio 1*		0.65		0.65		0.65		0.65
Survivor ratio 2*		0.57		0.57		0.57		0.57
Low earnings (66%)								
Base case: 40 years up to the SPA	71.5	71.5	71.2	71.2	56.6	56.6	56.4	56.4
AWG career length case	69.8	61.0	66.9		55.3	48.3	53.0	
Old base case: 40 years up to age 65	82.2	82.2	75.4	75.4	65.1	65.1	59.7	59.7
Career break – unemployment: 3 years	71.5	71.5	65.8	65.8	56.6	56.6	52.1	52.1
Career break due to child care: 3 years	71.5	71.5	70.8	70.8	56.6	56.6	56.1	56.1
Short career (20 year career)	35.7	35.7	35.6	35.6	28.3	28.3	28.2	28.2
Early entry in the LM: from age 20 to SPA			78.3	78.3			62.0	62.0
High earnings (100->200%)								
Base case: 40 years up to the SPA	51.3	51.3	49.6	49.6	37.6	37.6	36.3	36.3

**Survivor ratio 1: man base case, woman base case*

**Survivor ratio 2: man base case, woman short career case*

FINLAND

Highlights

- The 2017 reform will have a positive impact on long-term sustainability and the adequacy of the pension system, as pension-accruing careers will be longer and the effect of the life-expectancy coefficient will be mitigated. However, it means raising the pensionable age and lengthening people's working careers. It is a challenge for policy makers and social partners to jointly find ways to substantially increase the employment rates of older workers.
- Despite all the measures targeting employment-related pensions, the level of basic pensions remains crucial for preventing old-age poverty in the future.
- The at-risk-of-poverty (AROP) rates produced by the 50 %, 60 % and 70 % poverty lines produce highly divergent results. Whereas the Finnish AROP rate is among the lowest in the EU with regard to the lowest poverty line, the higher poverty lines produce AROP rates that are high by European standards. However, the severe material deprivation rate in Finland is very low.
- A challenge concerning the self-employed is to ensure that the contribution base for the self-employed better corresponds to their actual income and results in an adequate pension.

1 GENERAL DESCRIPTION OF THE NATIONAL PENSION SYSTEM

In Finland, the statutory (first-pillar) pension system consists of three defined benefit (DB) parts: (1) earnings-related pensions (ERP), which seek to balance out incomes and, to a reasonable degree, maintain the income level achieved during the recipient's working career – the ERP are financed mostly on the pay-as-you-go (PAYG) principle (70 %) and partially through funding; (2) a residence-based national pension (NP) that is tested against income from the legislated ERP schemes; and (3) a guarantee pension (GP), which aims at poverty alleviation and guaranteeing a minimum safety net (EUR 834.52 net per month). The NP and GP are administered by the Social Insurance Institution of Finland (Kela) and financed via taxes.[587] They are PAYG schemes.

Since 1 June 2017, a temporary pension assistance (*eläketuki*) has been available for long-term unemployed people who are over 60 years of age and have been unemployed for more than 5 years. This pension assistance will be effective until 2023. The amount is EUR 834.52 per month (Kela, 2020a).

[587] Social Insurance Institution of Finland (Kela), *Pensions*, 2020a. https://www.kela.fi/web/en/pension

The Finnish ERP system consists of various schemes that differ for different classes of employee: the main pension scheme t (TyEL) similar schemes for the public sector (JuEL), mariners (MEL); self-employed (YEL); and farmers – farmers' pension insurance (MYEL). The pension benefits are similar in all the schemes. The ERP scheme is mandatory, fully legislated and decentralised. It covers all employees and almost all self-employed workers. A person can accrue pension rights under several separate pension schemes over the course of their working life. Even though the ERP system is legislated and fully mandatory, it is run by private pension insurance institutions. In 2020, there were 4 pension insurance companies, covering about 70 % of all insured people, 12 company pension funds and 5 industry-wide funds. The public sector pensions are administered by Keva, the farmers' MYEL is administered by the Farmers' Social Insurance Institution (Mela) and the Mariners' Pension Fund administers the MEL.[588]

The statutory earnings-related pension scheme is based on tripartite negotiations between the social partners and the state.

The benefits in all schemes include old-age, disability and survivor pensions (for widowed spouses and their children younger than 18 years) and rehabilitation benefits. In addition, the ERP system grants partial disability (50 %) and partial old-age pensions (25 % or 50 %), as well as years-of-service pensions.

The pensioners' housing allowance is a special housing allowance system designed to help low-income pensioners. It compensates for a maximum of 85 % of housing costs. The amount of this allowance depends on the size of the pension, the area of residence and the housing costs paid. The allowance is available for both rented and owner-occupied homes.[589]

Because of the universal coverage and the absence of ceilings in the TyEL (in neither the insured income nor the pension amounts), the role of supplementary pensions (i.e. occupational pensions or personal pension insurance) is small in Finland. Occupational collective DB schemes cover about 10 % of the working-age population, and personal pension plans about 30 %. The income package of older people in Finland consists almost entirely of statutory pensions and housing allowances. In 2018, statutory pensions made up as much as 98 % of total expenditure on pensions.[590]

TyEL and other schemes for employees

There are separate pension schemes for central government and municipal (JuEL) and for private-sector employees (TyEL and MEL). The benefits under these schemes are now identical, but there are some differences in the administrative structures, the financing and the degree of funding. TyEL, the main private-sector pension scheme, is about two-thirds pay-as-you-go and one-third funded. TyEL and other funds amounted to 90 % of GDP at the end of 2019. Since the beginning of 2017, the accrual rates have been the same (1.5 % of annual

[588] Finnish Centre for Pensions (ETK), 'Pension Coverage and Insurance', 2020a. https://www.etk.fi/en/finnish-pension-system/pension-security/pension-coverage-and-insurance/
[589] Social Insurance Institution of Finland (Kela), 'Housing allowance for pensioners', 2020b. https://www.kela.fi/web/en/housing-allowance-for-pensioners
[590] Social Insurance Institution of Finland (Kela), *Statistical Yearbook of the Social Insurance Institution 2018*, Kela, Helsinki, 2019, p. 40.

income) for all age groups, with a transition period until the end of 2025. Employers and employees jointly finance TyEL. In 2020, the average TyEL contribution was 24.4 % of a wage, of which the employer's share was 16.95 %, with the remainder coming from the employee.[591]

YEL for the self-employed

Self-employed people are obliged to take out YEL pension insurance if they are aged 18–67, their self-employment has continued for 4 months and their annual income exceeds the minimum threshold of EUR 7958.99.[592] Their accrual rates are the same as for employees. If their income from self-employment is lower than the minimum, they can take out a voluntary YEL insurance policy. The YEL contribution rates vary (from 24.1 % to 25.6 %), depending on the age of the self-employed person. The pension contributions are lower for the first 4 years of self-employment. As a rule, contributions collected from self-employed people are not sufficient to cover the annual cost of pensions. This deficit is financed by the state. It has been calculated that in 2020 the state's share will have been as high as 25 %.[593]

MYEL for farmers and grant receivers

Farmers' pension insurance was originally established for farmers, forest owners, fishermen, reindeer breeders and their families. At the beginning of 2009, the recipients of scientific or artistic grants and scholarships were included in MYEL's coverage. A separate organisation (Mela) administers the scheme. MYEL pensions accrue in the same way as other earnings-related pensions. The state is heavily involved in the financing of the MYEL scheme. It has been calculated that in 2020 the state was responsible for 84 % of pension expenditure under MYEL.[594]

Coordination of pensions

In Finland, all the legislated pensions are coordinated with each other. The amounts of the NP and GP depend on accrued ERP benefits, which reduce the NP by 50 %. In 2020, pensioners whose ERP was more than EUR 1368.21 (single) or EUR 1226.13 (when living with a spouse) per month were no longer entitled to an NP or GP (the 2020 situation). The full NP is granted on the basis of 40 years of residence in Finland. In 2020, the full NP was EUR 662.86 per month for single pensioners and EUR 591.79 for married pensioners. The full NP is approximately 20 % of the median wage. The NP is supplemented by GP benefits that are payable in full to those pensioners whose only income consists of the NP. The GP is fully dependent on other pension incomes, all of which are deducted from the full GP (EUR 834.52 net per month in 2020) (Kela, 2020a).

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[591] Varma Pension Company, Varma, 'Vuoden 2020 työeläkemaksut vahvistettu [Earnings-related pension contribution rates defined for 2020]', 2020. https://www.varma.fi/muut/uutishuone/uutiset/2019-q4/vuoden-2020-tyoelakemaksut-vahvistettu/

[592] Ilmarinen, 'Yrittäjän eläkevakuutus [Pension insurance for the self-employed]', 2020. https://www.ilmarinen.fi/yrittaja/yrittajan-elakevakuutus/

[593] Finnish Pension Alliance (Tela), 'Yrittäjäeläkkeen erityispiirteet [Special characteristics of the pension scheme for the self-employed]', 2020. https://www.tela.fi/yrittajaelake

[594] Finnish Centre for Pensions (ETK), 'Financing and investments, pension contributions, self-employed', 2020b. https://www.etk.fi/en/finnish-pension-system/financing-and-investments/pension-contributions/self-employed/

Pension age

The 2005 pension reform introduced a flexible retirement age (63-68 years) for earnings-related pensions, while the retirement age under the national and guarantee pension scheme was made 65 years. Under the 2017 pension reform, the lowest pensionable age is gradually being increased from 63 to 65 years between 2018 and 2027, and will be linked to life expectancy after that. Each cohort has its own pensionable age. The reform combined the life-expectancy coefficient, which reduces the pension level (the longer the cohort's life expectancy, the greater the reduction), with higher pensionable ages. Those in arduous jobs can qualify for the years-of-service pension at the age of 63, after 38 years of employment. A partial pension (25 % or 50 %) is possible at the age of 61 for people born in (or before) 1963 and at 62 for those who were born in 1964. Also, the age limits for the years-of-service pension and partial pension will be linked to life expectancy after 2027. The 2017 reform had the desired effect of annually postponing the expected retirement age by 0.2 years.[595]

2 REFORM TRENDS

The centre-left government that came to power in 2019 increased the national pension by EUR 34 and the guarantee pension by EUR 50 a month. These increases became effective at the beginning of 2020.

In the context of the 2017 pension reform, there was an agreement that the survivor pension schemes would be assessed separately. To this end, the Ministry of Social Affairs and Health published a road map for the reform.[596] According to the draft law following this, the survivor pension will be converted to a fixed-term pension. In future, it will be paid for 10 years, or until the youngest child entitled to an orphan's pension turns 18. These changes apply to those born in 1975 or later. For older cohorts, the survivor pension remains unchanged. Survivors from a cohabiting relationship will also have the right to a survivor pension if they are taking care of an under-age child. The reform is intended to come into force at the beginning of 2022.

In June 2019, the social partners requested clarification on various issues related to the ERP system. The Finnish Centre for Pensions was responsible for conducting studies into the development of disability pensions, vocational rehabilitation and what possibilities there were to change the financing of the system.[597] The reports were released in 2020 and the partners

[595] Finnish Centre for Pensions (ETK), 'Eläkeellesiirtymisikä [Retirement age]', 2020c. https://www.etk.fi/tutkimus-tilastot-ennusteet/tilastot/elakkeellesiirtymisika/
[596] Ministry of Social Affairs and Health, 'Perhe-eläkeselvitys [A report on survivor pensions]' 2017. http://urn.fi/URN:ISBN:978-952-00-3870-0
[597] Laaksonen, M., 'Työkyvyttömyyseläkkeelle siirtyminen: trendit, tilannekuva, tulevaisuus [Disability pensions: Trends, current situation and future]', Finnish Centre for Pensions, 2020. http://urn.fi/URN:ISBN:978-951-691-308-0; Liukko, J., 'Työeläkekuntoutuksen ratkaisukäytännöt sekä kuntoutuksen toimivuus ja vaikuttavuus [Decision practices for vocational rehabilitation and the effectiveness and impact of vocational rehabilitation]', Finnish Centre for Pensions, 2020. http://urn.fi/URN:ISBN:978-951-691-307-3; Risku, I., Tikanmäki, H., Varis, J., Sankala, M., Lehmuskero, M. and Mäkinen, H., 'Työeläkkeiden rahoitusselvitys [Report on financing the earnings-related pensions]', Finnish Centre for Pensions, 2020. http://urn.fi/URN:ISBN:978-951-691-305-9

will consider the necessary measures. A preliminary report on improving returns on the investments made by pension funds was also released.[598]

According to the working group on municipal and TyEL pensions, the schemes should be merged. Such a merged scheme would be stronger and better able to meet future financial risks caused by demographic and labour market changes.

One challenge that concerns especially the self-employed is that they may end up having their ERPs no higher than the GP, which may potentially erode the legitimacy of the ERP. Unlike employees, self-employed people negotiate with their pension institution over a proper level of YEL income base, and many of them choose to pay only the minimum level of social security contributions. In a 2019 report, the Organisation for Economic Co-operation and Development (OECD) urged Finland to consider reforming the basis of pension contributions.[599]

A reform of the pension system for the self-employed was being considered by the previous government, and it is proposed to continue this work. A working group of the Ministry of Social Affairs and Health released a report on the development needs of pension security for self-employed persons in 2019.[600] A tripartite working group started its work in 2020 and a government bill is expected to be presented during the current term of government.

It is too early to say how severely the Covid-19 pandemic will challenge the existing welfare systems. According to the managing director of the Centre for Finnish Pensions, there are no acute problems, because sufficient buffers are built into the ERP pension system.[601]

On 18 March 2020, the social partners agreed to temporarily reduce private-sector (TyEL) employer contributions by 2.6 percentage points (p.p.) (from 16.95 % to 14.35 %) from May to December 2020. There are also other provisional arrangements, such as an extension to the payment periods for the pension contributions of employers and self-employed people who are facing difficulties. The deferral of these contributions will defer the timing of premiums, but not eliminate them.

3 ASSESSMENT OF ADEQUACY

3.1 Current adequacy

One consequence of the maturation of the ERP pension system is that the relative median income ratio (65+ / the age group 18-64) has improved. However, in 2019 it was still somewhat below the EU average (0.81 in Finland, compared to 0.90 in the EU).[602] The aggregate replacement ratio (ARR) of 52% – which shows the proportion of pensions in relation to income a decade prior to retirement – is also somewhat below the EU average (57 %). Gender

598 Finnish Centre for Pensions (ETK), 'Esiselvitys tuottojen kohentamismahdollisuuksista [Preliminary report on improving returns on investments]', 2020d. https://www.etk.fi/uutinen/esiselvitys-tyoelakesijoitusten-tuottojen-kohentamismahdollisuuksista-valmistui/

599 OECD, *Pensions at Glance*, OECD Publishing, Paris, 2019, p. 83.

600 Ministry of Social Affairs and Health, 'Yrittäjän työeläketurvan kehittäminen. Työryhmän raportti [Development of the employee pension security of self-employed persons. Working group report]', 2019, http://urn.fi/URN:ISBN:978-952-00-4054-3

601 Kautto, M., 'Koronakriisi ja työeläkejärjestelmä [Corona crisis and the employment-related pension system]', 2020, https://www.etk.fi/blogit/koronakriisi-ja-tyoelakejarjestelma/

602 EU and EU-27 refer to the current 27 Member States of the European Union.

gaps in the income and pension coverage in Finland are among the smallest in Europe. Due to the universal nature of the pension system, there are no significant gender differences in the coverage rates. The gender gap in pension income is 22.6 % (the EU average is 29.5 %).[603]

The picture of old-age poverty depends very much on the indicator we use and the demographic group we look at. The 2019 at-risk-of-poverty (AROP) measures of 50 %, 60 % and 70 % of national median income tell different stories. For the population group of 65 and older, the total AROP 50 % rate in 2019 was 4.0 % (3.6 % for males and 4.3 % for females). These numbers are among the lowest in the EU. The 60 % poverty threshold yields an AROP rate that is three times higher – 14.4 % overall (10.8 % for males and 17.3 % for females). These Finnish numbers are somewhat below the EU average, but higher than the AROP rate for the total population (11.6 %). If the AROP threshold is increased to 70 % of median income, the Finnish AROP rates are higher (with the exception of that for males) than the EU averages (28.3 % versus 26.4 % for all aged 65 and above; 22.0 % versus 22.6 % for males; and 33.3 % versus 29.4 % for females). With regard to those aged 75 and above, the AROP rates in Finland are comparatively high: 21.1 % total, 14.4 % for males and 25.5 % for females. The corresponding EU averages are lower: 17.2 %, 13.4 % and 19.9 %, respectively.[604]

The high poverty rate among women who aged 75 and above is explained by three factors. First, since their employment history has been short, many of them only receive a basic pension. Second, the indexation of their pensions has not been sufficient to maintain the value of their pensions, compared to wage developments. And finally, due to the Nordic family and demographic patterns, a larger share of them live alone than in the other EU Member States, and being in a single household increases the risk of poverty for all age groups.[605]

The discrepancy between the AROP rates produced by the 50 %, 60 % and 70 % poverty lines indicates that basic pensions in Finland are universal, but their level is not adequate to meet the 60 % or the 70 % poverty lines. However, with regard to severe material deprivation (SMD), Finland performs much better in all population categories (1.0 % for men and 1.3 % for women aged 65 and above; 0.8 % for men and 1.4 % for women aged 75 and above).

The amount of people's earnings-related pensions naturally depends on their work history and income. It is calculated on the basis of average earnings between the age of 17 and retirement. The annual accrual rate is 1.5 %. Paid parental leave, sickness benefits and unemployment benefits also accrue pension rights.

In 2019, the 60 % AROP threshold was EUR 1229 per month and the average pension amounted to EUR 1716 per month (EUR 1937 for males and EUR 1533 for females).[606] The income package of the older population consists almost entirely of public transfers, and therefore the level of total income may be lower than in many countries that provide lower legislated pensions than Finland.

[603] Section 5 'Background statistics'.
[604] Section 5 'Background statistics'.
[605] Ahonen, K., 'Kotitalouden rakenteen vaikutus köyhyysriskieroihin 15 EU-maassa ja Norjassa [The impact of household structure upon poverty risks in 15 EU Member States and in Norway]', University of Turku, licentiate thesis, 2018.
[606] Finnish Centre for Pensions (ETK), 'Keskimääräiset eläkkeet [Average pensions]', 2020e. https://www.etk.fi/elakejarjestelmat/elaketurva/elakkeensaajien-kokonaistulot/keskimaaraiset-elakkeet/

The Committee of Social Rights of the Council of Europe has been of the opinion that the level of basic security benefits is too low in the Nordic countries (with regard to pensions, this refers only to the level of the guarantee pension). The European Social Charter states that basic benefits should not be lower than 50 % of median income. In Finland, this means that benefits should be about EUR 1000 per month. The Finnish government has responded by referring to the other provisions and benefits that complement the pension levels (including the housing allowance, care allowance, social services, etc.).

In Finland, housing is considered a pension asset 'by other means'. The housing situation of the Finnish older population is decent. The most common form of housing in Finland is owner-occupation, and consequently over-burdensome housing costs are seldom a problem. The cost overburden rate is comparatively low (4.8 % versus the EU average of 10.0 %). Net wealth (due to owned houses) among older people is high, compared to younger age cohorts. Owner-occupation, low housing costs and subsidised services partially explain the discrepancy between the relatively high AROP rates and the low material deprivation rates.

If necessary, extra help is also available in the form of municipal home services or the care allowance for pensioners, paid by the Social Insurance Institution of Finland. The amount of this allowance varies according to the help needed: EUR 71.21, EUR 155.15 or EUR 328.07 per month net in 2020.[607]

An EU-wide comparison of pensioners' own assessments of their financial situation show that self-perceived difficulties are lowest in Denmark, Sweden and Finland.[608] This result is interesting, as the Nordic AROP rates are not always the lowest. One explanation for this 'paradox' may be the Nordic way of delivering free or heavily subsided social and healthcare services, which has an impact on the economic coping capacity of the retired population.[609] When comparing poverty rates, we cannot simply assign all explanatory power to pension generosity. Rather, the independent effect of the pension system is blurred by a wide array of confounding factors.

In Finland, there is no single, discrete long-term care (LTC) scheme. In principle, eligibility for LTC services is universal, but needs tested. Fees for the same type of LTC can vary depending on whether the care is considered to require institutional care or service housing. In institutional LTC, the fee is determined by the client's income and can be as much as 85 % of the client's net income. With regard to service housing, the fees are not fixed by law, but they can be decided by the service provider, i.e. the municipality or private LTC provider. There are also variations between municipalities in the income limits that form the basis for customer fees and in customer vouchers to purchase services.

In Finland, there are no direct national policies to define the reference incomes or the real expenditure needs of older people. One baseline is the guarantee pension. Its level is set by the government. Another indirect measure is social assistance, which defines the minimum budget

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[607] Social Insurance Institution of Finland (Kela), 'Care allowance for pensioners', 2020c. https://www.kela.fi/web/en/care-allowance-for-pensioners

[608] Palomäki, M.-L., *Pensioners' Subjective Economic Well-Being in European Countries: Comparisons behind the income satisfaction paradox*, Study 4/2018, Finnish Centre for Pensions, Helsinki, 2018, p. 47.

[609] Vaalavuo, M., 'The redistributive impact of "old" and "new" social spending', *Journal of Social Policy*, Vol. 42, No 3, 2013, pp. 513-539.

of pensioners. Furthermore, the adequacy of basic social security – including pensions – must be assessed at the end of each government term. This assessment is based on the reference budget method, i.e. defining the value of the minimum set consumption items and services that everybody should have access to.

3.2 Future adequacy

The theoretical replacement rate (TRR) calculations at average-income levels indicate that after 40 years of service, the TRR will be 4.1 p.p. lower in 2059 than it is now. Career breaks and extended part-time work will result in slightly lower replacement rates, but these are generally well protected by the pension system. For instance, an unemployment period of 3 years will reduce the TRR by 1.6 p.p., and a childcare break of the same length by 0.7 p.p. By contrast, a short career of 20 years will result in a 23.3 p.p. lower pension.[610]

Long-term simulations of the effect of the 2017 pension reform predict that the purchasing power of pensions will increase, albeit slower than median income; this will gradually lead to a decrease in the relative replacement rates among all educational groups.[611] Needless to say, all these projections are more or less speculative, and the outcomes depend on the assumptions used in the calculations.

3.3 Challenges for future adequacy

There are challenges for the future adequacy of pension protection in Finland. One issue is what will happen with the employment situation. If intensifying globalisation, digitalisation and the platform and sharing economy lead to an increase in low-paid jobs, in micro self-employment and in the 'precariat', whose employment and income are insecure, then pension protection for more and more people will be dependent on the level of basic pensions. That is, a lack of steady employment may later lead to an inadequate income from employment-related pension schemes, which accentuates the need for an adequate level of basic pensions.

The old-age dependency ratio will rise from 34.2 % in 2017 to over 43 % by 2030 (Tikanmäki *et al.*, 2019, p. 29).[612] This rise is due to both an increase in the number of people aged over 65 and a shrinking working-age population. Furthermore, an abrupt drop in fertility rates exacerbates the problem.[613]

With regard to gender and socioeconomic divides in future pension provisions, projected median pensions in relation to median income will be about 39 % for women and 47 % for men in 2050. For those with a basic education, the figure will be 25 % for women and 28 % for men (Tikanmäki *et al.*, 2019). In fact, this projected compensation rate for those with basic education is about the same as the current ratio of basic pensions to median income. If this scenario materialises, it will challenge the legitimacy of the earnings-related pension system.

[610] Section 5 'Background statistics'.
[611] Tikanmäki, H., Lappo, S., Merilä, V., Nopola, T., Reipas, K. and Sankala, M., *Lakisääteiset eläkkeet: pitkän aikavälin laskelmat 2019* [Statutory pensions: Long-term calculations 2019], ETK, Helsinki, 2019.
[612] Tikanmäki *et al.* (2019: 29).
[613] Kangas, O. and Kalliomaa-Puha, L., 'Can family policy save the welfare state? Some consequences of the steep decline in fertility in Finland', *ESPN Flash Report* 2019/58, European Social Policy Network (ESPN), European Commission, Brussels, 2019.

The indexation of Finnish earnings-related pensions is based mostly (80 %) on the cost of living index and, to a lesser degree (20 %), on the wage index. In the event of rapid wage increases, the relative position of pensioners will deteriorate. The faster economic growth and the longer retirement duration, the more severely the value of pensions will diminish compared to wages.

3.4 Solidarity mechanisms

Since the 1990s, the trend in Finland has been to unify the rules governing the benefits paid by different pension schemes. In 2007, this resulted in the unification of three different pension acts in the private sector. And in 2017, the main public-sector pension acts were all merged into one – JuEL. These reforms strengthened the solidarity mechanisms between people in different socioeconomic positions, occupations and sectors of employment. A possible merging of the TyEL and municipal pension systems would intensify this trend.

Furthermore, there is a strong equalising effect in the pension design. Taxes are progressive, and the GP, the NP and housing allowances are all income tested. For example, if a single pensioner only receives a GP (of EUR 834.52 per month) and the rent in Helsinki is EUR 600 per month, that pensioner is entitled to receive EUR 460 from the pensioners' housing allowance system. Thus, net monthly income would be approximately EUR 1300. This rather generous housing allowance is a 'pension by other means': it substantially increases the economic resources of low-income pensioners, and together with the taxation policies, it effectively narrows the income differences between pensioners.

In Finland, income differences among pensioners are among the smallest in the OECD. The Gini coefficient for pensioners (0.23) is smaller than the coefficient for the total population (0.27) (OECD, 2019, p. 191).

One possible problem in a homogeneous pension system would be that workers in different employment categories face different circumstances and have different options to continue in employment or to retire. In principle, any employment – be it standard or non-standard – accrues pension rights equally. However, it may be that future expansion of the platform and sharing economy will increase the number of cases where employment does not contribute to pension rights. This problem is also linked to longer breaks in people's work careers and, in particular, to the health status of the people in question. The homogeneous schemes that are in place may not be sensitive enough to all these differences.

In a comprehensive social security system such as Finland's, a lack of work income due to breaks in employment is, in principle, compensated for by statutory income transfers. Most of the main social insurance benefits accrue pension rights (e.g. family-related benefits, unemployment and sickness benefits, etc.). Furthermore, the coordination between the different pension schemes, the housing allowance and taxation effectively equalises differences in pension income between genders, socioeconomic groups and people with different career lengths and in different income groups.

Since the 1980s, the poverty risk of older people has diminished, and the income position of the 65-74 age group is more or less the same as that of the 35-64 age group. The two age groups that display disproportionately high poverty rates are young adults aged 18-24 and people aged 75 or over. The young adults group includes students, whose poverty is temporary. And so, the problematic group is those aged 75 or above (see Section 3.1), whose duration of poverty is more or less permanent. In their case, more effective solidarity measures are needed.

In PAYG schemes, intergenerational justice may be jeopardised if successive age cohorts are much smaller than the previous ones. This will be the case in Finland, where a rapidly ageing population (due to post-war baby boomers), increasing longevity and lower fertility rates are occurring simultaneously (Kangas and Kalliomaa-Puha, 2019). From the perspective of generational fairness, this vicious cycle means that pension contributions must not be increased by too much, which in turn means that there will be problems financing the PAYG defined benefit pensions. Cutting pensions, however, would challenge the future adequacy of the pension system.

4 OPPORTUNITIES TO ADDRESS CHALLENGES

The level of basic pensions, crucial in combating old-age poverty, was raised in 2020. At the system level, the guarantee pension forms a small flat-rate element of the pension system. It has been calculated that increases in the national pension are 10 times more effective at combating old-age poverty than are increases in the ERP, while raising the guarantee pension is 20 times more effective. Thus, the most cost-effective policy would be to increase the GP. On the other hand, the income-tested pensions meant to alleviate poverty can partially erode the link between earnings and benefits in the pension system. In order to increase the overall income level of pensioners, the employment of older workers should be encouraged.

The pension reform of 2017 abolished the need for major changes to earnings-related pensions. However, the government should carefully monitor the impact of the rising pensionable age and, if necessary, make changes to correct for possible biases. The planned reform merging the TyEL and the municipal pension system should be carried out. The government should ensure that the contribution base for the self-employed better corresponds to their actual income.

5 BACKGROUND STATISTICS

5.1. Relative income	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
Relative median income ratio (65+)	0.81	0.87	0.77	0.09	0.09	0.08
Income quintile share ratio (S80/S20), 65+	3.09	3.23	2.92	-0.11	-0.11	-0.07
Relative income quintile share ratio (S80/S20), 65+ - 0-64	-0.71	-0.59	-0.86			
Aggregate Replacement Ratio (ARR) %	52	51	52	3	3	3
5.2. Poverty and material deprivation	**2019**			**Change 2008-2019**		
	Total	**Men**	**Women**	**Total**	**Men**	**Women**
At-risk-of-poverty or social exclusion (AROPE), 65+ (%)	15.3	11.5	18.3	-8.6	-4.4	-11.2
At-risk-of-poverty rate (AROP), 65+ (%)	14.4	10.8	17.3	-8.1	-4.7	-10.1
Severe material deprivation (SMD), 65+ (%)	1.2	1	1.3	-2	-0.4	-3.1
At-risk-of-poverty or social exclusion (AROPE), 75+ (%)	22.3	15.1	26.9	-10.2	-6.8	-11.3
At-risk-of-poverty rate (AROP), 75+ (%)	21.1	14.4	25.5	-9	-7.1	-9.2
Severe material deprivation (SMD), 75+ (%)	1.2	0.8	1.4	-3	0.1	-4.8
Relative median at-risk-of-poverty gap, 65+ (%)	10.4	13	9.7	-1	2.2	-1.8
At-risk-of-poverty rate (AROP), 65+: 50 % threshold (%)	4	3.6	4.3	-2.9	-0.5	-4.6
At-risk-of-poverty rate (AROP), 65+: 70 % threshold (%)	28.3	22	33.3	-12.9	-10.1	-14.3
Material and social deprivation, age 65+ (1)	3.1	2.6	3.5	0.1	0.4	0
5.3. Gender difference	**2019**			**Change 2008-2019**		
Gender gap in pension income (65-79) (%) (2)			22.6			-2.6
Gender gap in non-coverage rate (W-M in p.p.) (65-79)			-0.4			-0.3
5.4. Housing and health situation	**2019**			**Change 2008-2019**		
	Total	**Men**	**Women**	**Total**	**Men**	**Women**
Housing cost overburden rate, 65+ (%)	4.8	2.7	6.5	-0.4	-0.9	0.3
Self-reported unmet need for medical exam 65+ (%)	8.8	7.9	9.6	7.1	6.9	7.4
Healthy life years at age 65 (years)	9.5	9.3	9.6	1.0	1.3	0.6
Life expectancy at age 65	20.4	18.6	22	0.8	1.1	0.7
5.5 Sustainability and context	**2019**			**Change 2008-2019**		
	Total	**Men**	**Women**	**Total**	**Men**	**Women**
Employment rate, age group 55-64 (%)	66.8	64.8	68.6	10.3	7.7	12.8
Pension expenditure as % of GDP (ESSPROS) (3)			13.5			4.3
Retirement duration from first pension (years) (4)	21.6	19.6	23.2	0.3	0.3	0.1
Retirement duration from end employment (years)	21.5	19.4	23.3			
Eurostat and AWG projections	**2019**			**2059**		
Old-age dependency ratio (20-64) (%)	38.4	33.2	43.8	57.3	52.2	62.6
Economic old-age dependency ratio (20-64) (%) (5)	47.2	39.0	55.9	66.8		
Gross public pensions as % of GDP (5)	13.0			13.4		
Benefit ratio (%) (5)	52.2			41.1		
Coverage ratio (% of pop aged 65+) (5)	127.8			114.1		
Gross pension ratio high / low earner		2.2	2.2		2.3	2.3

(1) *change since 2014, not 2008*
(2) *data refer to 2010, not 2008*
(3) *ESPROSS data refer to 2018*
(4) *Change is since 2016, not 2010*
(5) *2060 instead of 2059*

5.6 Theoretical Replacement Rates

	Net (%)				Gross (%)			
	2019		2059		2019		2059	
	Men	Women	Men	Women	Men	Women	Men	Women
Average earning (100%)								
Base case: 40 years up to the SPA	62.3	62.3	58.2	58.2	55.6	55.6	51.4	51.4
Increased SPA: from age 25 to SPA	60.8	60.8	60.7	60.7	53.8	53.8	54.4	54.4
AWG career length case	64.3	62.8			57.9	56.2		
Old base case: 40 years up to age 65	67.4	67.4			61.6	61.6		
Longer career: 42 years to SPA			60.0	60.0			53.5	53.5
Shorter career: 38 years to SPA			56.4	56.4			49.0	49.0
Deferred exit: 42 years to SPA +2			64.5	64.5			58.9	58.9
Earlier exit: 38 years to SPA -2								
Career break – unemployment: 3 years	60.9	60.9	56.6	56.6	54.0	54.0	49.3	49.3
Career break due to child care: 3 years	59.4	59.4	57.5	57.5	52.0	52.0	50.5	50.5
Career break care to family dependant: 3 years	59.0	59.0	55.8	55.8	51.7	51.7	48.3	48.3
Short career (20 year career)	45.4	45.4	34.9	34.9	35.0	35.0	25.8	25.8
Work 35 y, disabled 5 years prior to SPA			55.7	55.7			48.2	48.2
Early entry in the LM: from age 20 to SPA			65.7	65.7			60.5	60.5
Index: 10 years after retirement @ SPA			53.8	53.8			45.7	45.7
Extended part-time period for childcare			54.1	54.1			46.2	46.2
Survivor – full career		71.9		66.6		66.8		61.5
Survivor – short career		60.7		56.1		53.6		48.7
Survivor ratio 1*		0.58		0.57		0.60		0.60
Survivor ratio 2*		0.56		0.60		0.59		0.63
Low earnings (66%)								
Base case: 40 years up to the SPA	67.0	67.0	60.5	60.5	59.0	59.0	51.4	51.4
AWG career length case	67.5	67.2			60.9	59.3		
Old base case: 40 years up to age 65	69.4	69.4			62.3	62.3		
Career break – unemployment: 3 years	66.3	66.3	59.0	59.0	58.2	58.2	49.3	49.3
Career break due to child care: 3 years	65.5	65.5	59.9	59.9	57.1	57.1	50.6	50.6
Short career (20 year career)	56.2	56.2	37.5	37.5	44.9	44.9	30.5	30.5
Early entry in the LM: from age 20 to SPA			67.3	67.3			60.5	60.5
High earnings (100->200%)								
Base case: 40 years up to the SPA	53.1	53.1	47.7	47.7	44.2	44.2	39.2	39.2

**Survivor ratio 1: man base case, woman base case*

**Survivor ratio 2: man base case, woman short career case*

SWEDEN

Highlights

- Recent reforms have sought to target retirees on low income, many of them older women in single households.
- Reforms have also been made to regulate the pension fund management situation, for example to reduce fraud.
- The high labour force participation rate and favourable demographics reduce the pressure of increased pension expenditure.
- The good average health status of the older population enables many to prolong their working lives.

1 GENERAL DESCRIPTION OF THE NATIONAL PENSION SYSTEM

The Swedish pension system consists of various components. The first component has two parts: the statutory contributory pension, which is a pay-as-you-go pension (income pension), and a statutory funded pension (premium pension). Contributions are paid on earnings and on social benefits (such as parental leave, sickness insurance, unemployment insurance, student grants, etc.). The second component is the residency-based guarantee pension, which provides a basic pension for people with no (or a very low) statutory contributory pension. In addition, there are supplementary pension schemes (occupational pensions) by economic sector, based on collective bargaining between the social partners (trade unions and the employer confederations).

The total statutory contributory pension contribution is 18.5 % of pensionable income: 16 % for the income pension and 2.5 % for the premium pension. Contributions are divided between insured persons and employers: employees pay 7 % of eligible earnings, up to a ceiling of 8.07 times the income base amounts (in 2020: 8.07 * SEK 66,800 = SEK 539,076 or 8.07 * EUR 6,680 = EUR 53,908). The employer pays a contribution of 10.21 % on the whole income, although the contribution on the part of income exceeding the ceiling is transferred to the general budget.

The income pension is a ‘notional DC’ (NDC) pension, based on lifetime earnings and social insurance income. All insured persons have an account with the Swedish Pensions Agency (*Pensionsmyndigheten*), where their contributions are recorded. The notional balance in the account is indexed annually to an ‘income index’ (*inkomstindex*) based on average real wage growth for wage earners aged 16-64. At retirement, notional assets in the individual account are converted to an annuity, using the ‘annuity divisor’ (*delningstal*), which is the expected remaining unisex life expectancy for each cohort, plus an internal rate of return of 1.6 %.

Deferral of pension benefit withdrawal increases the pension benefit since the divisor decreases and pension assets increase. The reverse is true for earlier retirement. Benefits are indexed to an ‘economic adjustment index’ (*följsamhetsindex*), which is the income index minus 1.6 percentage points (p.p). The income pension system is, in principle, organised as pay-as-you-go, but there are buffer funds. About 17%[614] of pension liabilities in the public system are covered by these funds. There is no early retirement scheme in Sweden; only invalidity benefits.

The premium pension is a fully funded individual account system. Participants may place their premium pension assets in up to five investment funds from a catalogue. To minimise administrative costs, pension contributions and fund choices are centrally managed by the Swedish Pensions Agency. The capital of non-choosers is invested in a state-run default fund. In 2019, there were more than 700 funds administered by more than 100 different financial companies. All fund balances are annuitised at the time of retirement, and can be paid either as a fixed annuity (*traditionell försäkring*) or as a variable annuity (*fondförsäkring*).

The guarantee pension provides a basic income top-up for those with low or no pension income related pensions. The guarantee pension is payable starting at age 65, but this age is proposed to be risen to 66 in 2023. A full guarantee pension requires residency of 40 years between the ages of 25 and 65. The guarantee pension is reduced proportionately for missing years. Income-tested ‘housing supplements’ are part of the pension system and are an important source of income for older people on low pension income. The income-tested old-age income support (*äldreförsörjningsstöd*) is the programme of last resort for those aged 65 and older. It is particularly important for people who have not lived in Sweden for 40 years and hence do not qualify for a full guarantee pension.

The income pension and premium pension can be withdrawn from the age of 62, but pensions benefit withdrawal can be deferred indefinitely. Partial withdrawal is also possible from the age of 62 (expected to rise to 63 by 2023). The age up until which there is a right to remain in employment was raised in 2020 from 67 to 68, and it will rise further to 69 by 2023. There are no restrictions in terms of work income and withdrawing pensions. Pensions can be withdrawn partially. While statutory pensions continue to dominate, the relative importance of private pensions – both supplementary and personal – has been increasing for decades. In 2018, public pensions corresponded to 68 % of the total pension income of older people, while the corresponding figures for occupational and private individual pensions were 27 % and 5 %, respectively (own calculations, based on benefit expenditure data from Statistics Sweden).[615]

Most parts of the occupational pension have been renegotiated from defined-benefit (DB) to follow become defined-contribution (DC). While defined benefit (DB) plans are being phased out in the private sector, they are still available to employees born before 1979, and not just to high-income earners. However, some private employers apply DC plans for all employees. The reforms in the public sector have been gradual, but are moving in the same direction. For municipal employees born after 1985 and for state-sector employees born after 1987, the DC

[614] In 2019 the value of the buffer funds are about 1 600 billion SEK and pension liabilities 9 454 billion SEK. https://www.pensionsmyndigheten.se
[615] https://www.scb.se

principle applies for all components; but for older employees with high incomes, some DB elements remain. Nearly 90 % of employees in the Swedish labour market are covered by collective agreements with supplementary pension rights. Four negotiated agreements cover most wage earners (blue-collar private-sector workers, white-collar workers in the private sector, state employees and municipal employees). There is a lot of variation in contribution rates among schemes; however, in general, for DB schemes, employers in all four sectoral schemes pay a contribution of 4.5 % of wages below the statutory pension ceiling, and 30% of wages above that ceiling. Most private-sector negotiated pension schemes have at least one component that operates like the statutory funded pension, but typically with fewer fund managers. Coverage gaps remain in firms without collective agreements. However, firms may establish a collective agreement without being a member of the employers' association, if they have a trade union counterpart. Also, employees who are not members of a trade union are typically covered by the collective agreements. Private insurance companies offer employers occupational plans without collective agreements. This implies that part of the non-unionised sector is covered by supplementary (third-pillar) pension schemes, but that sector is very small. The self-employed are only covered if they choose to save in personal pension schemes.

2 REFORM TRENDS

The Swedish pension system was reformed in 2003. The parties behind the reform established a task force, the so-called Pension Group (*Pensionsgruppen*), which is responsible for monitoring the new reformed pension system. The group originally included representatives from the Centre Party, the Christian Democratic Party, the Liberal Party, the Moderate Party and the Social Democratic Party. The Green Party has also joined the group. The pension system has had some adjustments over the years. In 2008 to the pension indexing was changed to dampen the effects of the economic crisis. In December 2017, a new 'deal' was agreed by the Pension Group and the group is now supposed to suggest changes to the pension system, not just to monitor its functioning.[616]

The statutory funded component will be reorganised in the near future. A clearer division is to be made between pension savers who wish to have their contributions managed by public authorities, and those who wish to have a choice of private fund managers. A 30-point programme is being implemented with stricter regulation of private managers. The programme has already partly been put into practice, as some fund managers have been excluded from the system.[617] In October 2019, a proposal was put to the Swedish government that would substantially reduce the number of funds to 200.

The basic security/non-contributory guarantee pensions was increased in January 2020 with a monthly SEK 200 (EUR 20) per month.[618] The maximum housing allowance for older people was increased from SEK 5560 (EUR 556) to SEK 6,540 in January 2020.

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[616] Palme, J., 'Sweden: Adjusting the 2003 'major' pension reform with a new 'deal' in the 'Pension Group', *ESPN Flash Report* 2018/56, European Social Policy Network (ESPN), European Commission, Brussels, 2018.

[617] Swedish Pensions Agency, 'Regeringsuppdrag (17) – Åtgärder kopplade till premiepensionens fondtorg: Svar på regeringsuppdrag. SEK 6,540 (EUR 654)', 2018.

[618] Ministry of Health and Social Affairs, *Press release: Garantipension och pensionsåldrar*, 2019.

The reform deal from 2017 further included agreements on changes to pensionable age. Pensionable ages in the income pension and premium pension are flexible in principle, but will be gradually raised. The lowest pensionable age was raised to 62 in 2020, and will be raised to 63 in 2023 and to 64 by 2026 (Ministry of Health and Social Affairs, 2019). The right to remain in employment will increase from 67 to 69 by 2023. A new mechanism for increasing pensionable age in accordance with longevity will be introduced. A new statutory regulation will raise the lowest age at which occupational pensions can be drawn (exactly how will be subject to further investigation). It is proposed to raise the pensionable age for receiving the guarantee pension from 65 to 66 in 2023.[619]

The Social Democratic Party (which currently leads the Swedish government, in coalition with the Green Party) has made two different proposals since the new deal was launched by the Pension Group. First, in May 2018 the government proposed increasing the pensions of those who had retired with 'ordinary' pensions; one way of interpreting this proposal would be as a kind of 'compensation' for those who are already retired. Secondly, in July 2018 it proposed increasing contributions. The first proposal is now supported by the Pension Group. The minister for social insurance has announced that the Pension Group has reached agreement on a supplement of a maximum SEK 600 (EUR 60) per month, to be paid to pensioners on low to medium-high pension income – i.e. between SEK 9000 and SEK 17,000 (EUR 900 to EUR 1700) per month. The motive is to increase the pension for those who have had long working lives but with low income, and whose pension income is close to the guarantee pension.[620] This pension benefit is only regarded as a temporary solution. Discussion of the proposal to increase contributions is supposed to be ongoing.

The new deal further envisages various actions to improve working life, as well as to deal with the gender gap in pensions.

3 ASSESSMENT OF ADEQUACY

3.1 Current adequacy

The Swedish gender gap in pension income among those aged 65-79 is lower than the EU average: 27.0 % in 2019, compared to 29.5 %. As in many other EU countries,[621] the gender gap is narrowing. Nonetheless, the prevailing differences between men and women continue to be a concern for policy makers, and gender equality is clearly an important part of the domestic assessment of the Swedish pension system. Among policy makers, there appears to be some disappointment that the greater flexibility in pensionable age introduced by the reform in the late 1990s has not resulted in a clearer shift upwards of the actual retirement age. In addition, differences among citizens in terms of the actual age of pension benefit claims have increased.

[619] This age will be raised to 67 in 2026 and then according to developments in life expectancy; 65 is currently the age at which the guarantee pension is paid out and all other work-related benefits, such as sickness or unemployment benefit, stop being paid out.
[620] Ministry for Health and Social Affairs, *Press release: Överenskommelse om höjda pensioner*, 2020.
[621] EU and EU-27 refer to the current 27 Member States of the European Union.

The relative median income ratio of the older population (aged 65+) was 81 % on average in 2019. It is higher for men (88 %) than for women (76 %). The relative income position of older people has improved slightly since 2008. Among older men, the relative median income ratio has increased by 5 p.p. Among older women, the increase has been 5 p.p. Income inequality among older people is modest by EU standards: the top quintile has 3.4 times the income of the lowest quintile – a ratio that has increased somewhat since 2008. The growing dispersion of older people's incomes is most likely related to the connection between lifetime work income and the pension benefit; but it is also associated with the maturing of the funded components of the pension system and the increased importance of funded occupational plans. Income differences are more extensive among older men than among older women, although the increase in income inequality is larger among older women.

The aggregate replacement ratio decreased from 59 % in 2008 to 55 % in 2019. Replacement ratios continued to be higher for men (58 %) than for women (53 %). Gender differences in replacement ratios have declined since 2008, albeit by only 2 p.p. Changes in the aggregate replacement rate are related to real wage growth and employment. In this context, it should be noted that labour supply is growing, due to women working more hours and both men and women retiring later. Both factors will modify the effects of the longevity adjustments.

The at-risk-of-poverty (AROP) rate among those aged 65 and older, has decreased since 2008, and more so among older women than older men. In 2019, the AROP rate among older people (65+) was 15.2 % (11.2 % for men and 18.7 % for women). The AROP rates are higher for those aged 75 and over (21.4 % on average: 12.5 % for men and 28.2 % for women).[622] Severe material deprivation is very low among older people (around 0.4 % and declining). As a consequence, among older people in Sweden there is hardly any difference between AROP and the rate of those at risk of poverty or social exclusion (AROPE). The government has introduced additional tax cuts for persons over 65. In 2018, the tax difference between earnings and pensions was abolished for monthly incomes up to EUR 1700 (SEK 17,000). For incomes above this level, pensions are still taxed at a higher rate than earnings, although an additional tax cut on pension income introduced in 2020 has reduced the difference. In addition, the Pension Group has agreed on measures to improve the pension and benefit adequacy of the most economically vulnerable older persons, and expresses the ambition to reduce the income gap between men and women.

Other indicators in Section 5 'Background statistics' on housing and health also suggest that older people in Sweden are doing well, including the proportion that live in overcrowded households. That said, not all indicators are moving in a favourable direction: while less than 4 % of the older population live in overcrowded households, that figure has increased since 2008. More than 70 % of older people live in owner-occupied housing. About 12 % report that costs are excessively burdensome, but the trend is declining. Older women have more problems coping with housing costs than do older men. For many who live in rented housing, there is a recognised problem of incomplete take-up of housing benefits. Gender differences in housing

[622] This large difference between men and women can be explained by women's lower labour market participation and lower wages. This results in more women relying on the guarantee pension. The guarantee pension is often not enough to lift a person above the at-risk-of-poverty line. Furthermore, pensioners tend to fall below the relative poverty line, as the guarantee pension is indexed to prices.

are, to a large extent, due to compositional factors. According to Statistics Sweden, older women live alone more often than men, and the proportion of women among the oldest old people (80+) is higher.[623] Healthy life years at 65 are 15.9 for men and 16.6 for women. Since 2008, these have increased by 4.4 years for men and 4.6 years for women. Self-reported unmet need for medical examination among people aged 65+ is declining. Nonetheless, 3.4 % in this age group report that they have an unmet need for medical examination: 2.7 % among men and 4 % among women.

While the pension system (including housing benefits) is a national system, the system for long-term care (LTC) is organised by the municipalities, but with central state subsidies and regulations. There are two central features of LTC-related services that it is important to underline. The first is that access is universal for all older people, irrespective of income or wealth, and LTC is provided on assessed need. The second is that there are user charges, and here all types of income are considered, including statutory and other pensions. However, there is a system in place of maximum fees: the maximum monthly fee for LTC is SEK 2089 (EUR 215). For outpatient medical care, the maximum annual cost is SEK 1150 (EUR 118). For persons aged 85 or over, outpatient care is free of charge. For medicine, the maximum cost is SEK 2300 (EUR 237) per year. Individuals are entitled to reserve a fair amount of money for rent, and at least SEK 5249 (EUR 540) per month (for a single person) for daily living costs, before the municipality can charge a fee for LTC. For couples, this amount is at least SEK 4435 (EUR 456) per month.[624]

3.2 Future adequacy

When longevity increases, individuals need to work longer in a DC system if they are to maintain a constant replacement ratio. This is illustrated by the theoretical replacement rates (TRRs) for 2059, reported in Section 5. The TRRs will decrease by 9.9 p.p., to 45.3 % in 2059 for both men and women with a constant pension withdrawal age. Further increases in longevity will make it more important to prolong working life in order to achieve a higher replacement rate in old age. Sweden already has a high employment rate of older workers, and a workforce is on average in good health, and so the possibilities for further improvement are good. The Swedish social insurance system separates the disability insurance scheme from the pension scheme, which also enables protection and compensation for those who have health problems and low work capacity, while it increases the opportunity to raise the pensionable age.

3.3 Challenges for future adequacy

There appear to be some challenges for adequacy in Sweden. Furthermore, when it comes to other challenges, such as the gender gap in pensions, more effective remedies are needed. The ongoing reforms highlight a number of important issues. To avoid future increases in old-age poverty, the guarantee pension needs to be adjusted regularly, to make sure it keeps up with overall income growth. The take-up of income-tested housing benefits is crucial for reducing

[623] https://www.scb.se
[624] https://www.missoc.org/missoc-database/comparative-tables/results/

the housing cost overburden rate among older people. At the moment there is some evidence of non-take-up of housing benefits among older people. Why it is that older people do not apply for housing benefits is unclear and needs to be investigated further.

When it comes to the expressed ambition to raise pensionable age, it should be noted that not everyone actually has the choice to postpone their withdrawal from the labour market: for example, poor health or low work capacity can play a part.

Pension reforms in all countries are often for the long term. It is uncertain whether the expected improvement in life expectancy can be matched by an extended working life. In addition, while there are other policy instruments available for the purposes of securing adequate living standards for older people (such as benefits in kind in relation to care needs).

In Sweden, most tax and benefit systems are individual. This enables individual freedom, strengthens the incentives to work and promotes gender equality. However, the advancement of gender equality is limited and the gender gap in lifetime earnings remains and spills over in the shape of gender gaps in pensions.

3.4 Solidarity mechanisms

The solidarity mechanisms in the Swedish statutory system are mainly of the following four kinds:

1. A guarantee pension, providing a minimum income level. The coordination with the income pension secures a slightly higher benefit for those who have worked and contributed to the income pension (so long as their contributions are not enough to lift them above the guarantee pension level).
2. Pension credits are earned on social security benefits.
3. Special credits are provided to families with children, in addition to what they receive on the basis of their parental leave benefits.
4. Housing benefits for older low-income earners.

In Sweden, social insurance is universal and it is taxable and accounted for as pensionable income. In addition to the statutory system, about 90 % of employees are covered by occupational plans, typically providing more than 10 % additional replacement (more for higher-income earners who have lower statutory compensation rates).

It should also be mentioned that there is a ceiling on the insured person's pension contribution, while there is no ceiling on employer contributions for benefits purposes. This implies that there is a redistribution from high- to low-income persons.

Occupational plans were expanded back in the 1990s to ensure that employment contracts of as little as 3 months are in accordance with EU regulations. The occupational plans include elements of solidarity to protect employees who are sick, unemployed or on parental leave. It should also be noted that because of socioeconomic differences in longevity, it is an advantage for blue-collar workers to have occupational plans that are separate from those of white-collar workers. The reason is that their lifetime annuities are assessed on the basis of a shorter life expectancy.

The latest reform increased pension income by SEK 600 (EUR 60) for low- to middle-income pensioners could be interpreted as including elements of solidarity with income earners in the middle of the distribution.

4 OPPORTUNITIES TO ADDRESS CHALLENGES

Due to its population's high number of remaining healthy years at age 65, Sweden is well placed to sustain adequate pensions through longer working lives. However, older workers in poor health need to be able to access adequate sickness/invalidity benefits, without having to withdraw from the labour market by claiming their old-age pensions early.

The decline in replacement rates from the statutory old-age pension system that is linked to continued improvements in life expectancy could be reversed – for instance, by introducing higher contribution rates.

While public-sector occupational pension schemes are being converted from DB to DC plans, the transition is more gradual for higher-income earners (among state employees born between 1973 and 1987, only higher earners retain a DB entitlement). This is leading to regressive distributive effects; addressing them could improve the transparency and equity of the occupational pension system. Collective agreements governing occupational pensions are also in need of an update to reflect the increases in the statutory pension age.

The government should go forward with the proposal to reorganise the fund management of pre-funded pensions.

A national system for monitoring the adequacy of the guarantee pension is called for. Avoiding means testing would help keep the incentive structure sound and predictable.

Finally, it is important to recognise that the pension system cannot solve all the problems of securing an adequate income for the older population. Gender inequalities – as well as problems linked to hazardous jobs and irregular employment – have to be addressed at the labour market level. Some of these insights are reflected in the initiatives of the Pension Group and the government, although more effective reforms are warranted.

5 BACKGROUND STATISTICS

5.1. Relative income	2019			Change 2008-2019		
	Total	Men	Women	Total	Men	Women
Relative median income ratio (65+)	0.81	0.88	0.76	0.05	0.06	0.05
Income quintile share ratio (S80/S20), 65+	3.6	3.91	3.28	0.34	0.46	0.26
Relative income quintile share ratio (S80/S20), 65+ - 0-64	-0.92	-0.86	-1			
Aggregate Replacement Ratio (ARR) %	55	58	53	-6	-6	-4
5.2. Poverty and material deprivation	**2019**			**Change 2008-2019**		
	Total	Men	Women	Total	Men	Women
At-risk-of-poverty or social exclusion (AROPE), 65+ (%)	15.4	11.5	18.8	-0.5	1.7	-2
At-risk-of-poverty rate (AROP), 65+ (%)	15.2	11.2	18.7	-0.1	1.7	-1.2
Severe material deprivation (SMD), 65+ (%)	0.4	0.6	0.2	-0.5	0.1	-1.1
At-risk-of-poverty or social exclusion (AROPE), 75+ (%)	21.5	12.5	28.4	-0.6	0.5	-0.3
At-risk-of-poverty rate (AROP), 75+ (%)	21.4	12.5	28.2	-0.2	0.5	0.3
Severe material deprivation (SMD), 75+ (%)	0.3	0.3	0.4	-0.4	-0.3	-0.4
Relative median at-risk-of-poverty gap, 65+ (%)	10.8	14.2	10.4	-0.1	0.6	0.6
At-risk-of-poverty rate (AROP), 65+: 50 % threshold (%)	5.6	4.7	6.4	0.7	1	0.6
At-risk-of-poverty rate (AROP), 65+: 70 % threshold (%)	32.3	24.1	39.4	-3.3	-1.2	-4.3
Material and social deprivation, age 65+ [1]	1.6	1.5	1.7	0.5	0.6	0.4
5.3. Gender difference	**2019**			**Change 2008-2019**		
Gender gap in pension income (65-79) (%) [2]			27			-5.6
Gender gap in non-coverage rate (W-M in p.p.) (65-79)			-1			-1
5.4. Housing and health situation	**2019**			**Change 2008-2019**		
	Total	Men	Women	Total	Men	Women
Housing cost overburden rate, 65+ (%)	12.2	9.3	14.8	-3.6	-1.6	-4.9
Self-reported unmet need for medical exam 65+ (%)	3.4	2.7	4	-4.1	-4	-4.2
Healthy life years at age 65 (years)	16.2	15.9	16.6	4.4	4.4	4.6
Life expectancy at age 65	20.4	19.2	21.6	0.8	1.2	0.7
5.5 Sustainability and context	**2019**			**Change 2008-2019**		
	Total	Men	Women	Total	Men	Women
Employment rate, age group 55-64 (%)	77.7	79.8	75.6	7.6	6.4	8.9
Pension expenditure as % of GDP (ESSPROS) [3]			12.5			1.1
Retirement duration from first pension (years) [4]	20.9	19.6	22.1	2.5	3.4	2.6
Retirement duration from end employment (years)	20.4	18.8	22.0			
Eurostat and AWG projections	**2019**			**2059**		
Old-age dependency ratio (20-64) (%)	35.0	31.9	38.3	47.8	44.7	51.2
Economic old-age dependency ratio (20-64) (%) [5]	35.7	29.9	42.1	53.6		
Gross public pensions as % of GDP [5]	7.6			7.4		
Benefit ratio (%) [5]	35.5			25.8		
Coverage ratio (% of pop aged 65+) [5]	128.6			129.6		
Gross pension ratio high / low earner		2.9	2.9		2.2	2.2

(1) *change since 2014, not 2008*
(2) *data refer to 2010, not 2008*
(3) *ESPROSS data refer to 2018*
(4) *Change is since 2016, not 2010*
(5) *2060 instead of 2059*

5.6 Theoretical Replacement Rates

5.6 Theoretical Replacement Rates	Net (%)				Gross (%)			
	2019		2059		2019		2059	
	Men	Women	Men	Women	Men	Women	Men	Women
Average earning (100%)								
Base case: 40 years up to the SPA	55.2	55.2	45.3	45.3	58.9	58.9	46.5	46.5
Increased SPA: from age 25 to SPA	55.2	55.2	45.3	45.3	58.9	58.9	46.5	46.5
AWG career length case	64.5	58.4	50.6	48.6	70.6	63.4	52.6	50.1
Old base case: 40 years up to age 65	55.2	55.2	45.3	45.3	58.9	58.9	46.5	46.5
Longer career: 42 years to SPA			46.8	46.8			48.2	48.2
Shorter career: 38 years to SPA			44.1	44.1			45.1	45.1
Deferred exit: 42 years to SPA +2			54.7	54.7			51.3	51.3
Earlier exit: 38 years to SPA -2			40.2	40.2			41.5	41.5
Career break – unemployment: 3 years	55.0	55.0	44.0	44.0	58.1	58.1	44.8	44.8
Career break due to child care: 3 years	55.3	55.3	44.9	44.9	59.4	59.4	45.8	45.8
Career break care to family dependant: 3 years	54.3	54.3	43.5	43.5	54.8	54.8	44.4	44.4
Short career (20 year career)	50.8	50.8	33.2	33.2	37.3	37.3	32.0	32.0
Work 35 y, disabled 5 years prior to SPA			45.4	45.4			45.9	45.9
Early entry in the LM: from age 20 to SPA			49.4	49.4			51.1	51.1
Index: 10 years after retirement @ SPA			46.4	46.4			42.4	42.4
Extended part-time period for childcare			42.9	42.9			43.5	43.5
Survivor – full career		55.2		44.7		58.9		46.5
Survivor – short career		50.8		33.2		37.3		32.0
Survivor ratio 1*		0.50		0.50		0.50		0.50
Survivor ratio 2*		0.48		0.43		0.39		0.41
Low earnings (66%)								
Base case: 40 years up to the SPA	75.5	75.5	54.1	54.1	64.4	64.4	55.6	55.6
AWG career length case	77.0	75.9	57.4	55.7	73.3	66.9	59.7	57.6
Old base case: 40 years up to age 65	75.5	75.5	54.1	54.1	64.4	64.4	55.6	55.6
Career break – unemployment: 3 years	75.4	75.4	53.1	53.1	64.2	64.2	54.3	54.3
Career break due to child care: 3 years	75.6	75.6	54.7	54.7	65.4	65.4	56.3	56.3
Short career (20 year career)	73.0	73.0	44.1	44.1	46.8	46.8	43.2	43.2
Early entry in the LM: from age 20 to SPA			56.2	56.2			58.1	58.1
High earnings (100->200%)								
Base case: 40 years up to the SPA	65.1	65.1	45.2	45.2	62.2	62.2	40.5	40.5

**Survivor ratio 1: man base case, woman base case*

**Survivor ratio 2: man base case, woman short career case*

EU-27

5.1. Relative income	2019			Change 2010-2019		
	Total	Men	Women	Total	Men	Women
Relative median income ratio (65+)	0.9	0.94	0.88	0.01	0.01	0.01
Income quintile share ratio (S80/S20), 65+	4.24	4.25	4.19	0.25	0.2	0.31
Relative income quintile share ratio (S80/S20), 65+ - 0-64	-0.93	-0.9	-1			
Aggregate Replacement Ratio (ARR) %	57	59	54	4	3	2
5.2. Poverty and material deprivation	2019			Change 2010-2019		
	Total	Men	Women	Total	Men	Women
At-risk-of-poverty or social exclusion (AROPE), 65+ (%)	18.5	15.5	20.9	-1.3	-0.7	-1.6
At-risk-of-poverty rate (AROP), 65+ (%)	16.1	13.4	18.2	0.8	1.1	0.7
Severe material deprivation (SMD), 65+ (%)	4.8	3.9	5.5	-2.7	-2.1	-3.1
At-risk-of-poverty or social exclusion (AROPE), 75+ (%)	19.5	15.2	22.6	-2.3	-2.4	-2.1
At-risk-of-poverty rate (AROP), 75+ (%)	17.2	13.4	19.9	0	-0.3	0.5
Severe material deprivation (SMD), 75+ (%)	4.7	3.2	5.8	-3	-2.7	-3.1
Relative median at-risk-of-poverty gap, 65+ (%)	17.4	17	17.6	1.3	0.5	1.7
At-risk-of-poverty rate (AROP), 65+: 50 % threshold (%)	8	6.6	9.2	0.7	0.6	1
At-risk-of-poverty rate (AROP), 65+: 70 % threshold (%)	26.4	22.6	29.4	1.1	1.5	1
Material and social deprivation, age 65+ (1)	12.4	10.1	14.3	-4.4	-3.7	-4.8
5.3. Gender difference	2019			Change 2010-2019		
Gender gap in pension income (65-79) (%) (2)			29.5			-5.8
Gender gap in non-coverage rate (W-M in p.p.) (65-79)			6.4			-0.7
5.4. Housing and health situation	2019			Change 2010-2019		
	Total	Men	Women	Total	Men	Women
Housing cost overburden rate, 65+ (%)	10	8.2	11.4	-0.4	0.1	-0.7
Self-reported unmet need for medical exam 65+ (%)	3.7	3.1	4.2	-4.2	-3.6	-4.5
Healthy life years at age 65 (years)	10.3	10.2	10.4	2.3	2.3	2.3
Life expectancy at age 65	20	18.1	21.6	1	1.1	0.9
5.5 Sustainability and context	2019			Change 2010-2019		
	Total	Men	Women	Total	Men	Women
Employment rate, age group 55-64 (%)	59.1	66	52.6	15.5	13.1	17.8
Pension expenditure as % of GDP (ESSPROS) (3)			12.4			1
Retirement duration from first pension (years) (4)	21.6	19.4	23.0	0.5	0.0	-0.2
Retirement duration from end employment (years)	21.0	18.9	22.9			
Eurostat and AWG projections	2019			2059		
Old-age dependency ratio (20-64) (%)	34.1	29.2	39.0	59.2	52.5	66.0
Economic old-age dependency ratio (20-64) (%) (5)	43.4	34.0	54.4	71.9		
Gross public pensions as % of GDP (5)	11.6			12.1		
Benefit ratio (%) (5)	42.4			33.6		
Coverage ratio (% of pop aged 65+) (5)	132.3			116.7		
Gross pension ratio high / low earner						

(1) *change since 2014, not 2008*
(2) *EU 2019 data break in series*
(3) *ESPROSS data refer to 2018*
(4) *Change is since 2016, not 2010*
(5) *2060 instead of 2059*

ABBREVIATIONS

AROP	At risk of poverty
AROPE	At risk of poverty or social exclusion
ARR	Aggregate replacement ratio
AWG	Ageing Working Group (of the EPC)
DB	Defined benefits
DC	Defined contributions
DG ECFIN	Directorate-General for Economic and Financial Affairs
DG EMPL	Directorate-General for Employment, Social Affairs and Inclusion
EC	European Commission
EPC	Economic Policy Committee
ESPN	European Social Policy Network
ESPROSS	European System of integrated Social Protection Statistics
EU-SILC	European Union Statistics on Income and Living Conditions
GDP	Gross Domestic Product
LM	Labour market
NDC	Notionally defined contributions
OECD	Organisation for Economic Co-operation and Development
PAR	Pension Adequacy Report
p.p.	Percentage points
PAYG	Pay-as-you-go pension scheme
SMD	Severe material deprivation
SPA	Standard pensionable age
SPC	Social Protection Committee
TRR	Theoretical replacement rate

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