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Tackling the challenges
of population ageing
in the Slovak Republic

**Hyunjeong Hwang,
Oliver Roehn**

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TACKLING THE CHALLENGES OF POPULATION AGEING IN THE SLOVAK REPUBLIC

ECONOMICS DEPARTMENT WORKING PAPERS No. 1701

By Hyunjeong Hwang and Oliver Roehn

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Abstract/Resumé

Tackling the challenges of population ageing in the Slovak Republic

Slovakia's population is ageing rapidly, with the share of the working-age population expected to shrink by about a fifth in the next 30 years. Ageing-related costs are projected to increase much more strongly than in other EU countries and ageing will put pressure on potential growth and living standards. To prepare for an ageing society, pension, health and long-term care, as well as labour market reforms are needed to extend working lives, improve the health of the ageing population, and enhance the efficiency of public spending. Linking the retirement age to life expectancy and tightening early retirement pathways notably for mothers and disability pensioners is important to extend working lives and improve pension sustainability. Health outcome are lagging behind other OECD countries largely due to high preventable mortality, especially among disadvantaged groups, highlighting the importance of a national strategy to reduce preventable mortality, as well as targeted approaches. Measures are also needed to improve the efficiency of health and long-term care spending, notably through reforming the network of hospitals, expanding central procurement of pharmaceuticals, and expanding the supply of in-home long-term care services. Higher employment of older workers is hampered by a range of labour market barriers, including fewer training opportunities, higher job strain, and a lack of flexible working arrangements. Labour participation of mothers with young children is also low, reflecting excessively long parental leave, low financial work incentives, and a lack of childcare facilities.

JEL codes: J11, J26, J08, O52, H55, I11.

Key words: population ageing, pensions, health care system, long-term care system, fiscal sustainability, labour supply.

This Working Paper relates to the 2022 OECD Economic Survey of the Slovak Republic (<https://oe.cd/svk>).

Relever les défis du vieillissement de la population en Slovaquie

La population slovaque vieillissant rapidement, la part de la population en âge de travailler va diminuer d'environ un cinquième au cours des 30 prochaines années. Les coûts liés au vieillissement devraient augmenter beaucoup plus fortement que dans les autres pays de l'UE et le vieillissement exercera une pression sur la croissance économique potentielle et le niveau de vie. Pour se préparer au vieillissement de la population, des réformes des retraites, de santé et des soins de longue durée, ainsi que du marché du travail, sont nécessaires pour prolonger la vie active, améliorer la santé de la population vieillissante et accroître l'efficacité des dépenses publiques. Relier l'âge de la retraite à l'espérance de vie et resserrer les parcours de retraite anticipée, notamment pour les mères et les bénéficiaires de pensions d'invalidité, est important pour prolonger la vie active et améliorer la viabilité des pensions. Les résultats en matière de santé sont à la traîne par rapport à d'autres pays de l'OCDE, en grande partie en raison d'une mortalité évitable élevée, en particulier parmi les groupes défavorisés, ce qui souligne l'importance d'une stratégie nationale pour réduire la mortalité évitable ainsi que des pistes d'action ciblées. Des mesures sont également nécessaires pour améliorer l'efficacité des dépenses de santé et de soins de longue durée, notamment en réformant le réseau des hôpitaux, en développant l'achat centralisé de produits pharmaceutiques et en élargissant l'offre de services de soins de longue durée à domicile. L'augmentation de l'emploi des travailleurs âgés est entravée par une série d'obstacles sur le marché du travail, notamment des possibilités de formation réduites, une tension professionnelle plus élevée et un manque de modalités de travail flexibles. Le taux d'activité des mères de jeunes enfants est également faible, en raison d'un congé parental excessivement long, de faibles incitations financières au travail et d'un manque de structures d'accueil pour les enfants.

Codes JEL : J11, J26, J08, O52, H55, I11.

Mots clés : vieillissement de la population, pensions, système de soins de santé, système de soins de longue durée, viabilité budgétaire, offre de main-d'œuvre.

Ce Document de travail a trait à l'Étude économique de l'OCDE de la République Slovaque (<https://oe.cd/svk>).

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Tackling the challenges of population ageing in the Slovak Republic

By Hyunjeong Hwang and Oliver Roehn¹

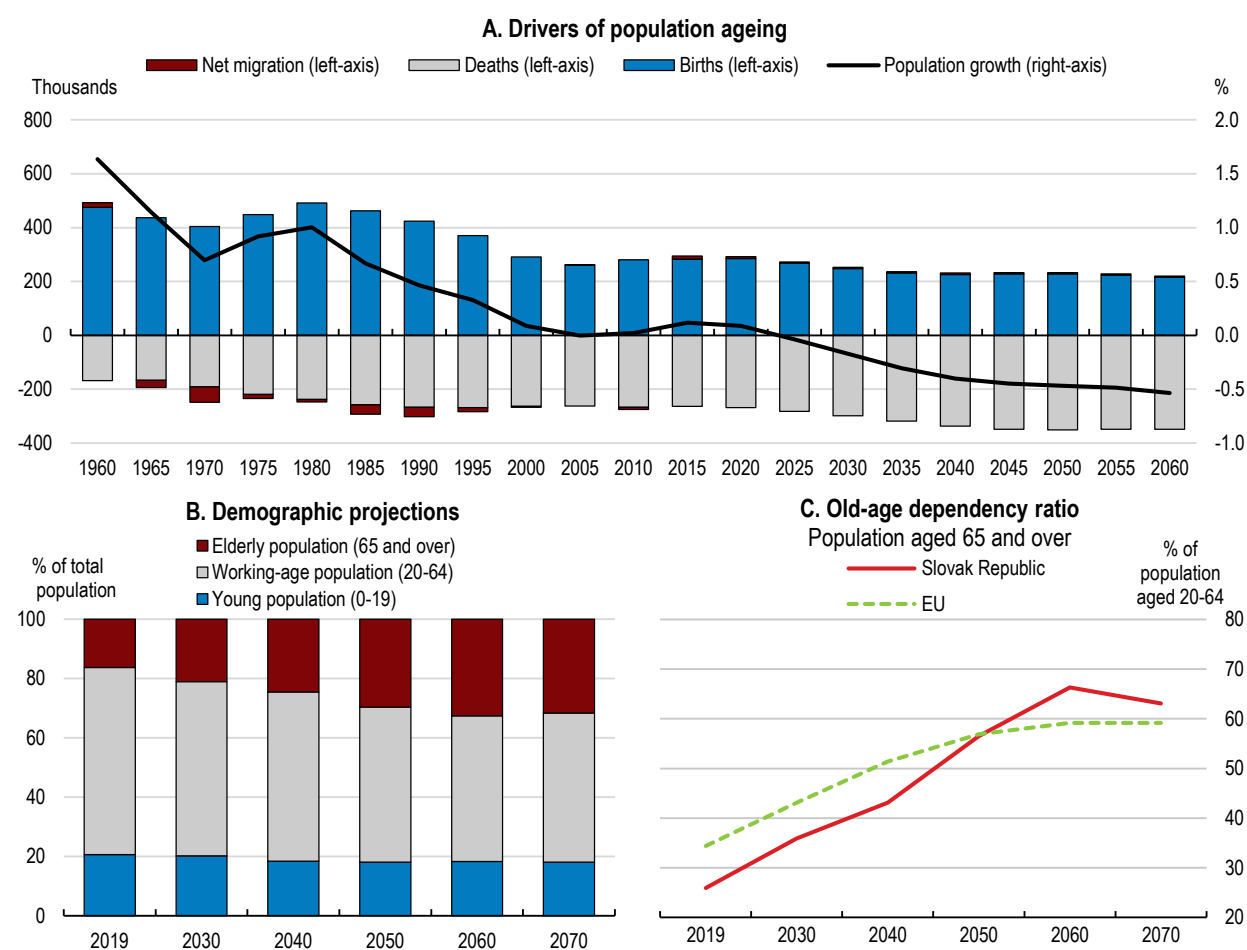
Slovakia's population is ageing rapidly, with rising life expectancy and declining fertility rates (Figure 1, Panel A). The share of the working-age population is expected to shrink by about a fifth between 2021 and 2050 while the share of the population aged 65 and above will double (Panel B). As a result, the old-age dependency ratio is projected to increase substantially and surpass the EU average by 2050 (Panel C). The fact that people are living longer is an accomplishment in itself and brings new opportunities for workers, firms and society, but ageing also creates important challenges for pension and health care systems.

Ageing puts long-term fiscal sustainability at risk, exacerbates fiscal challenges from the COVID-19 crisis and weighs on potential growth. The pandemic has led to a surge in public debt to around 60% of GDP in 2020, a level which is internationally still relatively low but historically unprecedented for Slovakia. Official projections suggest that ageing-related spending, notably on pensions, health care and long-term care, could increase by more than 10 percentage points of GDP by 2070, one of the largest increases among OECD countries (Figure 2). At the same time, ageing will result in lower tax revenues because less people will be active in the labour market. This is a particular concern in Slovakia as the country's tax mix is heavily reliant on social security contributions on labour income. Unless policies are put in place to mitigate these adverse effects, ageing will jeopardise fiscal sustainability (OECD, 2022). Also, population ageing puts pressures on living standards as aggregate employment rates fall, and ageing may adversely impact investment and productivity. For example, the real GDP per capita of Slovakia could fall by as much as 19% between 2018 and 2050 if employment rates in all age cohorts remained unchanged at today's levels, the largest decrease among all OECD countries (OECD, 2020a).

To mitigate the adverse impacts of ageing, it is key to improve the sustainability of the pension system and the efficiency of public spending, and to promote healthy ageing, extend working lives and boost labour market participation. Ageing is high on the political agenda, and the government has recently enacted several policies to address its adverse effects and included a number of reform proposals in the Recovery and Resilience Plan, but more action is needed. Against this background, this Working Paper discusses policy options along three dimensions: the pension system, health/long-term care, and the labour market.

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Figure 1. The population is ageing rapidly

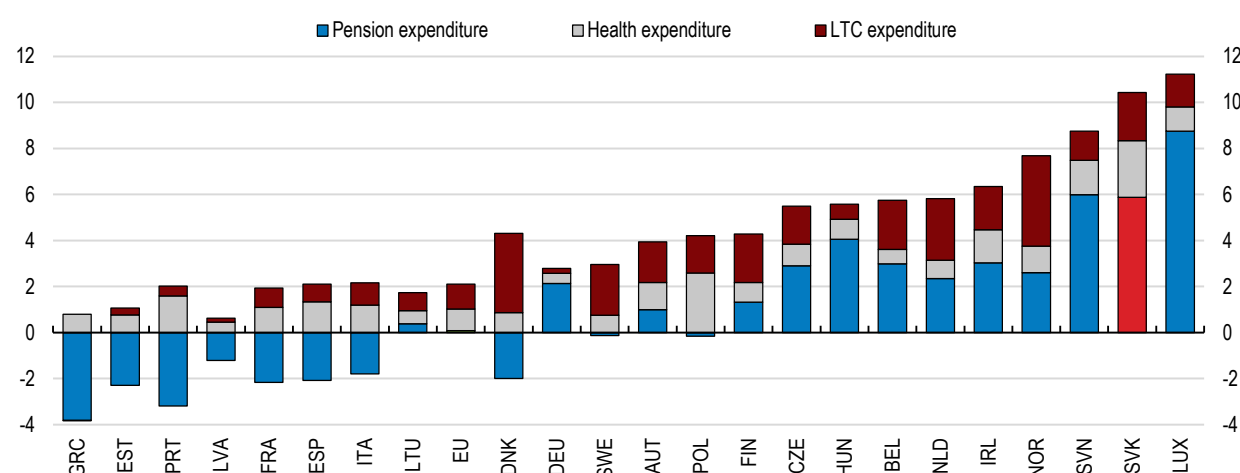


Note: In Panel A, population growth rate data are averages over the five years to the date shown.

Source: United Nations (2019), World Population Prospects: The 2019 Revision, Online Edition; European Commission (2021), "The 2021 Ageing Report: Economic and Budgetary Projections for the EU Member States (2019-2070)", Directorate-General for Economic and Financial Affairs, Institutional Paper 079, Luxembourg; and OECD calculations.

Figure 2. Ageing-related public expenditures are expected to increase rapidly

Change in expenditure between 2019 and 2070, % points of GDP



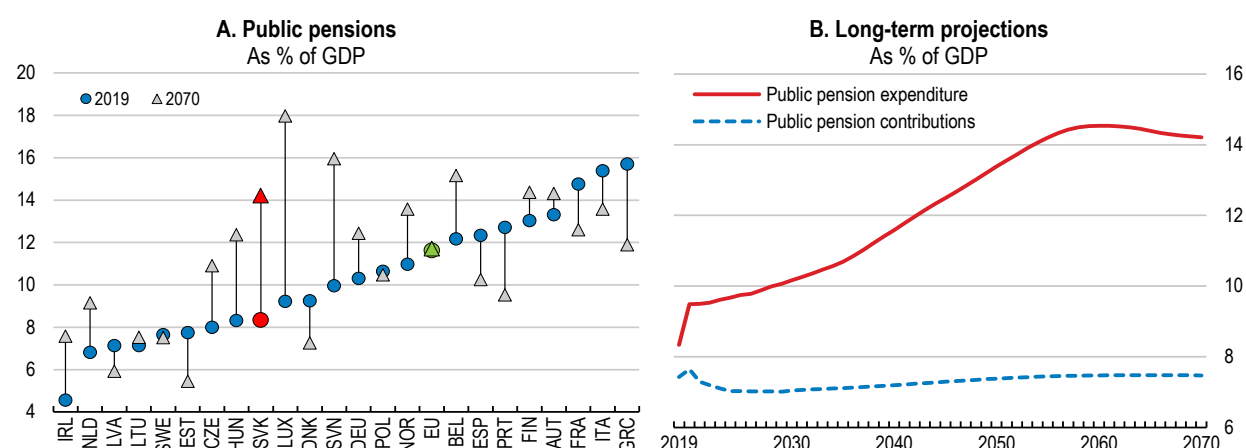
Source: European Commission (2021), "The 2021 Ageing Report: Economic and Budgetary Projections for the EU Member States (2019-2070)", Directorate-General for Economic and Financial Affairs, Institutional Paper 079, Luxembourg.

Preparing the pension system for ageing

Population ageing as well as recent reforms put pressure on the sustainability of public pay-as-you-go pension system. Slovakia's pension system has been reformed several times in the past, with some backtracking of reforms and subsequent reinstatement, highlighting the political difficulties of pension reforms as in other countries. In 2019/20, several reforms were enacted to improve pension income (e.g. increase of the 13th pension) but they also severely jeopardised the sustainability of the pension system (Box 1). Most notably, the link between the retirement age and life expectancy, which had been in place since 2017, was abolished, and a retirement age cap of 64 years introduced.

While in 2020 and 2021 the authorities have taken some steps to improve sustainability, including by making the 13th pension payout conditional on pension income again (as was the case for the previous Christmas bonus) and by freezing minimum pensions at their current levels, more is needed to close the large public pension funding gap. Under current policies, expenditure is projected to surge by 6 percentage points of GDP between 2019 and 2050, faster than in most other OECD countries (Figure 3, Panel A), and the gap between pension expenditures and contributions will increase from 1.5% of GDP in 2019 to more than 7% of GDP in 2060 (Panel B). The public pension reforms recently proposed by the Ministry of Labour are expected to narrow the financing gap only by around 1/3 of the projected gap in 2060 (Box 2). This large pension gap will raise the burden on future generations, as a shrinking share of the working age population will have to pay benefits of the increasing share of pensioners. Hence, further improving the sustainability of the public pension must be a priority.

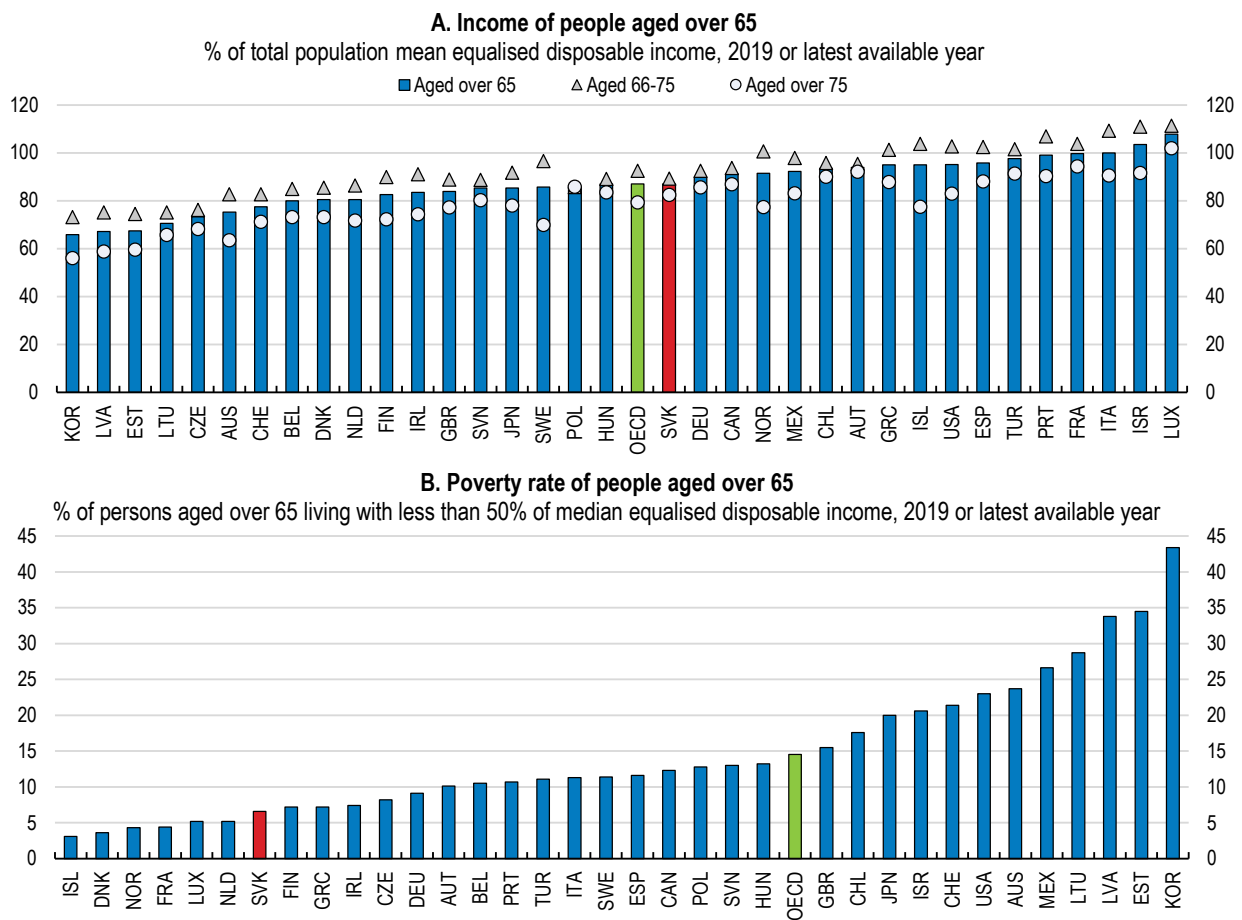
Figure 3. Public spending on pensions is projected to increase sharply



Source: European Commission Ageing Report (2021) and the Ministry of Finance of the Slovak Republic.

The pension system contributes to low old-age poverty and inequality. The relative disposable income of the elderly is close to the OECD average (Figure 4, Panel A), and old-age poverty is low (Panel B). Moreover, income inequality among the population aged 65 and above is among the lowest in the OECD, with a Gini coefficient of disposable income at 0.21, significantly lower than the OECD average at 0.31. This reflects relatively long average contribution periods (42 years for men, 40.8 years for women) of current pensioners, low-income inequality among the working-age population, relatively high replacement rates, and redistribution within the pension system. Nevertheless, ageing and labour market trends may pose risks to pension adequacy in the future. Many pensioners, especially women, receive pensions just above the poverty threshold (Figure 5). In addition, about 74% of all pensions are below the monthly minimum wage. The freezing of the minimum pension, which is currently 33% of the average wage, may risk people falling under the poverty threshold in the future. In addition, technological change may lead to more career interruptions and non-standard forms of work, putting further pressure on pension income (OECD, 2019a).

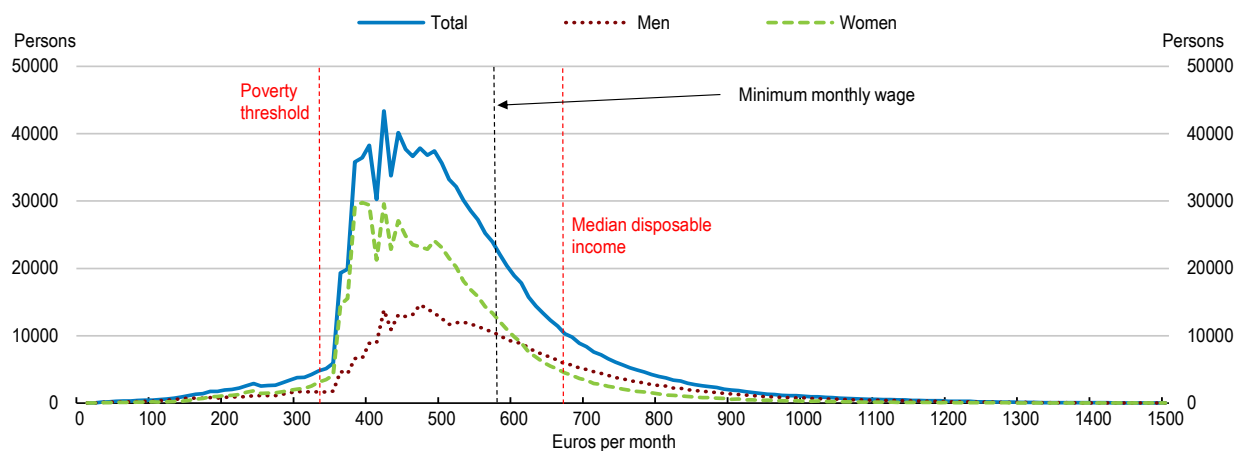
Figure 4. Disposable income of the elderly is close to the OECD average, and old-age poverty is low



Source: OECD Income Distribution Database (IDD).

Figure 5. Many pensions are close to the poverty line

Distribution of pensioners by pension amounts, 2020



Note: Pensions refer to all public pensions including old-age, survivor pensions, minimum pensions, and the 13th pensions. The poverty threshold is defined as 50% of the median disposable income.

Source: OECD calculations based on data from the Ministry of Finance of the Slovak Republic.

Box 1. The Slovak pension system and recent reforms

The Slovak pension system is based on three pillars:

- A mandatory, public, earnings-related, defined-benefit (pay-as-you-go), point-based pension system. It includes old-age, early old-age, disability, and survivor benefits. The minimum period of participation to be entitled to pension benefits is 15 years. People with less than 15 years of contribution can apply for means-tested social assistance of around 18% of the average gross wage (single pensioner). A minimum pension was introduced in 2015. Eligibility to a minimum pension requires 30 years of pension contributions on annual earnings of at least 24.1% of the average wage. A separate public pension system exists for armed forces but coverage is limited (around 3% of all old-age pensioners in 2016).
- A voluntary, private, earnings-related, defined-contribution, fully-funded pension scheme, which was introduced in 2005. Participation was mandatory until 2013. A person can enter until the age of 35. If a person opts into the private system, the total employer pension contribution rate (14%) is split between the public (currently 8.75%) and the private (currently 5.25%) pillar. The contribution rate to the private pillar is set to gradually rise to 6% in 2024.
- A personal voluntary supplementary pension scheme, which is open to anyone over the age of 18. Supplementary pension insurance is mandatory for specified categories of employees, such as certain arduous jobs (e.g. miners) and artistic professions.

Recent major reforms:

In 2019/20, reforms capped the retirement age and raised the income of pensioners:

- Retirement age: The link between statutory retirement age and life expectancy established in the reform of 2012/13 and in effect from 2017, was abolished. Instead, a cap of the statutory retirement age at 64 (to be reached in 2030) was introduced in the Constitution.
- Early retirement of mothers: The previous convergence of the retirement age between women and men was abolished. Instead, mothers can permanently retire 6 months earlier for each child up to three children. This right is, under certain conditions, transferable to fathers.
- Minimum pension: The minimum pension after 30 years of contributions was increased from 136% of the subsistence level (EUR 286) to 33% of the average wage (EUR 334). Indexation was changed from inflation to average wage.
- Christmas bonus/13th pension: In 2019, the Christmas bonus, which was a supplement to low pensions paid once a year, was doubled, with the maximum supplement increasing from EUR 100 to EUR 200, and the upper ceilings for eligible pensions increased from 60% of the average wage to 65%. In early 2020, the 13th pension replaced the Christmas bonus. The 13th pension is paid to each pension recipient regardless of the amount of the person's pension and amounts to the average pension of a type (e.g., old-age or disability).

In 2020/21, adjustments were made to contain pension expenditures:

- Statutory retirement age: The retirement age cap was abolished from the Constitution but still remains in the social security law.
- Minimum pension: Minimum pensions are frozen at the current level (33% of the average wage after 30 years of qualified contributions in 2018) from 2020.
- 13th pension: The payout amount again depends on the amount of a person's pension and ranges from EUR 50 (for pensions above EUR 910) to EUR 300 (for pensions below EUR 215).

Box 2. Slovakia's draft pension reform and estimated impacts on pension expenditures

The Ministry of Labour presented a draft pension reform of the 1 pillar (PAYGO system) at the end of July 2021. Main elements are:

- Linking the statutory retirement age to life expectancy: The statutory retirement age is to be linked to the median life expectancy gains over a (moving average) of the median life expectancy gain to smoothen any sudden increases or decreases caused, for instance, by the COVID-19 crisis.
- Early retirement after 40 years of contributions: The condition is not to be linked to life expectancy gains. The malus for early retirement is 0.3% for every 30 days before reaching the statutory retirement age.
- Parental bonus: Every parent can receive a pension supplement of 2.5% of the social security base of each child. The bonus is to be paid out to the parents who receive old-age pensions and whose children pay social security contributions in the Slovak Republic.
- Reduced growth rate of the pension point value: The pension point value is set to increase by 95% of the average wage growth instead of 100%.
- Abolition of the ceiling on pension contributions: The upper contributions ceiling which is currently at seven times the average wage is to be abolished.

Most of the measures in the reform are designed to yield savings, with the notable exception of the parental bonus, projected to cost an additional 0.6% of GDP per year.

Table 1. Projected impact of the proposed pension reform on public pension sustainability

% of GDP, minus (-) refers to savings and plus (+) refers to extra expenditures¹

Reform measures	2023	2030	2040	2050	2060	2070
Linking retirement age to life expectancy	-0.0	-0.1	-0.8	-1.7	-2.0	-2.2
Retirement after 40 years of contributions	0.0	0.0	0.1	0.1	0.1	0.1
Parental bonus	0.5	0.6	0.6	0.6	0.7	0.6
Decreased growth of current pension point value	-0.0	-0.0	-0.1	-0.3	-0.5	-0.6
Abolition of the ceiling on contributions	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
Cumulative effect²	0.4	0.3	-0.6	-1.5	-2.0	-2.3

1. The table shows the projected impact of the proposed pension reform on public pension sustainability compared to the baseline that represents the current setting of the Slovak pension system.

2. The cumulative effect does not add up to the sum of each estimate, as it takes into account interactions between reform measures.

Source: The Ministry of Finance of the Slovak Republic.

An alternative reform package, in line with the recommendations in this paper, could yield larger savings in the pension system and close about half of the funding gap (Table 2). Other reforms recommended in this paper to improve health outcomes and labour market participation of certain groups (e.g. older workers, mothers, Roma) would further improve pension sustainability, but impacts are difficult to quantify. The remaining gap should be financed by a combination of efficiency savings of public expenditure and additional revenues (e.g. through improved tax collection) as discussed in the 2022 Economic Survey of the Slovak Republic (OECD, 2022).

Table 2. Projected impact of alternative reform package on public pension sustainability

% of GDP, minus (-) refers to savings and plus (+) refers to extra expenditures

Alternative reform package	2023	2030	2040	2050	2060	2070
Linking retirement age to life expectancy	-0.0	-0.1	-0.8	-1.7	-2.0	-2.2
Decreased growth of current pension point value	-0.0	-0.0	-0.1	-0.3	-0.5	-0.6
Phasing out early retirement of mothers	-0.1	-0.2	-0.2	-0.2	-0.2	-0.1
Abolition of the 13th pension	-0.4	-0.4	-0.6	-0.7	-0.8	-0.7
Cumulative effect¹	-0.4	-0.7	-1.7	-2.9	-3.4	-3.6

1. The cumulative effect does not add up to the sum of each estimate, as it takes into account interactions between reform measures.

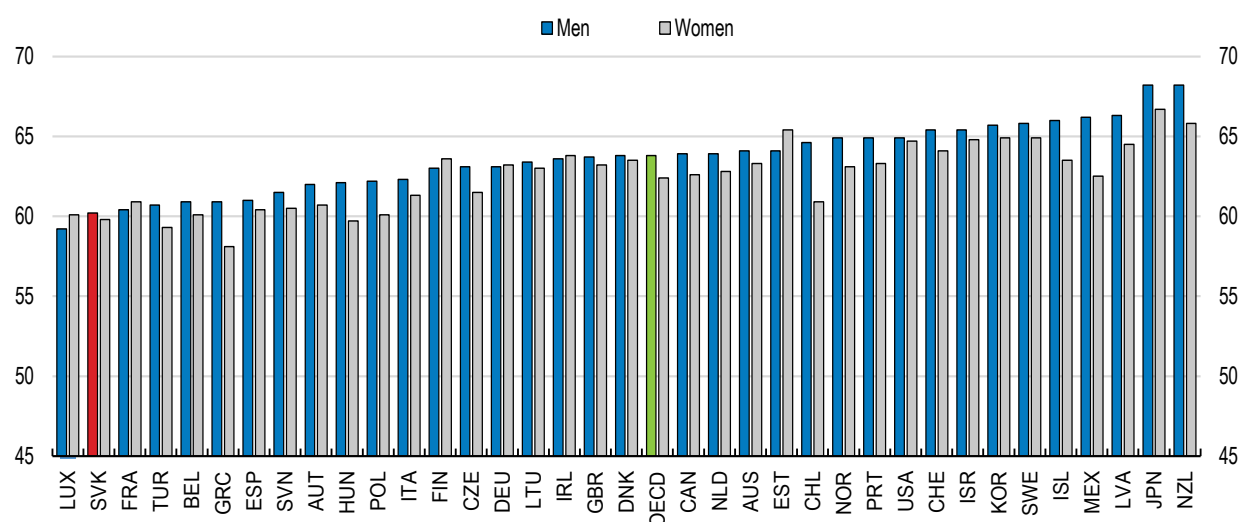
Source: OECD calculations and Ministry of Finance of the Slovak Republic.

Improving the financial sustainability of the public pension system while ensuring adequate pension income

The age of effective labour market exit is among the lowest in the OECD (Figure 6), reflecting, among other things, a relatively low statutory retirement age, together with the possibility to retire early and other pathways into early retirement such as disability pensions. The statutory retirement age was 62.7 years for both men and women without children in 2020. The 2012/13 pension reform introduced a link between retirement age and life expectancy effective from 2017, but the link was abolished in 2019, and a retirement age cap of 64 years introduced. The cap has been recently abolished, but a new setting for the statutory retirement age is still in the legislative process. While the time spent in retirement is currently slightly below the EU average, reflecting low life expectancy (see the section below), it will become one of the longest in the future (Figure 7).

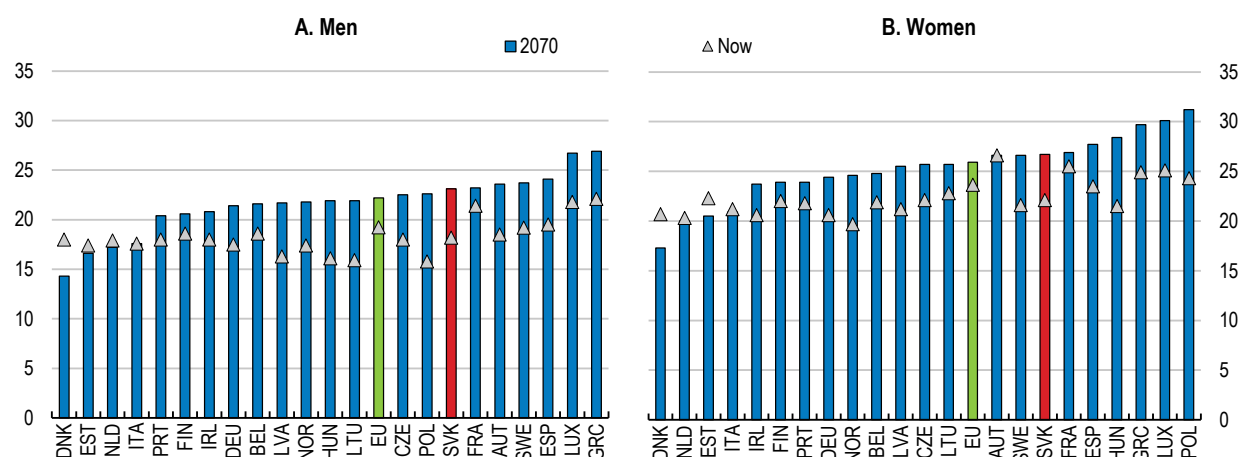
Figure 6. The effective labour market exit age is among the lowest in the OECD

Effective labour market exit ages by sex, 2020



Source: OECD Pension at a Glance database.

Figure 7. Expected years in retirement will be among the longest in the EU



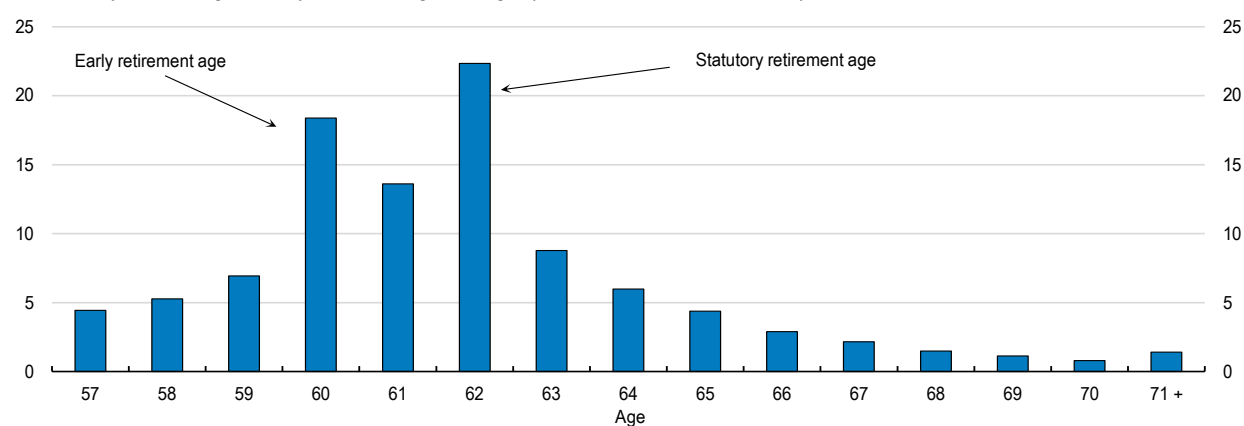
Note: Bars represent expected years on pension for a person entering the labour market at the age of 22 with currently known changes in pension age and projected life expectancy at 65 in 2070. The triangle-markers represent expected years on pension for a person retiring now (in 2018) and who entered the labour market at the age of 22.

Source: European Commission (2021), "The 2021 Ageing Report: Economic and Budgetary Projections for the EU Member States (2019-2070)", Directorate-General for Economic and Financial Affairs, Institutional Paper 079, Luxembourg; OECD Pension at a Glance database; and OECD Health Statistics database; and OECD calculations.

Raising the retirement age will be essential to improve sustainability. New research conducted for this Survey shows that early and statutory retirement ages have a strong impact on people's decision to retire in Slovakia (Figure 8, Fodor et al., 2022). Re-establishing the link between the retirement age and life expectancy as proposed will help improve sustainability, and will help extend working lives. Simulations suggest that by 2070, pension spending would decrease by 2.2 percentage points of GDP compared to current policies (Figure 9). Besides improving sustainability, extending working lives in the face of ageing is crucial to alleviate negative effects on growth and living standards. There are different design options to link the retirement age and life expectancy. Gains in life expectancy do not need to be fully translated into increases in retirement ages. For example, in Finland and Portugal, the statutory retirement age increases by two-thirds of the gains in life expectancy at age 65.

Figure 8. Early and normal retirement ages have a strong impact on actual retirement in Slovakia

Probability of exiting employment at a given age (for a reference individual)

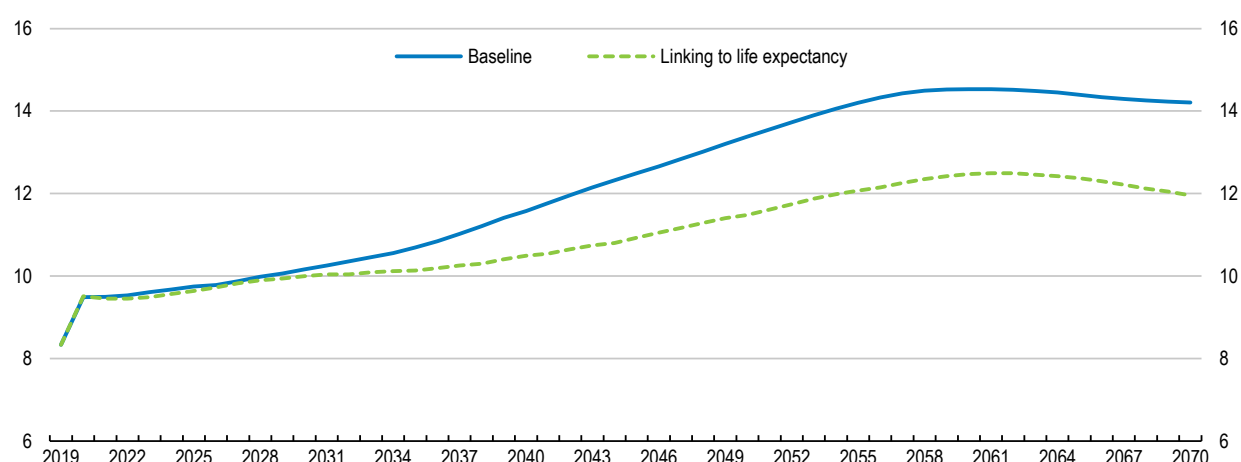


Note: The reference is an individual with the most common characteristics in the modelling sample, i.e., not entitled to any benefits, with secondary education, working in manufacturing, living in a city, not Roma, without health impairment, married, aged 57, with two children, working in 2013 and male.

Source: Fodor et al. (2022).

Figure 9. Longer working lives mean lower pension expenditures

Public pension expenditures, % of GDP



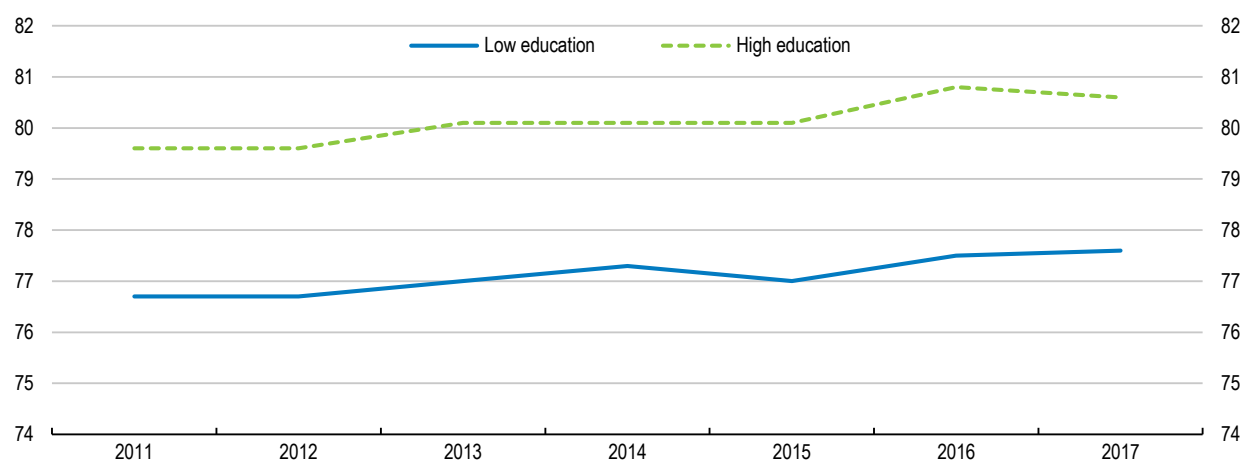
Note: The simulation assumes that 100% of the increase in life expectancy is translated into an increase in normal retirement age and 75% in the effective retirement age. The baseline assumes that the normal retirement age is capped at 64 from 2030.

Source: Ministry of Finance of the Slovak Republic.

The authorities should carefully design the proposed option to allow early retirement after a minimum number of years of contribution to avoid a further deterioration of pension sustainability and negative effects on growth. The reform proposed to allow retirement after 40 years of contributions. The 40-year requirement is at the low-end of countries with similar schemes, such as in Belgium (42 years) and Germany (45 years), but can be justified by the lower life expectancy in Slovakia, especially among lower educated people who generally start their career earlier (Figure 10). To avoid incentivising early retirement, principles of actuarial neutrality should be applied. The proposed reform envisages a penalty of 3.6% per year before reaching the statutory retirement age (Box 2). In addition, in the current system, early retirement is possible up to two years before reaching the statutory retirement age. In that case, the pension is reduced by approximately 6.5% per year. On the other hand, the pension is increased by 6% per year for every additional working year above the statutory retirement age. The penalties for the two early retirement options should be equalised and aligned with what is implied by actuarial neutrality. OECD calculations suggest an actuarially neutral bonus/malus of around 5.5% per year assuming a statutory retirement age of 64 in the future and indexation of pension in payment to prices (based on OECD, 2017a). However, a higher retirement age than 64 in the future would *ceteris paribus* imply a higher actuarially neutral bonus/malus. Hence, the bonus/malus system should be regularly re-assessed. Moreover, the minimum contribution requirement should increase in the future in line with gains in life expectancy to avoid negative effects on growth and people leaving the labour market with low pension entitlements. For instance, Belgium and France have recently increased the minimum contribution requirement reflecting gains in life expectancy.

Figure 10. Inequalities in life expectancy are persistent but gains have been broad-based

Life expectancy at birth in the Slovak Republic



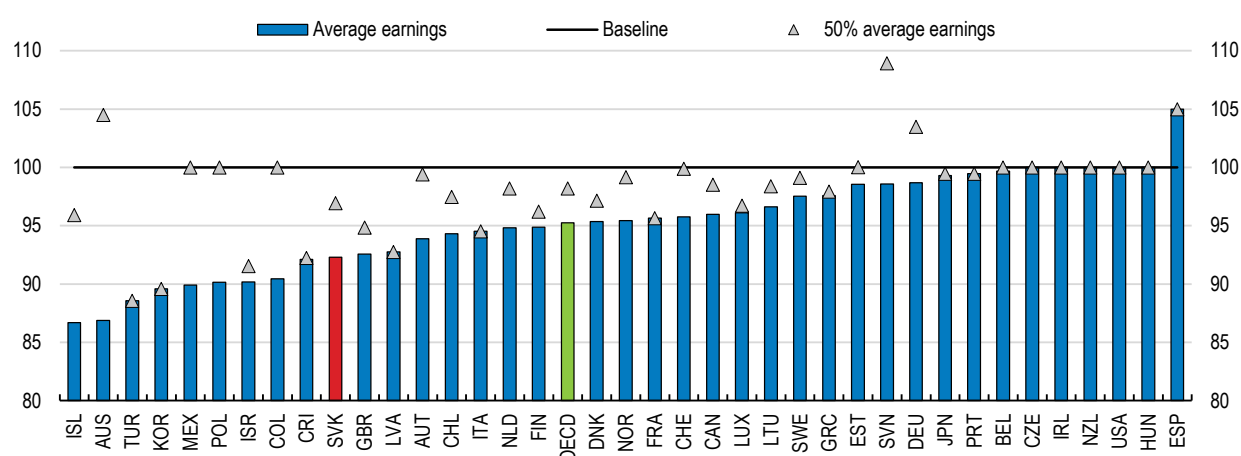
Note: Low education level refers to upper secondary and post-secondary non-tertiary education. High education level refers to tertiary education.
Source: Eurostat.

Care should be taken that the link between retirement age and life expectancy does not reinforce inequalities, penalising more those with low socio-economic background who tend to have a shorter life expectancy. This would notably be the case if the gains in life expectancy would disproportionately favour people with higher socio-economic backgrounds. In Slovakia, differences in life expectancy are persistent, but gains in life expectancy have been broadly similar between different socio-economic groups in recent years (Figure 10). The persistent inequalities in life expectancy should be addressed by health policies as discussed in the next section.

The early retirement option for mothers should be phased out. Currently, women are allowed to retire 6 months earlier for each child (up to three children), without penalties. This affects negatively on the sustainability of the pension system and lowers pension incomes for women. The government plans to increase the credited pension points during a mother's childcare career breaks. Since 2004, mothers have been granted pension credits for childcare periods as if they earned 60% of the national average wage two years before the childcare break (approximately the minimum wage). A moderately higher pension credit could be warranted, given that childcare breaks currently lead to higher pension income losses in Slovakia than, on average, in the OECD (Figure 11). However, this should be combined with phasing out the early retirement option for mothers to offset negative effects on pension sustainability.

Figure 11. Childcare career breaks lead to smaller pension entitlements than elsewhere

Gross pension entitlements of low and average earners with a 5-year childcare break versus worker with an uninterrupted career



Note: Figure in brackets refers to increase/decrease in retirement age. Individuals enter the labour market at age 22 in 2020. Two children are born in 2028 and 2030 with the career break starting in 2028. Low earners in Colombia, New Zealand, the Slovak Republic and Slovenia are at 66%, 60%, 53% and 55% of average earnings, respectively, to account for the minimum wage level.

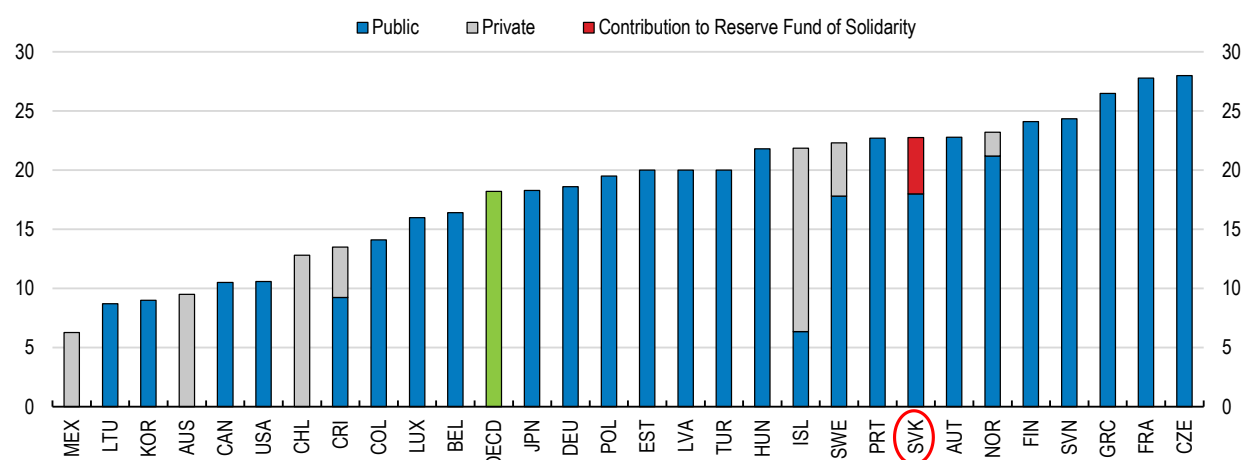
Source: OECD (2021), Pensions at a Glance 2021: OECD and G20 Indicators, OECD Publishing, Paris.

The early retirement pathway through disability benefits should be tightened. Many older workers still use disability as a pathway to early retirement. Nearly 10% of older workers withdraw full disability benefits (Fodor et al., 2022). The share of people withdrawing disability benefits is relatively high compared to peer countries with similar health outcomes such as Poland, Hungary, and the Czech Republic. For example, Slovakia has a similar number of disabled pensioners compared to Hungary, despite having a population half the size. Slovakia also spends a significantly higher amount on disability pensions (0.95% of GDP compared to 0.8% of GDP on average in the other Visegrad countries). This reflects outdated and less stringent assessment criteria, which have not been updated since 2004. There is an increasing trend among the OECD countries to shift the focus from evaluating incapacity to work towards assessing the remaining work capacity. In Estonia, for instance, workability assessments are used by the Estonian Unemployment Insurance Fund to find options for suitable work based on the remaining work capacities. Also, work rehabilitation should be further developed and made mandatory for receiving disability pensions as in Luxembourg, Switzerland, New Zealand, Norway and Sweden. Evidence suggests that work rehabilitation is effective in developing lost skills (Joss, 2002; Legg, Drummond and Langhorne, 2006; Govender and Kalra, 2007). Re-assessments of work capacity can also be made while they are still employed, as in Austria. Some workers may be redirected to less physically demanding occupations before reaching partial disability. The reassessment should be done frequently, for instance annually, given that the longer a disability spell lasts, the more difficult the return to work becomes, as shown for Sweden and the United Kingdom (OECD, 2015; Melkersson, 1999; Jenkins and Rigg, 2004).

Contribution rates should not be increased to improve sustainability, as the labour tax wedge is already high. To increase contributions, the contribution ceiling on wages was increased several times in the recent past and is currently at seven times the average wages. The reform proposes to abolish the contribution ceiling altogether (Box 2, see below). The pension contribution rate is currently around the OECD average (Figure 12). However, in Slovakia, employers additionally pay contributions into a so-called “Reserve Fund of Solidarity”, at a rate of 4.75%, which is mainly used to finance public pension expenditures. In addition, overall social security contributions in Slovakia are high especially for low-income workers (OECD, 2022). Hence, further increasing the contribution rate would likely result in adverse effects on employment.

Figure 12. The effective pension contribution rate is above the OECD average

Effective contribution rate on average earnings for old-age and survivor pension schemes, %, 2020



Note: Data refer to mandatory pension contribution rates for an average worker in 2020. Data for the OECD aggregate refers to the total effective contribution rate.

Source: OECD (2021), Pensions at a Glance 2021: OECD and G20 Indicators, OECD Publishing, Paris.

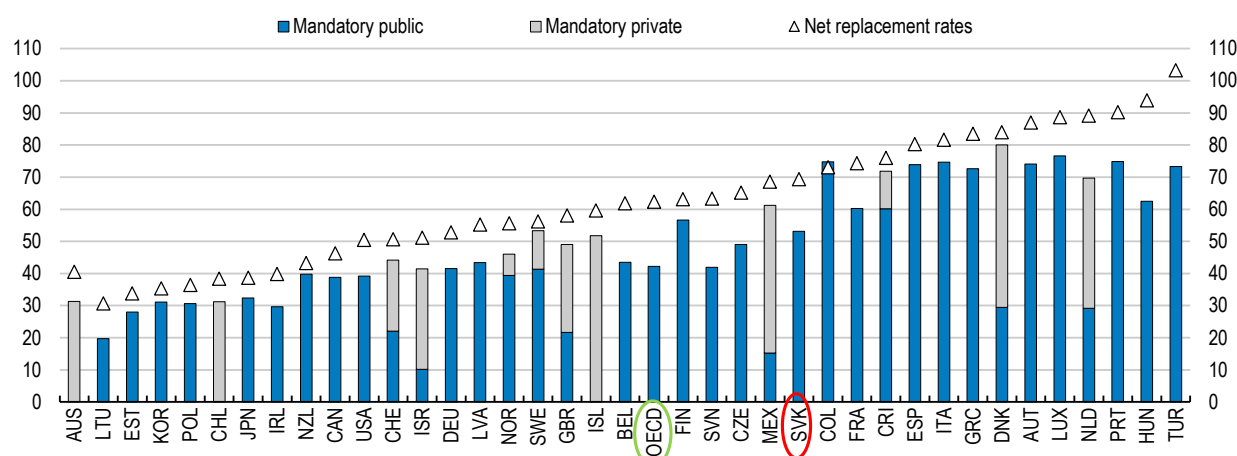
Net replacement rates are relatively high. The gross replacement rate of a worker with an average wage is around 50 percent, which is close to the OECD average (Figure 13). However, thanks to the very generous tax treatment of pensions – both pension contributions and benefits are fully exempt from taxes and social security contributions – the net replacement rate is above the OECD average.

Pension benefits may have to be adjusted to improve pension sustainability. The proposed reform envisages slower growth of the pension point value, which is welcome (Box 2). In addition, automatic adjustments to pension benefits could be introduced. This could help ensure financial sustainability, reduce the need for recurrent discretionary adjustments and improve the predictability of future pension entitlements. Several OECD countries use automatic adjustments. For example, Finland and Japan link pension entitlements to life expectancy. In Germany, which also has a point-based pay-as-you-go system, the pension point value is linked to the ratio of contributors to pensioners. If the ratio increases, past contributions will be uprated by more than average wage growth and vice versa; however, benefits are not allowed to fall in nominal terms. Furthermore, the parameters (e.g. the point value) of the pension system should be adjusted so that replacement rates do not increase with the (increasing) statutory retirement age due to longer contribution periods once the link to life expectancy is established. Finally, the government could temporarily suspend the 13th pension (Box 1) at least for high-income pensioners. Suspending the 13th pension could significantly improve pension sustainability. According to projections of the Ministry of Finance, expenditures on the 13th pension are expected to rise from 0.2% of GDP in 2019 to 0.75% in 2070 under the current setting.

Pensions in payment will be indexed to (pensioners) inflation from 2022. Pensions in payment were indexed to a combination of wage and price growth until 2017 and between 2018 and 2021 to (pensioners) inflation with a guaranteed minimum increase of 2% of the average old-age pension. From 2022 pension will be indexed to (pensioners) inflation only, without the guarantee. The indexation to inflation is welcome given the sustainability challenges and will ensure that pensioners maintain purchasing power, even if it also implies that pensions will fall relative to average incomes.

Figure 13. The gross and net replacement rates are above the OECD average

Gross pension replacement rates from mandatory public and private pension schemes and total net replacement rate, % of individual earnings



Note: Theoretical replacement rates for a full career worker.

Source: OECD (2021), Pensions at a Glance 2021: OECD and G20 Indicators, OECD Publishing, Paris.

The proposed reform plan to introduce the so-called “parental bonus” should be reconsidered. The Ministry of Labour proposed to introduce a parental bonus according to which the pension benefits of every parent would be increased by 2.5% percent of the social security base of each child. According to the Ministry of Finance, this measure would raise pension spending by around 0.6% of GDP annually (Box 2). Besides jeopardising pension sustainability, the policy has indeterminate efficiency and also raises equity issues as the bonus favours parents of more affluent children. A likely aim of the policy is to increase old-age income of parents who may have lower pension due to childcare career breaks. A more effective policy would be to increase the pension points for childcare career breaks as suggested above or to ensure adequate minimum pension entitlements (see below). In addition, as discussed below, reducing excessively long parental leave periods and improving the supply of affordable childcare places would help reduce labour market barriers of women and hence raise pension entitlements.

Introducing pension monitors, as planned by the government, would help workers make informed retirement decisions. Almost all OECD countries provide on-line information about public pensions, and many also for private pensions (OECD, 2016a). In Sweden and Denmark for example, workers can access personal information, such as their contribution period and accumulated savings/accruals. Calculations and simulators are also used to provide personalised information about expected retirement age and benefits. In Slovakia, information about pension entitlements from the public pension system is currently not available. Some fund management companies provide simulators or calculators for the private pension system (IOPS, 2019). Therefore, the government’s plan to provide annual standardised information on pension entitlements from all three pillars is welcome.

Strengthening the link between earnings and pension entitlements while ensuring broad access to adequate minimum pension income

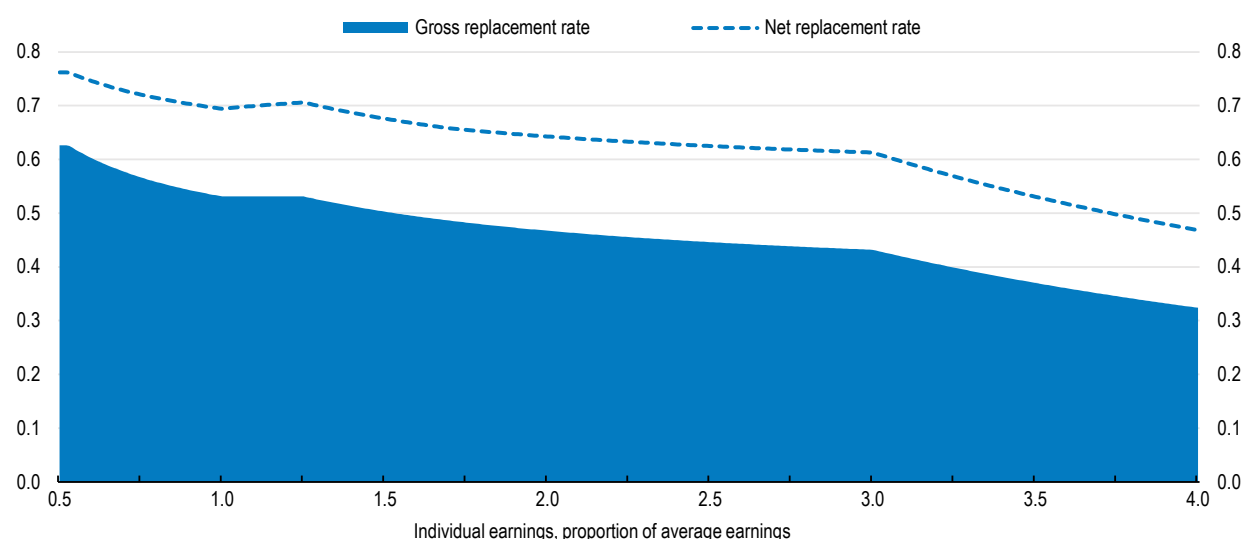
As in most other OECD countries, the link between earnings and pension entitlements in the Slovak pay-as-you-go system is weakened due to a number of redistributive elements, potentially reducing work incentives and incentives to contribute to the system. In the Slovak point-based system, pension benefits at retirement are determined by the average pension point, the contributory period, and the current pension point value. The pension point is calculated as the ratio of an individual’s earnings to the economy-wide average earnings so that an individual with earnings equal to the average wage receives a pension point

of one. However, a so-called solidarity factor increases pension points lower than 1 and reduces pension points higher than 1.25. In addition, the (unsolidarised) average pension point cannot exceed 3. This cap on pensionable earnings implies an upper ceiling on pension benefits at retirement of around EUR 1705/month after 40 years of contributions. Moreover, as pension contributions are capped at 7 times the average wage, contributions on earnings between 3 and 7 times the average wage do not result in any additional pension entitlements, making these contributions de facto taxes. As a result, accrual rates and replacement rates fall sharply with income (Figure 14). While this increases solidarity, it can potentially reduce work incentives and increase incentives for high-income earners to reduce pension contributions, for example by becoming self-employed, and for the self-employed to incorporate and limit the salary they pay themselves.

The government should avoid further increasing the gap between the upper ceilings on pension contributions and pensionable earnings. The proposed reform includes a plan to abolish the cap on pension contributions, which will further weaken the link between earnings and pension entitlements. The reform could increase pension contributions by around 0.2% of GDP per year, according to the Ministry of Finance. However, this effect could be potentially offset through worsened work incentives and incentives to contribute to the system.

Figure 14. The pension point system is highly redistributive

Replacement rates by income level



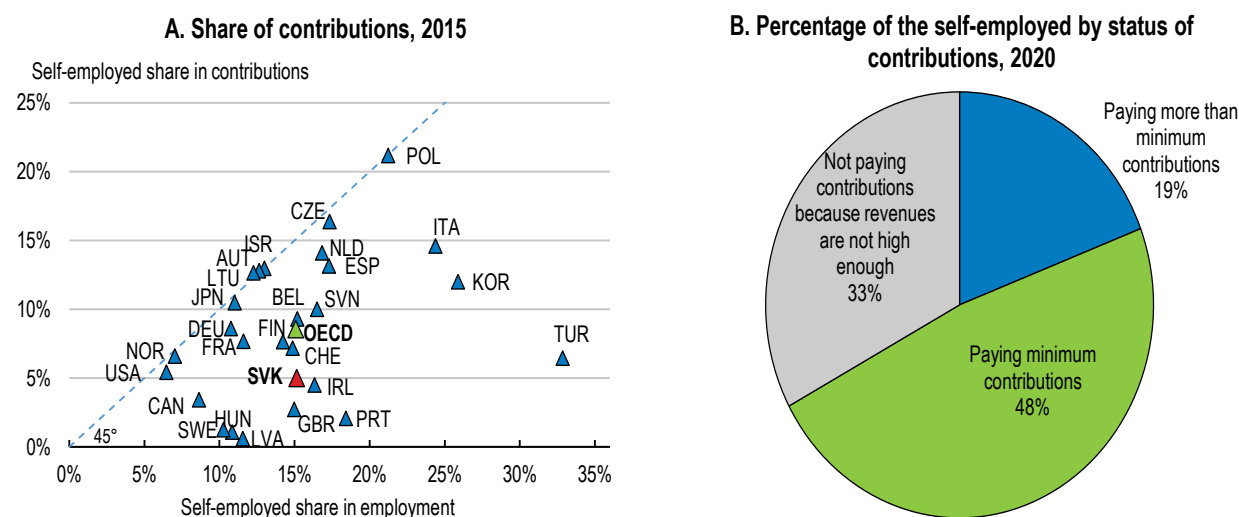
Source: OECD (2021), Pensions at a Glance 2021: OECD and G20 Indicators, OECD Publishing, Paris.

The self-employed contribute significantly less to the pension system than dependent workers. In 2015, the self-employment represented around 15 percent of total employment (slightly more than the OECD average), but their share in total contributions was only 5%, almost half of the OECD average (Figure 15, Panel A). Almost half of the self-employed pay minimum contributions and a third pay no contributions (Panel B).

The low pension contributions of the self-employed reflect several factors. First, the self-employed have a high degree of discretion in setting their contribution base, and the contribution base is not fully harmonised between self-employed and dependent employees. The self-employed can currently deduct, at a flat rate, 60% (up from 40% in 2017) of their revenues as costs, up to EUR 20 000 a year. While this flat rate reduces the administrative burden for the self-employed, it lowers taxes and pension contributions compared to employees with similar earnings. In addition, the contribution base for the self-employed is set at 67% of

profits, but in order for the contribution base between self-employed and employees to be equal, it must be 74% of profits in Slovakia (based on OECD, 2019a). Second, the self-employed are not required to pay social security contributions if the reported income is less than 50% of the average wage (Figure 16). This is a high threshold compared to OECD countries with similar minimum income thresholds (although the exact definition of the income varies across countries).

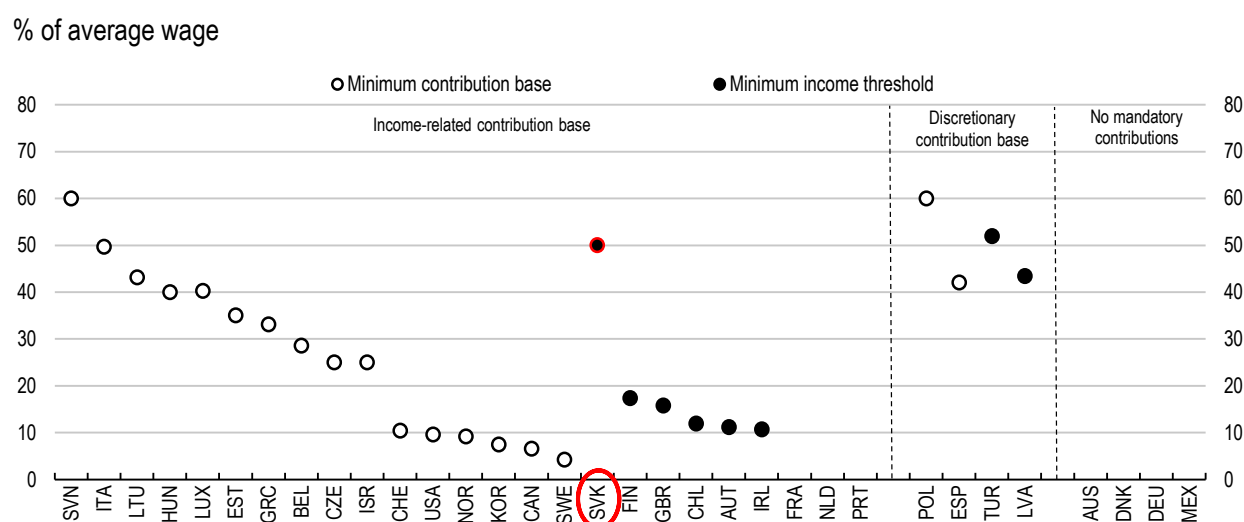
Figure 15. The self-employed contribute little to old-age pensions



Note: In Panel A, the share of contributions paid by the self-employed includes contributions paid by non-working individuals in some countries, as only this aggregate is available. In Panel B, data excludes those who did not pay social security contributions because they stopped working or because it was their first year of self-employment.

Source: Ministry of Finance of the Slovak Republic; and OECD (2019a), Pensions at a Glance 2019: OECD and G20 Indicators, OECD Publishing, Paris, <https://doi.org/10.1787/b6d3dcfc-en>.

Figure 16. The income threshold for exemption from contributions is high



Source: OECD (2019a), Pensions at a Glance 2019: OECD and G20 Indicators, OECD Publishing, Paris, <https://doi.org/10.1787/b6d3dcfc-en>.

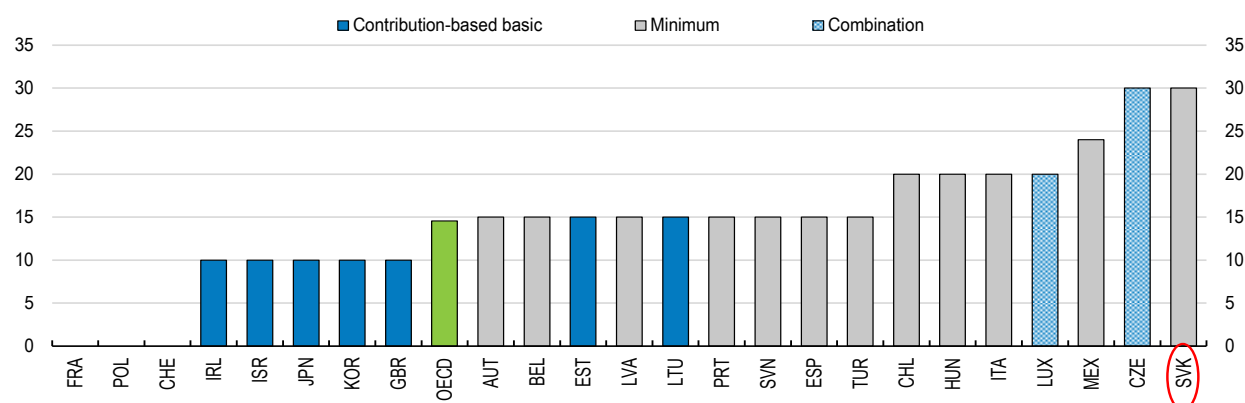
The government should raise the contribution base of the self-employed to better harmonise contributions and entitlements between employees and the self-employed with similar earnings. Due to low contributions, the self-employed may disproportionately benefit from the minimum pension or social

assistance benefits, raising fairness and pension sustainability issues. Furthermore, lower pension contributions may create incentives for companies to hire independent workers instead of hiring standard workers (OECD, 2019a). Harmonising contribution bases between self-employed and dependent employees and reducing the flat rate revenue deductions would help reduce false self-employment. This should be accompanied by rigorous inspections (OECD, 2019a). Making employers mandatorily report any change in working hours/working arrangements of its employees through an electronic system, like in Greece, or allowing the tax administration to require platforms to provide information about any individual who has earned more than a certain amount via a platform, like in France, can help improve the monitoring system (EC, 2018a). At the same time, if deemed necessary, support for the self-employed, could be provided by explicitly financing part of their pension contributions through the tax system.

The government should consider broadening access to minimum pensions in the medium term to ensure a minimum pension income for all. The minimum pension was introduced in Slovakia in 2015. The amount of minimum pension is currently 33% of the national average wage in 2018 but will fall relative to average wages in the future, as minimum pensions are frozen at the current level since 2020 (Box 1). The Slovak Republic – together with the Czech Republic - stands out among OECD countries with a very long minimum contribution period of 30 years to receive a contribution-based basic or minimum pension at the statutory retirement age, with the OECD average equalling about 14½ years (Figure 17). The minimum pension is prorated with contribution years above 30 years of contributions. Below 30 years of contributions, the floor to pension levels is given by social assistance (18% of the average wage) irrespective of the years of contribution. The government could consider expanding access to the prorated minimum pension. For instance, a minimum pension after 15 years of contributions could be introduced at the level of the social assistance and prorated with contribution years, so that 30 years of contribution result in the current level of the minimum pension. Combining the lower threshold with prorated minimum pension would help keep the lowest earners from falling into poverty while rewarding additional years of work.

Figure 17. A very long contribution period is required to receive a minimum pension

Minimum number of contribution years for contributory first-tier benefits at the statutory retirement age, 2018



Note: Pension systems in the Czech Republic and Luxembourg combine contribution-based basic pensions with minimum pensions. Australia, Canada, Denmark, Finland, Germany, Greece, Iceland, the Netherlands, New Zealand, Norway, Sweden and the United States do not provide contributory first-tier benefits, and are therefore not included in the OECD average.

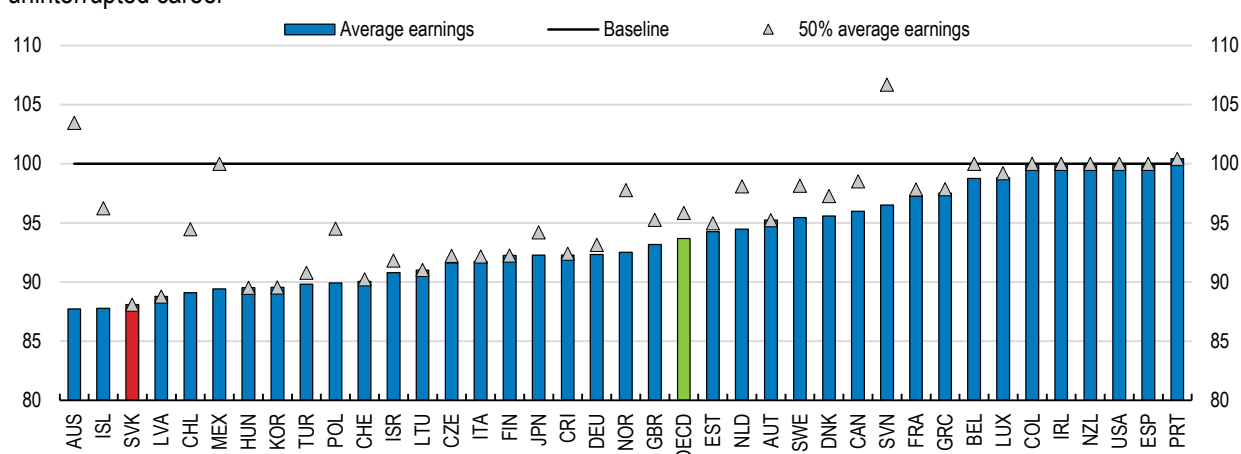
Source: OECD (2020), OECD Reviews of Pension Systems: Czech Republic, OECD Reviews of Pension Systems, OECD Publishing, Paris, <https://doi.org/10.1787/e6387738-en>.

In the medium term, introducing some basic pension credit for initial periods of unemployment spells would reduce the risk of people with interrupted careers falling into poverty at old age. The share of temporary workers, who face more interrupted careers, has increased in Slovakia since the late 2000s. Unemployment spells lead to larger pension reductions than in most OECD countries (Figure 18). Unemployment spells are not credited in the pension system. However, the unemployed can make

voluntary contributions and it is also possible to pay contributions for this period retroactively. Most OECD countries aim to protect at least the initial periods of absence from the labour market due to unemployment. In these cases, pension credits are usually linked to the receipt of unemployment benefits, and thus subject to time limits and/or other conditionality conditions such as participation in training and activation programmes (Bravo et al., 2020). For instance, in Finland and Belgium, the pension credit is limited to periods of unemployment benefits, and to qualify for the unemployment benefits, he/she needs to participate in training or other active labour market measures.

Figure 18. Unemployment spells lead to relatively large pension reductions

Gross pension entitlements of low and average earners with a 5-year unemployment break versus workers with an uninterrupted career



Note: Individuals enter the labour market at age 22 in 2020. The unemployment break starts in 2033. Low earners in Colombia, New Zealand, the Slovak Republic and Slovenia are at 66%, 60%, 53% and 55% of average earnings, respectively, to account for the minimum wage level. Source: OECD (2021), Pensions at a Glance 2021: OECD and G20 Indicators, OECD Publishing, Paris.

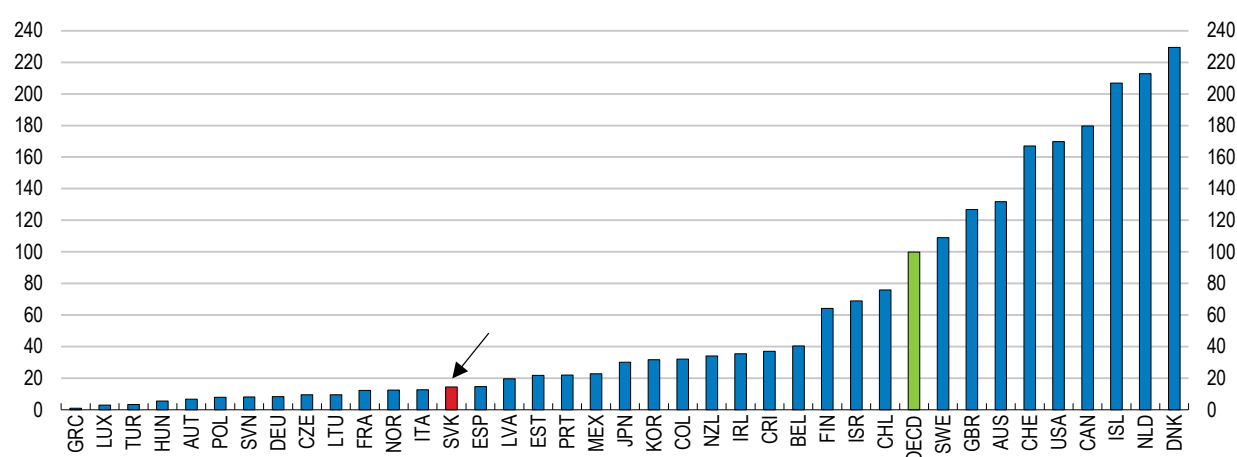
The government should consider financing more redistributive components of the public pension system by general taxes. Many countries finance part of pension spending through general taxation, which reduces the burden to finance pension expenditure via social security contributions only. The minimum pension and the 13th pension are already financed via general taxation. Other redistributive elements (e.g., for career breaks or the solidarized pension point) could also be explicitly financed via general taxation. This could help improve the finances of the pension system and allow the government to lower social security contributions (and hence the labour tax wedge). As discussed in the 2022 OECD Economic Survey of the Slovak Republic, a tax reform with the aim of shifting the burden from labour to consumption, property and environmentally harmful activities has the potential to reduce distortions to economic growth (OECD, 2022).

Boosting savings and yields of the private pension scheme

Private pension savings are very low, reflecting the relatively short existence of the system, but also low contribution rates, low participation, and low yields from savings (Figure 19). The private fully-funded defined-contribution pension system was established in 2005, with the aim to diversify pension savings. There have been numerous changes to the system including on contribution rates and between mandatory and voluntary enrolment. The contribution rate is currently 5.25%, down from 9% in 2012, but is set to increase again in the future. Since 2013, participation is voluntary. The participation rate of around 41.9 percent of the working age population is relatively high for countries with voluntary schemes but low compared to countries with mandatory private pension schemes (OECD, 2020b). Moreover, Ódor (2019) shows that accumulated savings could be 20-80% higher if the performance of the funds had been similar to international benchmarks. This makes the private pension system ineffective in providing additional pension income.

Figure 19. Private pension savings are very low

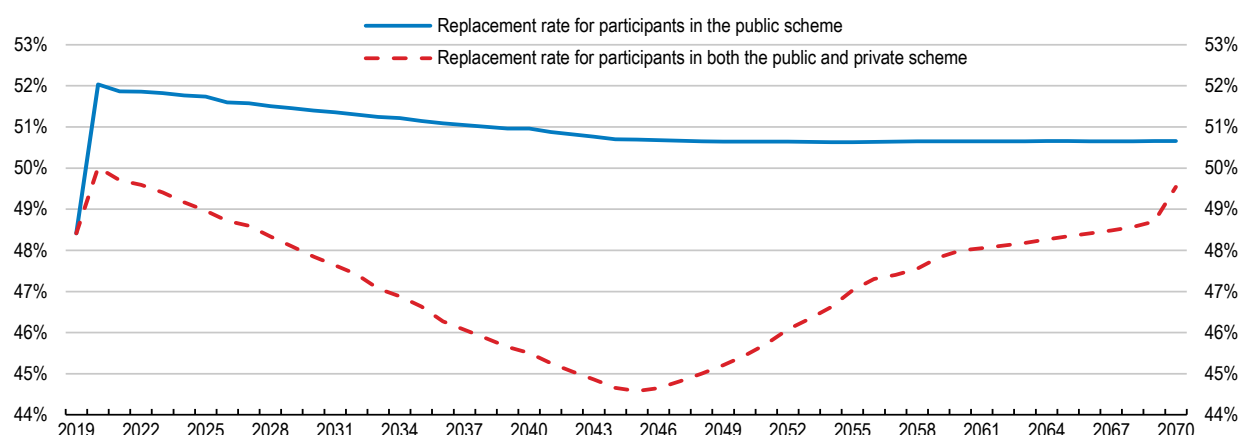
Total assets in retirement savings plans, % of GDP, 2020 or latest available year



Source: OECD (2021), Pension Markets in Focus 2021, OECD Publishing, Paris, <https://www.oecd.org/pensions/pensionmarketsinfocus.htm>.

The proposed reform plan to introduce automatic enrolment should be accompanied by a significant improvement in the performance of pension funds. To bolster participation and accumulated savings, the Ministry of Labour proposed to introduce automatic enrolment, with the possibility to opt out. Evidence suggests that the automatic enrolment with the option to opt-out is likely to increase participation compared to the option to opt-in (Madrian, 2013). However, people who have contributed to both the pay-as-you-go and the private scheme are expected to receive significantly lower replacement rates compared to people who have only contributed to the pay-as-you-go scheme (Figure 20). In particular, replacement rates are expected to fall gradually for cohorts retiring before 2045 as the funds are invested very conservatively (see below) and the share of contributions invested in the private system increased. For cohorts retiring after 2045, replacement rates are expected to increase because younger cohorts have or are expected to invest a higher share in equity funds.

Figure 20. Replacement rates are lower for the mixed pension scheme than public pension scheme



Note: It is assumed that the share invested in bonds and equity remains constant at the current ratio for each cohort over time. Younger cohorts invest a higher share in equity funds. New cohorts entering the private scheme are assumed to invest 50% in equity funds from the age of 25 until retirement. The gross return to equity is assumed to be 8 % over the projection horizon, roughly equal to the historical performance. The return on bonds is expected to increase from 2%, close to the return observed in 2019, to 4% in 2050 and thereafter.

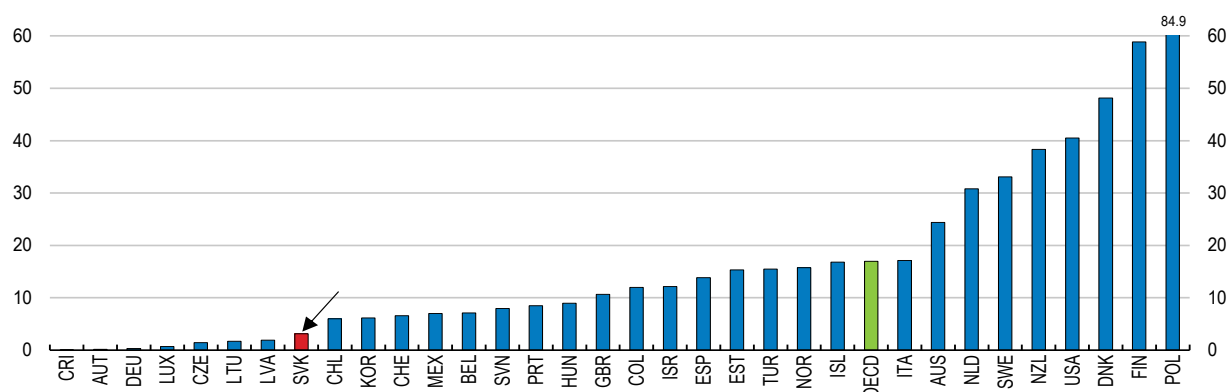
Source: Ministry of Finance of the Slovak Republic, Country fiche on 2021 pension projections of the Slovak Republic.

Minimum return guarantees should be abolished to improve the performance of the pension funds. The low performance of private pension funds can be largely attributed to minimum return guarantees, which incentivize pension management companies to follow overly conservative investment strategies, together with a low level of financial literacy (Ódor, 2019). In 2009, the government introduced a regulation that pension funds had to guarantee minimum returns over a 6-months period. This incentivized pension funds to invest in low-yielding short-term bonds. In 2013, all the savers from equity funds were moved into the bond funds by default, and only opt-out was possible (IFP, 2019). While the regulations have been changed and equity funds without return guarantees exist, participants still invest largely in bond funds with minimum guaranteed returns (over a ten-year period). In 2017, savings in guaranteed bond funds accounted for around 80 percent of total pension fund investments (IFP, 2019). Currently, only 2.6% of assets in private pension plans are *directly* invested in equities (Figure 21), although the overall share of equity in total pension funds is higher as a significant amount of assets is allocated in collective investment schemes (CIS), which partly invest in equities. Instead of minimum return guarantees for bond funds, the pension funds could be required to meet some international benchmarks (Ódor, 2019).

Introducing some default life-cycle based investment strategies for pension funds with substantially higher allocation into global stock funds and better regulating fees can help improve performance. The government considers introducing some default investment strategies with high initial allocations to equities for young participants (i.e., life-cycle investment strategies). Reducing and regulating the choice of investment possibilities can help people make difficult investment decisions, especially if financial literacy is low. Higher default allocations to equities or global stock funds can increase the return in private pension funds (IFP, 2019). Fees of pension funds should also be better regulated. For example, pension funds often charge the same fees for active and passively managed funds, and fees appear somewhat higher than in peer countries (Ódor, 2019).

Figure 21. The investment strategy is very conservative

Share of equity in total autonomous pension fund assets, %, 2020



Source: OECD Pensions database.

Reducing possibilities for effective lump-sum payments will help better manage retirement income. As pay-out options upon retirement, an individual can choose between life annuities, a fixed-term annuity and programmed withdrawals. As there are few restrictions to the programmed withdrawal, many people withdraw the total pension amount after a month, making it effectively a lump-sum payment option. However, this limits the income-supplementary aspect as many people have difficulties turning stock of wealth into a suitable flow of income. Therefore, it may be beneficial to restrict effective lump-sum withdrawals, for instance, by introducing a cap as in Lithuania or the United Kingdom for example. Moreover, if pay-out options were decided when signing up, pension funds could optimise investment strategies, likely resulting in higher returns.

The personal voluntary supplementary pension scheme (3rd pillar) also has low savings. This primarily reflects low returns with a large part of savings allocated in low-yield bond funds, together with relatively high fees and low participation. The Ministry of Labour recently proposed several reforms to the 3rd pillar. This includes increasing competition among pension funds by opening the market to new providers, enhancing tax incentives, and exempting contributions from public health insurance contributions. In addition, pension providers are to offer pensioners an investment strategy based on a life-cycle strategy as one of the investment options.

The cost-effectiveness of proposed fiscal incentives should be carefully assessed. The existing tax advantages are already relatively high in international comparison (OECD, 2020g). For an average earner between 20 and 65 years old contributing 5% of wages, the overall tax advantage represents around 36% of the present value of contributions, ten percentage points higher than the OECD average. A number of empirical studies suggest that fiscal incentives have been an expensive means to promote savings in the supplementary pension scheme in some countries (e.g., Anton et al., 2014; Attanasio et al., 2004). In particular, low and middle-income earners are found to be less sensitive to tax incentives, partly due to their low financial literacy. Any policies to increase participation should be accompanied by a substantial improvement in the performance of the supplementary private pension funds. Making the life-cycle-based investment strategy a default option with higher allocation into global stock funds should be considered, as recommended for the 2nd pillar private pension funds.

Strengthening health and long-term care systems to efficiently promote healthy ageing

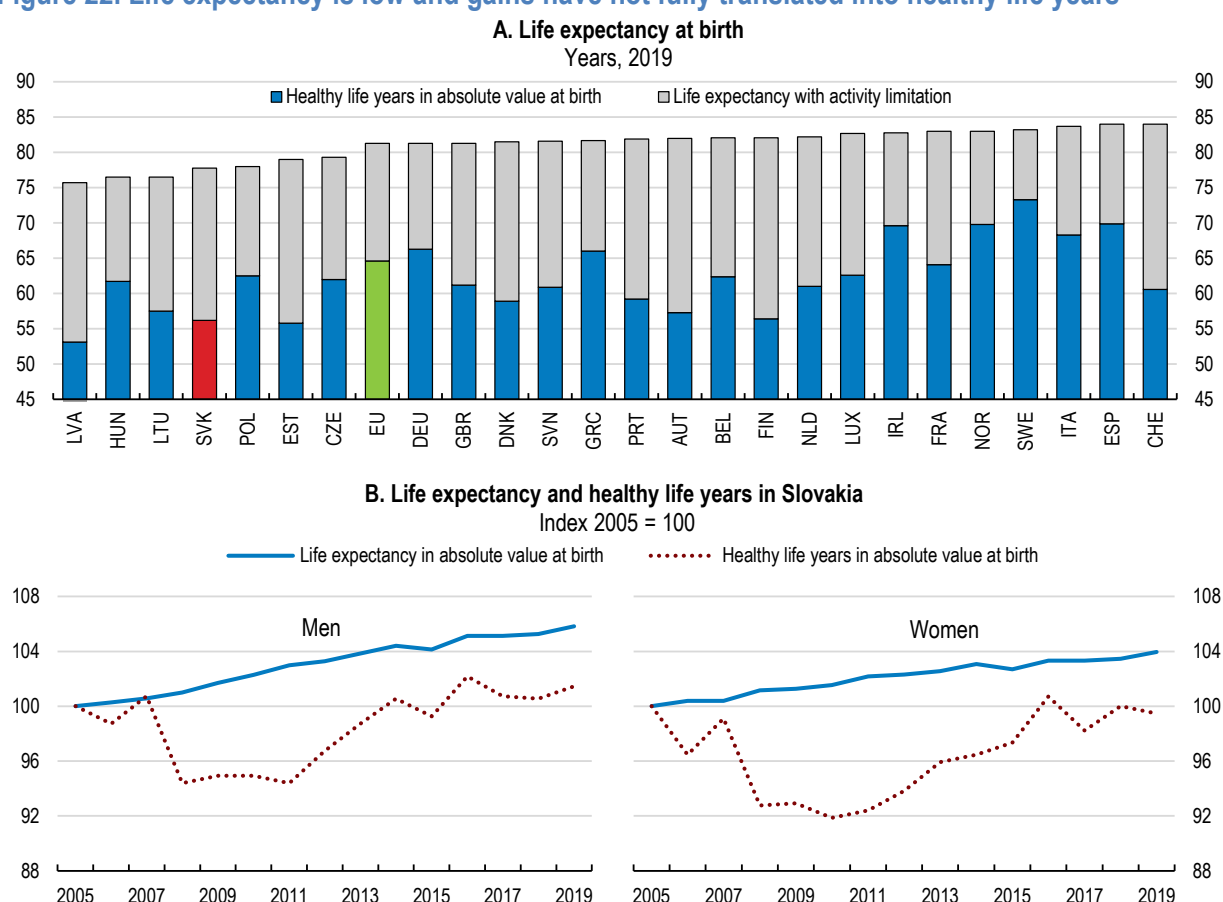
Slovakia's health outcomes are poor compared to most other OECD countries. Life expectancy is among the lowest in the OECD, and it fell by around one year in 2020 due to the COVID-19 crisis (OECD, 2021d).

Infant mortality is among the highest in the OECD. Substantial disparities across ethnic and socioeconomic groups in health outcomes persist, with one of the largest gaps in life expectancy by education level in the EU. Life expectancy has increased over the past decade, but this was not accompanied by a proportionate increase in the number of years in good health (Figure 22). If the trend continues, Slovakia's older people will spend more years in need of medical care and assistance than now.

Poor health outcomes coupled with ageing will weigh on public finances. Healthcare and long-term care spending per capita is lower than the OECD or EU average, but it is expected to increase faster in the long run, partly reflecting faster population ageing and worse health outcomes. According to the EC's long-term projections, public healthcare and long-term care spending as a share of GDP is expected to increase by more than a half (from 6.5 percent of GDP to 10) until 2050, compared to an average increase of a fifth (from 8.4 percent of GDP to 10.2) for the EU. This result is caused mainly by the growing need for healthcare in old age (MoF, 2019).

Keeping people healthy throughout their lives would improve well-being, reduce demand for health and long-term care services, and prevent people from leaving the workforce prematurely due to poor health (Blundell et al., 2021; Leijten et al., 2015). A crucial challenge is thus to ensure that gains in life expectancy lead to similar gains in healthy life years and to control additional spending pressures on health and long-term care from ageing.

Figure 22. Life expectancy is low and gains have not fully translated into healthy life years



Note: In Panel A, life expectancy with activity limitation refers to the difference between life expectancy and healthy life years at birth. Data for GBR are for 2018.

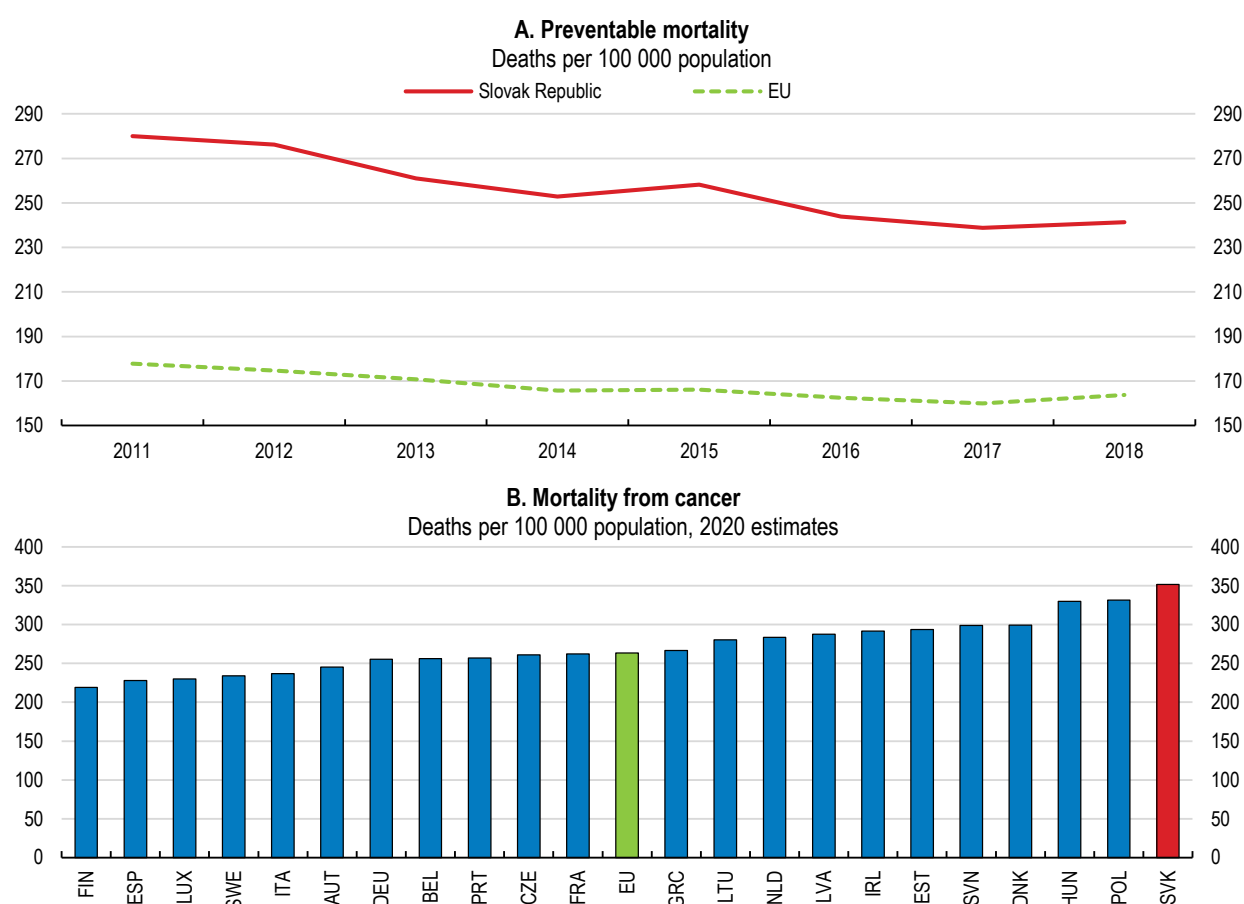
Source: Eurostat Health Statistics database; and OECD calculations.

Strengthening equity and resilience to improve health outcomes

Reducing preventable mortality to improve health outcomes

The poorer health outcomes in Slovakia can partly be attributed to higher preventable and treatable mortality in international comparison (Figure 23, Panel A). Ischemic heart disease is the leading cause of death, accounting for one in four deaths, and mortality from strokes is the second main cause of death (OECD, 2019b). Mortality from cancer is the highest in the OECD in 2020 (Panel B). Slovakia also has the highest number of hospitalisations of people with high blood pressure and diabetes (INESS, 2020). In addition, many people die due to influenza and pneumonia, around 40% higher than the OECD average (OECD, 2021a).

Figure 23. Preventable mortality is high



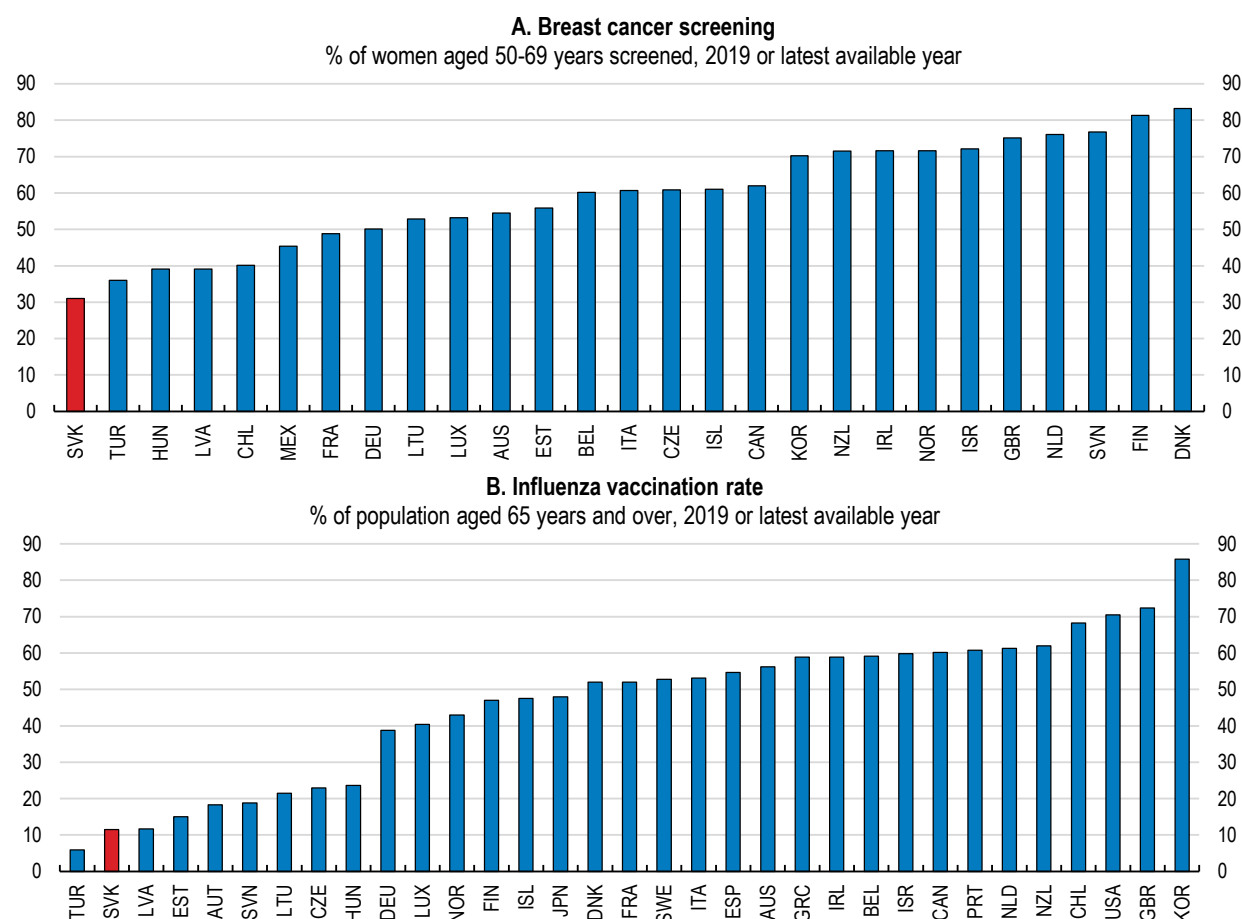
Note: In both Panels, data for the EU are weighted averages. In Panel A, the EU does not include France in 2018.

Source: OECD calculations based on the Eurostat Health Statistics database; and Joint Research Centre, ECIS – European Cancer Information System database.

High preventable mortality reflects behavioural risk factors, low vaccination coverage for certain groups, and low cancer screening rates. Behavioural risks, including alcohol consumption and dietary risks, account for half of all deaths in Slovakia, well above the EU average of 29% (OECD, 2019b). In 2016, more than half of all adults had heavy episodic drinking in the past 30 days. This proportion was larger than in most other EU countries (OECD/EU, 2020). The share of 15-year-olds who reported consumption of sugared soft drinks was 25% in 2018, also significantly higher than the EU average of 16% (OECD, 2019b). The overall obesity rate is about the OECD average, and relatively high among children from low-

income families (OECD/EU, 2020). The breast cancer screening rate among women is the lowest among OECD countries (Figure 24, Panel A), so is the influenza vaccination rate for older people, who are at increased risk of serious complications and death from influenza (Panel B; and OECD, 2021d). The pneumonia vaccination rate for older people is also relatively low in international comparisons (Root-Bernstein, 2021).

Figure 24. Screening and influenza vaccination are low among particular groups at risk



Source: OECD Health Statistics database.

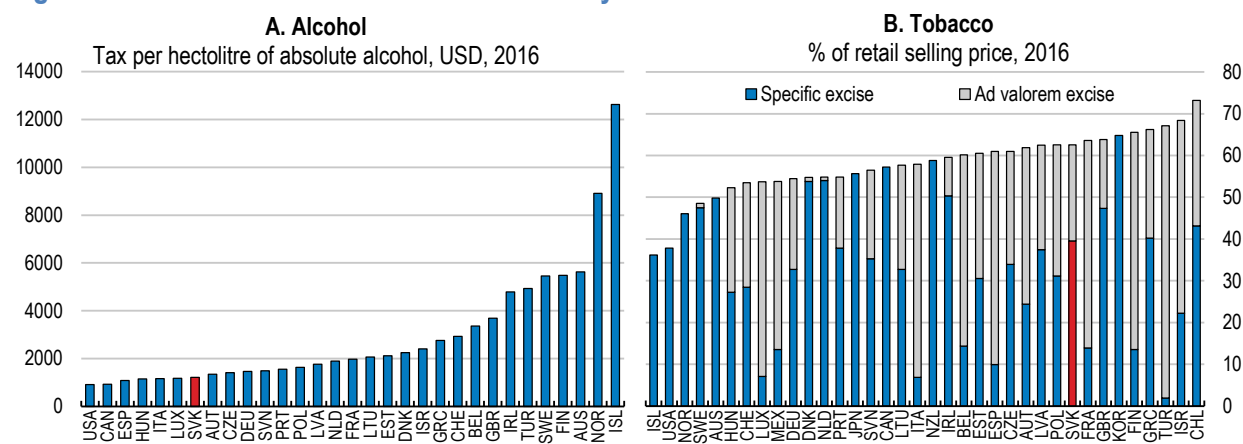
Developing a national strategy to reduce preventable mortality and targeted approaches are warranted to reduce preventable deaths. The government has made some efforts to reduce preventable deaths. The national cancer plan was adopted in 2018, and employers' contributions to employees' preventative medical examinations (e.g., oncological examinations) are tax-exempt from 2020. The government also plans to enhance public health education and awareness, although concrete measures have not yet been announced. In addition to this, developing a national preventive health strategy should be considered, expanding the current cancer plan to other preventable diseases, to build a sustainable prevention system and early intervention programs. Furthermore, more targeted measures are needed to improve the effectiveness of these reforms. For instance, tailored vaccination campaigns for older people, such as mobile vaccination units visiting seniors in their village, may help increase their vaccination rates. Moreover, the fact that more than half of Slovaks older than 65 do not use the internet at all should also be taken into account when running the public awareness campaign planned by the government. Indeed, many of the older people who tried to get the COVID-19 vaccine were unable to do so because the registration was done mostly online, which may have contributed to lower rates of COVID-19 vaccination.

compared to the OECD and EU averages. The government should also consider increasing its expenditure on preventive care, which is currently less than 1% of total health expenditure in 2019, around a third of the EU average (2.9%) (OECD, 2021d).

Policies to encourage healthy eating habits among children from low-income households should also be promoted. A survey suggests that eating habits of low-income households, notably the population living in Roma settlements, differ from those of the majority population in Slovakia, with lower consumption of fruits and vegetables (Emilia et al, 2014). Nutrition is fundamental for child and adolescent development, and preventing many serious health problems such as obesity (OECD/EU, 2020). The active involvement of health care professionals who regularly consult children, parents, and families from low-income families is important (Park, J. et al., 2020; and Hanna, H. et al., 2012). Health education and promotion in schools, together with increasing the fruit and vegetable content in the food served in schools, can also be promoted (OECD/EU, 2020). A targeted voucher program can also help improve eating habits. For instance, in the United Kingdom, the “Healthy Start” scheme gives vouchers that can only be spent on specific healthy foods (e.g., fruit, vegetables, and milk) to low-income families with young children. Griffith et al., (2018) suggest that the scheme has been more effective than an unconditional cash benefit, improving the nutrient composition of the household’s shopping baskets.

As for alcohol, excise duties on beer, wine, and other alcoholic beverages are relatively low in Slovakia (Figure 25, Panel A), while excise duties on tobacco are relatively high (Panel B). International empirical evidence suggests that lower alcohol prices are associated with higher alcohol consumption, cancer cases, and other alcohol-derived problems, notably traffic fatalities (Rovira et al., 2020; Chang, Wu and Ying, 2012). Raising the low excise duties could help reduce excessive alcohol consumption as well as preventable mortality. As for excise duties on sodas, the government initiated a discussion on the possibility of introducing new taxes, but it was abandoned in 2019. Introducing excise duties on sodas can also be reconsidered as in some OECD countries including Norway, Finland, and France. Increasing prices of sugary and high-caloric food items through appropriate tax levies could promote healthier diets, as the consumption of these products seems to have a high price elasticity (Sassi, 2016; Sassi et al., 2013).

Figure 25. Excise duties on alcohol are relatively low



Source: OECD (2020), "Consumption Tax Trends 2020: VAT/GST and Excise Rates, Trends and Policy Issues".

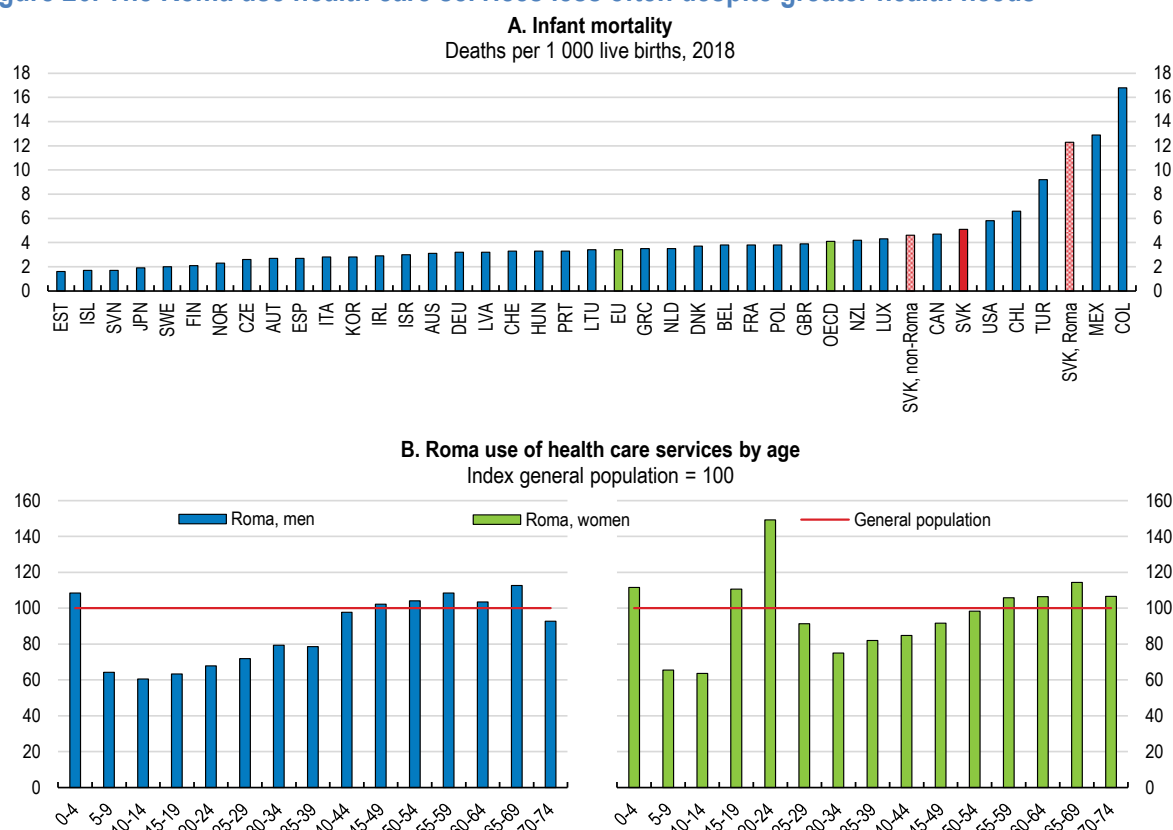
Better mental health care is needed. Mental disorders were the third most frequent cause of entitlement to disability pensions (MoF, 2019). Brazinova et al. (2019) suggest that nearly two-thirds of depression cases and 80 percent of people with anxiety are not treated in Slovakia. Untreated mental health issues have detrimental effects on the labour force and lead to substantial indirect costs in healthcare and the social system. The total cost of mental illness is estimated at around 2.3% of GDP in Slovakia (OECD, 2018a). The mental health care sector in Slovakia is underfunded (MoF, 2020). Mental health care accounts for

only 2% of the total healthcare expenditure, well below the OECD average (6.7%). Mental health care is also poorly accessible, with a shortage of psychiatrists and outdated or inadequate facilities (MoF, 2019). To improve mental health care, a new government-level working group has been established, a new edition of the National mental healthcare plan is being prepared, and investments in mental health have been included in the recovery plan. The reform should be implemented without delay, given that previous efforts have been postponed several times. To increase the effectiveness of the reform, a targeted approach is needed for the population groups most vulnerable to mental illness, taking into account their different mental health service needs. For instance, Ireland developed specific mental health initiatives for the Traveller community, an Irish minority ethnic group, and Canada for the 12 to 17-year-olds with comprehensive health and social rehabilitation supports (OECD, 2021).

Inequalities in health outcomes need to be reduced

Weak health outcomes partly reflect the significantly poorer health of the marginalised Roma community. Slovakia has one of the largest Roma communities in Europe, at 8% of the total population. The estimated life expectancy is 6 years lower than that of the rest of the population (OECD, 2019c). The major cause of death is a preventable disease, notably cardiovascular and respiratory diseases (Šprocha et al., 2021). Roma also have a higher infant mortality rate (Figure 26, Panel A). Despite higher needs, the Roma use health care services less often (Panel B). Utilisation of healthcare services is particularly low for Roma children, which can have negative health impacts later in life. The Roma very rarely use preventative care and get vaccines, leading to the heavier use of acute hospital services. Many factors may explain this low use of health services, notably lack of information, language barriers, discrimination, and transport and care affordability (OECD, 2019c).

Figure 26. The Roma use health care services less often despite greater health needs



Source: OECD Health Statistics database; Ministry of Finance (2018), "Spending Review on Groups at Risk of Poverty and Social Exclusion", Expenditure reviews; and Geva, A., S. Hidas and G. Machlica (2018), "The benefits of social inclusion of Roma in the Slovak Republic", Technical background paper.

The government's Roma health mediators programme aims to overcome information barriers and strengthen the link between the health services and the Roma population. For instance, during the first wave of the COVID-19 pandemic, the roles of health promotion assistants were expanded including to provide assistance with testing and tracing, to liaise with health care workers and promote appropriate hygiene measures in Roma communities (OECD, 2021d). However, the programme is currently financed through EU funds, and its future is therefore uncertain. Furthermore, the mediators often have no job security and low salaries (OECD, 2019c). It is important to continue the health mediator programme. Therefore, the government should either re-apply for EU funds or ensure sufficient funding from the Ministry of Health budget. Publishing medical information (e.g., COVID-19 advice) in minority languages, as in Sweden, Austria, and Norway, is also important (OECD/EU, 2020). This is especially important during pandemics such as COVID-19, when personal contact is hampered.

Additional financial support and health services are needed to improve access to health services, as recommended in the previous Survey. Despite universal health coverage and relatively short distance to medical facilities, transport and medical costs are barriers to access healthcare services. The current exemption of surcharges for medicines (i.e., the amount exceeding a cap on out-of-pocket payments) for pensioners and the disabled should also apply to socioeconomically disadvantaged groups (OECD, 2019c). In addition, expanding mobile health clinics to vulnerable regions would help reach vulnerable populations. This can be a cost-effective way to increase access to preventive care treatment especially during pandemics such as COVID-19 where patients have limited mobility (OECD/EU, 2020).

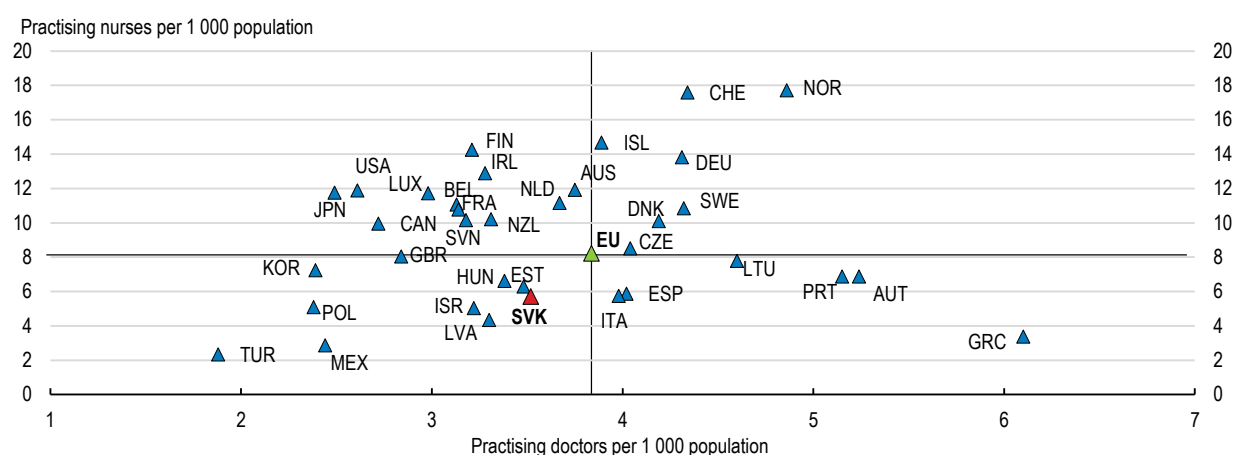
Retaining more healthcare workers to strengthen resilience

Slovakia has relatively few medical staff, notably nurses (Figure 27). The number of practicing nurses is around 30% lower than the EU average. This reflects a relatively low number of nursing graduates and migration to neighbouring countries due to more attractive salaries and better working conditions. Regional disparities in nurse density also persist. In Bratislava, the number of nurses and doctors relative to the population is nearly twice as large compared to the national average, while many rural areas suffer from shortages (OECD, 2017b). Attracting more nurses is crucial to make the sector more resilient to future demands. To address the growing shortages of nurses, the government has increased the salaries of nurses to levels comparable to peer countries and plans to increase them further. In 2018, the government introduced a scholarship for nursing students of EUR 6 000, on the condition that they remain in the country for at least five years after graduation. The government also plans to delegate some responsibilities of general practitioners to nurses. Together with the effort to increase the attractiveness of the profession, encouraging their longer careers by offering more flexible working conditions and training opportunities to meet the needs especially of older nurses can also help address the shortage of nurses, particularly in remote areas where recruiting new full-time, young, and recently qualified nurses is particularly difficult (Voit and Carson, 2012).

Slovakia also has relatively few doctors, particularly general practitioners. The COVID-19 pandemic showed that for health systems to be resilient to health shocks, strong primary and community health care is essential. It can reduce the pressure on health systems while maintaining care continuity (OECD/EU, 2020). Stronger financial and non-financial incentives are needed to address the shortage of general practitioners as discussed in detail in the next section.

Figure 27. Slovakia has a low number of nurses and doctors

2019 or latest available year

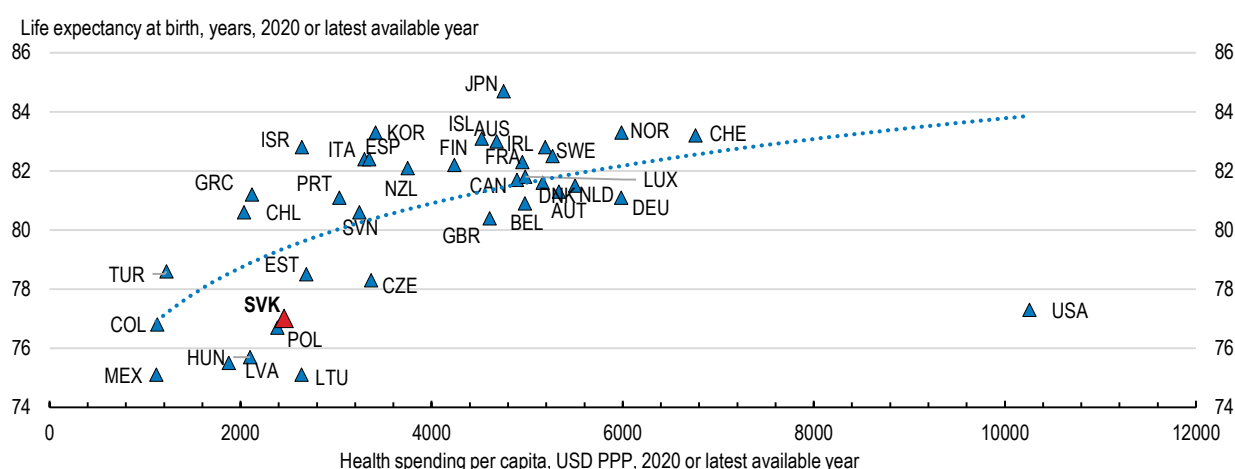


Note: Data refer to professionally active doctors for SVK and TUR; to professionally active nurses for FRA, IRL, PRT, SVK, TUR and USA; and to doctors licensed to practice for GRC and PRT.

Source: OECD Health Statistics database; Eurostat Database.

Improving cost efficiency in the health care sector

There is significant room for improving cost efficiency in the health care sector. Slovakia's public healthcare spending per capita is around the average of neighbouring countries, but its results are lagging behind (Figure 28). INESS's 2020 Health for Money Index, which estimates the value for money in the healthcare sector, shows Slovakia ranked 21st out of 25 European countries in 2020 (INESS, 2020). Similarly, the European Commission's estimates also suggest that Slovakia is among the worst-performing countries in the relative efficiency of health systems, with much poorer health outcomes than its EU peers given its level of healthcare expenditure (Medeiros and Schwierz, 2015; and Maceli, 2014). Thanks to spending reviews, Slovakia managed to save 115 million euros per year without a negative impact on citizens' health, for instance by reducing overconsumption of pharmaceuticals. However, the 2019 spending review estimates that 542 million euros can be further saved per year, for instance by better organizing outpatient care and broadening central procurement in pharmaceuticals (MoF, 2019).

Figure 28. There is room for increasing health care efficiency

Source: OECD Health Statistics database.

Strengthening primary care can reduce healthcare overutilisation

Cost-efficiency in healthcare is partly hindered by overreliance on hospital care and specialists, as evidenced by a relatively high number of doctor consultations and avoidable admissions to hospitals (Figure 29). According to national estimates, reducing over-referral rates to specialist and hospital admissions to the average level for other Visegrád countries could save around 30 million euros per year (MoF, 2019).

Over-referral to specialist and hospital admissions is to a large extent due to weak primary care. Primary care providers, usually general practitioners (GPs), should act as gatekeepers to authorise the patient's referrals and hospitalisation. However, their role is hampered by several reasons. One is an insufficient number of GPs: Slovakia has a relatively low share of generalists compared to the OECD or CEEC (Figure 30, Panel A). This shortage is likely to become more acute in the near future with many GPs near retirement (Panel B). Other reasons include a narrow set of GP responsibilities and competencies and a payment mechanism that offers weak incentives to provide more comprehensive care, together with allowing patients to bypass GPs without a penalty.

In an effort to address the shortage of GPs, the Residential Programme has been implemented since 2014, which is designed to increase motivation to specialize in general medicine, for instance through financial incentives. According to the Supreme Audit Office of the Slovak Republic, with the program, 135 medical students became new young GPs until 2019, which changed the long-lasting downward trend of the total number of GPs. In addition, the government plans to simplify the establishment of new practices for GPs. It will also delegate some responsibilities of specialists to GPs, while shifting some responsibilities of GPs to nurses. Under the Recovery and Resilience Plan, the government also plans to subsidise establishment of around 170 new GP practices. In October 2020, the government also announced the allocation of EUR 20 million from the European Regional Development Fund for the construction of integrated health care services, to provide generalist and specialist care in one location and improve access to affordable care in the less developed regions.

Training more GPs and strengthening their competencies can be achieved through changes to medical studies and continuing education. Currently, medical schools in Slovakia do not have primary care departments (World Bank, 2018). Moreover, the minimum number of teaching hours for general medicine is relatively low and not mandated as in other central and eastern European countries. Establishing departments of primary care and increasing the part of medical curricula dedicated to general practice are important steps towards raising the competences of future GPs. At the same time, this can help attract more GPs by increasing the profile of GPs to medical students. There is ample evidence that earlier exposure to general practice increases the likelihood to choose general practice (McDonald et al., 2016; and Marchand and Peckham, 2017). In addition, measures should be put in place to allow continuous professional development, given that older physicians form the majority of general practitioners. In some OECD countries with strong primary care systems, notably the UK and the Netherlands, GPs must complete continuous professional development to maintain competencies and stay up to date, and have to renew their license to practice every five years. This can also be considered in Slovakia.

Changing payment schemes can also increase the attractiveness of the GP profession. Compared to specialists who are paid per service, general practitioners are paid per capitation, which is financially less attractive (OECD/EU, 2016). Also, the capitation payment scheme does not create incentives to provide comprehensive care but instead incentivises referral of patients to more costly specialist care (Iversen and Lurås, 2000; and Sarma et al., 2018). The current trend among OECD countries is towards introducing multiple payment methods for primary care to achieve the multiple objectives of access, quality, and efficiency as well as to counterbalance some shortcomings of different payment methods (OECD/EU, 2016). In Slovakia, introducing pay-for-performance schemes, as in the Netherlands, Portugal, and the United Kingdom, could improve care quality while making the GP profession financially more attractive by giving bonus payments to physicians who achieve pre-defined targets (e.g., lower obesity rate, smoking

cessation, chronic disease management) (OECD/EU, 2016). This can help secure the supply or improve retention of GPs as well as reduce over-referral to specialists. For instance, studies suggest that the introduction of the pay-for-performance scheme in the United Kingdom is associated with higher retention of GPs, improved primary care quality, and increased job satisfaction (Box 3). To increase the effectiveness of the pay-for-performance system, it is important to have reliable information on the quality of care and outcomes. The United Kingdom or Portugal, for instance, developed a rich information infrastructure to underpin quality monitoring, together with a large number of outcome indicators around the prevention and management of chronic diseases (OECD/EU, 2016; and Box 3). Denmark and Israel also took steps to better measure quality and outcomes in primary care (OECD, 2017d).

Box 3. The pay-for-performance scheme in the United Kingdom

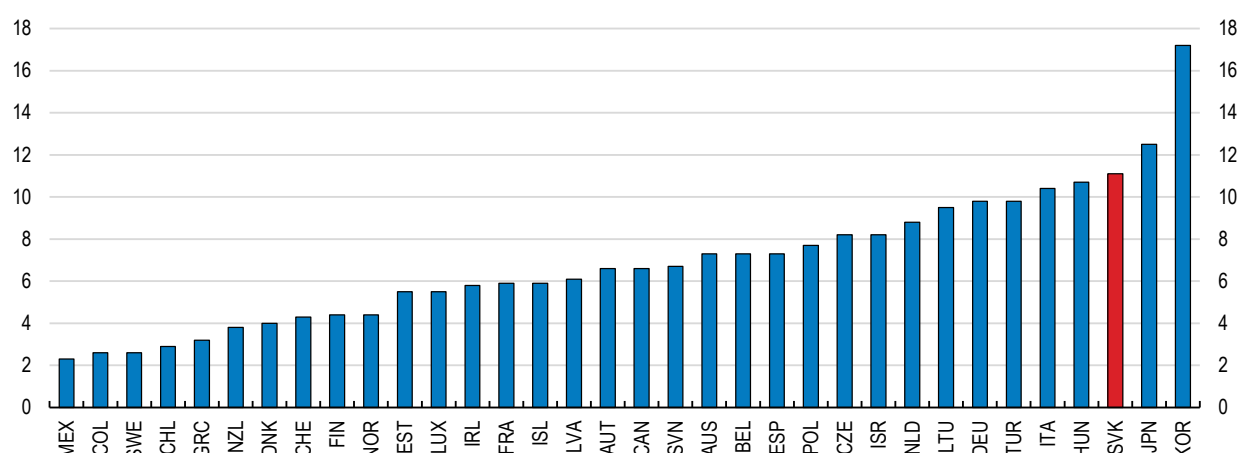
The Quality and Outcomes Framework (QOF) is a UK-wide pay-for-performance initiative to incentivise and standardise the provision of evidence-based, high-quality care in general practice, and improve attractiveness and retention of the GP profession. QOF is an incentive scheme that provides additional reward to general practitioners (GPs) for how well they care for patients based on performance against more than 80 indicators. The indicators are categorised into four domains: clinical (e.g. stroke; coronary heart disease); organisational (e.g. information for patients; education and training); patient care experience (e.g. length of consultations, access); and additional services (e.g. child health surveillance). Performance against each indicator attracts points that are used for payment. Although participation in the QOF scheme is voluntary, take up across the United Kingdom has been very high. Beyond QOF, the country collects several patient experience measures with general practice. About 2.4 million patients registered with a GP practice are surveyed twice a year around access, making appointments, quality of care, satisfaction with opening hours, and experience with out-of-hours services. The United Kingdom has other rich data sources on the quality of mental health care, prevention measures, or around the use of hospital care by GPs. Some evaluations suggest that QOF delivered higher quality of care, lower mortality rates, and increased income to GPs (Sonsale, 2020; Fichera et al., 2017; Review Body, 2008; and Whalley et al., 2008).

Source: OECD (2017d); and OECD (2016c)

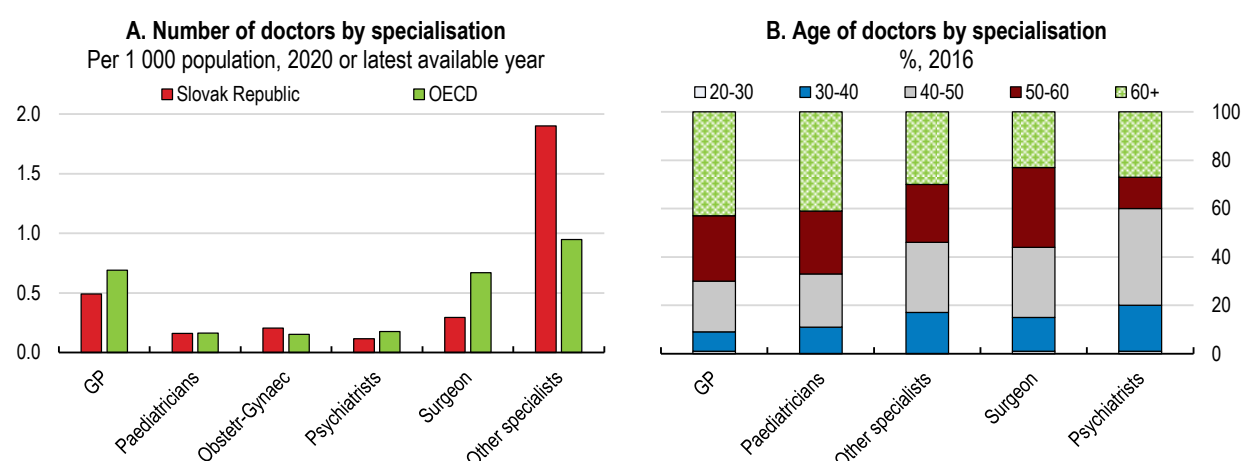
Promoting telemedicine could improve access to primary care. Since spring 2020, when a legal change was made to allow telemedicine, it has quickly emerged as the primary method of providing primary and outpatient care in many regions with social distancing policies in Slovakia during the COVID pandemic. More than half of the total population (64.8%) received these services, compared to 52.7% in EU countries during the first 12 months of the pandemic (Eurofound, 2021). This has helped to maintain access to care during the second wave of the pandemic (OECD, 2021d). Even after COVID-19, telemedicine will help strengthen access to primary care by addressing persistent obstacles, notably the shortage of GPs especially in remote areas. In addition, telemedicine has the potential to improve cost efficiency by reducing transportation costs, time in the waiting room, and increasing patient satisfaction (Atmojo et al., 2020). The government should consider taking steps to ensure that good access to primary care continues after the pandemic, for instance by making permanent some temporary regulatory changes that allowed telemedicine.

Figure 29. Overreliance on hospital care and specialists hinders system efficiency

Doctor consultations per capita, 2019 or latest available year



Source: OECD Health Statistics database; and Eurostat EU-SILC database.

Figure 30. Slovakia has a small and ageing general practitioners workforce

Note: Data for the Slovak Republic have been sourced from the National Health Information Centre (NHIC) and derived from the table "Overview of the health care network - types and professional focus of departments in health care facilities in 2019" (available on the NHIC website), more specifically using data in the worksheets T2 and T3.

[http://data.nczisk.sk/statisticke_vystupy/Rocne_statisticke_zistovania/vystup_S01_2019_T2.xlsx].

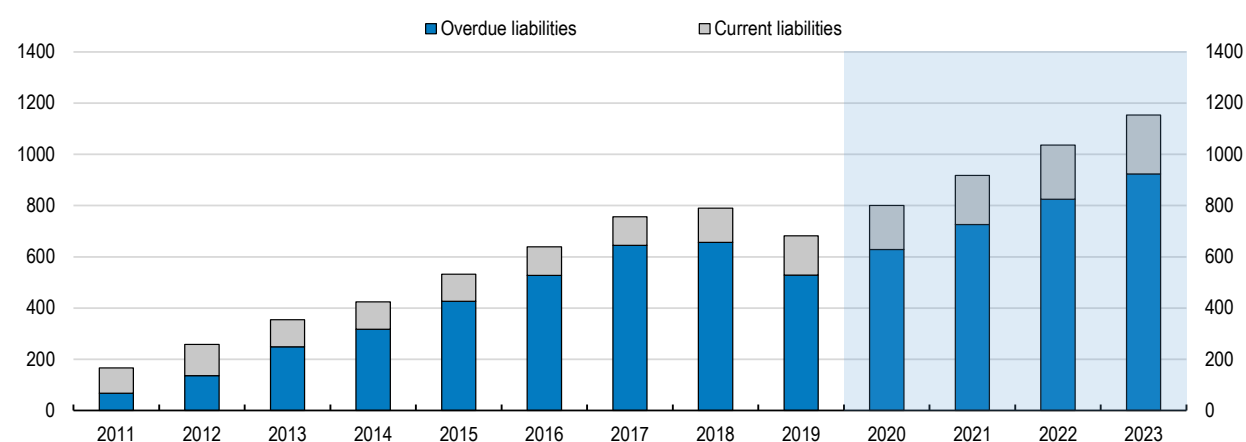
Source: OECD Health Statistics database; Slovak NHIC; Slovak Medical Chamber; and OECD calculations.

Reforms of inpatient care are needed to improve efficiency and financial sustainability

Long-standing problems of the management, operation and financing of hospitals are reflected in an accumulation of hospital debt. The *overdue* liabilities slightly fell in 2019, partly thanks to one-time debt relief. However, *current* liabilities by the 13 state-run hospitals continued to increase (Figure 31). According to national estimates, if this trend continues, the total amount of hospital debt could increase by around 70% between 2019 and 2023 despite debt relief measures (MoF, 2019). The recurrent hospital debt accumulation reflects a) overlapping tasks across many hospitals; and b) unharmonised reimbursement mechanisms across insurance companies.

Figure 31. Hospital debt has increased and the trend is projected to continue

Liabilities of 13 state-run hospitals, million EUR, situation as of 31/12/2019



Note: The shaded area represents forecasts.

Source: Ministry of Finance of the Slovak Republic, National Reform Programme of the Slovak Republic 2020.

Many hospitals offer a wide range of overlapping tasks, leading to inefficiencies in the use of resources. This is because many hospitals are not specialised and there is a lack of collaboration across hospitals. Declining bed occupancy rates despite a decrease in the number of hospital beds suggest a persistent surplus of beds. There are also many hospitals with a small number of patients (MoF, 2019). This may lead to suboptimal performance, as the quality of healthcare services is highly associated with the number of patients or procedures (MoF, 2019; and Ross et al., 2010; Halm, Lee and Chassin, 2002). This may be because large-volume hospitals enjoy economies of scale or have the financial capacity, for instance to employ clinical teams whose sole responsibility is to manage commonly treated conditions that can improve outcomes (Ross et al., 2010).

The government's plan to optimise the hospital network should be implemented. Plans to improve the network of hospitals had been delayed several times but in December 2021, the parliament passed the reform. According to the plans, new local, regional and national hospitals are to be established with a greater specialisation and referral system between them. Specialised care is to be centralised in fewer hospitals. The hospitals will also be authorised to provide specialties only if a certain minimum volume of procedures is achieved. According to the Ministry of Finance's spending review, streamlining hospitals through merging or closing can reduce the number of unused beds by approximately 5 600 along with a higher bed occupancy rate (on a pre-pandemic basis). This is also expected to lead to a higher volume of patients or procedures per hospital, leading to better efficiency and quality of services.

The network reform should be accompanied by improving the measurement of quality. The specialties of the hospitals in the new network will be chosen based on quality assessments, but there is no nation-wide central assessment system. Currently, measuring quality is delegated to health insurance companies, but data from the three health insurance companies are not combined (Smatana et al., 2016). Combining the information or having a nation-wide centralised system for hospital quality assessments, together with the more systematic monitoring and evaluation, will be needed. This will help make informed choices, such as which hospitals should be closed, merged, or change functions.

The reimbursement system of hospitals has contributed to inefficiencies. Until 2017, hospital funding by the insurance companies was based on prices for medical procedures, which can differ widely from their effective cost, since they rely on self-assessment of therapies by the hospitals according to a broad classification. As a result, resources have been misallocated as hospitals attempt to find patients with

“profitable” diseases, even if they could be treated on an outpatient basis, such as with cataracts, as previous *Surveys* suggested (OECD, 2019c; and OECD, 2017c).

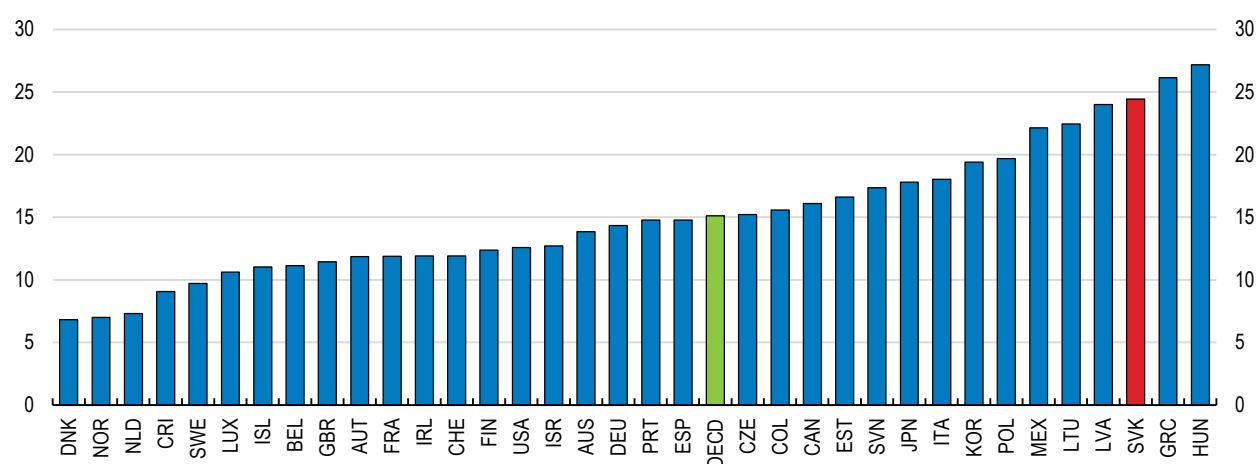
To address this issue, a diagnostic-related group-linked payment mechanism (DRG) started to be gradually implemented from 2017, but progress towards a single national system is slow. A DRG payment system classifies hospital cases into groups that are clinically similar and applies a fixed price to each group, which forms the base rate of reimbursement to healthcare providers. This is expected to increase the transparency of spending, incentivise cost-management, and better align hospital resource allocation with their actual service costs. Currently, the DRG system is used mainly for reporting treatments and services, and it does not administer payments to hospitals so far (MoF, 2020). Therefore, there are still different levels of payments by health insurances to hospitals for almost the same treatment. It is important to ensure that DRGs are regularly updated and data quality is carefully monitored in order for the cost to properly reflect the value of the actual service.

Expanding central procurement will reduce pharmaceutical spending further

Despite progress over the past decade, pharmaceutical spending remains high (Figure 32). To increase efficiency, centralised procurement for expensive pharmaceuticals in hospitals was introduced in 2016 but currently only covers 13% of total expenditure on pharmaceuticals compared to, for example, around 25% in Denmark (MoF, 2019). Prices for outpatient pharmaceuticals are regulated with an external price referencing mechanism, which sets the maximum price of a pharmaceutical product at the average price of the lowest three countries in the EU. This has already led to significant reductions in prices to one of the lowest level in the EU. Further savings could be generated by expanding central procurement and further reducing expenses on medicines that do not fulfil cost-effectiveness evaluations as well as establishing cost-effectiveness rules for pharmaceuticals for rare diseases that are currently fully reimbursed from public resources regardless of their value for money. In addition, further progress on e-health could lead to efficiency gains. In Slovakia, only 10% of GPs use electronic networks to exchange medical data with other healthcare providers and professionals, compared to 43% on average in the EU (EC, 2019). Digitising medical records and making greater use of electronic prescriptions to pharmacists can help prevent the duplication of prescriptions through better coordination. According to national estimates, the implementation of e-health could help save EUR 30 million (MoF, 2019).

Figure 32. Spending on pharmaceuticals is high

Total pharmaceutical, % of current health expenditure, 2019 or latest year available



Source: OECD Health database.

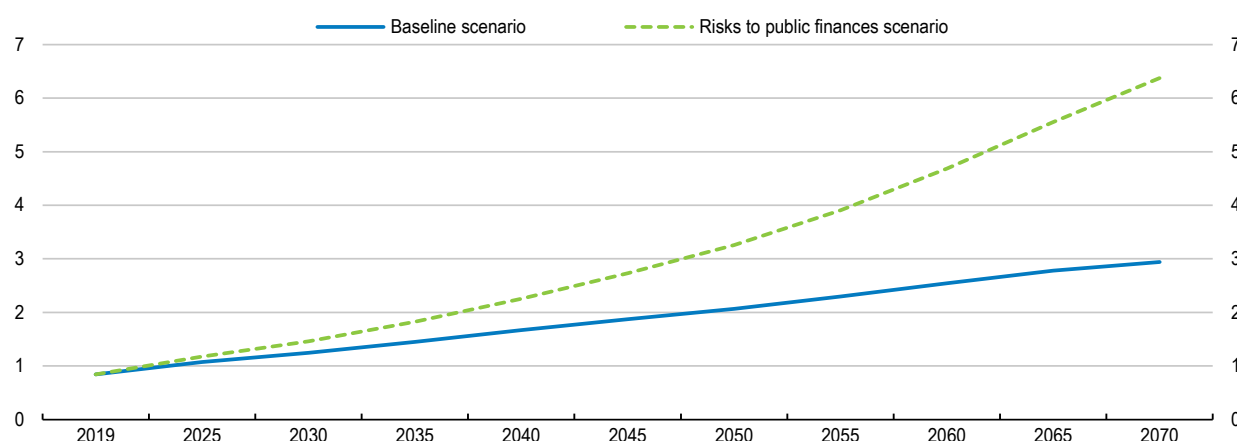
Improving the quality and financing system of long-term care to cope with demand surges

The long-term care sector (LTC) in Slovakia is underfunded. While public expenditures (0.8% of GDP) are only around half of the OECD average (1.7%), the proportion of the over-65s benefiting from long-term care is similar to the OECD average. This suggests that a considerable part of current LTC needs is not covered by public means. According to the Ministry of Finance, in 2019, the majority of services (around 53 %) were delivered through informal home care, generally by the beneficiary's family who receives a financial allowance of Euro 508, 44 per month as compensation. Among the formal LTC provided by professional carers, the majority was delivered through institutions - institutional care and formal home care services accounted for 74% and 26%, respectively.

The acceleration of population ageing will increase the demand for LTC. The population share of the age cohorts above 80 is projected to soar from 3.4% in 2019 to 14.7% by 2070, one of the fastest increases in the EU (EC, 2020a). Under the existing set-up, expenditure on long-term care is expected to increase by 65% to reach around 2.9% of GDP in 2070 (Figure 33). Furthermore, a cost shock, including development of new drugs and treatments, could lead to nearly more than two times higher increases in public LTC spending (Figure 33).

Figure 33. Public long-term care spending is set to increase rapidly

Public long-term care expenditures, as a percentage of GDP



Note: The "Baseline scenario" assumes that half of the future gains in life expectancy are spent in good health and trends in health spending slightly exceed the growth rate of national income. The "Risks to public finances scenario" assumes upwards convergence to the EU average of the relative cost profiles and coverage of publicly financed formal long-term care provision.

Source: European Commission (2021), "The 2021 Ageing Report: Economic and Budgetary Projections for the EU Member States (2019-2070)", Directorate-General for Economic and Financial Affairs, Institutional Paper 079, Luxembourg.

Box 4. Overview of the long-term care system in Slovakia

The organisation and financing of Slovakia's long-term care system is fragmented between the social and health care sector, as well as between different levels of government: central, regional, and municipal.

Responsibilities of LTC provision are divided between the social care and healthcare systems:

- The social care system (Ministry of Labour Social Affairs and Family) provides long-term care in institutional care, daycare, and home-based care, and cash benefits. These services are mainly organised by local governments and financed primarily through municipal budgets with some earmarked budget contributions from the Ministry of Labour, Social Affairs and Family.
- The health care system mainly provides geriatric care in specialised hospital departments, financed through the mandatory health insurance.

Informal carers can receive care allowances, financed directly by the central budget, or nursing benefits, financed from the Social Insurance Agency. The nursing benefit can be provided for 14 days or a maximum of 90 days if the cared-for person is terminally ill. The average amount of care allowance was Euro 363 per month in 2020 (around 1/3 of the average wage), which is around the OECD average but lower compared to Denmark (around 2/3 of the average wage) and Finland (around 1/3 of the average wage), where home care is well organised. The allowance is means-tested by reference to the care recipient's income and property. The amount of care allowance is increased by Euro 100 per month if the cared-for person is a child with a disability. A personal assistant allowance can be provided under certain conditions, but cannot be combined with the care allowance. Recipients of the care allowances can combine long-term care with work under the condition that earnings from their job must not exceed two times the subsistence minimum for an adult person. Since 2009, informal carers are entitled to take time off for a maximum of 30 days per calendar year. During the informal carer's respite period, municipal social services provide substitutive social services according to the care recipients' own choice, such as formal home care services (theoretically also 24 hours per day) or temporary residential care. However, a qualitative study showed that the majority of interviewed persons underlined barriers to taking up respite care (e.g., low trust in professional care, no tradition to combine intensive family care with formal care services).

Source: World Bank (2020); EC (2020); EC(2018), Thematic report on challenges in long-term care; and the Ministry of Labour, Social Affairs and Family of the Slovak Republic.

Improving access and quality of care

There is a lack of accessible and affordable quality LTC services at home. Encouraging independent living at home for as long as possible better meets demand by older people. Surveys show that as many as 90% of people prefer to have health and social care provided within their own home settings in Slovakia (Lezovic, Taragelova and Beresova, 2011). Meanwhile, formal homecare is widely perceived as sub-standard and expensive (OECD, 2017c), although its hourly costs are relatively low compared to the OECD average (Tiago C. et al., 2020). Against this background, Slovakia set a long-term goal to increase the provision of formal home/community-based care services and decrease the number of institutional service users (i.e., National Action Plan for the Transition from Institutional to Community-Based Care in the Social Sees System 2016-2020).

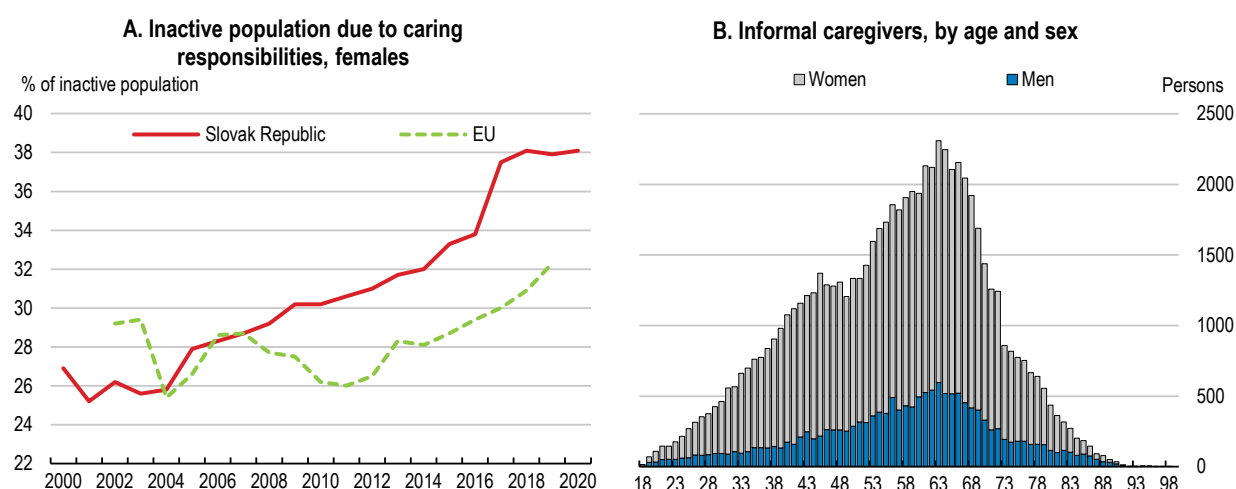
The lack of quality formal in-home care capacity reflects insufficient human and financial resources. Low wages, unappealing working conditions and poor career prospects discourage young people from a career in the profession and induce existing LTC workers to migrate to other professions and/or to work abroad (EC, 2018b). In 2019, the average gross monthly salaries for a carer amounted to EUR 615, slightly higher than the national minimum wage (EUR 520) (EC, 2020b). In 2019-2021, the government increased

financial contributions to providers of social service facilities. An association of caregivers has also been established to promote the return of caregivers and health care assistants from abroad (EC, 2018b). In addition to continuous efforts to increase the financial resources and retain workers, opening the market to migrant workers can be considered. This would require recognising the professional qualifications of these workers (OECD, 2017c).

More systematic support for families and other informal carers would help improve the quality of the care provided. Given the growing demand for LTC and the acute challenge of having sufficient LTC workers, informal care provided by family members is likely to play an important role, at least in the short term in Slovakia. However, a number of issues weaken the position of informal carers, notably their low labour market participation, which also affects future pension and other benefit entitlements and a low amount of the means-tested compensation (Box 4).

An increasing share of women is inactive due to caring responsibilities in Slovakia (Figure 34 Panel A) and many informal caregivers are older people (Panel B). In addition to holding back labour participation, informal care can also have detrimental health and psychological effects on carers, increasing the risk of becoming patients themselves (Willemse et al., 2016; and Casado-Marín, 2011). The amount of means-tested allowance provided as compensation had been low, increasing their poverty risk (EC, 2018). To address this issue, the government has increased the amount of allowance from the subsistence minimum to the net minimum wage level from 2018 to 2021. Furthermore, with effect from 2021, the duration of the short-term nursing benefit will be extended from 10 to 14 calendar days and a new long-term nursing benefit will be instituted (MoF, 2020).

Figure 34. An increasing share of women is inactive due to caring responsibilities



Source: Eurostat; and Ministry of Finance of the Slovak Republic.

In addition to increasing the financial benefits, measures should also be put in place to address barriers that hinder labour force participation of informal carers. These include more flexible working time arrangements for informal carers so that they can provide care without giving up jobs (WHO, 2019). Alternatively, granting leaves of absence from work for carers (and/or pension credits) can also be considered as in Finland, given that there is no paid nor unpaid leave for carers. Currently, labour participation of caregivers is hampered by a legal constraint that labour earnings of caregivers who receive a care allowance (see Box 4) cannot exceed twice the subsistence minimum. The legal constraint should be abolished to improve work incentives and income. This should be accompanied by enhanced supervision of provided care to prevent abuse of care allowance.

Furthermore, improving the skills of informal caregivers can improve the quality and efficiency of care. For this reason, many OECD countries introduced measures to treat informal caregivers as important care partners. Some countries, including Finland and Germany, give official recognition of the role of carers through legislation and provide a wide range of interventions, i.e., information, counselling, training, and formalised assessment of carers' needs (WHO, 2019). In the Netherlands, an employment contract between the carer and the municipality is possible so that carers can receive training, salary, and social protection like the staff of formal care services. These interventions can contribute to enhancing the capacity of informal caregivers and reducing unnecessary rehospitalisation or institutional care.

Another systemic weakness is a fragmentation of LTC services between different government levels (central government and local government) and sectors (health and social) (see Box 4). The multiple channels for aid, managed by different bodies, make the system opaque and difficult for users to navigate, as previous *Surveys* suggest (OECD, 2019c; and OECD, 2017c). In principle, the healthcare system provides medical services, whereas the social system provides care services that go beyond acute medical needs to include social services and personal support. However, it has proven difficult for the system to distinguish between the two needs. As a result, excessive or even redundant use and provision of services may arise due to the current disconnection between the two systems (Joshua, L., 2017). Furthermore, the fragmentation of long-term care financing can limit the ability to control expenditure growth, because spending reductions in one type of care may have spill-over effects elsewhere in the system (Kattenberg and Bakx, 2020; Colombo and Mercier, 2012). The fragmentation of care also often results in discontinuity of care that can undermine the quality of care provided (Robben et al., 2012). Because municipalities have a wide degree of flexibility to determine the extent of services provided and how eligibility is determined, access to (or outcome from) social LTC services is not equal across the country. As a first step, a common and nationally standardised assessment to reveal quality or outcomes, together with harmonised eligibility criteria, should be established.

As previous *Surveys* (OECD, 2017c; and OECD, 2019c) recommended, constructing an integrated long-term care model can bring significant efficiency and quality gains. The experience of several European countries, including Sweden and the United Kingdom, shows that there is considerable scope for improving care outcomes and quality by managing the interactions between health and social sectors more effectively (EC, 2018c). Some possible reform options would include creating regional one-stop shops to coordinate and simplify access to long-term care services. Making joint clinical and care guidelines, together with regular contact between medical professionals and social care providers, will also help to coordinate care and reduce redundant or excessive provision in both medical and social care. Creating a single integrated information system to track beneficiaries can also be considered.

There is also a need to strengthen follow-up care of the elderly. Slovakia has a high number of readmissions of elderly patients to acute wards (MoF, 2019). This is partly due to insufficient follow-up care in hospitals for the elderly. To address this issue, the government approved a reform plan to double the current number of hospital beds (3,200) in follow-up inpatient care by 2030. This is welcome, but follow-up out-patient care for the elderly should also be strengthened. Several studies suggest that physician follow-up visits after discharge are associated with better health outcomes, reduced readmissions, and lower expenditures (Wiest et al., 2019; Jackson et al., 2015; Lin, Barnato and Degenholtz, 2011). Research from the United States also shows that nurses' follow-up visits improved acutely ill older adults' experiences of care, quality of life, patient safety and health outcomes (OECD, 2020c; Occelli et al., 2016; and Zhang et al., 2017).

Securing financing for an expanding long-term care system

The financing system is not well prepared to cope with the increasing demand for long-term care services. Local governments provide the majority of services, but their capacity to fund and provide services is challenged by limited municipal budgets, which depend mainly on their tax revenues. To address the shortfall of funding, there have been several funding injections from the central government budget,

including one-off subsidies in 2009 and 2010. In 2019, the central government increased financial contributions to providers of social service facilities, which are increasing every year. In 2020 approximately 90 million euros were allocated from the Ministry's budget to co-finance non-public social services providers. The existing arrangements do not ensure sufficient and sustainable financing of care, threatening the adequacy of LTC provision, leading to underfinancing and spill-over effects to other social spending areas (e.g., redirecting social spending in other areas to LTC) (EC, 2018a).

Slovakia should explore new financing options for LTC. The government is committed to reforming the financing system by 2025. The new LTC financing system should ensure a reliable and predictable source of revenue streams. One option is to introduce a mandatory long-term care insurance system, as in Germany, Japan, and the Netherlands. Germany, for instance, introduced mandatory LTC insurance in the 1980s to address the increasing costs of LTC while ensuring access to long-term care services (Box 5). A drawback to an insurance system is that contributions to the system would further increase the tax wedge, which is already high, unless health insurance premia could be reduced at the same time. Another option is to assign a budget for long-term care embedded in a multi-year fiscal framework financed by general taxation.

Moving away from the current public LTC financing mainly allocated to the providers or facilities (e.g., beds in institutions) to voucher schemes can increase LTC financing efficiency. The government plans to introduce voucher schemes for long-term care, the personal budget given directly to LTC dependents. This is welcome, because these generally enable users to choose the provider that best meets their needs, leading to higher user satisfaction, improvements in quality, and cost-effectiveness (WHO, 2016). Vouchers are currently used in Nordic countries, and studies have shown that satisfaction is high among users, and they usually avoid more expensive care (Colombo, 2011). To make the personal budgets effective and prevent fraud, it is important to supervise the use of vouchers, for instance by allowing vouchers to be used only for accredited providers as in France and Belgium (OECD, 2011a).

Box 5. Compulsory long-term care insurance in Germany

Germany provides long-term care through a compulsory long-term care insurance. Its most notable feature is its universality: not just seniors but all citizens are covered. The German government addressed the need for a solution that would cover the high costs of long-term care back in the 1980s, as most individuals were unable to pay the high costs of ongoing long-term care and it would become a financial burden on the public system. The result is a mandatory social insurance system in which the entire population pays affordable premiums, which helps to provide the necessary coverage on a cost-sharing basis. The long-term care insurance comprises two independent parts, the social (public, non-profit) and the private long-term care insurance. Both are designed as compulsory insurance with identical benefits. There is no revenue sharing between these two compulsory insurance branches, but a statutory stipulated financial equalisation in each of these two systems. Enrolment follows the compulsory enrolment in health care insurance. Access to benefits is based on an individual assessment of the need of care. Germany's long-term care insurance provides benefits for care at home and for care homes. For care at home, the long-term care scheme offers a wide range of benefits: cash benefits for informal care and benefits in kind for various nursing and personal assistance services. Beneficiaries are generally free to choose between benefits in kind or in cash or to combine both types of benefits. As a consequence, beneficiaries may also choose how to use benefits in cash (e.g. for a carer in the family). If they opt for benefits in kind, they may choose between various professional service providers. In this case, the long-term care insurance also helps: with the organisation of care by providing information on services, quality and costs; in choosing the appropriate services and providers; and by supporting case management.

The compulsory long-term care insurance has achieved many of its original goals: ensuring access to long-term care services and reducing reliance on the locally-funded safety-net social assistance

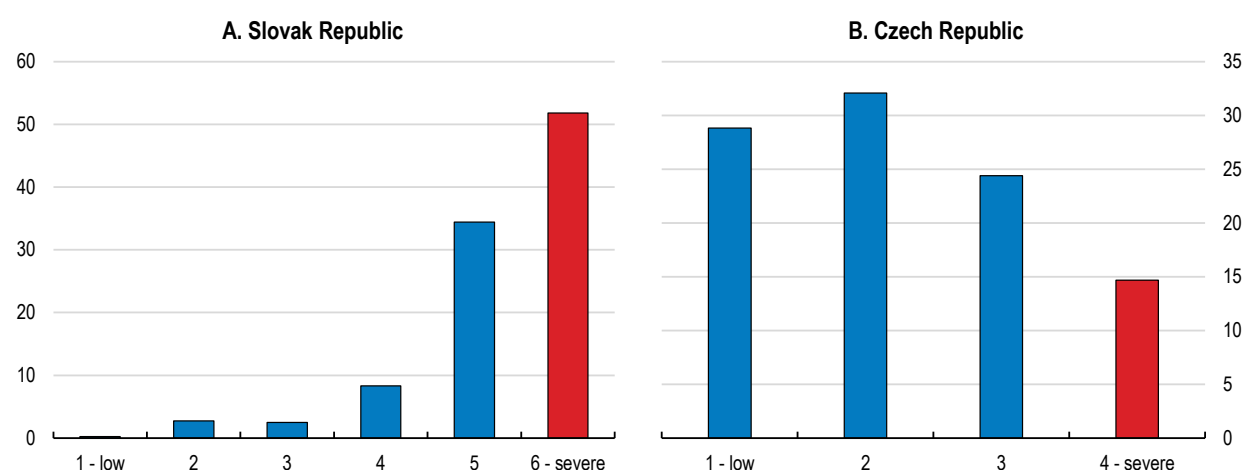
program, which can be used to cover nursing home costs (Nadash et al., 2018). Importantly, since 1997 the long-term care insurance has recorded revenue surpluses. In 2016, the difference between income from contributions and total expenditure was 3.13% (EC, 2018a).

Source: OECD (2021), Public and Private Sector Relationships in Long-term Care and Healthcare Insurance; and EC (2018), Peer Review on "Germany's latest reforms of the long-term care system".

At the same time, the assessment for eligibility to in-kind and cash benefits for LTC should be reviewed. The assessed dependency level plays an important role in defining eligibility to LTC benefits and services, in particular institutions. The share of people assessed as severely dependent in Slovakia is significantly higher than in the Czech Republic (Figure 35). This may be partly due to the poorer health outcomes and higher long-term care needs in Slovakia compared to the Czech Republic, but it may also be a problem of the assessment methodology. Currently, the assessment system is fragmented across municipalities without a unified assessment criterion as mentioned above. Under the fragmented system, each municipality is likely to overestimate dependency levels to secure more resources from the central government. There is also a shortage of trained assessors. The government should consider integrating the fragmented systems across municipalities into self-governing regions and establishing an expert group to assess dependency levels. This will help improve the current assessment system and ensure that scarce resources are allocated to the people most in need and safeguard the sustainability of the LTC system.

Figure 35. The share of elderly people with a severe dependency assessment is high

Share of people by assessed dependency level, %



Source: Ministry of Labour and Social Affairs, Statistical Office and Ministry of Finance of the Slovak Republic; and Ministry of Labour and Social Affairs of the Czech Republic.

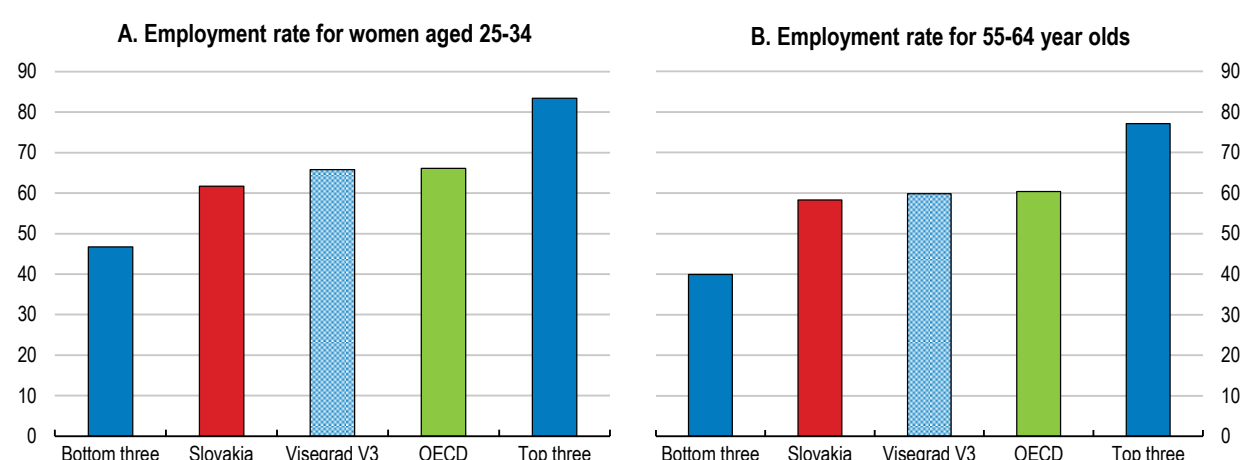
Mobilising underutilised labour resources to prepare for a smaller and ageing workforce

The employment rate of persons aged 15-64 in Slovakia was 68.4% in 2019, just below the 68.8% average in OECD countries but well below the average of neighbouring countries (i.e., other Visegrad countries, 71.1%). This largely reflects lower employment rates for older workers and women at childbearing age (Figure 36). The employment rate of mothers with at least one child aged 0-2 is particularly low, while the employment rate of non-mothers is relatively high (Figure 37). A smaller and ageing workforce will exacerbate labour market pressures in the long run (OECD, 2022). To prevent labour and skills from hindering the long-term growth potential, it is crucial to mobilise these underutilised labour resources.

Policies to stem the brain drain and well-managed immigration policies can mitigate the negative effects of ageing on economic growth and public finances, while helping address skills shortages in areas such as health and long-term care. As discussed in the 2022 Economic Survey of the Slovak Republic, net emigration from Slovakia has stopped in recent years, but immigration remains very low and the country is still losing some of its most skilled workforce. The government has continued to streamline the immigration process, which is welcome. In addition, the authorities should consider introducing a one-stop-shop portal with employment opportunities for foreign workers and should strengthen integration services, for example through the recognition of qualifications (as in Austria), counselling (as in Germany), civic integration (as in Belgium) and language training (as in Portugal). To attract Slovak workers from abroad, the government could develop and implement a diaspora engagement strategy.

Figure 36. Older people and women at childbearing age are under-utilised in the labour market

2020

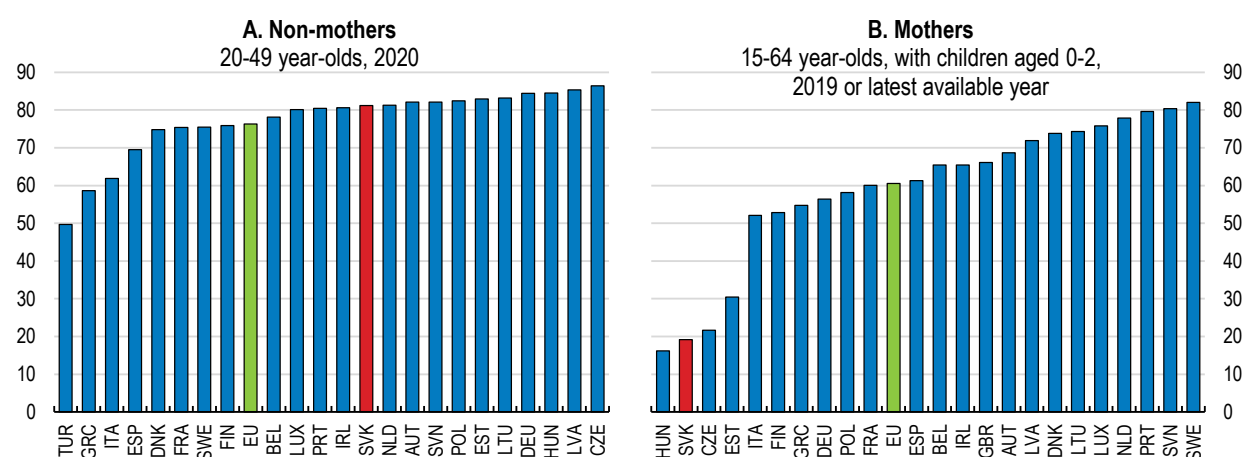


Note: Visegrad V3 includes Czech Republic, Hungary and Poland.

Source: OECD Labour Force Statistics database.

Figure 37. The employment rate of mothers with young children is low

Employment rate, % of women



Source: Eurostat; and European Union Labour Force Survey.

Increasing the employment rate of older workers

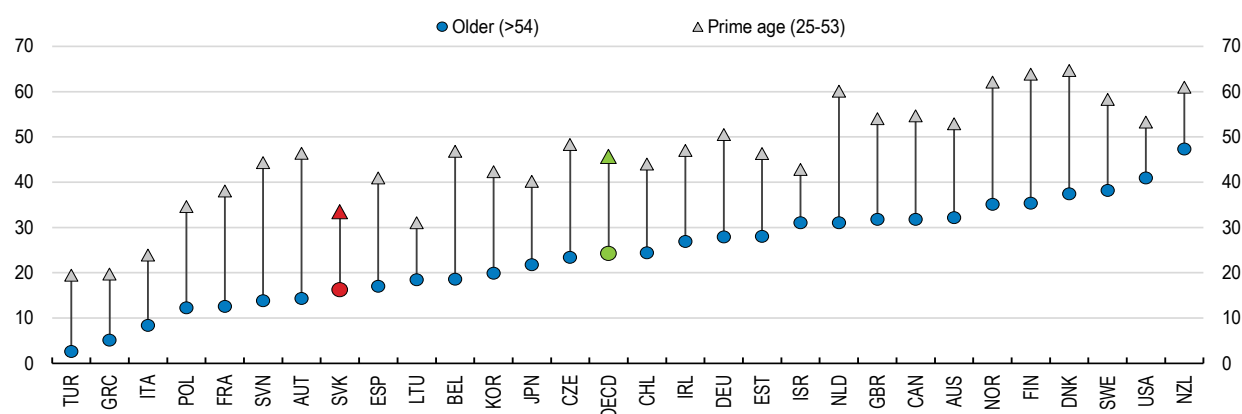
The relatively low employment rate of older people reflects a range of labour market barriers, in addition to their health status and the pension system discussed in previous sections. These include limited training opportunities, poor working conditions, and a lack of flexible working arrangements.

Older workers benefit less from training opportunities in Slovakia. Only around 20% of older people participate in training compared to 40% of the younger people, placing Slovakia close to the bottom of the OECD distribution (Figure 38). There are several barriers to training participation. The analysis of the Survey of Adult Skills (PIAAC) suggests that around 90% of adults did not want to participate in adult learning activities, the third-highest share in the OECD (OECD, 2021b). Even those adults who are willing to train face several obstacles to participation, including the cost of training, lack of employer's support, and being too busy at work (OECD, 2021b).

The high risk of job automation, together with rapid population ageing, means that it is particularly important for older people to continue learning. The risk of job automation in Slovakia is estimated to be higher than in any other OECD countries, reflecting the large manufacturing sector (Figure 39). Automation will change the nature of many jobs, and people will increasingly need to upgrade their skills to perform new tasks in their existing jobs or acquire new skills for new jobs (OECD, 2020d). A recent empirical study suggests that higher automation risk is associated with earlier retirement, as older workers generally have difficulties in keeping pace with rapidly changing conditions (Yashiro et al., 2020). In this context, fostering greater participation of older workers in adult learning is crucial in extending working lives in Slovakia. Dujava, Vitáloš and Žúdel (forthcoming) suggest that the impact of automation on task contents are different depending on the type of automation and skills level of occupations in Slovakia (Box 6). These diverse learning needs should be taken into account to increase the effectiveness of adult learning policies.

Figure 38. Older workers benefit less from training opportunities

Share of young adults and older adults in job-related training, %, 2011/12 or 2014/15

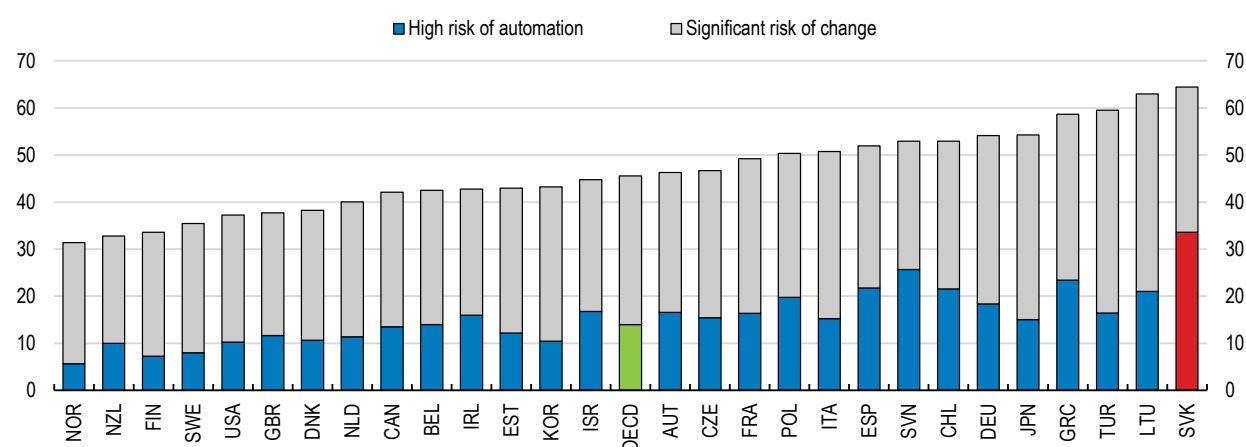


Note: Belgium refers to Flanders only, United Kingdom to England and Northern Ireland; formal and non-formal job-related education and training. OECD is an unweighted average of the countries in the chart.

Source: OECD Dashboard on priorities for adult learning database.

Figure 39. Automation risk is high

Share of jobs which are at a high risk of automation or a risk of significant change, %



Note: Jobs are at high risk of automation if the likelihood of them being automated is at least 70%. Jobs at risk of significant change are those with the likelihood of being automated estimated at between 50 and 70%. Data for Belgium correspond to Flanders and data for the United Kingdom to England and Northern Ireland.

Source: OECD (2019), OECD Employment Outlook 2019: The Future of Work, OECD Publishing, Paris, <https://doi.org/10.1787/9ee00155-en>.

Box 6. Changes in task contents of jobs due to automation in Slovakia

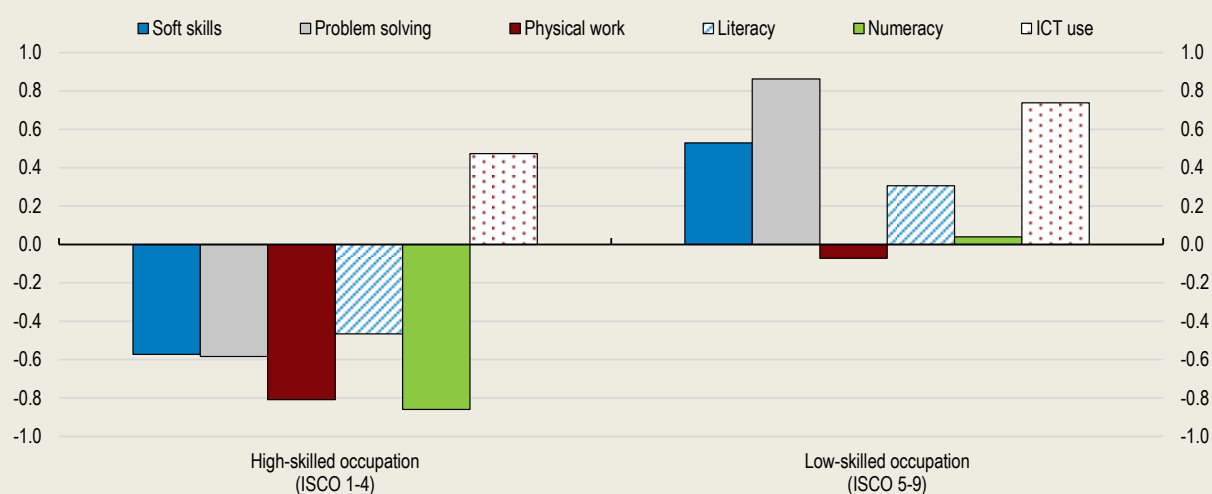
Dujava, Vitáloš and Žúdel (forthcoming) explore the impact of automation on workers depending on the type of automation and skills level of occupations. The empirical analysis is based on two rounds of PIAAC surveys conducted in the US in 2012 and 2017 (the US is the only country with multiple rounds of PIAAC available). Trends in the use of 6 skill sets in the US were estimated and applied to Slovakia taking into consideration differences between the two labour markets in terms of relative weights of different industries, occupations and education levels.

The main findings are:

- Reskilling needs are different depending on skills level of workers (Figure 40). For low-skilled occupations, automation tends to require soft, problem-solving, and ICT skills more, while high-skilled occupations chiefly require more ICT skills. This implies that the low-skilled workers will need to learn more diverse skills to adapt to the new tasks.
- Reskilling needs are different depending on the type of automation (Figure 41). Workers exposed to robots tend to increase mainly their use of soft skills and problem-solving skills, whereas those exposed to Artificial Intelligence (AI) use more ICT, literacy and numeracy skills.
- Low-skilled jobs are twice as much exposed to robots than high-skilled occupations, while there are less exposed to AI in Slovakia. This implies that policy should distinguish between robot-based automation and software/AI-based automation, when improving or changing workers' skills.
- Impacts differ by gender. Men are more exposed to robots as they tend to be more widely employed in manufacturing. Men are also more exposed to AI compared to women. Hence, men are more likely to have to learn new skills, different task contents and/or to switch to a completely different occupation/industry.

Figure 40. Reskilling needs by automation are different depending on skills level of workers

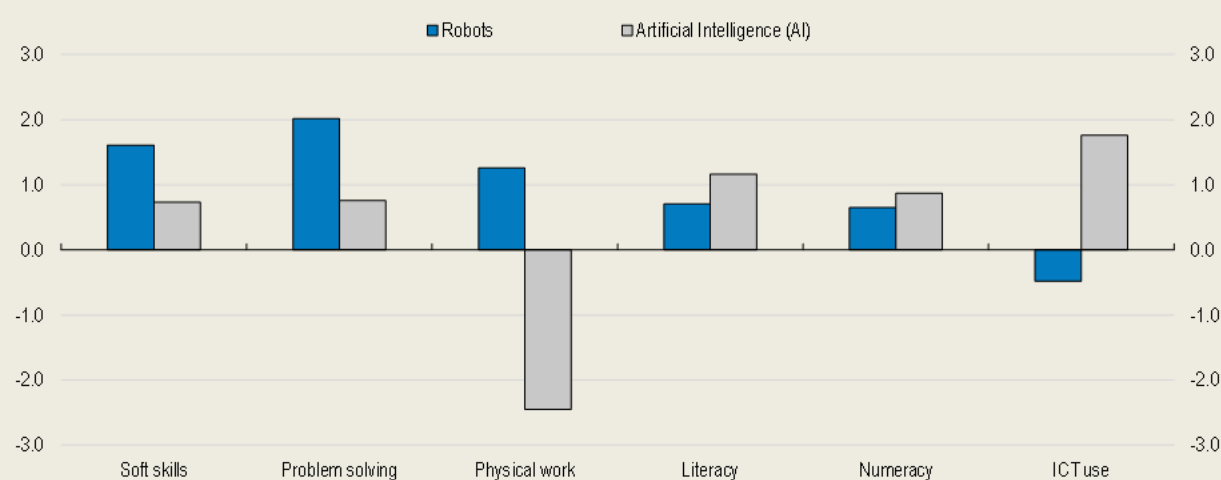
Estimated change in the number of skills used days per month, in the medium term (5 years)



Source: Dujava, Vítaloš and Žúdel (forthcoming).

Figure 41. Reskilling needs are different depending on the type of automation

Change in the number of skill use days per month between the occupations least exposed and most exposed to technology, in the medium term (between 2012 and 2017)



Source: Dujava, Vítaloš and Žúdel (forthcoming).

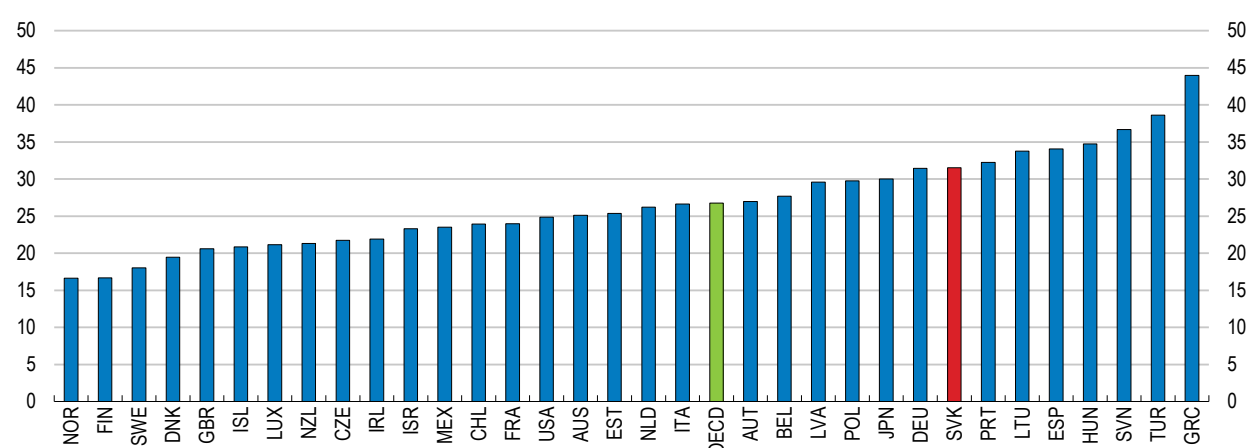
An adult learning strategy should be implemented with a targeted approach including for older workers. The government plans to adopt a national lifelong learning strategy and introduce pilot individual learning accounts in 2021, which is welcome (OECD, 2022). To support learning among older workers, the Netherlands for instance has training vouchers available to individuals above 55; and Canada has a subsidy program targeting older workers aged 45-64 (i.e., Targeted Initiative for Older Workers) (OECD, 2020d). It was found that these targeted financial incentives were effective in increasing the labour market attachment or probability to re-enter employment of older workers (De Groot and Van der Klaauw, 2017; and Van Hoof and Van den Hee, 2017). In addition to individual guidance and skills assessment to orient them towards good quality training opportunities, skills certifications can also be introduced to increase workers' motivation to participate. These complementary support measures are particularly important for

older workers who are less willing to participate and less likely to seek learning opportunities (OECD, 2019d).

Many workers are faced with poor working conditions. Around 32% of older workers experience job strain, 5 percentage points higher the OECD average (Figure 42). Along with health risk factors, an inflexible working arrangement was reported as a main contributory factor (OECD, 2021c). Inflexible working arrangements, such as insufficient part-time work, can limit employment opportunities for older workers. In addition, they may cause work-related health problems thus higher recourse to disability benefits. Indeed, recent empirical evidence suggests an association between job strain and early retirement in Slovakia (Fodor et al., 2022). Facilitating access to part-time jobs and developing flexible work arrangements are ways to give older workers greater choice and lengthen working lives. In light of the pandemic, Slovakia's employment law is moving towards increased flexibility, with a government's proposal to enable employers and their employees to agree on teleworking hours. In the long run, promoting the use of voluntary part-time work or flexible work schedules for older workers should also be promoted. Finland, for example, has implemented flexible working hour schemes for older workers. In Sweden, job rotation schemes have been developed, to tailor tasks to the personal situation of older workers. Alongside these flexible working arrangements, it is important for employers to promote well-being programs on health, notably vocational rehabilitation or emotional health programs to reduce early retirement. For instance, Lujatalo, a business in Finland, adopted an early intervention model for those with reduced workability, such as vocational rehabilitation and some measures to support mental health. As a result, lost-time injuries fell by around 90% (from 116 to 13.9 per million working hours) between 2005 and 2015 (OECD, 2020a).

Figure 42. The working environment is strenuous for many

Incidence of job strain, workers aged 50-64, %, 2015



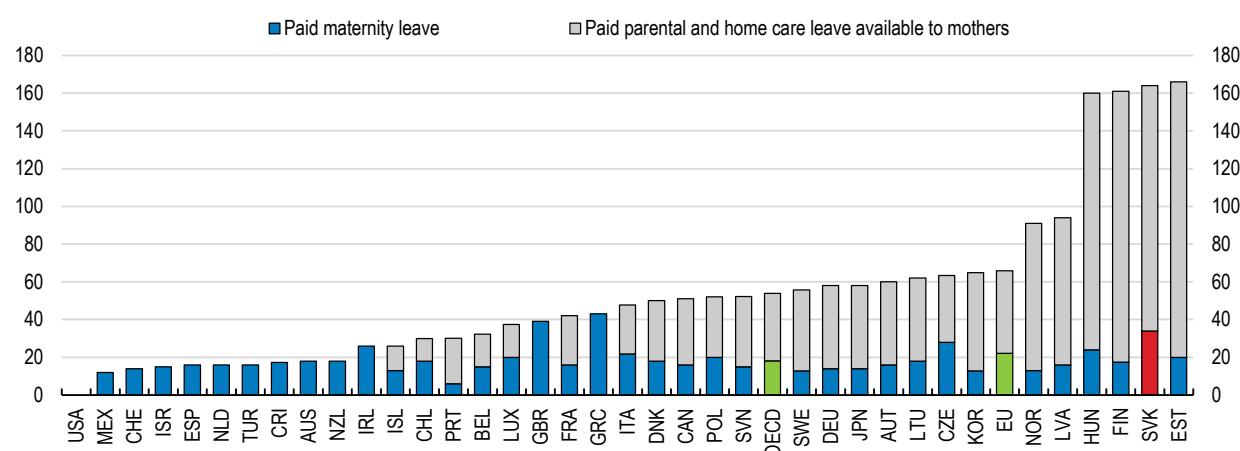
Note: Job strain is defined as jobs where workers report facing more job demands than the number of resources they have at their disposal.
Source: OECD Job Quality database.

Raising the employment rate of mothers with young children

The low employment rate for mothers with small children primarily reflects long paid parental leave, together with low work incentives and lack of flexible working arrangements. Parental leave, which follows maternity or paternity leave, is 130 weeks (i.e., 2.5 years), one of the longest in the OECD and more than three times longer than the OECD average (Figure 43). During this period, parents can receive parental allowances, whether they actually take parental leave or not. Despite the rising number of fathers on parental leave, 96% of beneficiaries in 2020 were mothers according to the Ministry of Labour. Only 13% of parental allowance beneficiaries worked according to administrative data of the Central Labour Office and Social Insurance Agency in July 2021.

Figure 43. Paid leave for mothers is longer than elsewhere

Number of weeks, 2018

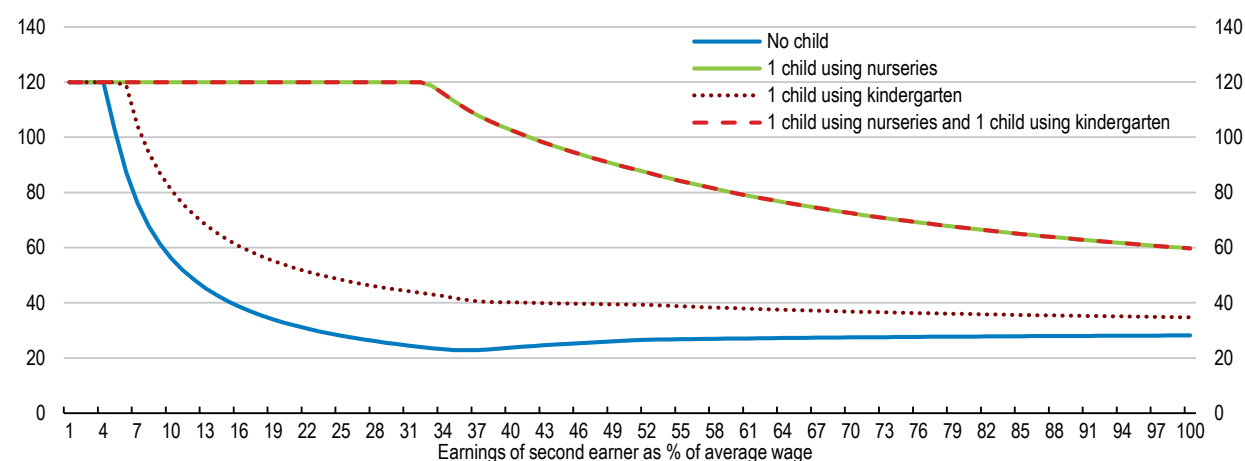


Source: OECD Social Expenditure database.

Mothers can combine parental allowance and work in principle. However, they have low incentives to do so because they get only a little net gain from working, especially when their potential income is low. For instance, a mother of a child dependent on a public nursery would face an 80% participation tax rate when taking up work at 60% of the national average wage (Figure 44). This means that 80% of gains from working are taken away due to taxes and childcare fees, and benefit losses. This is nearly three times higher than the participation tax rates of a second earner in the same situation but without children, and two times higher than those with a child in kindergarten. The situation is even worse for lower-income mothers. For instance, mothers with potential earnings less than 40% of the average wage would lose out compared to inactivity. Indeed, low-income mothers tend to find a job or return to their previous employer later than higher-income mothers in Slovakia (IFP, 2018).

Figure 44. Mothers with young children have lower work incentives

Participation tax rates, %



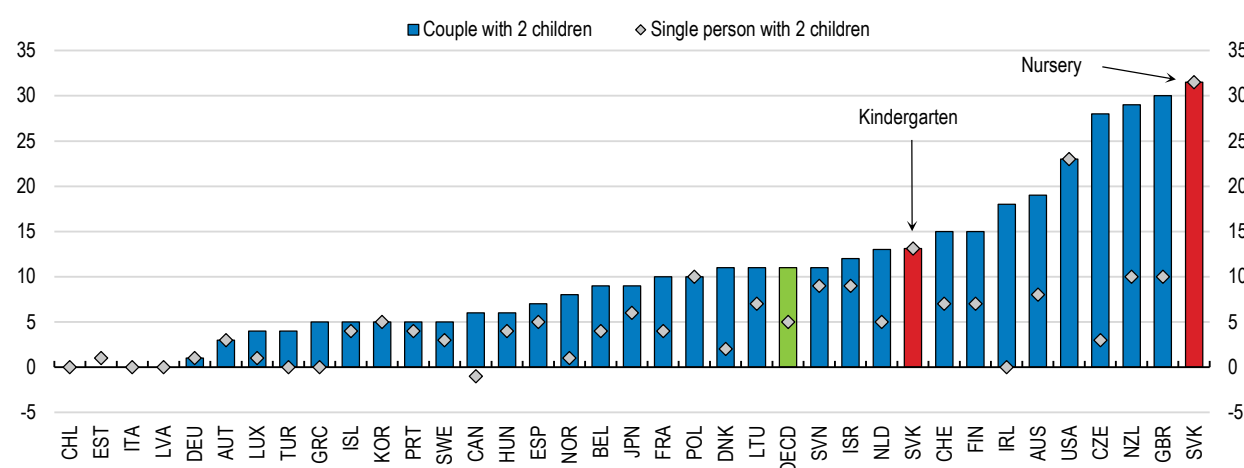
Note: Participation tax rates refer to the fraction of income which is taxed away by the combined effect of taxes and benefit withdrawals when entering or returning to work. For a person not entitled to unemployment insurance. First earner is assumed to work with hourly earnings of 67% of the national average wage. Children are assumed to be aged under three. Extreme positive rates have been capped at 120%.

Source: Calculations based on the OECD TaxBen model. <http://oe.cd/TaxBEN>.

The high participation tax rate for mothers with young children is mainly due to high childcare costs and interactions between parental and childcare allowances that lead to the (de facto) absence of a childcare allowance. The usual nursery fee is around 30% of the national average wage, almost five times higher than the kindergarten fee. Until the child turns 3 years old, mothers can choose between parental allowance and childcare allowance (i.e., subsidy for the childcare fee). Parental allowance is a fixed amount, but childcare allowance depends on the number of children, type of childcare and actual childcare fees. If childcare costs are low, mothers mostly opt for parental allowance. If childcare fees are high (e.g. in nurseries), childcare allowance is more beneficial. Nevertheless, the childcare allowance still does not cover the costs of nurseries fully. Once a mother opts for childcare allowance, she is not entitled to the parental allowance, which will add an implicit cost on top of the childcare fees. This leads to high net childcare costs in Slovakia, especially for nurseries (Figure 45).

Figure 45. Net childcare costs are high

Net childcare costs, % of average wage, 2020 or latest available



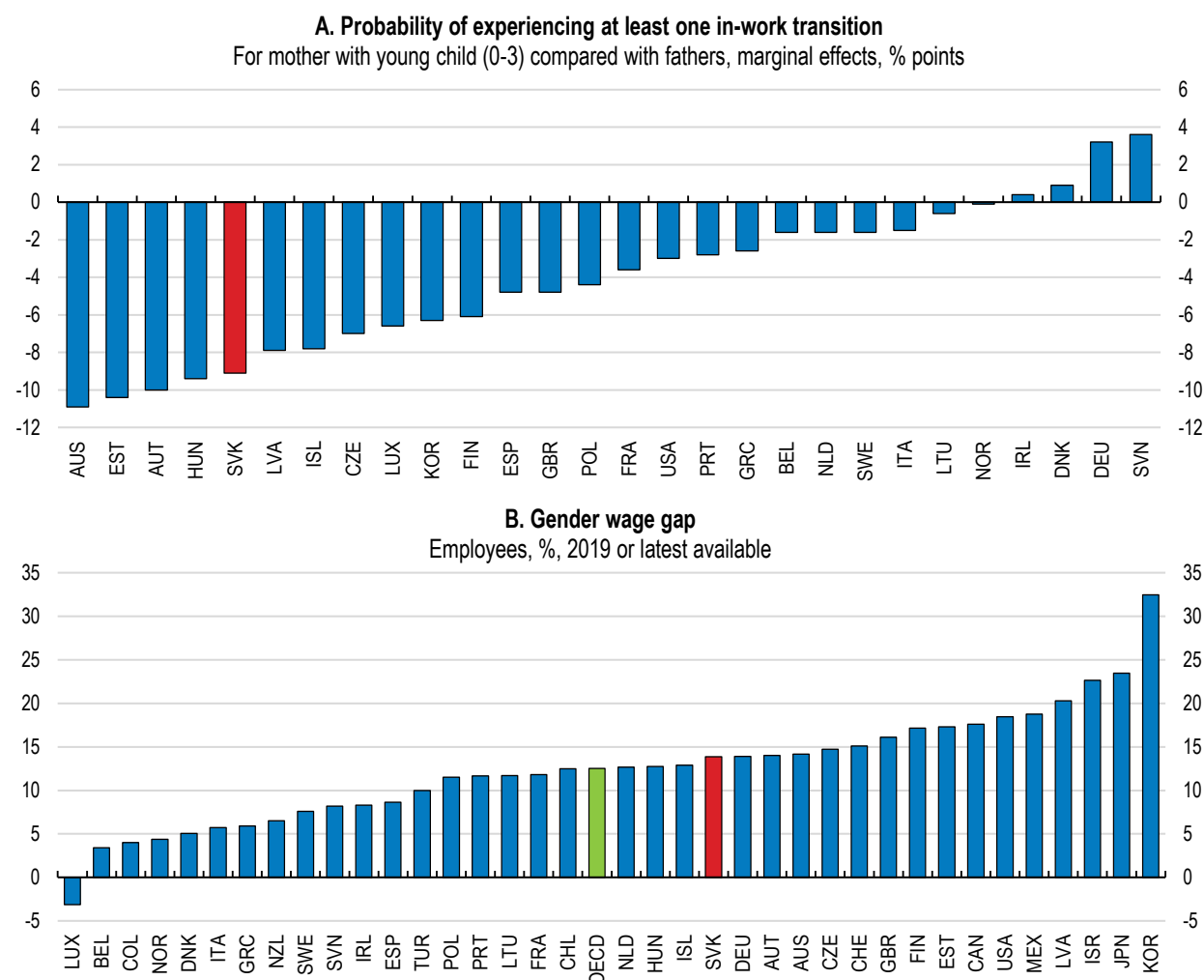
Note: This indicator measures the net childcare costs for parents using full-time centre-based childcare, after any benefits designed to reduce the gross childcare fees. Net childcare costs are calculated for both couples and lone parents assuming two children aged 2 and 3. For Slovakia, estimates are for two different scenarios: a) the youngest child attends nursery and b) the youngest child attends kindergarten. For couples, two parents earn 67% of the average wage, respectively.

Source: OECD (2021), Net childcare costs (indicator). <https://doi.org/10.1787/e328a9ee-en>.

Gradually shortening the duration of paid parental leave or introducing flexible paid parental leave schemes can improve maternal labour market outcomes. Empirical evidence suggests that after around 20 weeks of leave women face worse chances of re-entering the labour market (Hegewisch and Gornick, 2011; Rossin-Slater, 2017; Ferragina, 2019). Mothers with young children can choose when to return to work during the duration of parental leave. In 2019, about half of the mothers took the maximum duration of parental leave. Together with more intensive involvement of fathers in parental care (OECD, 2022), shorter parental leave could encourage mothers to enter the labour market or return sooner and help reduce the gender gap. Introducing flexible pay of parental leave that for example allows parents to receive a higher parental allowance over shorter period, such as in Austria and the Czech Republic, can also be considered. In this case, however, mothers, especially those with low income, can still opt for the longer parental leave. This can be especially true in Slovakia given the high nursery cost. The long leave leads to severe negative consequences for career progression as well as earnings mobility over the life course, increasing the gender gap in earnings and pension entitlements. This is partly because mothers miss crucial in-work transitions occurring in the early stages of careers, which promote stronger career advancement and income growth (OECD, 2018b). Indeed, the probability of experiencing in-work transition for mothers with

young children aged 0-3 is one of the lowest in the OECD countries (Figure 46, Panel A) and the gender pay gap is one of the highest in the OECD (Panel B).

Figure 46. The gender pay gap is high



Note: In Panel A, the probability of experiencing at least one in-work transition (change of employer job or contract type) during the current year, conditional on having worked the year before, for mothers with young child (0-3), compared to corresponding fathers.

In Panel B, the gender wage gap is defined as the difference between median earnings of men and women relative to median earnings of men. Data refer to full-time employees.

Source: OECD (2018), OECD Employment Outlook 2018, OECD Publishing, Paris; and OECD Earnings database.

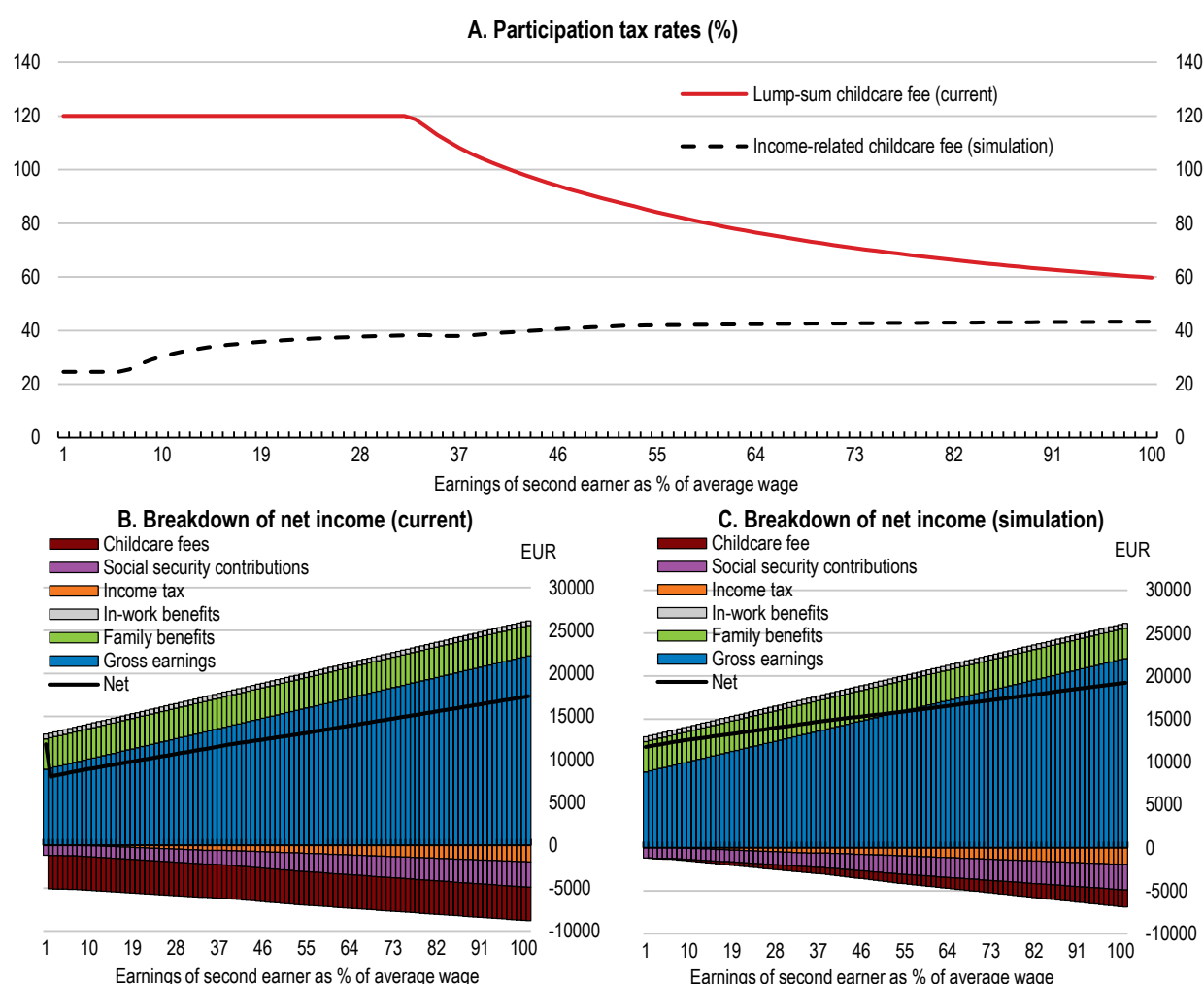
At the same time, reducing the net childcare costs should be considered to improve the low work incentives. One way could be to make the childcare fee dependent on household income. Currently, the childcare fee is a lump-sum, which significantly reduces gains to second earners entering work especially when their potential earning is low (Figure 47, Panel A and B). Simulations show that calculating the childcare fee on the basis of the household's income will significantly cut the participation tax rates for second-earner parents with young children, profoundly improving their financial work incentives (Panel C and D). This can be done by providing income-related childcare subsidies directly to childcare providers as in Australia and New Zealand. In this case, the current childcare allowance can be abolished. Another way could be to keep the current childcare allowance system but increase the amount relative to the parental allowance especially for low-income mothers. For instance, in France, income-related childcare allowances are provided to parents who use nurseries. According to a survey, a relatively large share of

Slovak parents responded that they do not use childcare facilities because of high fees (OECD, 2020e). In addition to the government's plan to expand childcare facilities (see below), the income-related childcare fee would help mothers take up or return to work sooner. This would be especially the case for the low-income second earners whose employment decisions are particularly responsive to childcare fees and financial work incentives (Immervoll et al., 2006). The European Social Fund project, which finances childcare allowances, will end in 2022. The government should consider shifting national funding from parental allowance to childcare allowances.

The relationship between parental leave duration and fertility is uncertain. In fact, several evaluations suggest that helping women combine career and family has a greater positive effect on childbirth than financial subsidies. For instance, OECD (2011b) found that the provision of good quality ECEC services appears to be the most effective in encouraging families to have children and women to remain in the workforce, rather than financial support trying directly to boost birth rates.

Figure 47. Reducing the net childcare fee will significantly increase working incentives of mothers

A second earner with a child attending a nursery



Note: Participation tax rates refer to the fraction of income which is taxed away by the combined effect of taxes and benefit withdrawals when entering or returning to work. First earner is assumed to work with hourly earnings of 67% of the national average wage. The child is assumed to be aged two and dependent on nurseries. Extreme positive rates have been capped at 120%. The simulation assumes that childcare costs gradually increase to 1/3 of the maximum childcare fee (i.e., 10% of the national average wage) when the second earner's earning is 67% of the national average wage.

Source: Calculations based on the OECD Tax-Benefit model.

Shortening parental leave and reducing the childcare fee should be accompanied by an increased supply of high-quality early childhood education and care (ECEC). The participation rate of children in ECEC is currently one of the lowest in OECD countries. Only 1.6% of all children under the age of three were in public ECEC in 2019, according to Eurostat. According to national administrative data, the rate was higher at 6.7% in 2019, but still well below the EU average (16%). High-quality ECEC has a strong positive impact on the development of children from vulnerable groups such as the marginalised Roma (Drange and Havnes 2019; Felfe and Lalive 2018; Kottelenberg and Lehrer 2017; Vandekerckhove et al., 2019). However, for children from affluent families, the impact of the ECEC participation depends on the quality of the childcare (Baker et al. 2019; Kottelenberg and Lehrer, 2014; Kuehnle and Oberfichtner, 2020). According to a survey, around 20 percent of Slovak parents of children aged 0-5 have reported that ECEC services were not sufficient to meet their needs, which is relatively high in international comparison (OECD, 2020f). The main reasons were not only the costs but also a lack of available places and inconvenient locations. The government plans to expand pre-school and child-care facilities, which is welcome (OECD, 2022). It will be particularly important to build facilities in underserved regions.

Increasing the flexibility of working arrangements can help mothers (re)enter the labour market. Flexible working arrangements and access to part-time work can help mothers maintain their labour market attachment and help employers reduce absenteeism and turnover rates (OECD, 2016b). The total part-time employment rate is one of the lowest in the OECD at 4.5%, compared to the OECD average at 16.7% in 2020. Working time arrangements are also relatively inflexible – daily start and finish times are set entirely by employers for about three-fourths of employees in Slovakia, the fourth highest share in the EU (EC, 2020b). Empirical evidence suggest that flexible working arrangements have positive impacts on labour participation of mothers with young children (e.g., Chung et al., 2018; Lott, 2018; and Fuller et al., 2019) because they can help working parents reconcile their work-schedule with childcare centre and/or school hours and care needs. Some countries provide mothers with a right to request flexible working hours. In Sweden, for instance, mothers can split the parental leave period of 18 months in a number of shorter spells and use them to shorten working hours until their children reach the age of eight. They also have the right to shorten working hours up to 25% of the normal hours even if the parental leave days are used up in this period.

Main findings and recommendations for the pension, health, and labour market systems

MAIN FINDINGS	RECOMMENDATIONS
Preparing the pension system for ageing	
Pension expenditure is projected to increase faster than elsewhere in the EU, significantly deteriorating the sustainability of the pension system. The effective retirement age is low.	Link the future statutory retirement age and the minimum number of years of contributions required for retirement to life expectancy. Ensure that early retirement options do not harm the sustainability of the system by applying rules of actuarial neutrality. Phase out the early retirement option for mothers. Reconsider the planned introduction of the parental bonus.
Many older workers use disability as a pathway to early retirement.	Update eligibility assessment criteria for disability pensions. Develop work rehabilitation further. Make rehabilitation mandatory for receiving partial disability pensions.
The self-employed contribute significantly less to the pension system than dependent workers.	Align the pension contribution base between employees and self-employed workers with similar earnings.
Private pension savings are low, largely due to overly conservative investment strategies resulting in low yields from savings and voluntary enrolment	Introduce automatic enrolment into the private (2nd pillar) pension as planned, together with a default life-cycle based investment strategy. Remove return guarantees for bond funds and reduce the possibilities for effective lump-sum withdrawals of pension savings.
Strengthening health and long-term care systems to efficiently promote healthy ageing	
Health care	
The gatekeeper role of primary care is hampered by an insufficient number of general practitioners, a narrow set of GP competencies, and the remuneration arrangements.	Introduce pay-for-performance payment schemes to increase the attractiveness of the GP profession.
The poorer health outcomes in Slovakia are largely attributed to higher preventable mortality. Excise duties on tobacco are relatively high.	Implement more targeted vaccination and health promotion programmes and consider increasing the share of resources towards prevention.
The mediators in the government's Roma health mediators programme often have no job security and low salaries.	Promote Roma access to health-care by increasing support for trained Roma mediator programmes.
Slovakia has relatively few nurses, reflecting the low number of graduates and ongoing migration.	Offer more flexible working conditions and training opportunities to nurses, notably to meet the needs of older nurses.
There are many small hospitals, which lead to inefficiencies, recurrent over-indebtedness, and suboptimal performance. The implementation of the hospital network reform has been delayed several times.	Implement the hospital network reform and create a nation-wide centralised system for hospital quality assessments, monitoring and evaluation.
Pharmaceutical spending remains high.	Expand central procurement of pharmaceuticals. Establish cost-effectiveness rules for pharmaceutical products for rare diseases. Further advance digitalisation of the health system.
Long-term care	
Home and community based long-term care is underdeveloped, reflecting low financial and human resources.	Improve funding for and quality of home and community based care. Introduce voucher schemes for long-term care. Provide training to informal caregivers.
An increasing share of women is inactive due to caring responsibilities in Slovakia.	Remove legal constraints on the labour earnings of caregivers.
The capacity to fund long-term care services is challenged by limited municipal budgets, which depend mainly on their tax revenues.	Ensure dedicated funding for long-term care, including for example via a mandatory insurance system.
The provision of LTC services is fragmented between the health and social care sectors, as well as between different government levels, creating inefficiencies and reduced access.	Construct an integrated long-term care model, including by creating regional one-stop shops, establishing joint clinical and care guidelines, and designing common and nationally standardized quality assessments.
Mobilising underutilised labour resources to prepare for a smaller and ageing workforce	
Older workers benefit less from training opportunities.	Strengthen lifelong training targeted at older workers, by providing financial incentives to individuals and employers and introducing skills certification together with individual guidance.
Paid parental leave is longer than elsewhere, negatively affecting the career prospects of mothers and gender wage equalities. There is a lack of childcare facilities, especially in some regions. Participation taxes for second earners are high, notably for low-income households, reflecting the high net nursery fee. Flexible working arrangements are scarce.	Reduce the maximum duration of parental leave and make part of it conditional on the father's participation. Make the payout of parental allowances more flexible. Expand the supply of high-quality childcare facilities, especially in underserved regions. Improve affordability of nurseries for low-income households, by reducing net childcare costs and making the childcare allowance more attractive for parents. Expand flexible working arrangements.

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