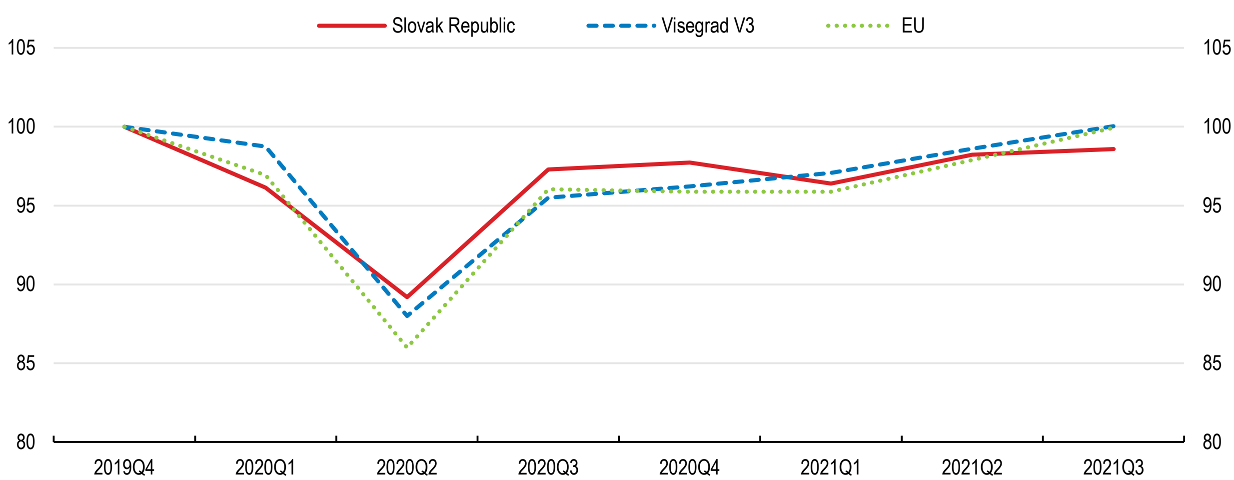
1. Key Policy Insights

Slovakia is recovering from the COVID-19 crisis. The impact of the crisis has been severe (Figure 1.1). Economic activity rebounded strongly in the second half of 2020 as manufacturing output recovered quickly. However, the pace of the recovery has slowed since then and GDP remained about 1.5% below its pre-pandemic level in the third quarter of 2021. Uncertainty around the outlook remains high with relatively low vaccination rates and supply shortages, notably in the automotive sector.

Figure 1.1. Activity has rebounded but the pace of the recovery has slowed

Real GDP, index 2019Q4=100



Note: Visegrad V3 includes Czech Republic, Hungary and Poland.
Source: OECD Economic Outlook: Statistics and Projections database.

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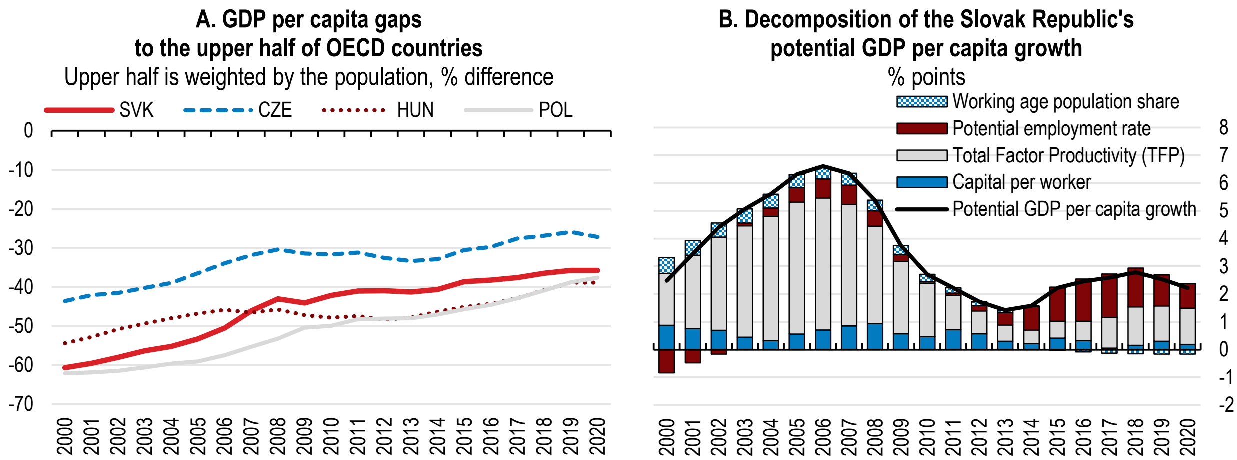
The authorities took swift and effective measures to protect vulnerable households and firms. Relatively low public debt and deficits before the crisis provided the space for a significant fiscal expansion to support the economy. Extra spending reinforced health sector capacity, while job retention schemes and support to self-employed workers helped save jobs and limited household income declines. Liquidity measures, including loan payment deferrals and loan guarantees, kept firm insolvencies low. An ambitious recovery plan (Box 1.1) and substantial inflows of EU funds provide a unique opportunity to strengthen the recovery, provided that investments and accompanying reforms are implemented effectively and in a timely manner. This will require efforts to improve public procurement and public investment governance to raise Slovakia’s chronically low absorption rate of EU funds.

The crisis may exacerbate some of Slovakia’s structural weaknesses and challenges. The convergence process, relying strongly on foreign direct investment and international trade, had already started to moderate after the Global Financial Crisis (Figure 1.2). The COVID-19 crisis hit small firms particularly hard, threatening to aggravate the duality of the Slovak economy with large productivity differences between small domestic firms on the one hand, and highly productive, large, mostly foreign-owned firms in the car and electronics manufacturing sectors on the other hand. The automotive sector has been an important driver of growth, but a durable shift of demand towards electric cars could create new challenges and opportunities for production and jobs in the sector. The pandemic has already and may further accelerate the digital transformation and automation. While these trends can boost productivity, they can also have important consequences for the labour market in Slovakia due to its large share of low-skill routine jobs, which are at risk of automation (Figure 1.3, Panel A). Boosting productivity is particularly crucial to sustaining living standards in Slovakia's rapidly ageing society, with one of the fastest future declines in working-age population in the OECD. At the same time, the pandemic adds to the fiscal challenges from ageing.

Figure 1.2. The convergence process started to slow already after the global financial crisis



Source: OECD National Accounts database; OECD Economic Outlook: Statistics and Projections database; and OECD calculations.

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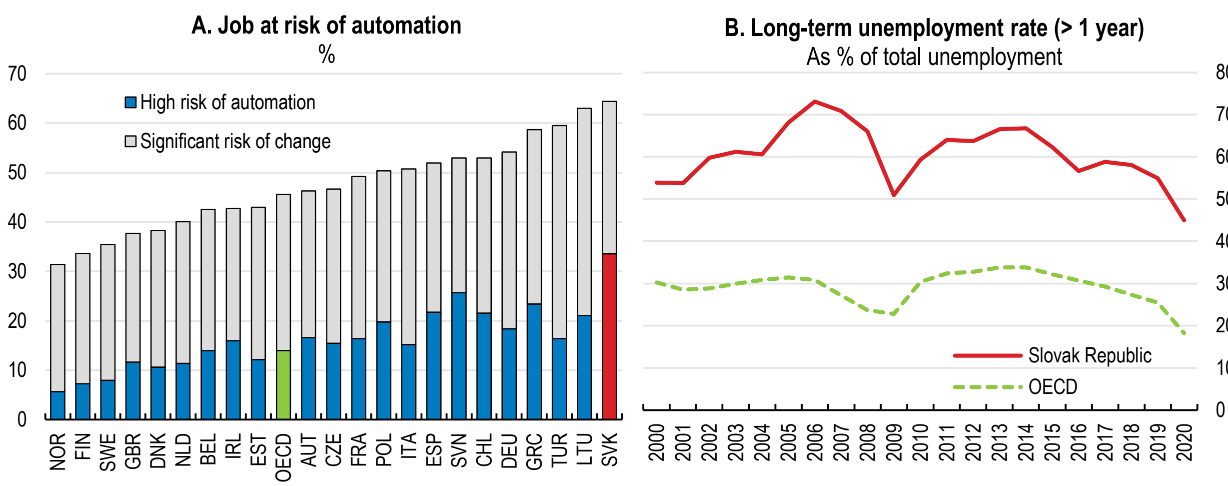
Figure 1.3. Employment is vulnerable to automation and long-term unemployment is high



Note: In Panel A, jobs are at high risk of automation if the likelihood of 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.

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Inequality and poverty are low overall in Slovakia, but socioeconomic and wellbeing gaps remain significant in a number of areas. Despite improvements in recent years, long-term unemployment remains high (Figure 1.3, Panel B) and is particularly prevalent in the east and some central regions, and among the low-skilled. The Roma, about 8% of the population, often live in poverty, with very low educational outcomes, employment rates, and life expectancy. Air pollutions remains high and health care outcomes have not improved significantly, with life expectancy at birth three years lower than the OECD average. Education results are weak and highly dependent on socio-economic background. This calls for stepping up the quality of public services in the Slovak Republic, the efficiency of which is lagging behind other countries.

Against this backdrop the main messages of the Survey are:

- Macroeconomic policy should remain flexible, with targeted support, if needed, to avoid long-term scars from the pandemic. At the same time, the government should design a fiscal consolidation strategy to be implemented once the recovery is firmly underway.
- To sustain the convergence process and make growth more inclusive and sustainable, the government needs to promote adequate skills, foster domestic innovation capacity, and better price environmentally harmful activities.
- To prepare for an ageing society, pension, health/long-term care, and labour market reforms are needed to extend working lives, improve the health of the ageing population, and enhance the efficiency of public spending.

The economy is recovering after a deep shock

Consecutive waves of infections have restricted economic activity. After a mild first wave of the pandemic, Slovakia experienced a severe second infection wave (

Figure 1.4, Box 1.2). With new COVID cases subsiding, a gradual reopening of the economy started in April 2021, and the state of emergency declared in March 2020 ended in May 2021. Since August 2021, infections and hospitalisations have been rising again, largely due to the spread of the Delta variant. In response, containment measures were tightened again, and at the end of November 2021 a two week lockdown and a 90-day state of emergency introduced. Since mid-December, shops, close-contact services, restaurants and hotels have gradually re-opened for vaccinated people and people, who have recovered from COVID-19.

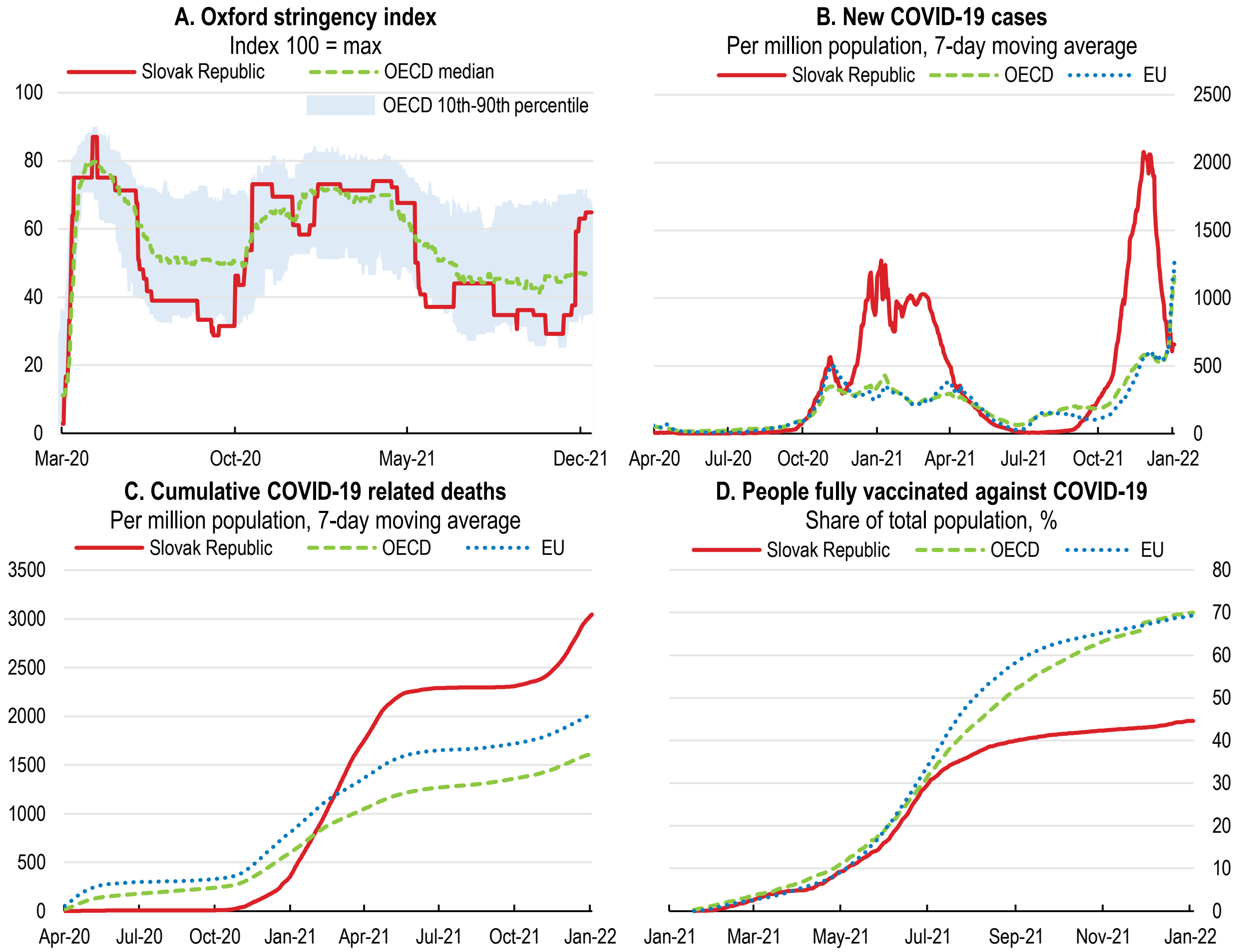
The relatively low vaccination rate poses risks. The government launched its vaccination programme in December 2020. The roll-out of vaccines was slow at the beginning, like in most EU countries, but accelerated from April 2021. However, by early-January 2022, only around 45% of the population was fully vaccinated, around 25 percentage points below the EU average. Vaccination rates are particularly low in several eastern regions. To increase vaccination rates, the government introduced financial incentives (vaccination lottery, cash payments for seniors aged 60 and above) and deployed mobile vaccination teams to better reach certain population groups and regions. According to a recent study (Adamus et al., 2021) the main causes of low vaccination are widespread fears of vaccines and their side effects. The immediate policy priority must be to continue with efforts to accelerate vaccinations to save lives and reduce the risk of renewed lockdowns. Efforts to enhance trust in vaccinations by providing reliable information and tools to detect misinformation can contribute to reducing vaccine hesitation. For instance, Spain began systematically monitoring disinformation and implemented action plans in response. In the United Kingdom, the Department for Digital, Culture, Media and Sport launched a targeted campaign to tackle false vaccine information shared amongst ethnic minority communities. The UK and Israel also involved trusted community leaders in campaigns to enhance trust and tackle false information (OECD 2021g).

Box 1.1. The Recovery and Resilience Plan

The plan contains 66 structural reforms as well as planned investment spending of EUR 6.575 billion (6.9% of GDP) over the period 2021-26, built around 7 policy areas:

- **Green Economy (EUR 2.3 billion):** a) expansion and modernisation of renewable energy capacity and infrastructure; b) renovation of residential and public buildings to improve energy efficiency; c) enhancing sustainable transport infrastructure including by fully electrifying the rail network and promoting public transport; d) decarbonising industry including by ending support for lignite coal combustion at Nováky power plant and supporting best-available technology adoption in industrial production and processes; e) support climate change adaptation of regions with an emphasis on nature and biodiversity protection.
- **Education (EUR 0.9 billion):** a) improving the inclusiveness of education for example by providing additional resources to pre-school education and a legal right for a kindergarten place from the age of 3, support measures for children with special needs, and measures to remedy the impact of the pandemic; b) reform of the school curriculum emphasising critical thinking, digital and soft skills and investment to improve digitalisation of schools; c) improving the performance of higher education institutions by changing the funding system, a systemic evaluation of scientific performance, a new accreditation system of institutions and a governance reform.
- **Science, research and innovation (EUR 0.7 billion):** a) improve the coordination of innovation policy, support for research collaboration between companies, academia and research institutes, and R&D investment in the areas of decarbonisation and digitalisation of the economy; b) attract and retain high-skilled students and workers for example by simplifying residence permit procedures, simplifying recognition of foreign qualifications, expanding scholarships for the best domestic and foreign students and internationalising the academic environment.
- **Health (1.5 billion):** a) modernising, improving access to and efficiency of the hospital sector and strengthening primary care including via additional investment and a reform of the hospital network, central management of the largest hospitals and further digitalisation of the healthcare sector; b) improving access to and quality of mental health care and c) improving affordable and high-quality long-term care for example by integrating social and health care services, reforming financing, and expanding community social care capacities.
- **Public administration and business environment (EUR 0.5 billion):** a) reduce regulatory burdens on firms (including by introducing ex-post regulatory impact assessments), digitalise insolvency procedures, and improve public procurement; b) justice reform mainly to streamline and accelerate court decisions by strengthening the specialisation of judges and improve the integrity and independence of the judiciary; c) measures to improve the fight against corruption and money laundering, and investment to increase the capacity of the police force and fire and rescue systems.
- **Digitalisation (EUR 0.6 billion):** reforms and additional investment to accelerate the digital transformation, notably to improve the digitalisation of schools and government services, connectivity via high-speed networks, digital skills and cybersecurity.
- **Fiscal reforms:** a) pension reforms to improve the sustainability of the public pay-as-you-go system, increase pension income from the private fully funded system and improve transparency about pension entitlements; b) introduction of multi-annual public expenditure ceilings; c) public investment management reform; d) pro-growth tax reform.

Figure 1.4. Infections have risen amid low vaccination rates



Note: In Panel A, the index is a composite measure based on nine response indicators including school closures, workplace closures, and travel bans, rescaled to a value from 0 to 100 (100 = strictest).
Unweighted averages for OECD aggregate in Panels B, C and D.
Source: Oxford Coronavirus government response tracker; OurWorldinData; and OECD calculations.

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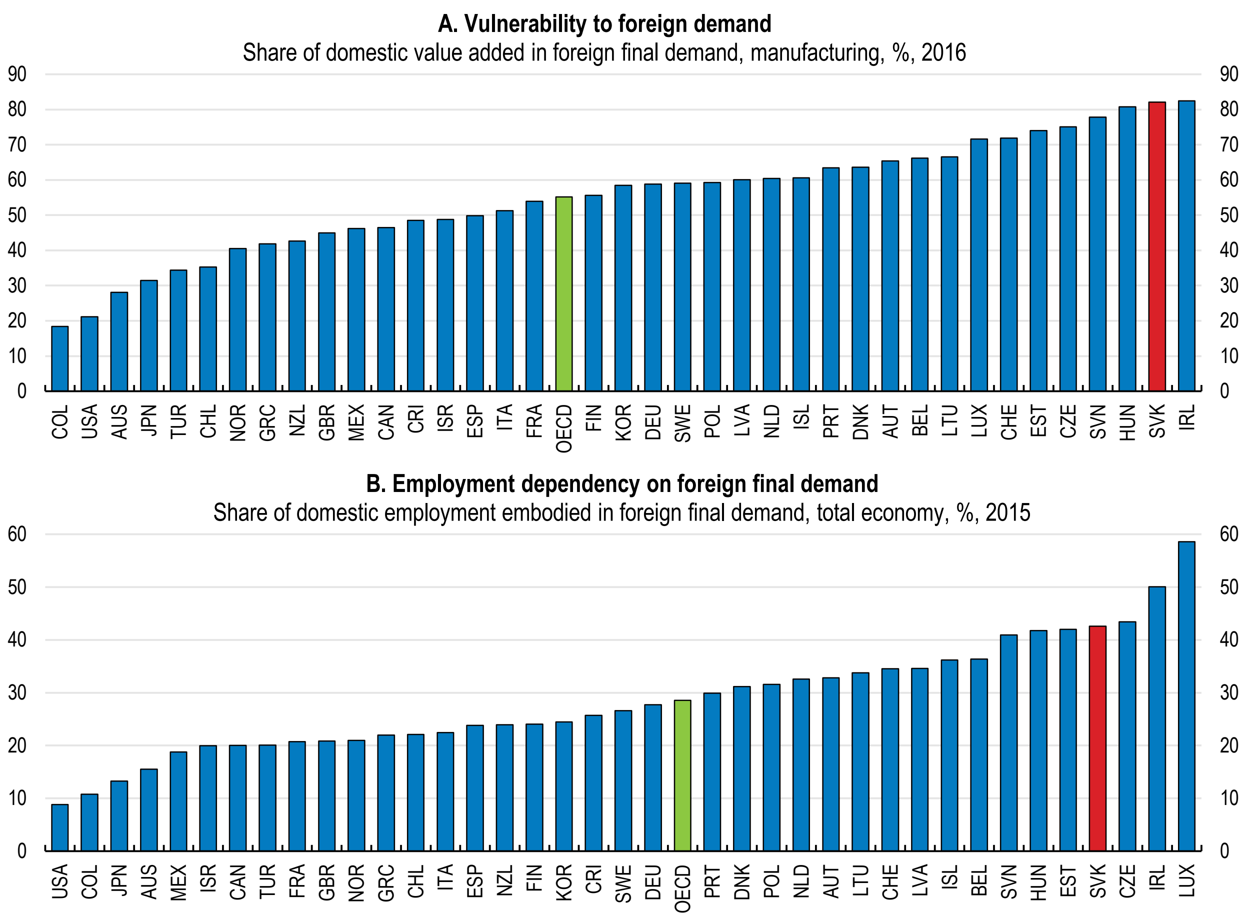
Box 1.2. Mass testing in the Slovak Republic

Testing played a prominent part in the public health response to the second wave of the pandemic. The government launched two mass antigen testing campaigns in October/November 2020 and January 2021. Testing was voluntary but certain restrictions were only lifted for people providing a negative test. Over 80% of the age-eligible population (10-64 years and older adults in employment) were tested during the autumn 2020 campaign. A scientific evaluation of the 2020 campaign estimated that mass testing, together with the isolation of positive cases, reduced infection prevalence by over 80% after two weeks in the 41 counties that participated in two rounds of testing (Pavelka et al., 2021). While the effects of testing and quarantining are difficult to disentangle from non-pharmaceutical measures to restrict contact and mobility, the campaign took place while primary schools and workplaces were mostly open. Despite these encouraging results, infections and deaths rose strongly again in the winter, suggesting that mass testing and isolation strategies would have to be conducted repeatedly within short time periods to have a sustained impact on infection dynamics.

Economic activity rebounded thanks to policy support, the deployment of vaccines and the gradual opening of the economy. The economy experienced a sharp contraction in 2020 due to the health situation, strict containment measures and Slovakia's high exposure to shifts in foreign demand (Figure 1.5). Manufacturing output recovered quickly in the second half of 2020. The economic impact of the second wave of the pandemic was more limited to services even as private consumption contracted and the saving rate increased significantly. As the economy reopened, consumption and investment grew strongly in the second quarter of 2021.

The latest wave of infections and supply shortages especially in the automotive sector are interrupting the economic recovery. Quarterly GDP growth slowed to around 0.4% in the third quarter of 2021. Retail and recreation mobility has fallen, retail sales have moderated, and consumer confidence weakened amid tightened containment measures. Car manufacturers had to temporarily suspend production again due to supply shortages, with car and industrial production and exports slowing markedly (Figure 1.6). The automotive sector accounts for around 3.5% of total employment, over a quarter of total exports, and 11% of value-added if indirect effects to other sectors are taken into account. At the same time, inflation surged due to increases in energy and food prices, an excise tax hike on tobacco, and rising prices of construction input materials.

Figure 1.5. Slovakia is highly exposed to shifts in foreign demand



Note: Unweighted average for the OECD aggregate.
Source: OECD Trade in Value Added (TiVA) database; and OECD Structural Analysis (STAN) database.

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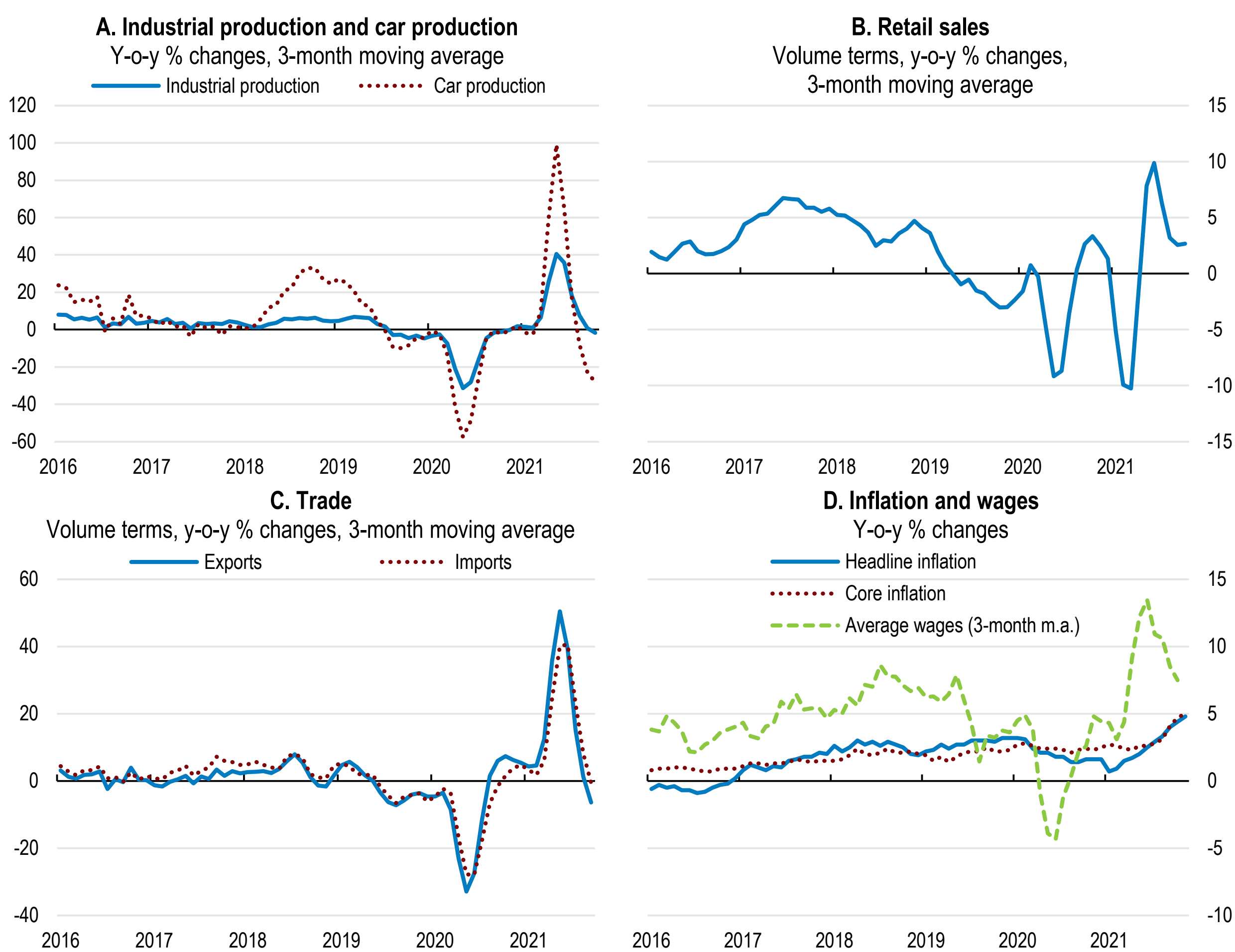
GDP growth will accelerate in 2022 and remain strong in 2023 (Table 1.1). Containment measures will weigh on activity in contact-intensive services sectors and interrupt the recovery in private consumption and the labour market in the near-term. Supply disruptions will slow export growth in particular of the automotive sector. Under the assumption that the health situation improves and supply restrictions gradually ease in the first half of 2022, GDP growth will accelerate in 2022 and 2023, aided by strong investment financed by EU recovery and structural funds. The Ministry of Finance expects the country to draw funds from the EU Recovery and Resilience Facility of around 1.3% of GDP in both 2022 and 2023, mainly for investments. The government budget deficit will narrow as activity picks up and emergency measures are gradually phased out. Wage growth will increase strongly in the private sector but will remain more contained in the public sector. Inflation will accelerate further in 2022 on the back of increases in administered energy prices but will moderate in 2023 as supply shortages ease.

The uncertainty surrounding the outlook is high. Consumption could be stronger if the saving rate is normalised faster than assumed. A substantial deterioration of the health situation due to the Omicron or other variants of the virus requiring renewed strict and nationwide containment measures would weigh on the labour market and private consumption and further delay the recovery. Longer-lasting supply-chain disruptions than assumed in the projection pose negative risks to exports and investment and could lead to higher inflation, eroding the purchasing power of households. Finally, a slower absorption of EU funds would curb investment growth. The effects of more extreme shocks are discussed briefly in Table 1.2.

Figure 1.6. Activity has lost momentum and inflation is picking up



Note: In Panel D, inflation series refer to harmonised CPI. Core inflation refers to the overall index excluding energy, food, alcohol and tobacco.
Source: Statistical Office of the Slovak Republic; Eurostat; and OECD calculations.

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Table 1.1. Macroeconomic indicators and projections

	2019	2020	2021	2022	2023
	Current prices (EUR billion)	Annual percentage change, volume (2015 prices)			
Gross domestic product (GDP)	94.0	-4.4	3.2	5.0	4.8
Private consumption	53.2	-1.5	1.1	3.6	2.9
Government consumption	18.4	0.9	3.3	2.8	0.7
Gross fixed capital formation	20.3	-11.6	-0.7	15.0	14.5
Final domestic demand	91.9	-3.2	1.2	5.6	4.8
Stockbuilding[1]	1.9	-2.2	2.6	0.1	0.0
Total domestic demand	93.8	-5.1	3.9	5.5	4.7
Exports of goods and services	86.7	-7.4	10.7	2.6	5.6
Imports of goods and services	86.4	-8.4	11.5	3.2	5.4
Net exports[1]	0.3	0.9	-0.5	-0.5	0.1
Memorandum items					
Potential GDP		2.4	2.0	2.0	2.3
Output gap (% of potential GDP)		-5.7	-4.5	-1.7	0.8
GDP deflator	. .	2.4	2.3	4.0	2.3
Employment	. .	-2.0	0.3	1.3	0.8
Unemployment rate (% of labour force)	. .	6.7	7.0	6.4	5.8
Harmonised index of consumer prices	. .	2.0	2.8	5.4	2.6
Harmonised index of core inflation[2]	. .	2.4	3.3	4.5	2.4
Household saving ratio, net (% of household disposable income)	. .	5.1	5.2	3.2	3.2
Current account balance (% of GDP)	. .	-0.4	-1.1	-2.2	-1.9
Underlying general government fiscal balance (% of potential GDP)	. .	-2.9	-4.7	-4.6	-3.9
Underlying government primary fiscal balance (% of potential GDP)	. .	-1.9	-3.8	-3.7	-3.0
General government financial balance (% of GDP)	. .	-5.5	-6.7	-4.4	-2.5
General government debt, Maastricht definition (% of GDP)	. .	59.7	60.5	58.2	56.7
General government net debt (% of GDP)	. .	50.9	54.9	54.9	53.6
Three-month money market rate, average	. .	-0.4	-0.5	-0.5	-0.5
Ten-year government bond yield, average	. .	0.0	-0.1	-0.2	-0.1

1. Contribution to changes in real GDP, actual amount in the first column.
2. Index of consumer prices excluding food, energy, alcohol and tobacco.
Source: OECD Economic Outlook: Statistics and Projections database.

Table 1.2. Possible extreme events that could lead to major changes in the outlook

Shock	Possible Impact
Renewed COVID-19-outbreaks due to new variants and/or lower vaccine effectiveness	Reintroduction of strict confinement measures, heightened uncertainty and possible supply chain disruptions, with major impacts on consumption, investment and exports.
A surge in non-performing loans	Banks could lower credit supply with negative repercussions on the real economy. A need for public support to banks could put additional pressure on public finances.
Increase in global protectionism or reshoring of global value chains	Lower global trade would be particularly harmful for a small open economy like Slovakia.

Financial stability risks should be monitored

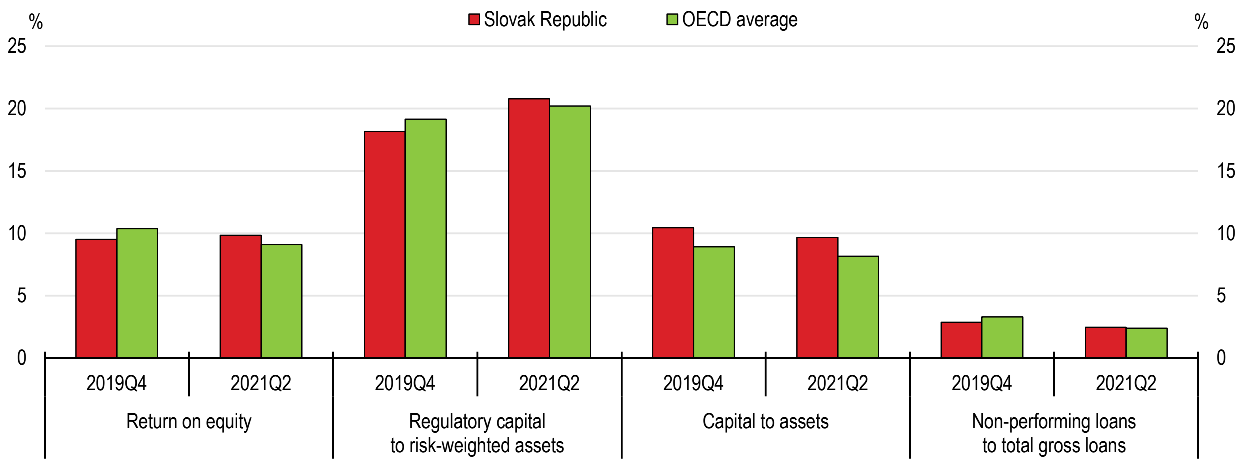
The authorities took a number of steps to ensure sufficient liquidity in financial markets, support credit growth and keep loan delinquencies low. In August 2020, the National Bank of Slovakia reduced the countercyclical capital buffer for banks from 1.5% to 1%. At the same time, it issued a recommendation to banks to restrict dividend payments to shareholders to maintain capital buffers. The authorities also facilitated the temporary granting of loan servicing moratoria by banks. By the end of September 2020, about 11% of all household loans were under moratoria, with a slightly higher share in the consumer credit segment. In addition, 12% of firm credits were under moratoria, with particularly high shares in the accommodation and food service sectors (around 50%) and the arts, entertainment and recreation sector (around 33%) (NBS, 2020a). Finally, government-guaranteed loans introduced as part of the pandemic response also supported credit to the private sector. By the end of the first quarter of 2021, the total amount of government guarantees provided during the crisis stood at around EUR 800 million (0.8% of GDP) (NBS, 2021c).

As support measures are expiring, financial vulnerabilities may rise. Most of the loans under moratoria are to borrowers with higher risk characteristics even before the crisis, such as households with higher debt-service-to-income ratios and firms with higher debt and lower liquidity ratios (NBS, 2020a). Loan delinquencies started to increase from the third quarter of 2020, but the level remains modest. By the end of August 2021, about 5.6% of household and 4.7% of firm loans that ceased to be under moratoria experienced repayment difficulties (NBS, 2021e). The central bank estimates that by the end of 2021, around 1-4% of all household loans and 3-7% of all firm loans may be at risk of becoming non-performing (NBS, 2021c).

Going forward, it will be important to find the right balance between supporting firms and allowing for the necessary adjustments in the business sector. A temporary insolvency moratorium for firms was in place until December 2020. A new permanent framework was introduced in January 2021, which allows debtors to apply for a moratorium of up to six months until the end of 2022. Under the new framework, a majority of creditors need to consent to the moratorium, restricting eligibility compared to the previous framework. The new scheme should be continuously assessed to ensure that it does not prevent the restructuring of viable firms or the liquidation of non-viable firms, and does not create a backlog of insolvency cases. Further efforts are also needed to strengthen pre-insolvency procedures and early warning mechanisms, and streamline insolvency procedures (see below).

The profitability of banks has recovered (Figure 1.7), after a sharp drop in their return on equity due to increased loan loss provisioning. The abolition of the bank levy in July 2020 also supported profits. Banking sector profitability has been on a downtrend before the crisis, mainly due to the prolonged low interest rate environment. This has led banks to step up their lending activity especially housing loans, with household indebtedness increasing fast, albeit from a low level. The Slovak banking sector consists predominantly of foreign-owned domestic banks (mainly owned by banking groups from Austria, Italy and Belgium) or branches of foreign banks. The three largest banks (all foreign-owned) account for more than half of total banking assets. Bank loans are largely financed via domestic deposits. Authorities consider that the banking sector remains well capitalised (Figure 1.7). Capital ratios moderately increased compared to pre-crisis levels, in part thanks to the retention of earnings. The results of stress tests also show that capital adequacy ratios are unlikely to fall below pre-crisis levels even in an unfavourable scenario (NBS, 2021c). Nevertheless, financial authorities should continue to monitor closely the forward-looking plans of banks for resolving NPLs and ensuring resilient capital positions.

Figure 1.7. The banking sector appears resilient



Note: 2021Q2 data for the OECD average is calculated on the basis of latest available quarter for the OECD countries, ranging from 2020Q2 to 2021Q2.
Source: IMF Financial Soundness Indicators database.

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Risks in the housing market have risen. House prices have continued to grow during the pandemic. Real house prices have grown on average by around 5% per year between 2014 and 2020 and price growth accelerated further in 2021. The impact of the crisis has been more pronounced on the rental market. Rental prices in Bratislava decreased for the first time in a decade at the beginning of 2021 compared to the beginning of 2020 (NBS, 2021b). Also, house price affordability deteriorated as the pandemic had a negative impact on employment and wages. Consequently, the National Bank of Slovakia estimated that house prices have been over 20% above levels justified by fundamental factors in the third quarter 2020, compared to an overvaluation of about 7% before the crisis (NBS, 2020a). Strong mortgage credit growth over the last decade has increased the exposure of banks to the real estate sector, with mortgages accounting for around 50% of the total loan portfolio at the end of 2020. While macro-prudential measures taken since 2016 have mitigated the risks to the banking sector, new lending just below the regulatory limits (loan-to value ratios of 71%-80% and debt-to-income ratios of 7 to 8) has increased in recent years (IMF, 2021). The authorities should therefore closely monitor developments in the housing market and adjust macro-prudential measures if necessary.

In the medium term, it will be crucial to strengthen housing supply. For instance, building permit procedures are lengthy. The government's plans to streamline processes are welcome but will take time to show effects. In addition, increasing the supply of public housing for rentals could help develop the rental market and reduce pressure on house price inflation. The homeownership rate in Slovakia is among the highest in the OECD and the rental market is largely limited to the Bratislava region. Raising recurrent taxes on immovable property and linking them to the value of the property can also help dampen overheating pressures.

Ensuring a job-rich recovery

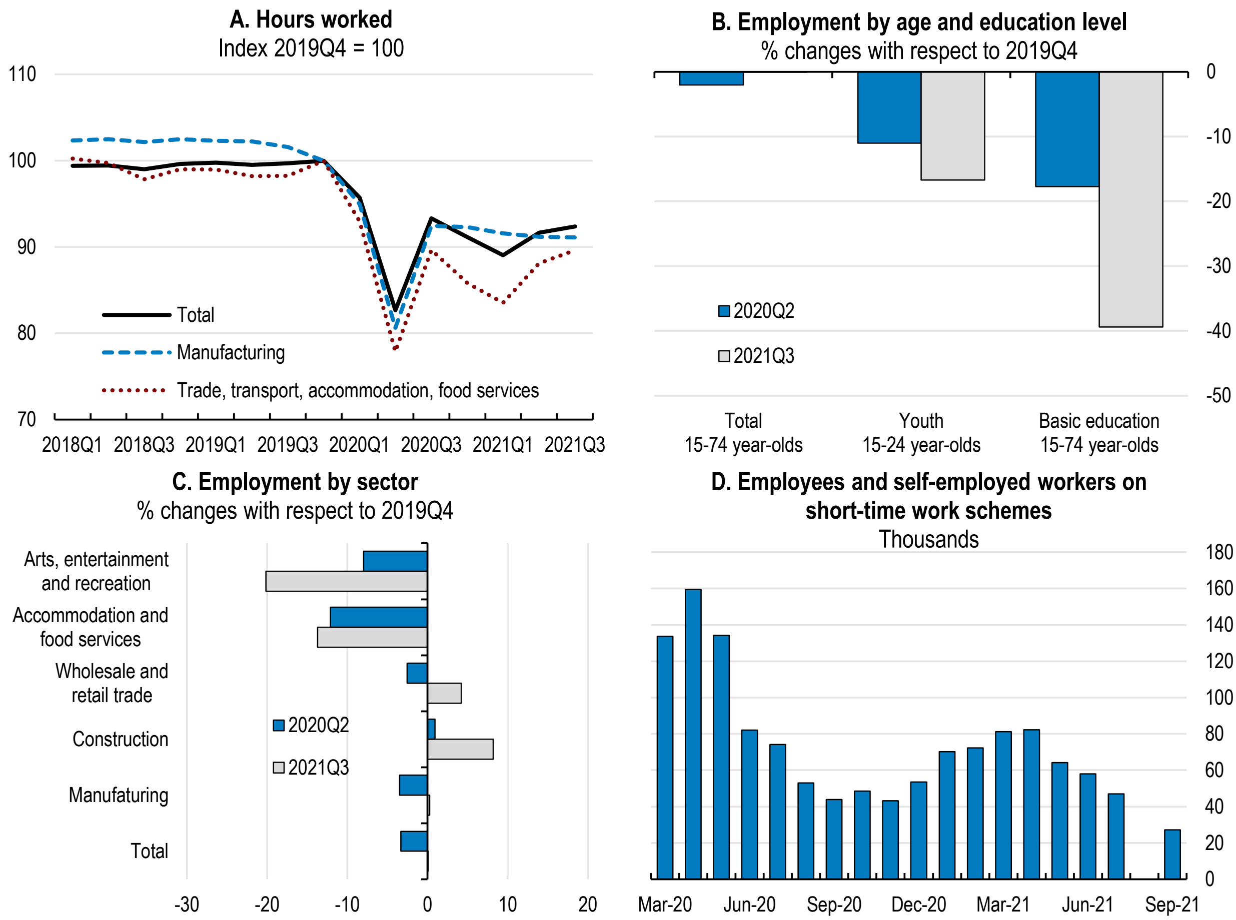
The impact of the crisis on the labour market has been uneven across sectors and groups (Figure 1.8). Hours worked fell sharply during the crisis, and were still around 8% below pre-pandemic levels in the third quarter of 2021. Overall losses in employment were more moderate thanks to job retention schemes. However, employment in the services sectors was hard hit, especially in accommodation and food services, and arts, entertainment and recreation and is still far below pre-pandemic levels (Panel C). In addition, the young and low skilled (Panel B) as well as workers on temporary contracts and the self-employed suffered the strongest employment losses.

To preserve employment and support household income the government introduced job-retention schemes, expanded paid sickness and care benefits to households and extended unemployment benefit duration. Among the job retention schemes, firms hard-hit by the crisis could receive wage subsidies for workers on reduced hours. Firms and the self-employed could also receive lump-sum grants conditional on the revenue decline. Eligibility to and the generosity of the benefits was increased during the second wave of the pandemic. For example, wage subsidies originally covered up to 80% of the average earnings of employees on reduced hours, but were increased in October 2020 and again in February 2021 to cover 100% of the labour costs. The schemes have recently been prolonged and are set to expire at the end of February 2022. At the height of the crisis, around 160 000 employees on reduced hours were supported by wage subsidies (Figure 1.8, Panel D). While large firms in industry benefited most from the retention schemes during the first lockdown, smaller firms in tourism; accommodation and food service activities, and certain segments of retail trade received a larger share of aid during the second lockdown (NBS, 2021a). The National Bank estimates that government support measures saved around 64 000 jobs (2.6% of total employment) (NBS, 2020b).

A permanent version of the short-time working scheme will come into force in March 2022 as a tool to support employment in future crises. Firms are eligible if a third of employees work less than 10% of regular weekly working time and the employer has to keep the supported worker for at least two months after end of the aid. Support covers 60% of the average hourly earnings of the employee and is limited to 6 months with a possibility of extension. Experience from OECD countries during the global financial and COVID-19 crisis suggest that well-designed job retention schemes should be timely, targeted and temporary (OECD, 2021e). For example, it will be important that firm eligibility to the new scheme is regularly reassessed to ensure that the scheme remains well targeted. In Switzerland, for instance, firm eligibility is reassessed every 3 or 6 months. In addition, to avoid preventing a desirable reallocation of workers across firms and sectors, the costs to employers of unworked hours could be increased over time. Reducing replacement rates of job retention schemes to unemployment benefits over time can help reduce incentives for workers to stay in unviable jobs. Furthermore, allowing workers on short-time work to register with the employment services to receive job-search assistance or career guidance can help smooth job transitions. Finally, workers on the short-term working schemes should also be given the option to receive training as for example in in France, Germany, Japan and Portugal. France has been successful in engaging workers on job retention schemes with training during the COVID-crisis, thanks to a well-established infrastructure of adult learning coupled with generous financial incentives that for example fully covered training expenses (OECD, 2021e).

The crisis has led to a strong increase in telework but not all sectors and employees have benefited equally. The option to telework was introduced in the labour law already in 2007 in Slovakia. However, given the structure of the Slovak economy with a large share of employment in manufacturing, the uptake of telework has been significantly lower than in other countries prior to the crisis. In 2019, the share of workers working at least partially from home was around 9.5% compared to an EU average of 14.5% and more than 30% in some Nordic countries (EC, 2020a). During the crisis, telework increased markedly in Slovakia, with around 30% of survey respondents indicating working from home in April/May 2020 (Eurofound, 2020). While telework has helped cushion the crisis impact on employment and income, it may aggravate some inequalities in the labour market. For example, low income and lower educated individuals more often work in occupations that cannot be performed from home (NBS, 2021d, Dujava and Peciar, 2020). In Bratislava, thanks to a larger share of public administration jobs, 54% of jobs can be performed from home compared to the national average of around 35% (NBS, 2021d). To ensure that the gains from telework are shared widely, the government should promote the diffusion of managerial best practices, self-management and ICT skills, investments in home offices, and fast and reliable broadband across the country (OECD, 2020a). Furthermore, better access to childcare facilities is crucial for parents with young children to be able to telework.

Figure 1.8. The impact on the labour market was uneven across sectors and workers



Note: In Panel A, data refer to employees and self-employed. In Panel B, data for the basic education category refer to employed people with less than primary, primary and lower secondary education (ISCED levels 0-2). In Panel B and C, data for 2021 are based on a different methodology for Labour Force Survey (LFS) statistics, according to a new EU regulation. In Panel D, only recipients under First Aid schemes 1 and 3a are shown, which correspond most closely with a short-term working scheme.

Source: OECD National Accounts database; OECD Labour Statistics database; Eurostat; and Based on Baliak, Domonkos, Fašungová, Hábel, Chujac, Komadel, Veselková. (2021). Prvá pomoc Slovensku: priebežná správa o sociálnej pomoci pracujúcim a rodinám (Aktualizácia 18) ["First Aid" for Slovakia: interim report on the aid to workers and families (18th update)]. Bratislava: Social Policy Institute / Ministry of Labour, Social Affairs and Family https://www.employment.gov.sk/files/slovensky/ministerstvo/analyticke-centrum/analyticke-komentare/isp_2021_prva_pomoc_update18_final.pdf.

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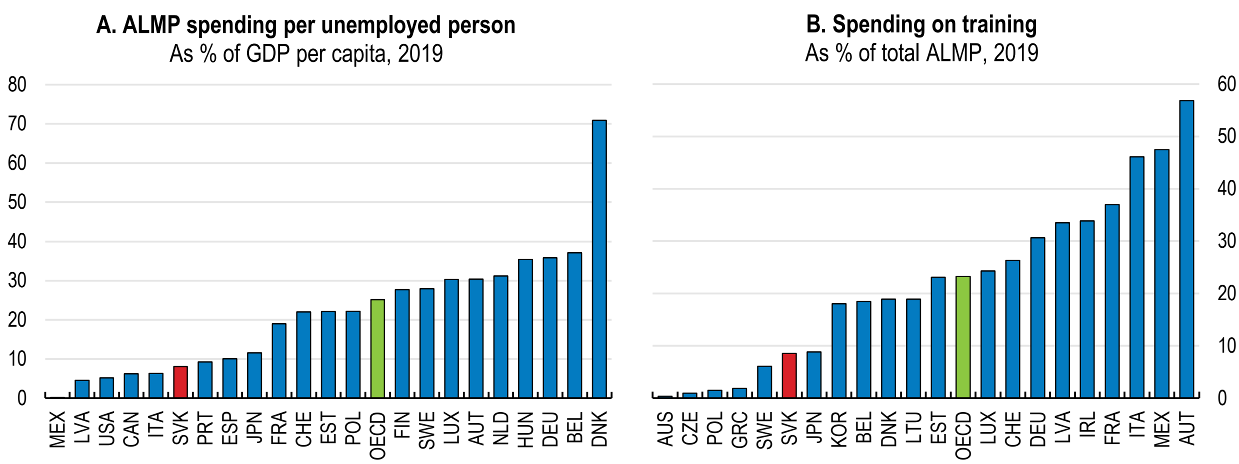
Despite some progress, long-term unemployment and the low employment rates of mothers with young children, the low-skilled, Roma and older workers remain important structural labour market challenges. Mobilising these underutilised labour resources is also crucial to counter the aging-related contraction of the labour force and its negative fiscal impacts (Chapter 2). In 2019, more than half of the unemployed were out of work for a year or more compared to about a quarter on average in OECD countries. Long-term unemployment is particularly prevalent in the East of Slovakia and among the Roma population. Long periods of unemployment have scarring effects, and the long-term unemployed are more difficult to bring back into jobs.

Moreover, the gender pay gap is high, especially among tertiary educated workers. This reflects that women are overrepresented in relatively lower paying public sector jobs as well as long career breaks associated with having children (OECD, 2019a). The employment rate of young women with small kids is among the lowest in the EU. For example, the employment rate of mothers aged 20-49 with two children below six years is 40% compared to an EU average of close to 70%.

Activation policies and training should be stepped up to help the unemployed transition to new jobs after the crisis and reduce long-term unemployment. Spending on active labour market policies is low (Figure 1.9), relies heavily on EU funding and therefore lacks sustainable funding from the national budget. The recent increase of national funding for ALMP measures is therefore welcome and should continue (Table 1.3). Spending is allocated mostly to employment incentives, while resources for training are low (Panel B). The share of unemployed adults participating in formal and non-formal job-related learning is the lowest among all OECD countries (OECD, 2019b). Training is provided mainly through the REPAS+ and KOMPAS+ programmes with some encouraging results, but often does not reach the lowest skilled who need training the most (OECD, 2020b). Strengthening the counselling and guidance capacity of the public employment service and effective profiling of jobseekers is needed to identify jobseekers' needs and the most relevant training paths. Career counselling should be accessible to all adults irrespective of their labour market status to increase labour mobility and mitigate the impact of automation. Procured training programmes should also be regularly evaluated to ensure high quality. To improve employment services, the network of labour offices needs to be expanded in underserved regions or municipalities and should be better integrated into the employment registration process to expand access to training opportunities for hard-to-reach unemployed adults (OECD, 2020b).

Figure 1.9. Activation policies and training should be expanded



Note: ALMP refers to active labour market programmes.
Source: OECD Labour Market Programmes database.

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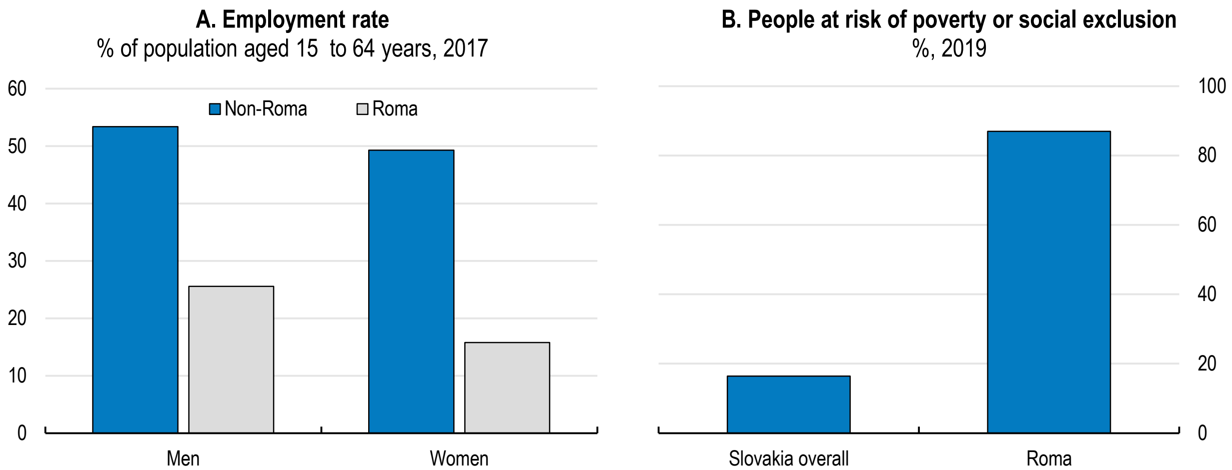
Improving the labour market outcomes of the Roma requires integrated policy approaches. As analysed in detail in the previous *Survey* (OECD, 2019a), the labour market outcomes of the marginalised Roma community significantly lag behind that of the general population. The employment rate of Roma men is only half of that of non-Roma men, and the gap is even larger for women (Figure 1.10, Panel A). Moreover, the Roma mostly work in low-skilled, seasonal jobs and the informal economy, making their employment highly vulnerable to shocks and the economic cycle. Consequently, most Roma live at risk of poverty (Panel B). The majority of labour market programmes that reach unemployed marginalised Roma are public work schemes, which do not provide relevant skills. Second-chance education should be strengthened by designing and developing networks of relevant programmes. In addition, tackling the labour market challenges of the Roma requires holistic approaches that cut through several policy areas. This includes better access to education, including pre-school education and child-care facilities (see below), health care services (Chapter 2), as well as adequate infrastructure to connect Roma settlements to job markets. Policies across these areas also need to be better coordinated. The recent relocation of the Plenipotentiary for Roma communities from the Ministry of Interior to the Office of the Government to strengthen its role within the government is a step in this direction (Table 1.3).

Figure 1.10. Employment rates of Roma are very low and most Roma are at risk of poverty



Note: In Panel B, for Roma data refers to 2016.
Source: Ministry of Finance (2020a), Groups at Risk of Poverty or Social Exclusion Spending Review, Bratislava, March 2020; and Eurostat.
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More efforts are needed to increase the employment rates of mothers with young children and older workers, as discussed in detail in Chapter 2. The planned expansion of pre-school and child-care facilities is welcome and should be implemented without delay. The lack of high-quality and affordable pre-school facilities constitutes an important barrier for female labour force participation. The maximum duration of parental leave is long and should be shortened, and part of the parental leave made conditional on the father's participation. In Iceland and Sweden such conditioning of parental leave led to a doubling in the number of parental leave days taken by spouses or partners (OECD, 2016a). Existing family cash benefits should be closely evaluated with a view to design them in a way to avoid strong disincentives for mothers to take up work. Evidence suggests that helping women combine career and family with the provision of good quality childcare facilities has a greater positive effect on childbirth than cash benefits (OECD, 2011). In addition, benefits should be shifted to reduce very high net childcare costs, in particular for low-income parents. Labour market barriers for older workers should be removed. In particular, older workers benefit less from training opportunities, and they experience higher job strain than in other OECD countries, partly due to inflexible working arrangements. An adult learning strategy targeting older workers is needed, given that they are particularly vulnerable to rapid technological changes that make existing skills obsolete. Improving working conditions is also important, for instance by developing flexible working arrangements, which are barely used in Slovakia (Chapter 2).

Table 1.3. Past OECD recommendations on labour market and social policies

Recommendations in previous Surveys	Actions taken since 2019
Increase spending on active labour market policies to further reduce the caseload for job counsellors, and continue to foster re-training measures in line with labour market needs.	Spending on active labour market policies increased by around 17% in 2020, with the share financed from the state budget almost doubling, to around 50%.
Make a significant part of a couple's parental leave available only to fathers, to allow them to better share child-rearing tasks and reduce the labour market disadvantage of mothers.	As of 1 May 2021, a father no longer needs to submit a caretaking declaration and agreement with the mother upon entering parental leave, therefore easing the administration burdens.
Involve Roma in the development and operation of integrated health, education and employment services.	As part a pilot project starting in late 2021, a new position of "assistant educator" in pre-primary education will be introduced, favouring Romani speakers and / or applicants from local communities.
Give the office of the Plenipotentiary a bigger role in coordinating national policies and ensuring integrated provision of public services to Roma where they live.	A new strategy for Roma integration was approved in 2021. The Office of the Plenipotentiary has been relocated to the Office of the Government in July 2021 to strengthen its role.

Providing targeted fiscal policy support while preparing for long-term fiscal challenges

Targeted fiscal policy support should be provided in the short-term

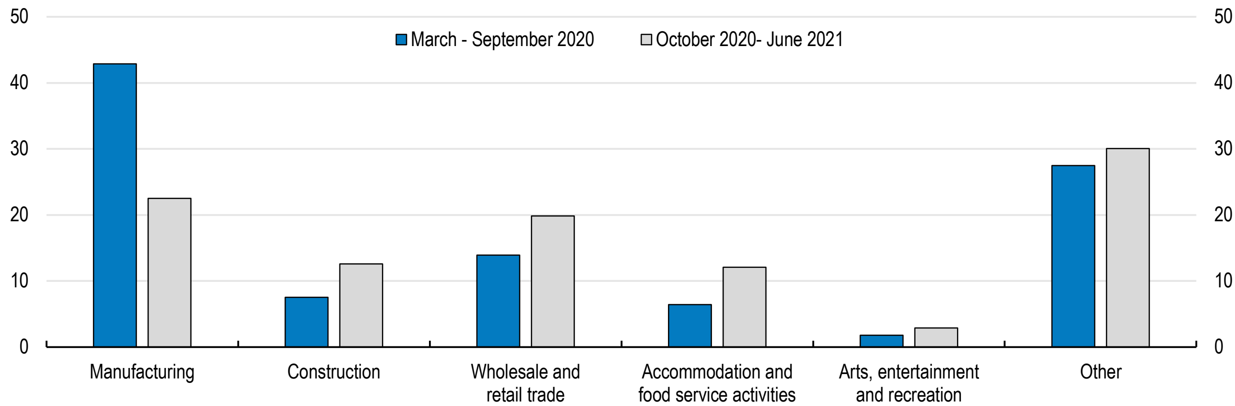
The fiscal response to the crisis has been substantial. The government introduced direct fiscal support of about 2.1 % of GDP in 2020 (MoF, 2021), somewhat lower than in other OECD countries. In addition, liquidity support in the form of government-guaranteed loans and tax deferrals amounted to 1.6% of GDP (MoF, 2021). Faced with a significantly deteriorating health situation related to the second wave of the pandemic, budgetary resources to tackle the impact of the pandemic have been significantly increased in 2021, to around 3.3% of GDP. The budget for 2022 includes direct budgetary measures to combat the pandemic in the amount of 0.7% of GDP. Labour cost subsidies, grants for firms and self-employed workers as well as sickness and care benefits were extended until end-February 2022. Eligibility for support measures was widened and benefit levels increased during the second wave and again in November and December 2021. The sectors claiming most of the labour cost subsidies and grants shifted over time, with the share of service sectors rising (Figure 1.11). In addition, the government targeted some measures to sectors most affected by the crisis, such as special job retention schemes and subsidies in the cultural, gastronomy and tourism sectors.

Fiscal policy should remain supportive until the recovery is self-sustained, but become more targeted to avoid scarring effects from the crisis. Ending special crisis-related support measures should be contingent on removing confinement measures that limit doing business in high-contact sectors. At the same time, support should increasingly shift to facilitate a reallocation of labour and capital to expanding sectors and prevent the crisis from eroding the economy’s growth potential. For example, active labour market policies, such as targeted hiring subsidies, training and reskilling especially to the young and long-term unemployed, would help workers transition to the more dynamic parts of the economy and limit the rise in long-term unemployment. Targeted solvency support to viable firms, especially SMEs in hard-hit sectors, could help avert un-necessary bankruptcies.

An abrupt removal of fiscal support should be avoided so as not to derail the recovery. Despite its severity, the recession in 2020 did not trigger an escape clause from the national debt rule, which targeted a debt level of 47% of GDP in 2020. However, the election of a new government in 2020 and the government reshuffle in the spring of 2021 temporarily suspended the strictest sanctions under the rule (i.e. a balanced budget) until mid-2023. As public debt is likely to exceed 55% in 2023, the current debt rule would trigger rapid consolidation, requiring a balanced general government budget in 2024. To avoid a strong fiscal contraction, the government has proposed an amendment to the constitutional law, which instead foresees a one percentage point of GDP improvement of the structural budget balance per year starting in 2023, together with permanent modifications to the fiscal rules (see below).

Figure 1.11. Government support has increasingly shifted to services

Average monthly share in total aid under the First Aid programme



Source: Based on Baliak, Domonkos, Fašungová, Hábel, Chujac, Komadel, Veselková. (2021). Prvá pomoc Slovensku: priebežná správa o sociálnej pomoci pracujúcim a rodinám (Aktualizácia 18) ["First Aid" for Slovakia: interim report on the aid to workers and families (18th update)]. Bratislava: Social Policy Institute / Ministry of Labour, Social Affairs and Family https://www.employment.gov.sk/files/slovensky/ministerstvo/analyticke-centrum/analyticke-komentare/isp_2021_prva_pomoc_update18_final.pdf.

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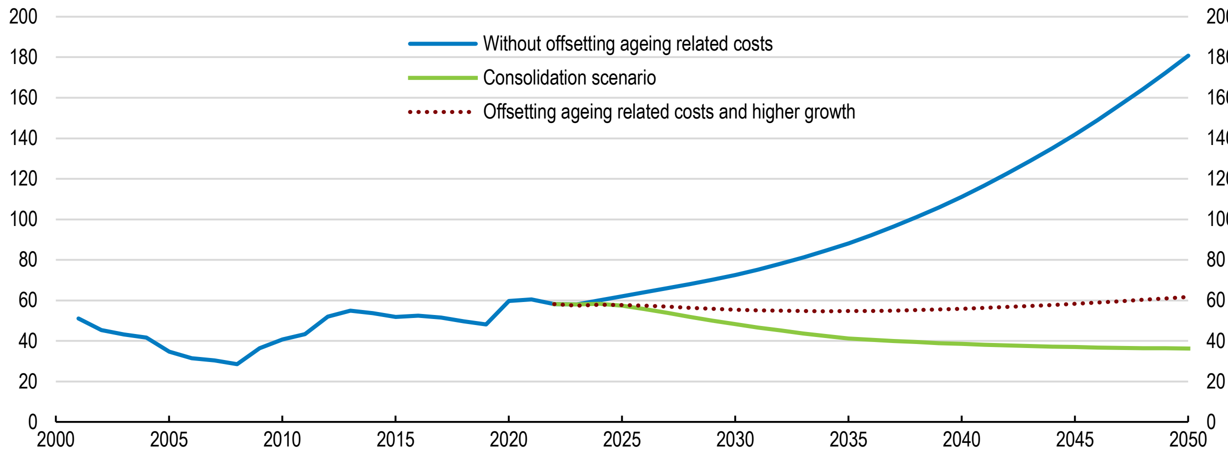
Addressing long-term fiscal challenges

While fiscal policy should remain supportive in the near term, the authorities should already start to design a medium-term credible and transparent fiscal consolidation strategy, to be implemented once the recovery is firmly underway. As a result of the pandemic, the gross public debt-to-GDP ratio has surged to over 60%. While the public debt level remains modest by international comparisons, it is unprecedented in Slovak history. Net debt increased more modestly as Slovakia raised more funds on international capital markets than needed to finance the deficit, resulting in an increase in financial assets. Ageing will create substantial fiscal pressures in the long-term. Without measures to contain ageing-related costs, debt would rise to close to 180% of GDP by 2050 (Figure 1.12). In contrast, assuming ageing costs are contained and growth is one percentage point higher, the debt-to-GDP ratio would stabilise around the current level of 60% of GDP, highlighting the importance of structural reforms, such as those recommended in this Survey (Box 1.3), in achieving debt sustainability. Still, this debt level would be substantially above the national debt target of 40% by 2028. Consolidation to achieve a structural budget surplus of 0.5% of GDP in 2028, in line with Slovakia's preliminary medium term objective, would bring public debt below 40% of GDP by 2035.

The medium-term fiscal consolidation strategy should be designed in a way to avoid harming growth and equity. On the expenditure side, priority should be given to addressing the pressures from ageing and increasing efficiency. For example, reforms to lengthen working lives can improve pension sustainability, while optimising the hospital network can help reap efficiency gains in the health care sector. National expenditure reviews have identified a number of additional areas for efficiency gains in public spending that can generate fiscal savings without harming outcomes. Implementing multi-annual spending ceilings can help enhance the credibility of the fiscal consolidation strategy, improve fiscal sustainability, and strengthen incentives to incorporate expenditure reviews into the budgetary planning process. On the revenue side, priority should be given to broadening tax bases, reducing tax expenditures and improving tax collection. A tax reform to reduce distortions to growth and strengthening work incentives can further help consolidation efforts.

Figure 1.12. Ageing creates fiscal pressures

General government debt, Maastricht definition, as a percentage of GDP



Note: The scenario "without offsetting ageing-related costs" is based on the Economic Outlook 110 STEP projections until 2023, the OECD long-term model thereafter, and increased spending on health, long-term care and pensions, which will add an additional 8 percentage point of GDP to annual government spending by 2050, in line with European Commission (2021). The consolidation scenario assumes an improvement of the primary balance by 1 p.p. of GDP per year between 2024 and 2028, in line with the preliminary medium-term objective from the government's Stability Programme. A balanced primary balanced is assumed after debt falls below the debt target of 40% of GDP. The "offsetting ageing-related costs and higher growth" scenario assumes that ageing related costs are offset and real GDP growth is 1 percentage point higher than currently projected for the entire simulation period, for example thanks to structural reforms that raise productivity growth.

Source: Adapted from OECD (2021), OECD Economic Outlook: Statistics and Projections (database), June; Guillemette, Y. and D. Turner (2018), "The Long View: Scenarios for the World Economy to 2060", OECD Economic Policy Paper No. 22., OECD Publishing, Paris; and European Commission (2021), "The 2020 Ageing Report - Economic and Budgetary Projections for the 28 EU Member States (2016-2070)" Directorate-General for Economic and Financial Affairs.

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Box 1.3. Quantifying the impact of selected reforms on growth and fiscal balances

The impact of some key structural reforms proposed in this Survey are estimated in Table 1.4 using historical relationships between reforms and growth in OECD countries. The estimates are illustrative.

Table 1.4. Illustrative impact of selected reforms on GDP per capita

Effect on level of GDP per capita through total factor productivity and employment

Reform	10 year effect
Boosting active labour market policies	2.3%
Increasing spending on early childhood education and care	1.0%
Increasing business R&D	1.4%
Linking retirement age to life expectancy and phasing out early retirement for mothers	0.5%
Reducing the average labour tax wedge (revenue neutral)	0.8%
Total impact	6.0%

Note: i) increase in spending on ALMP by 0.3% of GDP to the level of OECD average; ii) increase of spending on early childhood education and care to OECD average; iii) business sector R&D increased by 0.9% of GDP to the level of the OECD average; iv) assumed increase in the effective retirement age by 0.5 years compared to current rules; v) reduction in the average labour tax wedge by about 3.5 percentage points, i.e. half of the difference to the OECD average.
Source: OECD calculations based on Égert and Gal (2017)

Table 1.5 quantifies the illustrative direct gross fiscal impact of selected recommendations included in the Survey. A number of recommendations are not quantifiable in terms of their fiscal impact and there will be additional revenues associated with higher GDP and employment induced by structural reforms.

Table 1.5 Illustrative direct fiscal impact of selected recommended reforms

Reform	Fiscal cost (-)/ saving (+) in % of GDP in 10 years
Boosting active labour market policies	-0.3%
Increasing spending on early childhood education and care	-0.2%
Increasing government support for business R&D	-0.1%
Improving access to and quality of home and community based long-term care	-0.7%
Reducing the labour tax wedge, financed by increasing property and environmental taxes and moving towards a single VAT rate	0%
Linking retirement age to life expectancy	+0.3%
Increasing health care efficiency	+0.5%
Improving VAT tax collection	+0.5%
Implementing half of the savings identified in recent spending reviews (public employment/wages, defence and IT spending)	+0.6
Overall impact	+0.6%

Note: i) increase in the level of spending on active labour market policies to the OECD average (0.5% of GDP); ii) increase of spending on early childhood education and care to OECD average (0.8% of GDP) iii) increase of direct government funding and government tax support for business R&D to the OECD average level (0.15 % of GDP), iv) increase in spending on LTC to the EU average; v) linking retirement age to life expectancy is based on Slovak Ministry of Finance estimates assuming that ¾ of the increase in life expectancy is translated into increases in the effective retirement age; vi) Ministry of Finance estimate of increase in tax revenues of bringing the VAT gap in Slovakia (20%) to the EU average (11%); vii) potential long-term efficiency gains in the health care sector based on national spending reviews.
Source: OECD Secretariat and MoF (2021).

Improving spending efficiency and enhancing the fiscal framework

Ensuring a gradual improvement in the structural deficit to put debt on a downward path while not jeopardising the recovery, will require further efforts to improve spending efficiency and enhance the fiscal framework. The structural budget balance started to deteriorate in 2018 despite robust growth and a strong labour market (CBR, 2021). In addition, more than one percentage point of the deterioration of the budget deficit between 2019 and 2020 is due to measures unrelated to the crisis (e.g. increase of the 13th pension payment, minimum pensions and family benefits) and to a lesser extent the materialisation of budgetary risks (e.g. overestimation of non-tax revenues) (CBR, 2021). Since 2016, the Value for Money division in the Ministry of Finance has completed over a dozen spending reviews, which identified potential for efficiency gains and savings in the investigated areas. However, its recommendations have not been systematically implemented in the budget. Spending reviews completed in 2020 identified a saving potential of EUR 1.1 billion (1.2% of GDP), mainly in the areas of public employment and wages, defence and IT spending (MoF, 2021). Earlier reviews of health care spending also pointed to long-term saving potential of around EUR 465 million (0.5% of GDP). The government should implement the saving measures thus identified and thrive to incorporate expenditure reviews better into the medium-term budgetary planning process.

The government plans several reforms to enhance the fiscal framework. For example, the government plans to introduce multi-annual expenditure ceilings, which have been a constitutional provision since 2011, but have not yet been implemented (Table 1.6). Expenditure limits are to be set for 4 years over the term of a new government and linked to long-term fiscal sustainability indicators (Box 1.4). The planned introduction of spending limits is welcome as expenditure rules tend to improve fiscal sustainability and have higher compliance rates than other rules as expenditures are under the direct control of the government (Lledo et al., 2018; OECD, 2021). Spending ceilings can also help better incorporate expenditure reviews into the budgetary planning process. The spending limits should also include tax expenditures as planned. In addition, the proposed design of the spending rule is likely to support countercyclical fiscal policy. For example, as expenditure limits are defined in level terms and not as a percentage of GDP, the limits constrain spending in boom times when cyclical revenues are high. In addition, by excluding cyclical unemployment benefits from the ceiling, the rule allows automatic stabilisers to operate both on the spending and revenue side in times of adverse shocks. In contrast, the additional introduction of a tax revenue ceiling, as currently discussed in Slovakia, should be avoided. Added to the debt and expenditure rules, a revenue ceiling would overly restrict macroeconomic stabilisation efforts. Moreover, revenue ceilings can by themselves be pro-cyclical as they for instance may require tax reductions in boom times. They can also hinder tax collection efforts and do not help ensure fiscal sustainability (Lledo et al., 2018).

In addition, the government plans to switch the national debt rule from gross to net debt targets by adjusting gross debt for liquid financial assets (Box 1.4). A net debt target can facilitate efficient public debt and liquidity management. The net debt target would be set at 46% of GDP in 2022 and gradually fall to 35% of GDP in 2034. If net debt exceeds the target, corrections of the structural budget balance are required according to four sanction bands. The highest sanction band, requiring at least a balanced structural balance, would be reached at a net debt level above 55% in 2023 and gradually fall to 50% in 2034. In addition, reforms are also proposed to the escape clause, with the aim of providing greater flexibility in extraordinary circumstances such as severe recessions. The proposed amendments consider *inter alia* a suspension of sanctions for one year if GDP drops by more than 3% over a year and for two years if GDP falls by more than 6%.

The responsibilities of the fiscal council are set to be expanded. The fiscal council, established in 2012, is widely perceived as independent and non-partisan, with strong analytical capabilities (OECD, 2020c). The new responsibilities of the fiscal council would include calculating expenditure ceilings according to the legislation and assessing compliance with them, as well as new reports on fiscal risks and pension sustainability. Expanding the responsibilities of the council is welcome. However, in order to reduce capacity constraints, which were present before the new responsibilities (OECD, 2020c), staffing may have to be increased. This would also help the council conduct costing of government policy initiatives more proactively.

Box 1.4. Current fiscal rules and proposed reforms

Current fiscal rules

Debt rule

- Ceiling: In 2020, the gross debt (Maastricht definition) ceiling was set at 47% of GDP. The ceiling is set to gradually fall by 1 percentage point per year to 40% of GDP in 2028.
- Sanction bands: If debt exceeds the ceiling, the following sanctions apply according to five sanction bands (as of 2020): 1) 47-50% of GDP: the Ministry of Finance must propose measures to reduce debt; 2) 50-52% of GDP: salaries of government members are frozen at the previous year level; 3) 52-54% of GDP: expenditures (excluding some such as debt service and EU funded expenditures) have to be cut by 3% in the current year and expenditures are frozen at this level in the following year; 4) 54-57% of GDP: next year's general government budget has to be balanced or in surplus; 5) above 57% of GDP: a vote of confidence in the parliament is triggered.
- Escape clause: sanction will not apply in case of war. In addition, the strictest sanctions (bands 3-5) do not apply a) for 2 years after the Manifesto of the new government is approved by the Parliament; b) for 3 years if year-on-year GDP growth falls by 12 percentage points, c) for 3 years if the response to a banking crisis, a natural disaster or international treaties require additional expenditures of more than 3% of GDP.

Proposed reforms to fiscal rules

Modified debt rule

- Debt definition: Net debt instead of gross debt. In particular, gross debt is adjusted for liquid financial assets (currency and deposits, short- and long-term debt securities).
- Ceiling: The net debt ceiling is to be set at 45% of GDP in 2022 and to gradually fall to 35% of GDP in 2034.
- Sanction bands: The sanction bands are to be reduced from five to four and include specific consolidation requirements (as of 2022): 1) 45-48% of GDP: improvement in structural balance by at least 0.5% of GDP; 2) 48-52% of GDP: improvement in structural balance by at least 0.75% of GDP; 3) 52-55% of GDP: improvement in structural balance by at least 1% of GDP; 4) above 55% of GDP: at least a balanced structural budget and vote of confidence in parliament.
- Escape clause: Adjustments to provide more flexibility in times of crisis by lowering the thresholds that trigger the escape clause. In particular, no sanctions apply for one year if GDP drops by more than 3% in a year or for two years if GDP drops by more than 6% in a year. In addition, strictest sanctions (band 4) do not apply for one year if the response to a banking crisis, a natural disaster or international treaties require additional expenditures of more than 2% of GDP. Sanction band 4 also does not apply if sanctions according to bands 1-3 were fulfilled in previous years, if net debt was below the debt ceiling in the previous year or for one year after a new government is formed.

New expenditure ceiling

- Expenditure ceilings are set by the fiscal council for 4 years over the term of a new government and linked to long-term fiscal sustainability indicators. The ceilings are set in nominal level terms.
- Expenditure ceilings cover more than 80 % of general government expenditures. Debt service expenditure, EU funded expenditure, contributions to the EU budget, expenditures of local governments, one-off expenditures and cyclical unemployment benefit expenditure are excluded from the ceiling.
- The ceilings are updated by the fiscal council every year or at the request of the Ministry of Finance to reflect *inter alia* legislative changes that affect long-term sustainability of public finances, deviations from the ceiling in the previous year, changes in EU funding or contributions, and in case of severe changes to underlying macroeconomic assumptions.

The governance of public investment spending and public procurement should be further strengthened, in particular in light of the substantial expected inflows of EU funds in the coming years. The oversight role of the Ministry of Finance's Value for Money division in the selection and implementation of public investment project was strengthened in 2020. To improve the public investment framework further, sectoral and regional investment plans should be integrated into a national investment plan, and a project pipeline of appraised projects based on published selection criteria established (IMF, 2019). Budgeting of capital expenditures should be based on investment plans prepared by line ministries according to a predefined methodology ensuring cost-efficient delivery of economic and social benefits. Furthermore, a specialised unit could be established to strengthen the financial oversight of major state-owned enterprises.

The public procurement verification and control procedures should be further streamlined as their complexity has been one of the reasons for Slovakia's chronically low drawing of EU funds (EC, 2020b). Efforts to adequately train public procurement staff should continue. Slovakia has taken further steps to professionalise the public procurement staff and the Public Procurement Office opened regional offices in 2020 to help with legal interpretation of the procurement law and training activities at local level. In addition, the Public Procurement Office is preparing conflict of interest guidelines. To tackle corruption and fraud related to the management of European Structural and Investment Funds, the corruption risk assessment should be further enhanced, including by making better use of data driven tools and national and external databases (OECD, 2019c). In addition, a more systemic approach to fraud and corruption is needed, including by establishing formal mechanisms for coordination among authorities and better training to manage fraud and corruption risks (OECD, 2019c).

Pension, health and long-term care reforms are needed to contain fiscal pressures from ageing, as discussed in detail in Chapter 2. EU projections indicate that ageing-related expenditures as a share of GDP could rise by more than 10 percentage points by 2070, more than in almost all other OECD countries. The effective labour market exit age is among the lowest in the OECD. Prolonging working lives through linking the statutory retirement age to life expectancy, as the government plans, will improve pension sustainability significantly, and mitigate negative effects of ageing on growth. In contrast, the proposed introduction of the so-called parental bonus, which is a bonus to the pension benefits of parents as a percentage of their children's social security base, should be reconsidered as it hampers pension sustainability. In addition, the early retirement option for mothers should be phased out. Moreover, stronger financial (e.g. pay-for-performance schemes), and non-financial incentives may be needed to strengthen the gatekeeping role of GPs, and increasing the specialisation of many small hospitals can improve efficiency. Constructing an integrated long-term care model as recommended in previous *Surveys* would reduce inefficiencies and improve access to long-term care services (OECD, 2017).

Making the tax system more growth and environmentally friendly

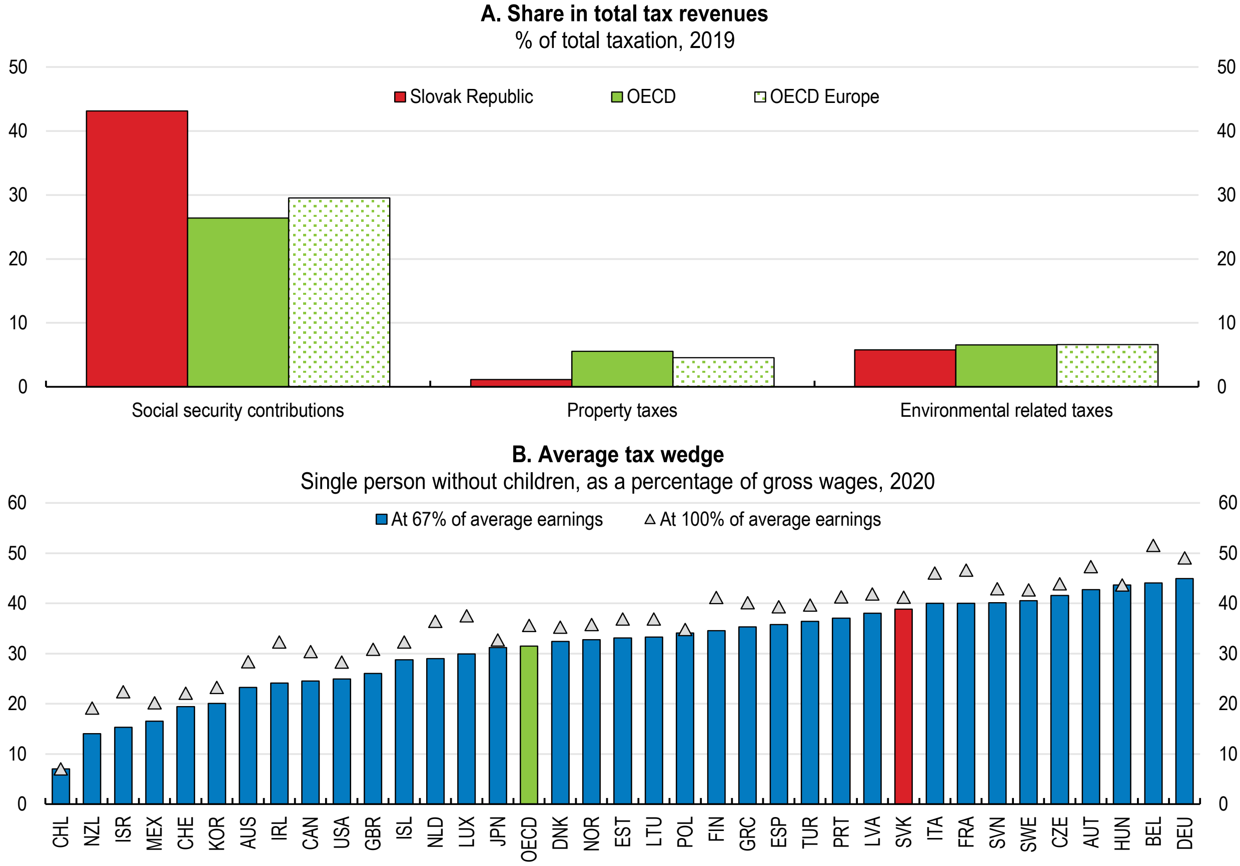
Overall, the tax burden increased over the last decade and was close to the OECD average of around 34% of GDP in 2019. The tax mix relies heavily on social security contributions (Figure 1.13, Panel A). This is also reflected in an internationally high tax wedge in particular on low-income earners (Panel B), with likely negative effects on the employment of low-skilled workers. The high tax wedge is largely due to high employer social security contributions and in particular high health insurance premia by international comparison. Rapid population ageing will put further pressure on the financing of social security systems and hence contribution rates. In contrast, the tax burden on property and environmentally harmful activities is comparatively low.

A tax reform with the aim of shifting the burden from labour to consumption, property and environmentally harmful activities, as is planned in the government recovery programme, has the potential to reduce distortions to economic growth (Arnold et al. 2011). A tax system that relies less on taxes from labour would also make tax revenues more resilient to the impact of ageing.

Instead of raising the VAT rate, the government could consider broadening the VAT base. The standard VAT rate at 20% is close to the average rate across OECD countries but somewhat lower than in neighbouring CEE countries. A reduced VAT rate of 10% and exemptions exist for a number of goods and services, such as certain food items, including fruits and vegetables, and accommodation services (OECD, 2020d). Preferential rates and exemptions are frequently used to address equity issues. However, this is often inefficient, because exemptions and preferential rates benefit all households, including the affluent (OECD, 2018). Furthermore, differential VAT rates provide opportunities for tax evasion by re-classifying goods to benefit from lower rates. Finally, raising VAT revenues through base broadening instead of rate increases tends to be more growth-friendly (Acosta-Ormaechea and Morozumi, 2019). The government should assess the costs and benefits of the reduced rates, and should gradually align those that mainly benefit higher income households to standard rates.

The government should increase revenues from property taxation and change the tax base for recurrent taxes on immovable property to market values. Recurrent taxes on immovable property are less distorting than taxes on labour. However, as many low-income households own their homes through restitution in Slovakia, property taxes could impose a heavy burden on such households. To avoid regressive effects and make higher property taxes more politically acceptable, a minimum amount of the property value could be exempted or means-tested exemptions for low-income households introduced. Tax increases could be phased in gradually, and deferrals for liquidity-constrained households introduced. In addition, Slovakia is one of few OECD countries that still uses an area-based assessment for recurrent real estate taxes. Basing real estate taxes instead on regularly updated market values could increase revenues without increasing tax rates. In addition, it would make property taxation fairer and can reduce house price volatility.

Figure 1.13. Revenue relies heavily on social security contributions and the tax wedge is high



Note: The OECD and OECD Europe aggregates are an unweighted average of the countries in the group. In Panel B, the tax wedge is the sum of personal income tax and employee plus employer social security contributions together with any payroll tax less cash transfers, expressed as a percentage of labour costs for a single person (without children) on average earnings.

Source: OECD Global Revenue Statistics database; OECD Environmental policy database; and OECD Taxing wages database.

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The government should also broaden the base for social security contributions. The self-employed often pay only the minimum or no social security contributions, due to a high degree of discretion in setting the contribution base (Chapter 2). The government should better align the contribution base between employees and the self-employed with similar earnings. In addition, the tax treatment of pensions is very generous - both pension contributions and benefits are fully exempt from income tax and social security contributions. As contributions to health insurance entitle contributors to health coverage the same year, pensioners should be liable for such contributions. While this would reduce the net replacement rates of pensioners, which are above the OECD average, the negative effect could be offset by changes in pension parameters. A more targeted approach would be to only keep health contribution exemption for low-income pensioners.

To improve environmental outcomes, environmental taxes should increase and be adjusted to ensure a more consistent pricing of carbon and other pollutants across fuels and uses (see below). In 2018, only 30% of carbon emissions were priced above EUR 30 per tonne of CO_2, a low-end estimate of the social costs of carbon (OECD, 2021a). Remaining fossil fuel subsidies, such as the exemption of natural gas from excise taxation for consumption for certain purposes, should be phased out. In the medium-term, the government should consider introducing an explicit carbon price in sectors not covered by the EU-ETS, such as transport and buildings. However, higher carbon prices should be accompanied by measures to cushion the effect on the poor and improvements in public transport services, especially in rural areas.

Efforts to improve tax collection and reduce tax evasion should continue. The collection of VAT has improved significantly but the VAT gap remains very high at 16% in Slovakia compared to an average gap of 10% in the EU (EC, 2021a). Bringing the VAT gap to the EU average could increase tax revenues by around 0.5% of GDP (MoF, 2021). Tax evasion is also an important concern for the corporate income tax (CIT). For example, (deliberate) non-compliance with the CIT resulted in estimated tax revenue losses for the small and medium-sized firms segment of close to EUR 360 million (0.45% of GDP) or 25% of the CIT revenues from such firms in 2015 (Chudy et al., 2020). Non-compliance was particularly prevalent in micro-firms and in the wholesale and retail sector. The full rollout of electronic cash registers and the planned introduction of electronic invoicing from 2022 has the potential to reduce VAT and CIT evasion. The availability of electronic invoicing systems can also allow tax administrations to pre-fill CIT and VAT return to reduce compliance costs, as in done in a pilot project for VAT returns in Spain for example (OECD, 2021f). Taxpayer education programmes targeted at micro and small businesses can also improve compliance. Reducing CIT non-compliance requires strengthening and better targeting audits through risk-based analytical tools, and centralising the selection of audits across units of the tax administration based on transparent selection criteria. Resources for tax audit are often used ineffectively on inactive firms, highlighting the need to frequently update the taxpayer register (Chudy et al., 2020). Improving corporate income tax collection could create room to lower the statutory corporate income tax rate, with potential positive impacts on FDI inflows. The CIT rate at 21% is close to the (unweighted) OECD average but higher than in several Central and Eastern European countries.

Box 1.5. International examples to improve tax collection

Electronic invoicing: In Hungary, in the year of the introduction of the mandatory online invoice data reporting (2018), the VAT payment balance increased by 11% compared to the previous year and showed a further increase of 15% in 2019. The system allowed the national tax administration to detect fraudulent invoicing, take more targeted and faster action against international offenders, and make a clear distinction between fraudulent and compliant taxpayers.

Voluntary compliance: Canada's Revenue Agency's Liaison Officer Service is designed to help small businesses and self-employed individuals by providing them with free, personalised support, information, and guidance about their tax obligations and responsibilities. The objective is to reduce their compliance burden by making it easier for them to comply and to avoid costly intervention in the future. It takes an innovative approach by shifting to offer the service from in-person visits to virtual ones through telephone and secure videoconference platforms.

Audits: In Canada, Artificial Intelligence (AI) techniques were applied to all stages of the internal audit, evaluation, and risk management processes by Canada Revenue Agency. For instance, in 2021, full populations were analysed using machine learning models rather than a random sample when searching for potential risks of internal fraud, allowing to make more informed decisions on how to mitigate the risk of fraud.

Source: (OECD, 2021f)

Table 1.6. Past OECD recommendations fiscal framework and tax policies

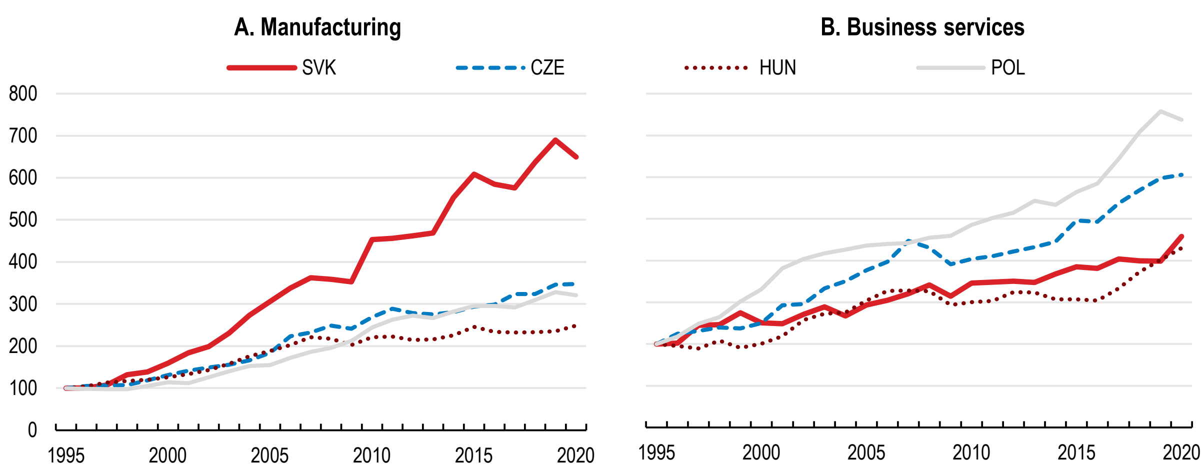
Recommendations in previous Surveys	Actions taken since 2019
Implement the constitutional provision of multi-annual binding spending ceilings to reinforce budget discipline in upturns	In 2020, the government submitted to the National Council an amendment to the constitutional act on budget responsibility to implement spending ceilings and the transition to net debt targets.
Strengthen the Value for Money initiative, use the results to develop concrete proposals for efficiency improvements, and integrate them in medium-term fiscal planning	New amendments to the budgetary rules strengthen the oversight function of the Value for Money Department in the selection and implementation of public investments. EUR 107 million worth of saving measures identified in the 2019 spending review on health care were included in the 2021 budget.
Further shift the tax burden from labour to less distortive bases such as property, alcohol and environmental externalities such as air pollution. Increase energy taxes.	No action taken.
Further enhance the efficiency of tax administration. Continue efforts to improve tax collection.	The use of electronic cash registers for all taxable persons is mandatory from 2020, with an online connection to the financial administration ('eKasa').

Transforming Slovakia into a knowledge-based society

Boosting productivity growth is key to accelerating economic convergence and improving living standards in ageing societies. Productivity growth in Slovakia has significantly slowed since the global financial crisis (Figure 1.2), even if it remains high by international standards. The slowdown partly reflects diminishing benefits from Slovakia's integration into global value chains and has been accompanied by a marked downturn in FDI inflows. However, it is also due to limited knowledge spillovers from large, multinational enterprises, concentrated in the manufacturing sector, to smaller, domestic firms in the services sector (OECD, 2019a). Productivity gains in services sectors have been modest compared to peers (Figure 1.14). To sustain productivity growth, Slovakia needs to broaden its drivers of growth and develop its capacity to innovate and adopt new technologies.

Figure 1.14. Productivity gains have been large in manufacturing but modest in services sectors

Gross value added per hour worked, constant prices, index 1995=100



Note: Business services exclude real estate.
Source: OECD Productivity database.

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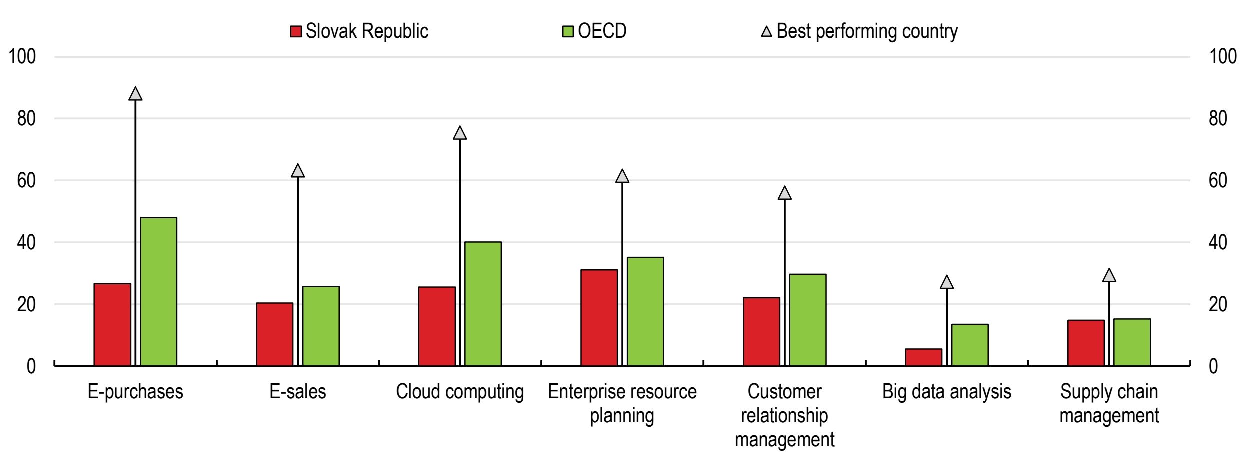
The COVID-19 crisis provides challenges but also opportunities for productivity growth and inclusion. Falling investment, supply chain disruptions, lower mobility of workers across sectors and firms, erosion of unemployed workers' human capital and students' educational losses because of school closures may jeopardise prospects for productivity and inclusiveness (OECD, 2021b). At the same time, the crisis has accelerated the digital transformation. The surge in telework, the large rise in e-commerce, and the continuity of access to public services during lockdowns are a testament to these changes (OECD, 2020a; OECD, 2021b). The recovery provides a unique opportunity, helped by the Next Generation EU funds, to ensure that the benefits from the digital transformation are broadly shared.

Indeed, Slovakia has a vast underexploited potential to unleash the benefits of the digital economy. The country is severely lagging behind in a number of dimensions of the digital transformation. For example, Slovakia only ranks 22 out of the 27 EU countries in the European Commission's Digital Economy and Society Index (EC, 2021c). In addition, firms lag in the adoption of many digital tools and technologies compared to firms in other OECD countries (Figure 1.15), with smaller firms significantly lagging behind larger firms.

A broad range of policy actions are needed to foster technology diffusion and productivity growth. This includes ensuring adequate skills, complementary investments in intangible assets (e.g. R&D), enhancing the business environment to foster business dynamism, as well as better access to digital infrastructure and government services (OECD, 2021b). The potential gains in terms of technology adoption and productivity growth are large (Figure 1.16). To address some of the shortcomings, the government launched the *2030 Digital Transformation Strategy for Slovakia*. The 2019 A*ction Plan for the Digital Transformation of Slovakia for 2019 – 2022* prioritises measures in the areas of: a) education to improve employability and digital skills of the workforces; b) data and digital economy (e.g. network, innovation ecosystem, smart mobility, Fintech); c) modernisation of the public administration; and d) the development of artificial intelligence. Furthermore, in 2021 the government adopted a *Strategy and Action Plan for Improving Slovakia's position in the Digital Economy and Society Index (DESI) until 2025* with complementary measures.

Figure 1.15. Firms' adoption of digital technologies is low

% of firms which adopt each technology



Note: The OECD aggregate is an unweighted average across all OECD countries for which data are available, taking the latest available year (ranging from 2020 to 2014, depending on the country and on the technology). For Slovak Republic, data for e-sales, cloud computing and big data analysis refer to 2020; data for enterprise resource planning and customer relationship management refer to 2019; data for e-purchases refer to 2018; data for supply chain management refer to 2017.
Source: OECD ICT Access and Usage by Businesses database.

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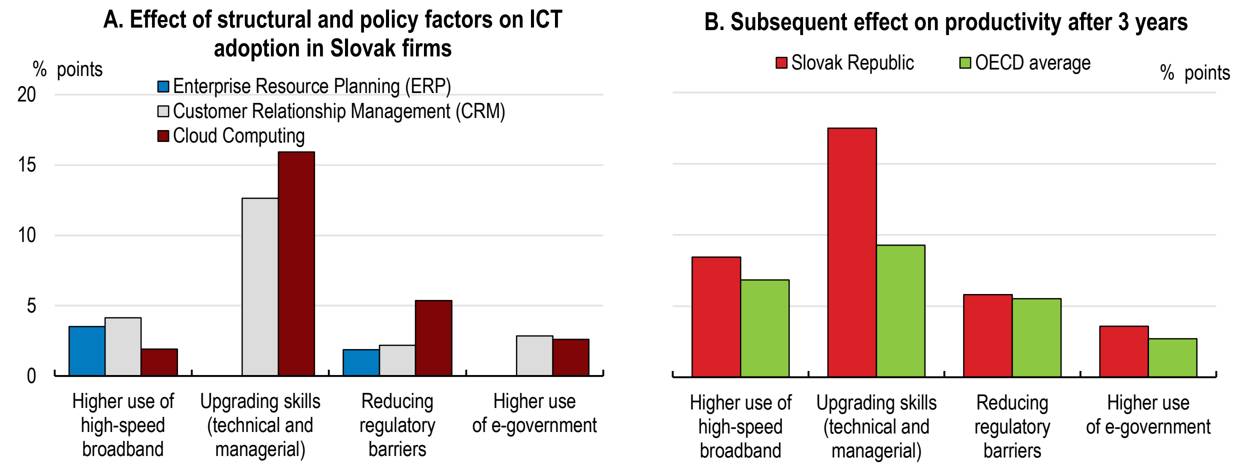
Figure 1.16. The potential to foster technology diffusion and productivity growth is large



Note: Estimated effect on the average adoption rate of selected ICTs (Panel A) and the multi-factor productivity (MFP) of the average firm (Panel B) of a range of policy and structural factors. For each of the underlying indicators, it is assumed that half of the gap to the best performing country in the sample is closed. It is also assumed that policy factors in each group are largely independent from each other.

Source: Based on Sorbe, S., et al. (2019), "Digital Dividend: Policies to Harness the Productivity Potential of Digital Technologies", OECD Economic Policy Papers, No. 26, OECD Publishing, Paris, https://doi.org/10.1787/273176bc-en.

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Improving educational outcomes and enhancing skills

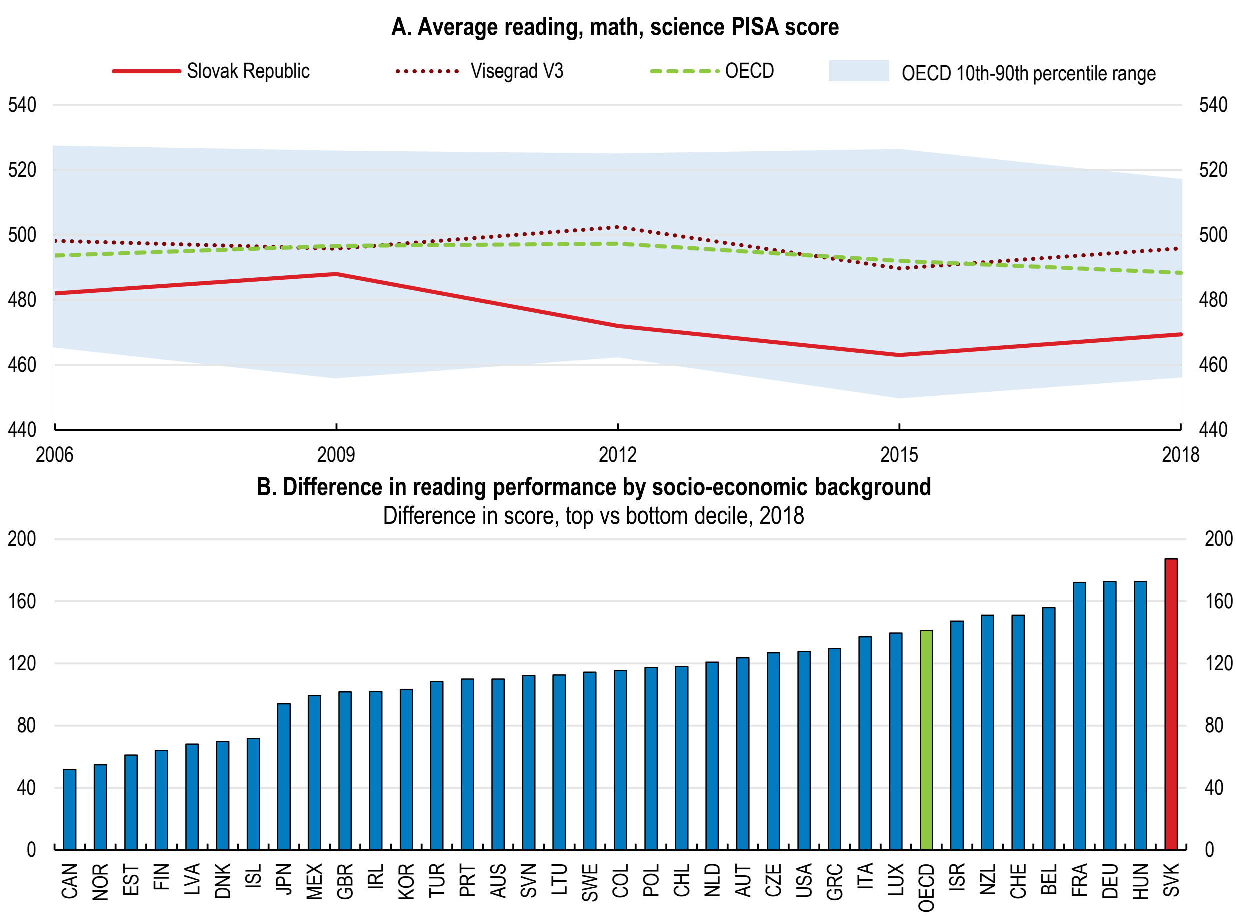
Educational outcomes remain weak. The skills of 15-year-old Slovaks, as measured by the latest PISA results, lag significantly behind those in other OECD countries, especially in reading and science literacy, while results in mathematics are close to the OECD average (Figure 1.17, Panel A). Despite a slight improvement compared to 2015, overall educational outcomes are weaker than a decade ago, in particular in science (OECD, 2019d). In addition, roughly a third of students are low performers in reading, compared to less than a quarter on average in the OECD.

Significant equity concerns also remain and may be exacerbated by the COVID-19 crisis. The impact of students' socio-economic background on student performance is the strongest in the OECD (Figure 1.17, Panel B). Outcomes are particularly weak for the Roma population. The difference between the 2015 PISA scores of Slovak Roma and non-Roma speaking students in mathematics and reading equals almost 160 points, a gap equivalent to almost five years of schooling (OECD, 2019a). In the Slovak Republic, low- and high-performing students are more often clustered in the same schools than on average in the OECD (OECD, 2019e). The COVID-19 crisis may further aggravate these differences. During the first wave of the pandemic, about 7.5% of the primary and secondary student population were not involved in distance education. The share of pupils with special needs, from disadvantaged socioeconomic backgrounds, and in the eastern regions of Slovakia, where most of the Roma population lives, was disproportionally higher (Ostertágová, Čokyna, 2020). Similarly, survey evidence suggests that during the second wave around 10% of pupils did not participate in distance learning (Ostertágová, Rehúš, 2021).

High-quality pre-primary education is crucial for developing children's skills and improving the inclusiveness of the educational system. The participation rate of children in pre-school education has increased in Slovakia, but is still substantially below EU and OECD averages (Figure 1.18, Panel A). Enrolment in pre-primary education is also highly heterogeneous. The enrolment rate of 3-5 year olds in households that receive assistance in material need (AMN) and households from the marginalized Roma community (MRC) are substantially lower (Figure 1.18, Panel B). In addition, districts with higher unemployment rates exhibit significantly lower pre-primary enrolment rates (OECD, 2020b). Insufficient supply of places, in particular in municipalities with a high share of Roma population, are one of the reasons for the low enrolment rates (MoF, 2020a; OECD, 2019a).

Pre-primary education will become mandatory for 5-year-olds from the 2021/22 school year. The recovery plan also foresees additional investment in pre-school facilities. This is crucial to avoid future demand from 5-year olds crowding out younger children and to ensure high-quality education. The government should continue to expand early childcare opportunities to younger children, for example with a legal entitlement for 3 and 4 year-olds to attend pre-primary education as is planned in the recovery programme (OECD, 2020b). To ensure participation of disadvantaged groups, priority should be placed on raising awareness of the positive long-term effects of pre-primary education and building trust through relationships with parents, especially in Roma communities. Designated contact persons, who are trained and equipped with necessary language skills, could help with administrative requirements for enrolment (OECD, 2020b). There is also scope to adjust financial and non-financial assistance. For example, school meal subsidies have been shown to improve enrolment among Roma children (MoF, 2020a). However, only about one-third of children at risk of poverty or social exclusion in kindergartens received meal subsidies and the subsidy has not been raised in nominal terms since 2011. In addition, improving public transportation between Roma settlements and municipalities with pre-school facilities could strengthen participation in pre-school education.

Figure 1.17. Educational outcomes are weak and vary strongly with socio-economic background



Note: In Panel A, Visegrad V3 includes Czech Republic, Hungary and Poland. In Panel B, when scores for the bottom decile were not available, either the second or middle decile scores were used to compute the top-bottom-decile difference. Similarly, when scores for the top decile were not available, the ninth decile scores were used.

Source: OECD (2019), PISA 2018 Results (Volume I-III), OECD Publishing, Paris; OECD (2016), PISA 2015 Results (Volume I-III), OECD Publishing, Paris; OECD (2013), PISA 2012 Results (Volume I-III), OECD Publishing, Paris; OECD (2010), PISA 2019 Results (Volume I-III), OECD Publishing, Paris; OECD (2008), PISA 2006 Results (Volume I-III), OECD Publishing, Paris; and OECD calculations.

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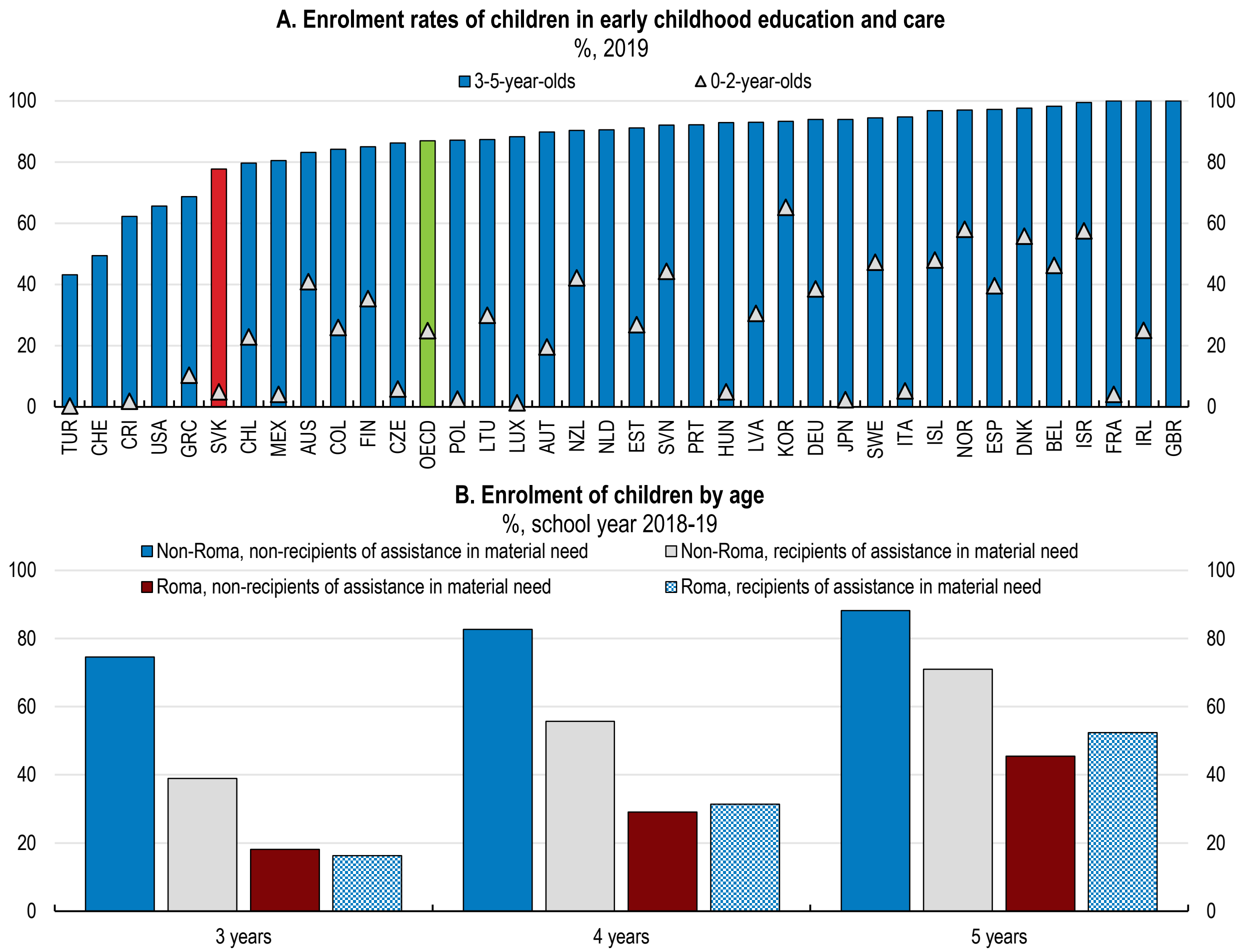
Figure 1.18. Enrolment in pre-school education is low and heterogeneous



Source: OECD Education database; ministerial IS; Central Labour Office; Ministry of Interior; and the Atlas.

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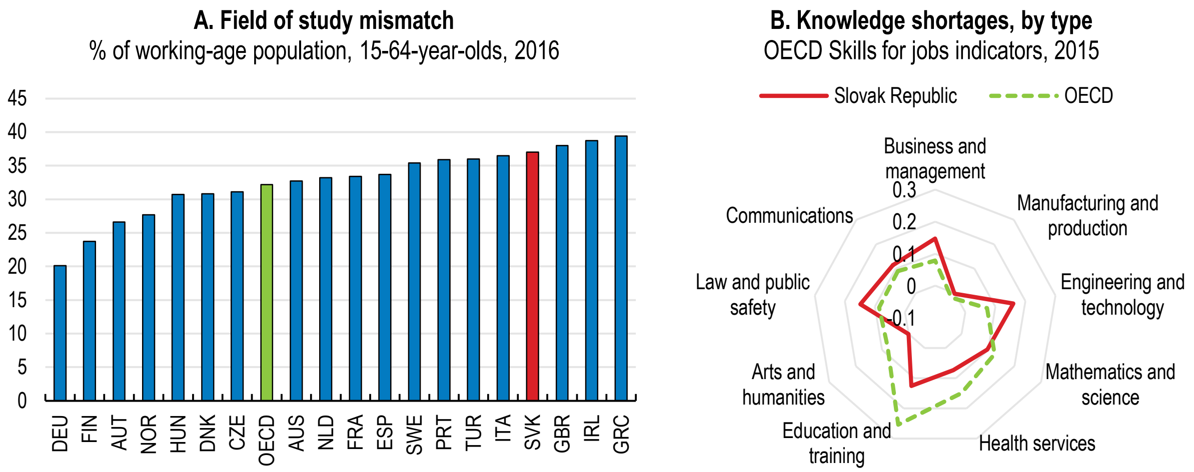
Building a strong teaching workforce is critical for improving the skills of youth. A number of factors hinder Slovakia's capacity to attract and retain high-quality teachers in the education system. For example, only 4% of teachers believe that teaching is a profession valued by society, the lowest among TALIS participating countries (OECD, 2020b). Despite recent increases, teachers still only earn around 70% of the average tertiary-educated person in Slovakia (MoF, 2020b), compared to around 90% on average in the OECD (OECD, 2020f). Higher pay can attract better teachers but this should be flanked by measures to improve the training and work environment of teachers. The *OECD Skills Strategy* (OECD, 2020b) stresses, for example, the need to foster practical aspects in the higher education institution's curriculum of teachers, unifying teaching standards across the system and improving the mentoring programme for young teachers. In addition, the diversity of professional development opportunities should be enhanced with a focus on areas with the greatest needs, such as educating pupils from disadvantaged backgrounds. The recovery programme includes several welcome reforms. For example, the planned regional support centres for teachers, will *inter alia* provide assistance in curriculum development, mentoring, counselling and consultation activities (Table 1.7). In addition, grants will be provided to universities for new programmes that support the introduction of inclusive education, the education of pupils with different mother tongues and the development of digital competences in the teacher training curriculum.

More attention needs to be paid to the most vulnerable students and schools. The number of early-school leavers has increased strongly in recent years. In 2017-2018, 37% of 16-year-olds from marginalised Roma communities had dropped out before the final year of lower secondary education (MoF, 2020a). In addition, too many students from disadvantaged backgrounds are enrolled in special needs schools. The number of pupils in special education in Slovakia is nearly four times higher than the EU average, with around half of these students from families receiving material needs assistance or from marginalised Roma communities. The government plans to improve the assessment of mental disabilities to reduce the number of students transferred to special schools and to better integrate students with light mental disabilities into the regular school track. However, even if enrolled in regular schools, vulnerable students are not always supported adequately. Besides the need to provide better training to teachers dealing with vulnerable students, stronger co-operation and communication between schools, vulnerable students' families and social services is needed. Increasing the diversity of the teaching workforce for example through more Roma teachers and teaching assistants can heighten intercultural awareness and teachers can act as a positive role models (EC, 2016). Examples of successful projects show that Roma teaching assistants improve the educational achievements of Roma children and help change attitudes of Roma parents towards higher school attainment (OECD, 2019a). To tackle these issues, the government plans to adopt an Inclusive Education Strategy. Implementation of the strategy as well as sustainable financing of the planned measures will be crucial. In addition, kindergartens with a high proportion of children from socially disadvantaged backgrounds will be able to apply for support to hire assistant teachers. Priority will be given to Roma-speaking candidates from the local community.

Skills mismatches and shortages are significant, especially in areas related to the digital economy and entrepreneurship. Skills mismatches can negatively affect economic growth through their effects on increased labour costs, lower labour productivity growth, slower adoption of new technologies and lost production associated with unfilled vacancies (OECD, 2016b). Field-of-study mismatch, meaning that workers educated in a particular field work in a different field, is high (Figure 1.19, Panel A). Critical shortages exist in particular in engineering and technology as well as in business and management (Panel B). While literacy and numeracy skills of adults are comparatively strong in Slovakia, many adults do not have the right skills to succeed in an interconnected, digital world. Self-assessed digital skills are lower than in most EU countries, especially among older workers (Eurostat, 2021). Shortages exist in ICT related skills such as complex problem solving and systems skills. According to the Survey of Adult Skills (PIAAC) data, fewer than 35% of 25- 34 year-old Slovaks score high in problem-solving in technology-rich environments, compared with an OECD average of almost 45%. There are also shortages in some technical and managerial skills such as operations analysis, programming and resource management skills.

Figure 1.19. Skills mismatches are high and skills shortages in some segments significant



Note: In Panel A, field-of-study mismatch indicates the workers employed in a different field from what they have specialised in. In Panel B, positive values indicate skill shortage while negative values point to skill surplus. The larger the absolute value, the larger the imbalance. The OECD Skill for jobs indicators are constructed by an index of the labour market pressure on occupations, which is multiplied by an index of skill intensities. First, the labour market pressure (shortage/surplus) is identified at the occupation level from labour market data such as wage growth (measured in terms of deviation from the long-run trend of the whole economy). Then, this is used to map occupations that are in shortage or surplus into the underlying knowledge types/skills requirements (for e.g. computer and electronics) for these occupations. The underlying knowledge types/skills requirements for each occupation are defined in O*NET and measured in terms of a min-max scaling varying between 0 and 1.
Source: OECD Skills for Jobs database.

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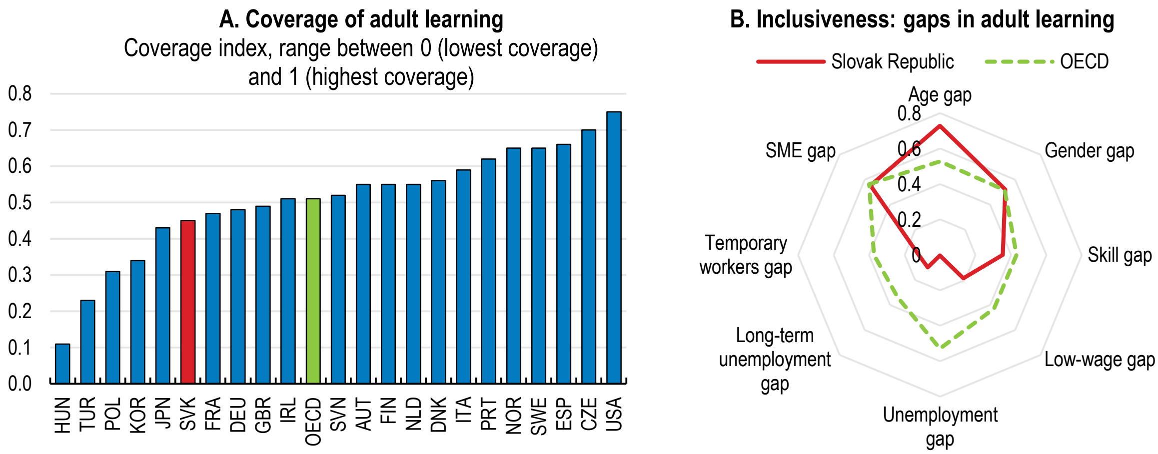
Reducing skills imbalances and shortages calls for further progress in disseminating information about labour market and skills needs. The authorities have set up a graduate tracking system as recommended in previous *Surveys* (Table 1.7). However, further room exists to consolidate results from several skills assessment and anticipation exercises and better tailoring them to the respective users (OECD, 2020b). Consolidated results could be made available in the form of a report (e.g. as in Norway) or in an electronic portal (e.g. as in Estonia). A one-stop-shop portal that allows students and their families to access information on labour market and skills needs and study opportunities, as in Denmark and Poland, could be established. Career guidance in schools and higher education institutions can also be strengthened by setting up clear standards and providing targeted funding. Another way of aligning student choices with labour market needs is to allow enrolment in VET programmes with a work-based learning component only once a placement with a company is secured, as done, for example, in Denmark, Germany and Switzerland.

Further progress is needed to make the educational system more responsive to labour market needs. Since the 2016/17 academic year, the funding per student for vocational schools reflects to some extent labour market demand for different occupations. In 2015, the government introduced a dual VET model to increase opportunities for work-based learning. However, uptake of the dual model remains low and participation by SMEs is limited. To improve participation by firms, financial incentives (tax deductions or subsidies) have been enhanced. These financial incentives should be evaluated. Funding could be enhanced to support the set-up of employer training associations (esp. among SMEs) as in Switzerland and Austria. In these association groups of employers share the costs of organising work-based learning. The government could also consider setting up local trade committees that provide information to local firms, help schools with curriculum development and support quality assurance as in Denmark (OECD, 2020b).

Incentives in tertiary education could also be further strengthened to align outcomes better with labour market needs. For example, the funding formulas of higher education institutions could be further refined to partly reflect the employability of graduates, by making use of the newly established graduate tracking database. As argued in previous *Surveys* (Table 1.7), the uptake of professional/vocational bachelors should be further encouraged. This could be done by including this goal in performance agreements or by introducing a separate funding model and governance structure to transform some existing higher education institutions into professionally-oriented institutions (e.g. in Italy and the Netherlands). These professionally-oriented institutions could specialise in the delivery of professional bachelor programmes and more applied research (e.g. in the Netherlands) (OECD, 2020b).

There are important gaps in the life-long learning system in Slovakia. The coverage of the system is low compared to other OECD countries (Figure 1.20, Panel A). Participation is particularly low for groups that would benefit most from adult learning participation. Participation among the low skilled, low-income workers as well as the unemployed is among the lowest in the OECD (Panel B, OECD, 2019b).

Figure 1.20. Participation in life-long learning is low and unequal



Note: Indicators normalised to 0-1, 1 = top OECD country and 0 = bottom OECD country. "Coverage" assesses the extent to which individuals and employers are engaged in adult learning; "Inclusiveness" looks at how equitable participation in adult learning is across countries. More specifically, in Panel B, age gap shows the percentage point difference in participation between older (>55) and prime age population (25-54); gender gap shows the percentage point difference in participation between women and men; skill gap shows the percentage point difference in participation between low-skilled and medium/high-skilled adults; low-wage gap shows the percentage point difference in participation between low-wage and medium/high wage workers; unemployment gap shows the percentage point difference in participation between the unemployed and employed; long-term unemployment gap shows the percentage point difference in participation between long-term unemployed and employed; temporary workers gap shows the percentage point difference in participation between workers on temporary and permanent contracts; and SME gap shows the percentage point difference in participation between workers in SMEs and larger enterprises.
Source: OECD Dashboard on priorities for adult learning database.

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To strengthen participation in lifelong learning, the government plans to adopt a new lifelong learning strategy in 2021. It will be important that such a unified strategy clearly sets out the governance structure with the aim to improve: a) coordination and co-operation between ministries, levels of government and stakeholders; b) financing arrangement to encourage uptake of life-long learning; and c) existing socioeconomic and regional inequalities in access (OECD, 2020b). Slovakia also plans to introduce pilot individual learning accounts from 2021 to 2027, similar to schemes in Scotland, Canada, France and the Netherlands. This plan is welcome, but it is important that the system is accompanied by strong guidance to steer training into relevant labour market fields, a robust quality assurance of training providers, and the programme should be regularly evaluated. Moreover, Slovakia's National Programme for the Development of Education considers introducing tax allowances for companies that invest in the training of their employees. If implemented, these tax incentives should be well-targeted. For example, SMEs could be allowed to deduct a greater amount of training costs from their taxable base (as in Malta) or the tax benefit could be limited to SMEs. Tax deductions could also be limited to non-wage costs so that companies do not have an incentive to give training to high-wage earners only. Finally, tax deductions should only apply to approved training courses (OECD, 2020b). Some adults are effectively excluded from training opportunities due to the lack of basic skills, in particular among the Roma. To enhance basic skills, the government could scale up successful projects involving direct field work to reach vulnerable groups.

Table 1.7. Past OECD recommendations on education and skills

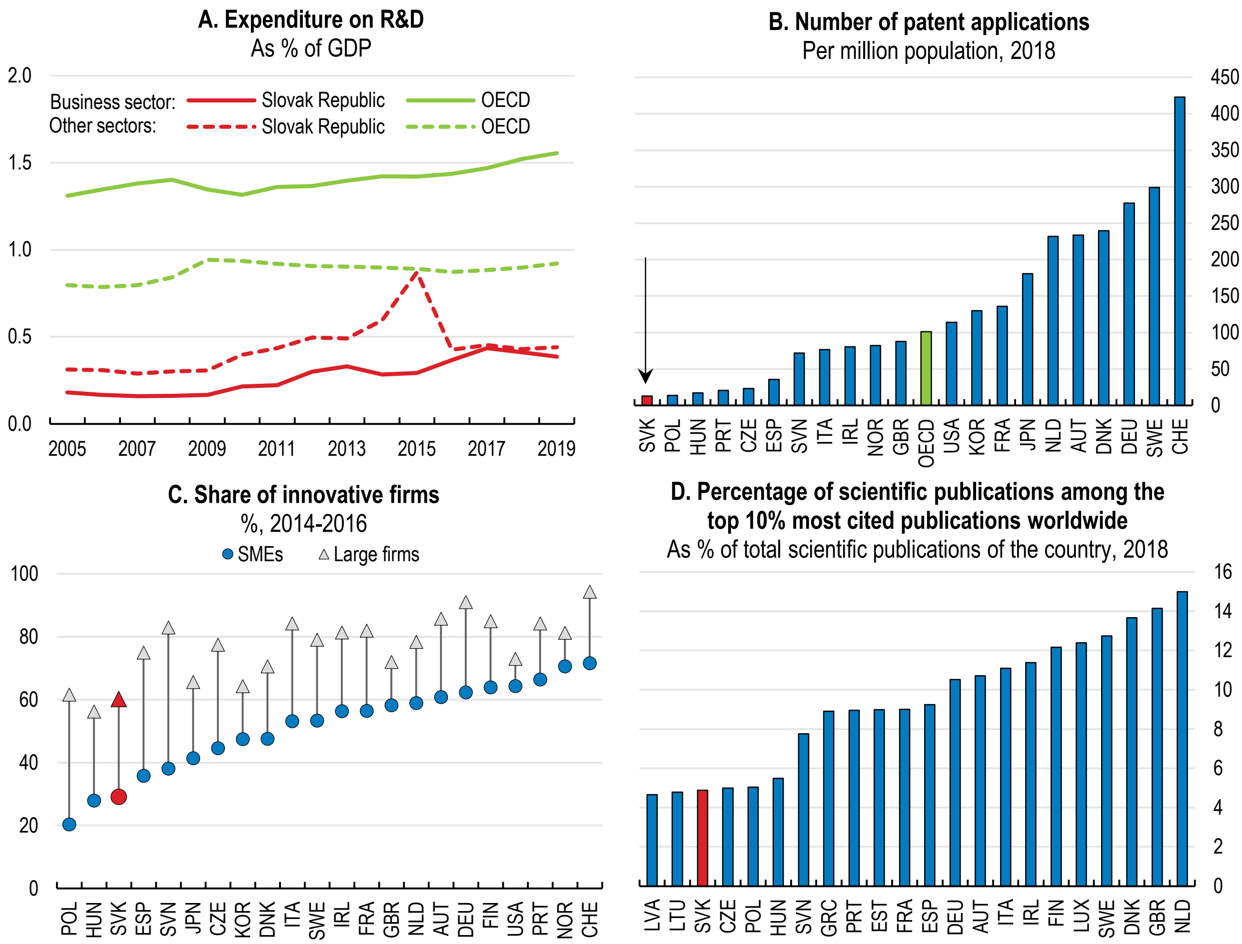
Recommendations in previous Surveys	Actions taken since 2019
Continue to expand the provision of high-quality early education and care, engage with parents to advertise its benefits, and remove financial barriers to attendance.	Compulsory pre-primary education is introduced for all children who reach the age of 5 by 31 August 2021. A legal right to early care facilities for 4 year-olds is planned for 2024, and for 3 year-olds for 2025.
Provide more funding for disadvantaged schools, particularly for Roma teaching assistants and higher salaries for teachers teaching in disadvantaged schools.	Salaries for teachers have been increased by 10% in 2019 and 2020. From January 2021, municipalities receive higher per capita allocation for educating children with special educational needs in kindergartens. From September 2020, about 3000 additional teaching, psychological and social assistants in kindergartens, basic and secondary schools.
Strengthen initial and continuing teacher training with a focus on methods to identify and address learning weaknesses.	Project on professional development of teachers including on crisis and post-crisis management and school interruptions over the period 2020-22. From September 2021, pilot project to establish regional support centres for teachers (peer mentors) to help schools and teachers in the areas of curriculum development, inclusive education, pupils' skills acquisition, and digital tools to evaluate pupils' educational progress.
Reduce the participation of Roma in special schools by better diagnostics and outreach towards Roma parents.	No action taken.
Publish high-quality analysis of graduates' labour market outcomes.	A tracking database for secondary and tertiary graduates was launched in early 2020.
Further involve businesses in higher education governance and introduce a general system of career guidance	Project (2016-2020) to increase the attractiveness and quality of dual VET programmes e.g. by improving information and teacher training. New accreditation standards for higher education institutions require strengthened stakeholder involvement, in particular of employers.
Create vocational bachelor programmes and strengthen practical experience in higher education curriculum.	From 2020, higher education institutions receive a financial bonus for graduates from vocational bachelor programmes.

Strengthening research and innovation capacity

Slovakia's innovation capacity is markedly lagging behind peers. Expenditure on research and development (R&D) is internationally low, especially business R&D (Figure 1.21, Panel A). R&D expenditure in other sectors is highly dependent on EU structural funds. After increasing until 2015, R&D expenditure declined again sharply related to the start of the new EU funding cycle. To reduce dependence on EU funds, it will be important that the government follows through with its commitment to increase R&D funding from the national budget by 0.05% per year over the period 2021-30. Slovakia also lags significantly behind in patent applications (Panel B), and the share of innovative firms (Panel C).

The government plans ambitious reforms to improve the quality of tertiary education. As highlighted in previous *Economic Surveys* (OECD, 2019a, 2017), the quality of higher education institutions needs to be improved: Slovak higher education institutions are poorly ranked by international comparison, they produce many publications but often of weak quality (Figure 1.21, Panel D), and tertiary education is relatively closed to international influences with a low share of foreign students and teachers. To improve quality, the independent Slovak Accreditation Agency for higher education was established in late-2018 and is now fully operational. The independent agency published binding standards of quality assurance for higher education institutions in 2020 with the goal to bring these in line with European standards. Funding for higher education institutions was updated in 2021 with a stronger weight on research output. In addition, performance contracts will be introduced in 2022, in which higher education institutions have to fulfil specific quality criteria based on audits to receive agreed funds. The performance contracts and planned mergers of higher education institutions will support the profiling, diversification, and creation of larger higher education institutions that will be better able to attract funding for high-quality research.

Figure 1.21. The innovation performance is weak



Note: In Panel B, the number of patent applications refers to applications by inventor and priority year to the PCT (Patent Co-operation Treaty), the EPO (European Patent Office) and the US (US Patent and Trademark Office).
In Panel C, SMEs refer to firms with 10 to 246 employees, while large firms to firms with 250 employees or more.
Source: OECD Main Science and Technology Indicators database; OECD Patents Statistics database; OECD Innovation Indicators database; European and Regional Innovation Scoreboards 2021; and OECD calculations.

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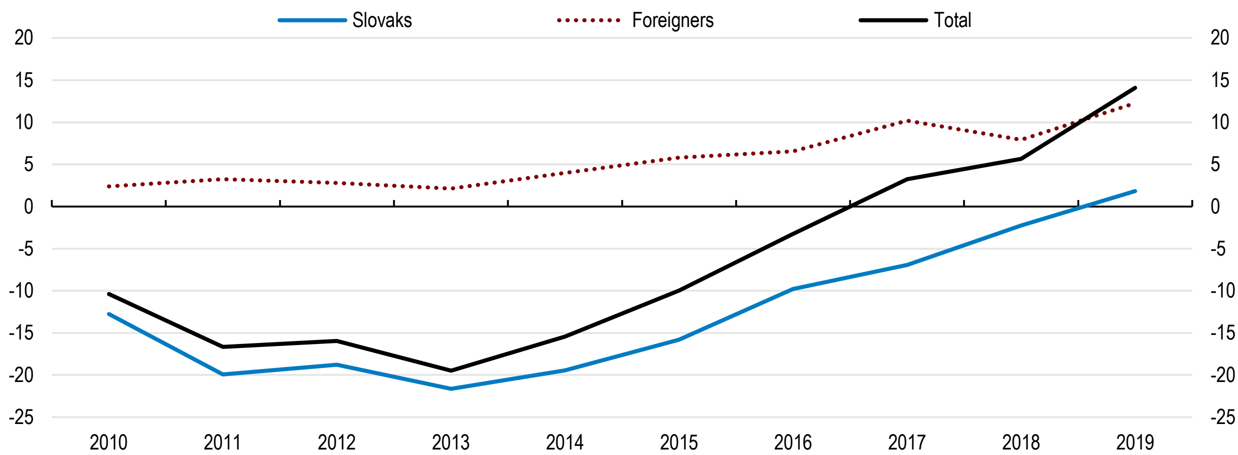
These planned reforms are welcome and in line with recommendations in previous *Economic Surveys* (Table 1.8). It will be crucial that the reforms are supported by adequate funding of higher education institutions, which is low by international comparisons (OECD, 2019a). In addition, research collaboration with innovative companies should be strengthened in the assessment of higher education institutions and public research institutions, and funding should effectively distinguish high- from low-quality research. In addition, higher education institutions need to be able to offer well-remunerated and high-quality research positions to attract high-quality foreign faculty members. As an intermediate step, the government should promote academic exchange programmes and scientific collaboration (OECD, 2019a).

Immigration is low and many high-skilled Slovaks leave the country. Net emigration from Slovakia has been stopped in the recent past, as more foreigners enter the country and fewer Slovaks leave (Figure 1.22). Nevertheless, immigration remains very low in comparison with other OECD countries and neighbours. Moreover, the share of Slovak high-school graduates that study abroad is the second highest in the OECD (Figure 1.23). The students who leave are the most successful students according to examination results and few of them intend to return home after their studies (Martinák and Varsik, 2020). This implies that Slovakia is losing some of its most-skilled workforce and potential researchers.

Figure 1.22. Net emigration has been stopped

Migration balance, thousands people



Note: The migration balance represents the difference between immigration and emigration flows.
Source: Ministry of Finance of the Slovak Republic.

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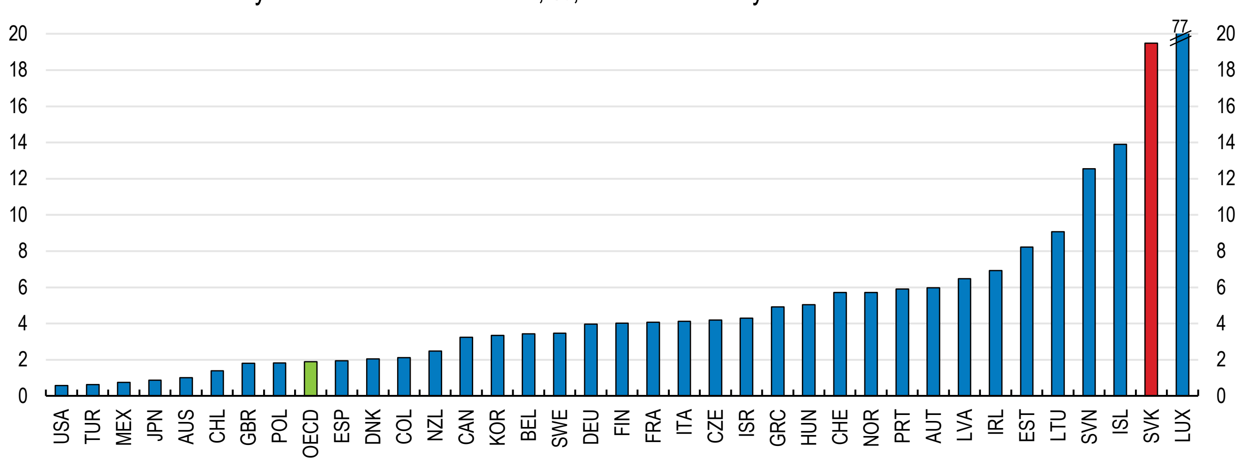
Figure 1.23. The share of tertiary students enrolled abroad is very high

Share of national tertiary students enrolled abroad, %, latest available year



Note: National tertiary students are calculated as total enrolment minus foreign students instead of total enrolment minus international students for CZE, GRC, ITA, KOR, SVK and TUR.
Source: OECD Education at a Glance database, last time updated on 16-09-2021.

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The government has continued to streamline the immigration process. A new law took effect in January 2019 to reduce the maximum processing time for work authorisations for so-called “shortage occupations” from 90 to 30 days. As part of the recovery programme, the government also plans to establish a fast-track scheme for highly qualified workers to further reduce the maximum time to acquire a work and residency permit. In addition, the list of “shortage occupations” will now be updated on a quarterly basis instead of annually. Finally, a new system streamlines the residency process (OECD, 2020g).

The government should further enhance efforts to attract and retain high skilled labour, including by encouraging return migration. The authorities could consider introducing a one-stop-shop portal with employment opportunities for foreign workers and Slovaks abroad similar to systems in Sweden, Estonia or Lithuania. Services to integrate foreigners could be strengthened, such as through the recognition of qualification (as in Austria), counselling (as in Germany), civic integration (as in Belgium) and language training (as in Portugal) (OECD, 2020b). To attract Slovak workers from abroad, the government should also develop and implement a diaspora engagement strategy, in close cooperation with representatives from social partners and NGOs (OECD, 2020b).

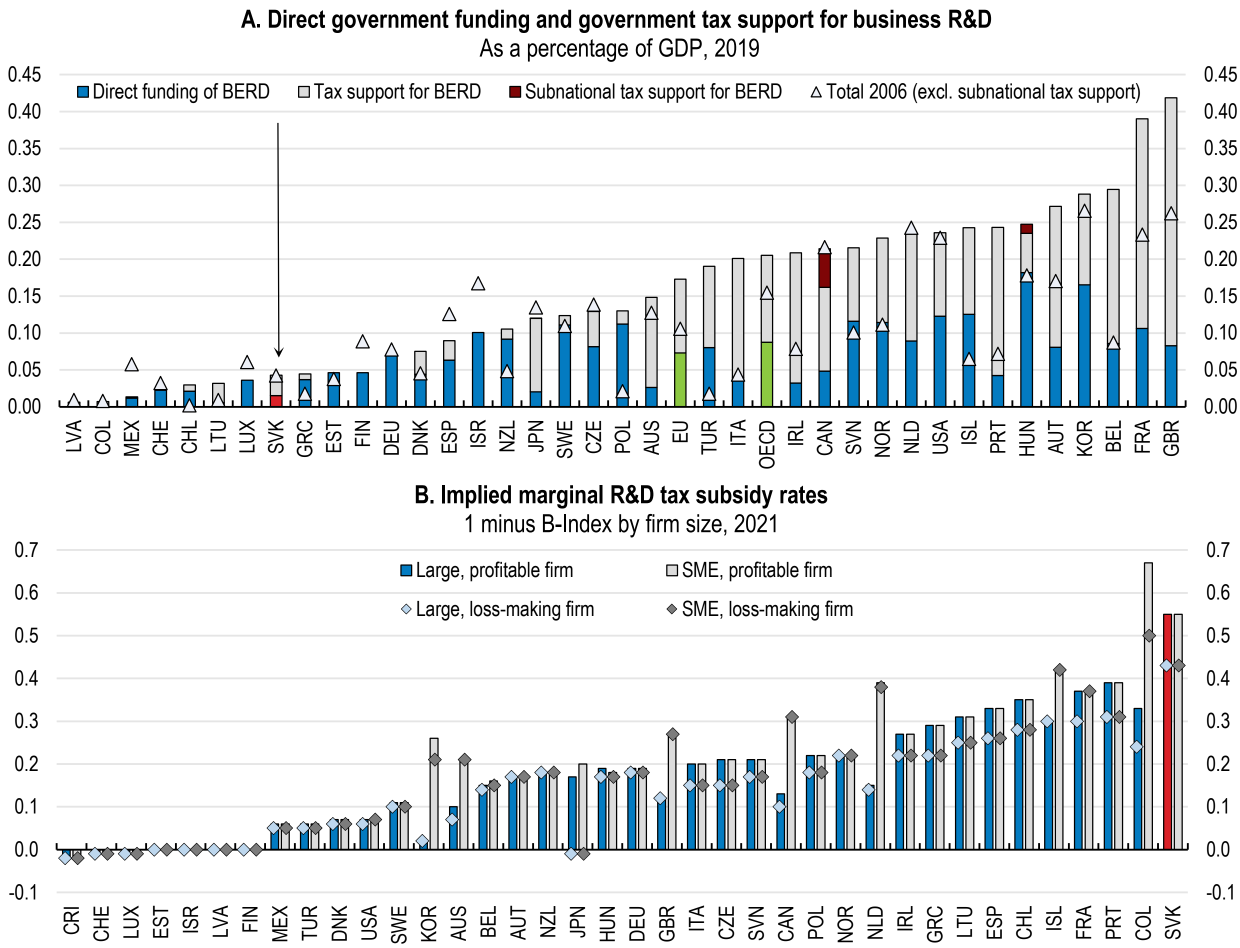
Government support for business R&D investment is low by international comparison (Figure 1.24). Similarly, the share of firms receiving support for innovation, at 4% of all firms, is low compared to an average OECD share of 11% (OECD, 2019f). Evidence suggests that public R&D funding can reduce the costs of adopting new technologies and ideas and hence speed up technology diffusion (Berlingieri et al., 2020). The government introduced a new R&D tax allowance in 2015 and increased the tax allowance significantly in 2018 and 2020 to 200% of eligible R&D expenditure. With the latest change, the marginal tax subsidies are among the most generous in the OECD (Figure 1.24). The authorities plan to reduce the tax allowance again to 100% in 2022. Take-up of the tax incentive by firms has increased over time, and in 2018 around 280 firms benefited from the R&D tax incentive (EC, 2020b). However, the share of SMEs receiving R&D tax support was only 30% in 2018, a much lower share than in many OECD countries (OECD, 2020h).

Given its high generosity, the tax scheme should be carefully evaluated. In particular, it should be assessed whether the scheme overly favours incumbents (Bravo-Biosca et al., 2016) and consideration could be given to target the scheme better to small and young firms. To benefit small and young firms, it is important that tax benefits include carry-forward provisions or cash refunds (Appelt et al., 2016). The R&D tax allowance in Slovakia can be carried forward up to five years. This is welcome, but cash refunds may be more beneficial for young firms, who may not have sufficient tax liability for several years and need financial support early in the innovation process. This concern is particularly relevant in Slovakia, given that external financing and especially venture capital opportunities are very limited (EC, 2020b). Australia, Canada, France and the United States are examples of countries that offer refundable R&D tax incentives that particularly target smaller R&D performers. Expenditure-based tax incentives could also go beyond R&D and target innovation activity more broadly, and include, for example, training, ICT investment or IP acquisitions as eligible expenditures. For example, the French innovation tax credit includes patent fees as eligible expenditure for SMEs, which may help small firms adopt new technologies.

The authorities could also give greater priority to direct support schemes, such as grants. Recent OECD research (OECD, 2020i) highlights the complementarity between tax incentives and direct funding for innovation support. R&D tax incentives tend to encourage experimental development more strongly, while direct funding tends to encourage basic and applied research. In addition, while tax incentives avoid “picking winners”, direct grants have the advantage of being easier to target to projects with high social returns (e.g. Appelt et al., 2016). Support could, for instance, be targeted to foster closer co-operation between private and public research and could help strengthen the country’s research capacities in areas such as the automotive sector where expertise already exists. The government could also directly support the establishment of venture capital funds. In Israel, for example, the government established the YOZMA group in the early 1990s, which took equity stakes in Israeli start-ups and provided equity guarantees for foreign investors. As the venture capital industry grew and matured, the government successfully phased out its equity involvement in the late 1990s (OECD, 2003). Furthermore, R&D tax incentives might generate more opportunities for tax evasion, for example by mischaracterising ordinary expenditures as R&D expenditures. This is a relevant concern in Slovakia given longstanding tax evasion problems (OECD, 2017).

The success of innovation policies will crucially depend on whether it is possible to streamline the currently fragmented governance system. Policy development and implementation suffer from a lack of coordination between ministries and implementing agencies, and the lack of a comprehensive, long-term research and innovation strategy (EC, 2020b). Major reforms have been regularly postponed. As part of the recovery programme the government plans to establish a single entity to coordinate the research and innovation support ecosystem. A strategic analysis unit is expected to take charge of the innovation strategy and the evaluation of existing instruments.

Figure 1.24. Overall public R&D support is low but tax incentives are very generous



Note: In Panel A, BERD refers to business enterprise R&D expenditure.

In Panel B, data reflect the tax treatment of R&D expenditure for SMEs and large enterprises in OECD countries, some of which, but not all, offer tax incentive support for business R&D expenditure. Data do not reflect preferential provisions for start-ups, young firms or a specific subset of SMEs (e.g. innovative SMEs). The B-index is a proxy for examining the implications of tax relief provisions, quantifying a number of qualitative features of a national tax system in the form of estimates of implied R&D tax subsidy that apply to generic or model types of firms. The B-index specifies the pre-tax income needed for a representative company to break even on a marginal, monetary unit of R&D outlay, taking into account provisions in the tax system that allow for an enhanced treatment of R&D expenditures. This includes preferential tax relief provisions in the form of more favourable tax credit or allowance rates that apply to SMEs in some countries. A representative firm is typically defined as one with sufficiently large profits to be able to fully make use of earned tax credits in the reporting period. It is customary to present this indicator in the form of an implied subsidy rate, namely one minus the B index. More generous provisions imply a lower "breakeven" point and therefore a higher tax subsidy. Implied marginal R&D tax subsidy = 1 minus B-Index.

Source: OECD R&D Tax Incentive database.

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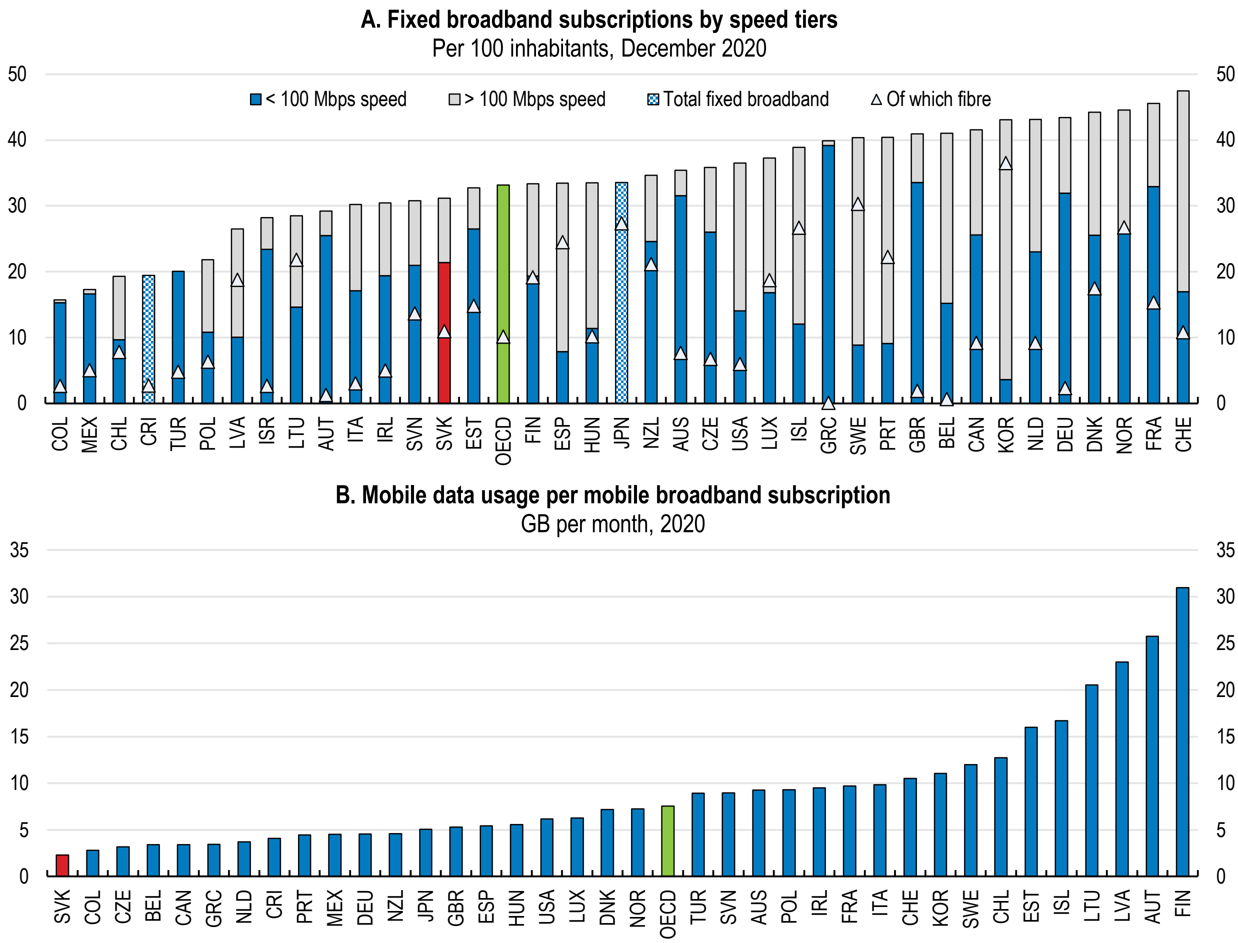
Table 1.8. Past OECD recommendations on innovation

Recommendations in previous Surveys	Actions taken since 2019
Include research collaboration with innovative companies in the assessment of universities and public research institutions.	3% of the funding of higher education and public research institutions is dependent on collaboration with innovative companies.
Create larger, internationally visible research units and reorient higher education institutions research funding to foster research at high international standards; adapt evaluation criteria accordingly.	The funding formula for higher education institutions has been updated with a stronger weight on research activity and outputs, effective from 2021. The independent Slovak Accreditation Agency is operational and will regularly assess the quality of higher education.
Continue to simplify work visa and residence procedures for highly skilled workers.	A new law took effect in January 2019 to reduce the maximum processing time for temporary residence permits for employment purposes from 90 to 30 days. The labour market test has been shortened and a new system streamlines the residency process.
Carefully monitor the implementation of the more generous R&D tax incentives recently adopted. Make the tax credit refundable.	The volume-based R&D tax deduction was increased from 150% to 200% and the carry-forward provision was extended from 4 to 5 years in 2020. The tax incentives have not been evaluated.
Consider providing direct support for centres of competence to strengthen public-private collaboration for research and innovation in areas such as the automotive industry.	No action taken.

Ensuring communication infrastructure and e-government services for all

Access to reliable and fast fixed and mobile broadband connections constitutes the backbone of a knowledge-based and digital economy. The COVID-19 pandemic has shown the essential role of broadband networks as work and education have shifted to homes. In Slovakia, fixed broadband subscriptions are slightly below the OECD average (Figure 1.25), with the share of high-speed internet subscriptions (speed faster than 100 Mbps) at 30%, lower than the OECD average at around 40%. In contrast, the share of fibre connections is slightly above the OECD average. Fibre networks can facilitate the deployment of 5G mobile networks, which offload mobile traffics into fixed networks. The deployment of 5G networks is underway, with 66.7% of the spectrum (which meets the technical conditions specified by EU law) having been assigned for 5G use as of August 2021. 5G auctions on the 700Mhz band concluded in November 2020 and licences until 2040 were sold to three operators. Slovakia is lagging behind most OECD countries in terms of mobile subscriptions and especially in terms of on mobile data usage (Figure 1.25). Low mobile data consumption may be linked to comparatively higher prices among peers for larger mobile data packages (EC, 2020e).

Figure 1.25. Fixed and mobile connectivity and usage lags behind many OECD countries



Note: In Panel A, data on fibre refer to 2020. In Panel B, data for JPN and the USA refer to 2019.
Source: OECD Broadband database; and OECD Broadband Portal.

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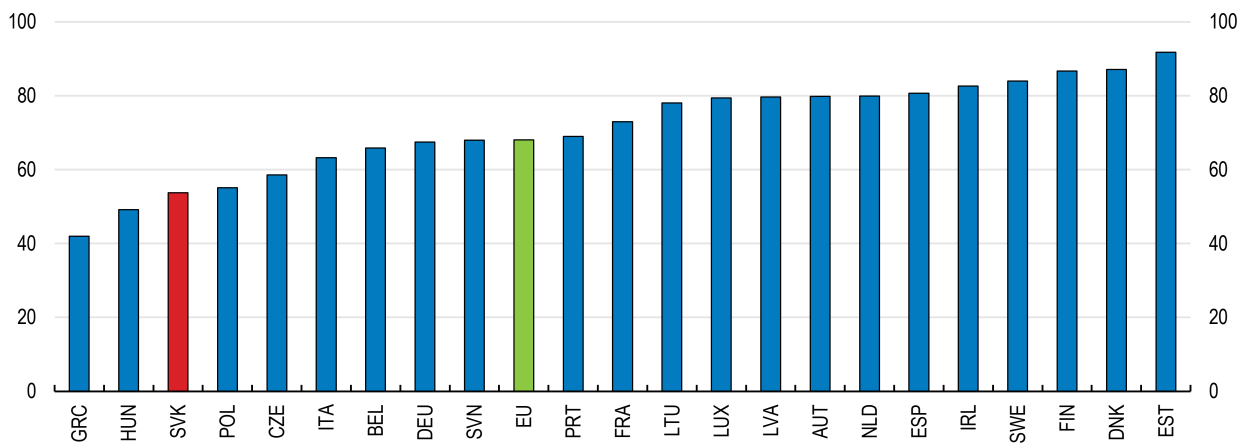
The government approved a new national broadband plan in March 2021 to align Slovakia's connectivity ambitions with EU targets. The main aim of the plan is to reduce regional differences in broadband access. According to plans of telecom operators, by the end of 2022, 59% of households will have access to ultra-fast broadband Internet (speeds of at least 100Mbit/s, expandable to 1Gbit/s), while the rest have lower speeds and about 2% of households will have no internet connection. The broadband plan's target is to provide ultra-fast internet access to all households by 2030. The investment costs to achieve this target are estimated at EUR 960 million. Most of the funds should come from private sources, with the remainder from public and the European Investment and Structural Funds.

Providing public services online can help consumers and businesses become familiar with new digital forms of communication. Indeed OECD research has shown that greater use of digital government services can speed up the diffusion of digital technologies in the economy more broadly and strengthen productivity growth (Sorbe et al., 2019, Andrews et al. 2018).

There is still significant scope to improve and expand digital government services (Figure 1.26). Slovakia is especially lagging behind in e-government users, with only 52% of Slovak Internet users who submit forms to public institutions doing so online, compared to 67% on average in EU countries (EC, 2020f). Other areas where Slovakia is lagging behind are the extent to which the government uses pre-filled forms in their interactions with citizens and open government data. The government has an ambitious agenda to improve digital government services. The national digitisation strategy aims to improve the public administration's use of data for analytical purposes. In addition, the government plans to create a central authority to design and manage digital public services. The adequate staffing and competencies of such a central authority will be key to its success. Other government priorities are to improve the user-friendliness of services, introduce a system to monitor the performance and costs of IT projects, and improve public procurement of IT equipment and services (MoF, 2020b). These plans are commendable. However, success will crucially depend on whether trust in e-government services is improved. Currently, 19% of Slovaks are concerned about the security of digital public services and limit or avoid electronic communication with public authorities, compared to just 8% on average in EU countries. Involving a broader group of stakeholders, in particular consumers, in designing new services and making them more user friendly can help increase trust (EC, 2020e).

Figure 1.26. E-government services can be expanded

Digital Economy and Society Index: Digital Public Services, score from 0 to 100, 2021



Note: "Digital Public Services" is one of the 5 dimensions in the Digital Economy and Society Index by the European Commission. This dimension measures both the demand and supply sides of digital public services as well as open data. Specifically, it measures: e-government users, Prefilled forms, Online service completion, Digital public services for businesses and open data. More details can be found in the Digital Economy and Society Index Report 2021.
Source: European Commission, Digital Economy and Society Index Report 2021.

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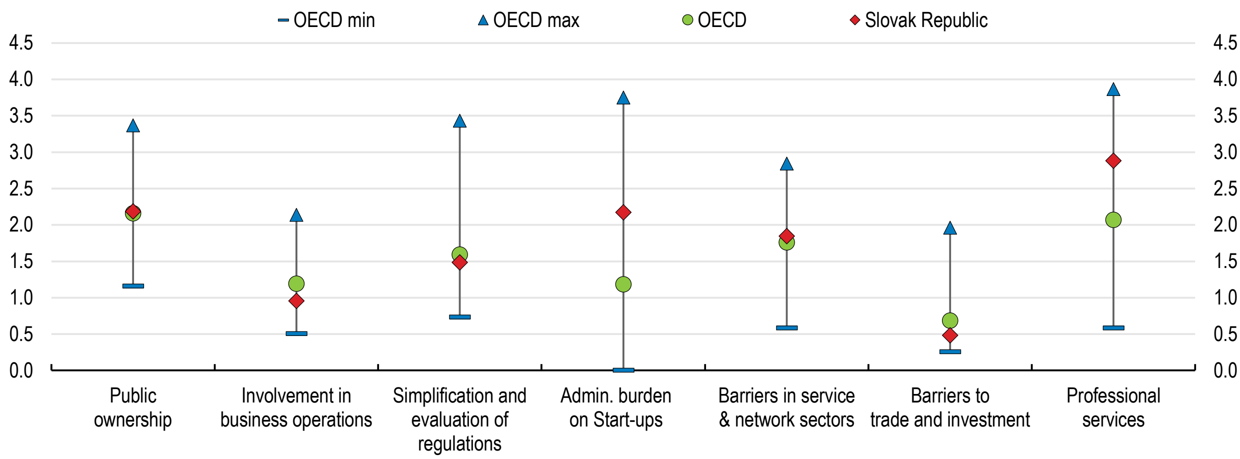
Improving the business environment

Business dynamism is essential for the diffusion of digital tools and activities and for productivity growth (Sorbe et al., 2019, Andrews et al. 2019). Enhancing business dynamism requires reducing barriers to the entry and growth of young innovative firms, facilitating a smooth exit of the least productive firms, and enabling fluid movements of labour and capital from declining to growing firms and industries, as well as within firms.

Fostering competition by easing product market regulations

The overall strictness of product market regulations according to the OECD Indicators is slightly more restrictive than on average in OECD countries and peer economies (Figure 1.27). Slovakia's administrative burdens for start-ups, mainly due to licences and permits, remain high. In addition, public ownership remains widespread in some network sectors such as gas and rail. Finally, regulations also overly restrict competition in professional services especially for lawyers, notaries, architects and civil engineers.

Figure 1.27. There is scope to ease regulations in some areas



Note: The Product Market Regulation (PMR) indicator is a composite index that encompasses a set of indicators that measure the degree to which policies promote or inhibit competition in areas of the product market where competition is viable. Scores range from 0 to 6 and increase with restrictiveness. Data refer to 2018.
Source: OECD Indicators of Product Market Regulation database.

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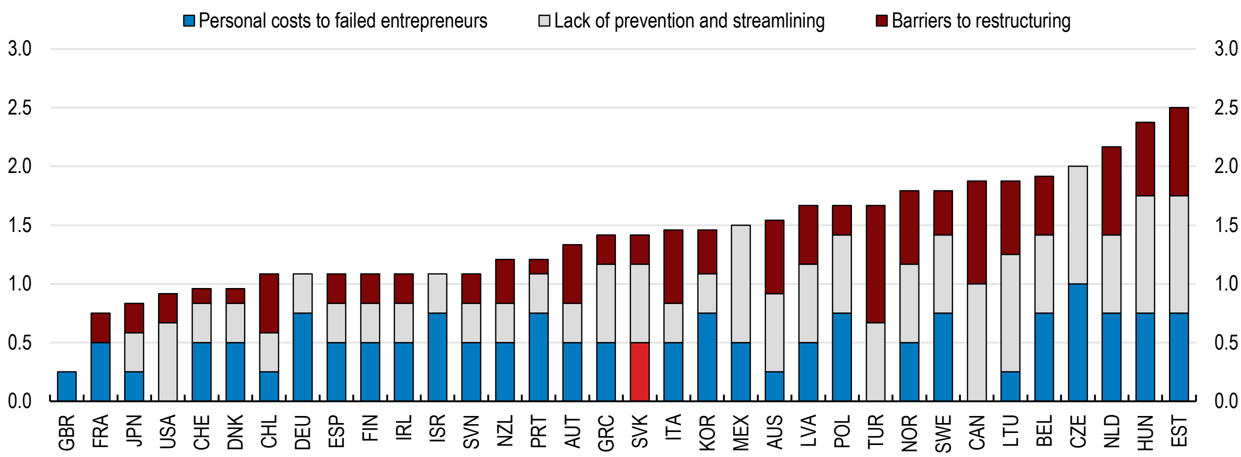
Administrative burdens continue to be reduced. Between 2017 and 2019, the authorities announced three packages totalling 94 measures to reduce red-tape, of which 70 had been implemented by end-2020 according to the Ministry of Economy (MoE, 2021). In June 2020, the government launched another package ("lex corona") with over a hundred measures, which the authorities believe will save entrepreneurs EUR 100 million a year (Table 1.9). Measures include higher thresholds for mandatory financial audits, simplified energy audits and a provision that tax and levy laws will change only once a year, to make legislation more predictable. The government is also implementing the "Once is Enough" initiative, under which authorities are obliged to use available registers to access various certificates and licences so that businesses are required to file necessary documentation only once for all purposes. However, reforms to streamline construction permits have been delayed. A new construction and spatial planning act is planned for 2021 with the aim to shorten the decision making process and digitalise land-use plans. This reform process should be expanded. For example, in order to further reduce the burden on businesses, the authorities could follow Portugal's example and adopt a "silence is consent" rule for administrative procedures as and when appropriate.

In 2018 the government adopted the "Regulatory Impact Assessment (RIA) 2020" strategy, which aims *inter alia* at improving the quality of ex ante assessments of regulations and introducing ex post evaluations. A pilot project to test the new methodology for ex post assessments of regulations started in 2020. In addition, in 2021 the government approved legislation for a "one-in, two out" principle, according to which the costs for businesses and citizens of any new regulation have to be quantified and regulations phased out that save businesses and citizens twice the amount. A recent *OECD Regulatory Policy Review* of Slovakia (OECD, 2020j) assessed that the RIA 2020 strategy follows international best practice, committing the highest political level to an explicit whole-of-government strategy to improve regulatory quality. Nevertheless, the report identifies several areas for improvement. For instance, there is a need to strengthen the analytical capacity through continuous training on regulatory management tools and more systematically involving the analytical units of the Ministries in the RIA process. While early-stage consultations with businesses are well developed, efforts are needed to include other stakeholders more systematically. The institutional set-up could be strengthened by centralising regulatory oversight functions into one body and giving this oversight body greater powers.

Making the insolvency regime more effective would reduce barriers and costs to firm restructurings or exits. This can spur productivity-enhancing capital reallocation, encourage risk-taking activities and facilitate technological experimentation (Adalet McGowan et al., 2017). OECD research (Adalet McGowan and Andrews, 2018; Figure 1.28) points to the need to strengthen early warning tools and pre-insolvency regimes in Slovakia that could help prevent firms falling into distress and streamline processes. In addition, a lack of distinction between honest and fraudulent bankruptcies may lead to stigmatisation and inhibit bankrupt but honest entrepreneurs to restart a business. The government is collaborating with the European Commission to assess the efficiency of the insolvency regime and in September 2021 the Ministry of Justice submitted draft legislation to reform in particular the pre-insolvency restructuring process.

Figure 1.28. Insolvency procedures can be further streamlined and prevention strengthened

Scores in selected aspects of insolvency schemes, 2016



Source: Adalet McGowan, M. and D. Andrews (2018), "Design of insolvency regimes across countries", OECD Economics Department Working Papers, No. 1504, OECD Publishing, Paris, https://doi.org/10.1787/d44dc56f-en.

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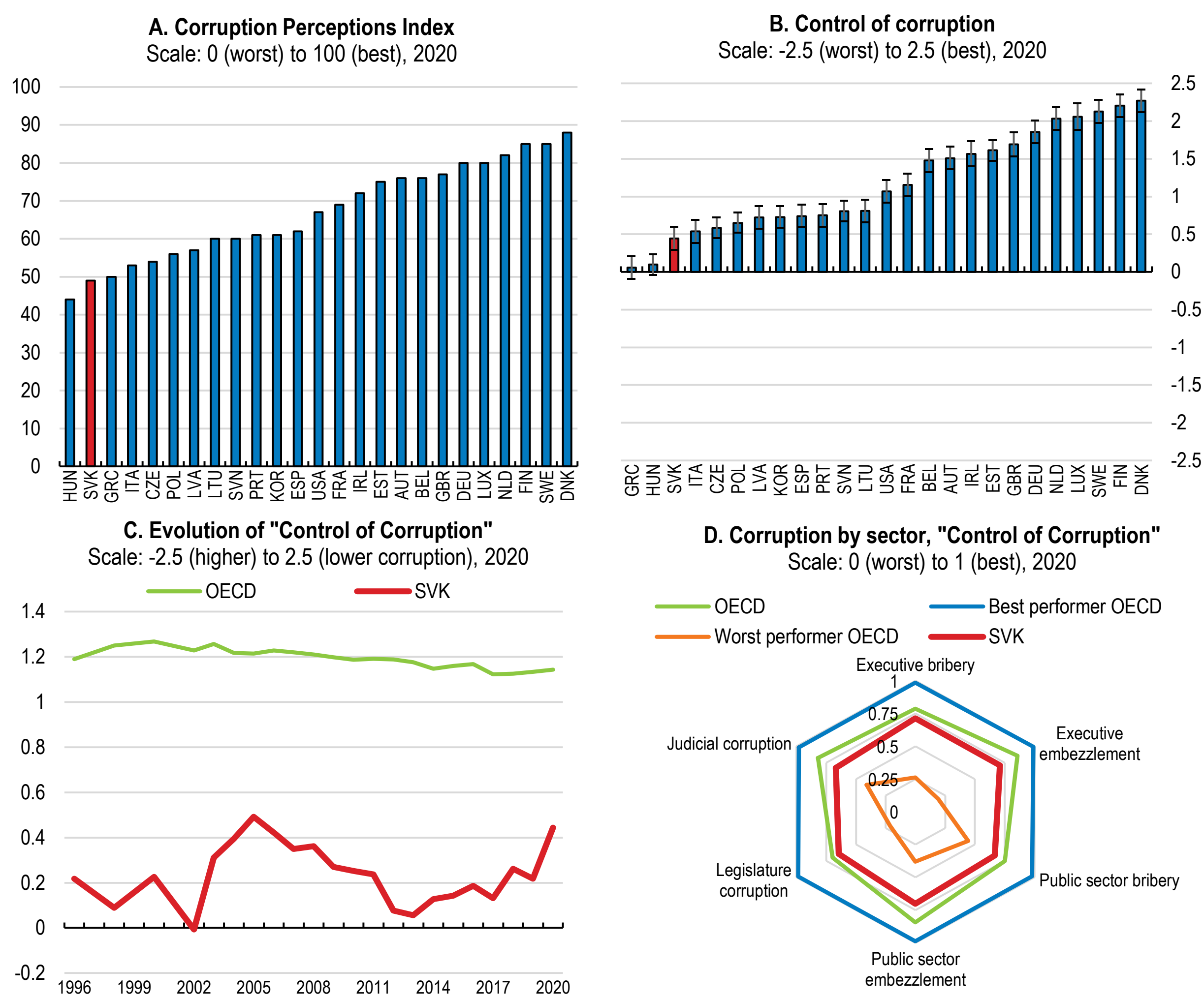
Judicial efficiency has improved thanks to ongoing reforms. Courts perform efficiently in terms of length of proceedings and clearance rate in litigious civil and commercial cases (EC2020g, EC 2020h). Some challenges remain concerning administrative cases and the efficiency of processing these cases has recently further deteriorated (EC, 2021b). To improve efficiency, the authorities have for several years collaborated with the Council of Europe European Commission for the Efficiency of Justice (CEPEJ). An increasing number of CEPEJ's recommendations are being implemented. This includes the introduction of so-called flying/hosting judges to address temporary workload challenges in individual courts, legislative measures to de-register old, inactive enforcement cases that had been a drain on resources and an ambitious project on "case weighting", to determine the complexity of a case and establish the necessary resources (EC, 2020b). In 2021, the Ministry of Justice also introduced draft legislation to reform the court map, in line with CEPEJ's recommendations, which aims for instance to reduce the number of district courts and strengthen the specialisation of courts and judges. In addition, a new Supreme Administrative Court, which took up work in August 2021, will likely improve specialisation and efficiency of administrative justice procedures. Stronger promotion of the use of alternative dispute resolution (ADR) methods as legitimate means to resolve legal disputes could further improve efficiency. Moreover, the quality of digital services (e.g. electronic court files) can be further enhanced and the establishment of a new electronic business register has been postponed due to delays in public procurement (Supreme Audit Office of the Slovak Republic, 2020).

Making further progress in the fight against corruption

Corruption distorts competition, the allocation of resources and access to public goods, which can discourage business dynamism, investment and innovation, and raise inequalities. High levels of perceived corruption and a low level of trust in institutions are longstanding concerns in Slovakia (Figure 1.29). Moreover, the perceived levels of independence of the judiciary are low, despite some recent improvements in the perception of firms. For example, 88% of companies consider corruption to be widespread (compared to an EU average of 63%) and 53% of companies consider that corruption is a problem when doing business compared to an EU average of 37% (EC, 2020i). In 2019, a number of cases of high-level corruption were revealed, including undue political influence over the judiciary and individual cases of alleged abuse of office by judges and prosecutors, sparking public protests. The new government that came into office in the spring of 2020 has identified the fight against corruption as a core priority, and several arrests and criminal proceedings against entrepreneurs and officials have ensued. Making further progress in the fight against corruption is particularly important in light of the substantial inflows of EU funds in the coming years.

Figure 1.29. Perceived corruption is high



Note: Panel B shows the point estimate and the margin of error. Panel D shows sector-based subcomponents of the "Control of Corruption" indicator by the Varieties of Democracy Project.
Source: Panel A: Transparency International; Panels B & C: World Bank, Worldwide Governance Indicators; Panel D: Varieties of Democracy Project, V-Dem Dataset v11.

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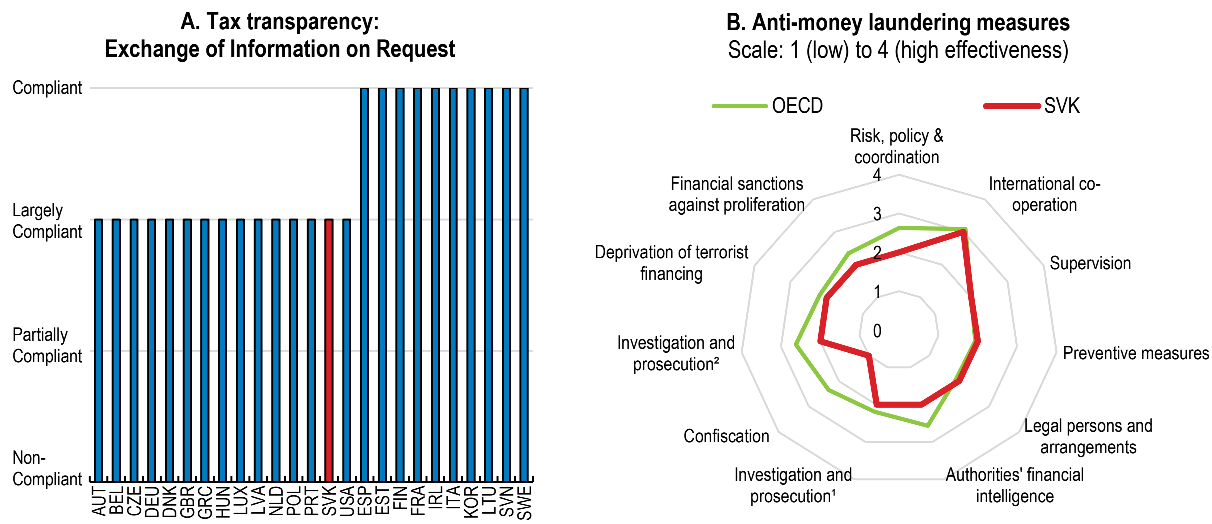
The criminal legal framework for fighting corruption is broadly in place and specialised institutions have been set up (EC, 2020g) (Figure 1.30). As a response to the OECD Anti-Bribery Convention Phase 3 and Phase 1bis reports, provisions on foreign bribery offences have been amended and Slovakia adopted new legislation on criminal liability of legal persons in 2016. The Working Group on Bribery (WGB) recommended that Phase 4 consider the courts' interpretation of particular elements of the new law, which lacked clarity. Furthermore, a Code of Conduct for civil servants entered into force in January 2020, setting out the fundamental principles of ethical behaviour, including rules on acceptance of gifts and other benefits. A new Whistleblower Protection Act came into force in 2019 and, as a result, an independent office for complaints was established. However, several problems remain. The capacity of the National Crime Agency to detect and investigate corruption offences can still be enhanced by investments in specialisation, dedicated analytical expertise and integrity trainings (EC, 2021b). Post-employment restrictions for public officials could be strengthened, for example by extending cooling off periods to senior civil servants involved in top-executive functions and by rules preventing top officials from lobbying activities after leaving office (GRECO, 2019). Lobbying remains unregulated and lacks a legal definition. Clear rules governing lobbying also need to be established together with their proper monitoring and enforcement (EC, 2021b; EC, 2020g; GRECO, 2021). Draft legislation on lobbying and post-employment restrictions are planned or at initial stages.

Figure 1.30. The anti-corruption framework is broadly in place



Note: Panel A summarises the overall assessment on the exchange of information in practice from peer reviews by the Global Forum on Transparency and Exchange of Information for Tax Purposes. Peer reviews assess member jurisdictions' ability to ensure the transparency of their legal entities and arrangements and to co-operate with other tax administrations in accordance with the internationally agreed standard. The figure shows first round results; a second round is ongoing. Panel B shows ratings from the FATF peer reviews of each member to assess levels of implementation of the FATF Recommendations. The ratings reflect the extent to which a country's measures are effective against 11 immediate outcomes. "Investigation and prosecution[1]" refers to money laundering. "Investigation and prosecution[2]" refers to terrorist financing.
Source: OECD Secretariat's own calculation based on the materials from the Global Forum on Transparency and Exchange of Information for Tax Purposes; and OECD, Financial Action Task Force (FATF).

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Judicial independence is crucial to tackling corruption effectively. The new government has implemented a number of constitutional reforms in this regard. This includes strengthened competencies and changes to the composition and appointment process of the Judicial Council, which is the self-administration body of the judiciary with key roles in the appointment, suspension and dismissal of judges as well as in maintaining judicial ethics. The reforms *inter alia* aim to guarantee regional representation and to strengthen the controls of the asset declarations of judges. New rules were introduced so that candidates for both the prosecutor general and the special prosecutor have to undergo a public hearing in parliament. In addition, the appointment process of the constitutional court has been reformed, introducing a qualified majority for the election of candidates for judges of the Constitutional Court together with appropriate anti-deadlock mechanisms. Finally, an age-limit for judges has been introduced. However, guidance on the proper application and enforcement of the new judicial code of conduct is still incomplete. While judges and prosecutors are forbidden from taking gifts in their professional capacity and controls of asset declaration have been strengthened, the threshold for declaring gifts received in a private capacity remains high and is still to be changed (GRECO, 2021).

Table 1.9. Past OECD recommendations on business environment

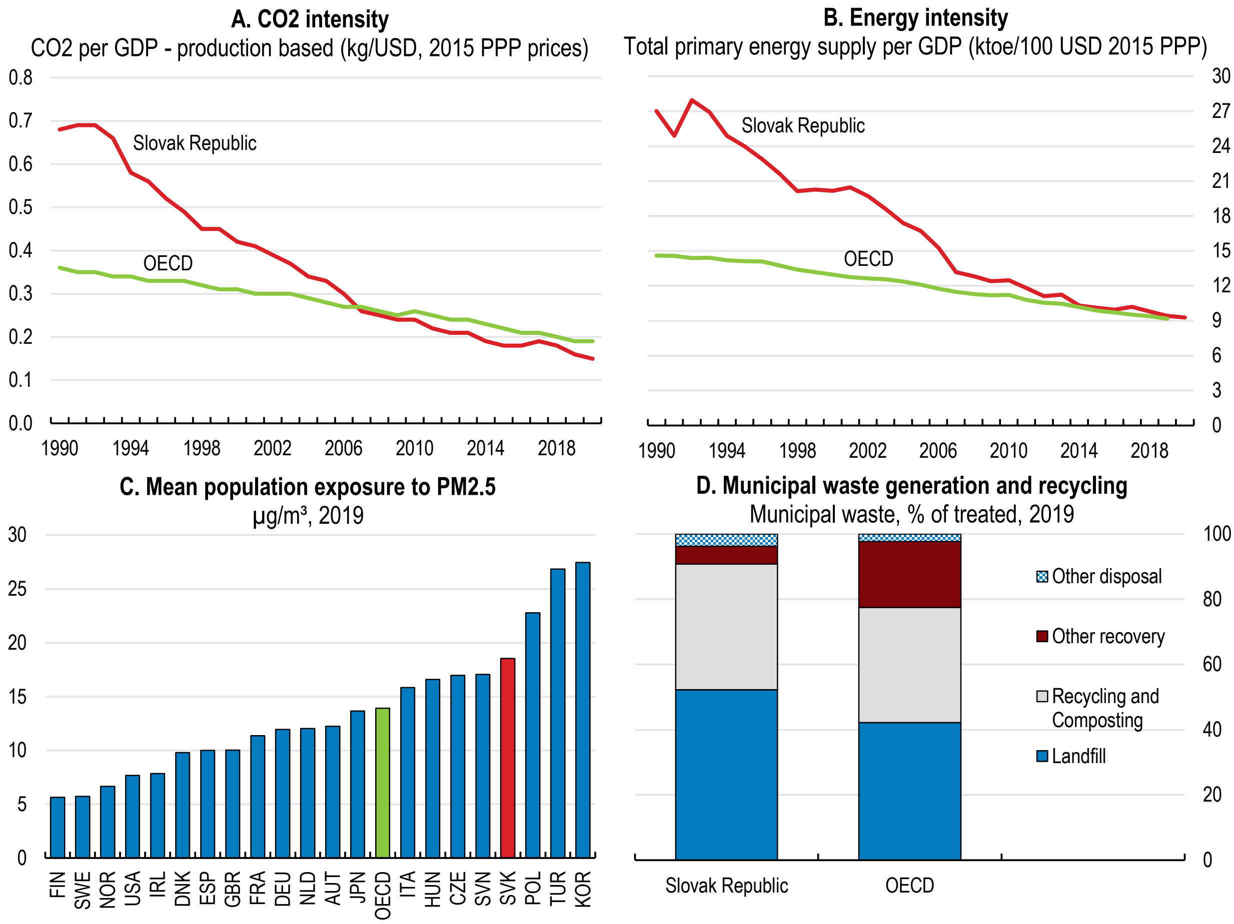
Recommendations in previous Surveys	Actions taken since 2019
Further reduce the administrative burdens on enterprises by developing e-government, especially services to businesses, and adopt a "silence is consent" rule for administrative procedures, as and when appropriate.	In 2020, the government introduced under the so-called "Lex Corona" over 100 measures to reduce administrative burdens for businesses. In 2021, the government approved legislation to implement the one in/one-out (until end 2021) and one-in/two out (from 2022) principle, according to which the costs for businesses and citizens of any new regulation have to be quantified and regulations phased out that save businesses and citizens twice the amount.
Accelerate the handling of insolvency procedures	In response to the COVID-19 pandemic, a bankruptcy moratorium was in place until end-2020. From 2021 permanent legislation is in force that allows for temporary bankruptcy moratoria (up to 6 months), to facilitate out-of court pre-insolvency restructuring procedures. A draft bill to reform pre-insolvency restructurings, introduce an early warning tool and accelerate the corporate bankruptcy process is in early stages of the formal consultation process.
Lower licensing restrictions for legal services, architects and engineers.	No action taken.
Continue to work with the ongoing Council of Europe project on judicial reform, and implement its suggestions.	Implementation of reforms is ongoing, for example with the introduction of so-called flying/hosting judges to address temporary workload challenges in individual courts and a draft law on a new court map to strengthen specialisation and efficiency of courts and judges to be implemented in 2023 .
Further strengthen the efficiency and independence of the judicial system. Continue to increase judicial capacity in particular through investment in IT systems.	The competencies of Judicial Council have been strengthened. The appointment process of the constitutional court has been reformed to strengthen independence.

Transitioning to a carbon neutral economy

Over the past three decades, Slovakia has significantly reduced its carbon and energy intensity, mainly thanks to changes in the structure of the economy, but progress has slowed in recent years and air pollution remains high (Figure 1.31). While the share of emissions from energy combustion (excluding transport) has fallen markedly in the past three decades to around half of total greenhouse gas emissions in 2018, the share of emissions from the transport sector and industrial processes have increased to 18% and 22% in 2018, respectively. Exposure of the population to ambient particle matter ($PM_{2.5}$) is one of the highest in the OECD (Figure 1.31). Reducing this type of pollution to WHO recommended levels could avert up to 1600 premature deaths per year and reduce associated mortality and morbidity costs, which have been estimated between 3.6% and 6.9% of GDP in 2017 (World Bank and IEP, 2021).

The National Energy and Climate plan targets a 20% reduction for GHG emissions outside the ETS system by 2030 compared to 2005. Slovakia has also endorsed the EU goal of climate neutrality by 2050, and adopted a low-carbon strategy in February 2020. These ambitious targets will require additional policy action. Moreover, the government targets a share of renewables in energy consumption of 19.2% (from currently around 17%) and an improvement in energy efficiency of 30.3% by 2030. The investment costs are estimated at EUR 8 billion by 2030. The national recovery plan allocates EUR 2.3 billion to green investment projects, in particular for building renovations, sustainable transport projects (e.g. electrifying and modernising the rail network) and renewable energy projects (e.g. new and modernised capacity, more efficient electricity grid). Frontloading investment towards sectors that can accelerate the green transition can simultaneously address recovery, climate and energy objectives (OECD, 2020k; OECD 2020l). The recently established International Programme for Action on Climate (IPAC) can help Slovakia track and assess progress in achieving its emission reduction targets (OECD, 2021c).

Figure 1.31. Green growth indicators



Source: OECD Environment database; and OECD Green Growth database.

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The authorities should more coherently price carbon to reduce emissions cost effectively. In 2018, only 30% of carbon emissions were priced above EUR 30 per tonne of CO_2, a low-end estimate of the social costs of carbon (OECD, 2021a). Emissions priced above EUR 30 originated almost exclusively from the transport sector. More uniformly pricing carbon across sectors and industries would provide more consistent price signals and thus contribute to cost-effective abatement. As recommended in previous Surveys (Table 1.10), introducing an explicit carbon tax in sectors not covered by the EU-ETS would help reduce emissions cost effectively, make renewable energy generation more competitive and help further reduce air pollution. In addition, fossil fuel subsidies blur price signals and increase abatement costs. The government decided to end subsidies for coal in electricity generation (mainly feed-in tariff for lignite) by 2023. This should be complemented by phasing-out other environmentally harmful subsidies, such as the exemption of natural gas from excise taxation for several purposes such as consumption by households, processing of minerals and in combined heat-and-power plants. While subsidies for household consumption of natural gas may improve affordability, the measure is not well targeted, and support can be shifted to more efficient types of subsidies that do not counter climate objectives. The extra revenues from higher carbon taxation or from phasing out of fossil fuel subsidies could be used to reduce the tax wedge or to avoid real income losses, in particular for low-income households. For example, in British Columbia in Canada part of the carbon tax revenues were used for lump-sum transfers to households and cuts in other taxes.

Energy combustion in the residential sector accounts for around 11% of total greenhouse gas emissions and almost 80% of $PM_{2.5}$ emission. This is primarily due to the use of inefficient and high-emission boilers and heaters, and burning of poor-quality fuel such as coal, wood or waste (OECD, 2020e). The focus on building renovations in the recovery programme is therefore welcome. The National Air Pollution Control Programme includes subsidies to replace old boilers, differentiated registration fees of heating devices according to environmental standards, and better connections of households using wood or coal to heating with gas. Support for the replacement of boilers should favour renewable energy (e.g. solar) over fossil fuel systems (e.g. natural gas). Additionally, the government should support financial instruments such as grants or micro-loans for investments in energy efficiency measures in particular for low-income and energy-poor households.

Further efforts are needed to improve air quality. The government's plans to increase air pollution charges (e.g. on nitrogen oxides, sulphur dioxide), which had not been changed since 1998 and are low by international comparison (OECD, 2020e), are welcome and should be implemented without delay. Moreover, Slovakia should close the gap between petrol and diesel excise taxes. Diesel fuel is taxed at a much lower rate than petrol, with the gap being one of the highest in the OECD, despite diesel's higher emissions of air pollutants per litre (e.g. nitrogen oxides and fine particulates).

Slovakia also needs to make further progress in promoting a circular economy. Moving to a circular economy, e.g. by promoting re-use, recyclability and secondary raw materials markets, can boost Slovakia's resource productivity and efficient use of natural resources, reduce greenhouse gas emissions (OECD, 2019g), generate cost savings and create jobs. Despite progress in recycling municipal solid waste, landfilling remains the dominant waste management strategy, with more than half of waste volume in 2019 still disposed in landfills (Figure 1.31, Panel D). Landfills are the largest single source of methane emissions in Slovakia, accounting for around a fourth of total emissions. The tax on landfilling of municipal waste is low compared to other EU countries (OECD, 2020e). It should be increased to better reflect private and environmental costs related to soil, water and air pollution and to ensure that solid waste is diverted away from landfills. The government plans to further increase the landfilling tax rate, which is necessary to halve the landfilling rate to 25% by 2035 – the national target set in the new Environmental Strategy of the Slovak Republic 2030. This could be complemented by expanding pay-as-you-throw systems, which currently only cover around 13% of citizens (IEP, 2019), to make waste sorting more financially attractive; a tax on waste incineration (e.g. in Austria) in order to prevent diversion from landfilling to incineration; and taxes on packaging (e.g. in Belgium and Latvia) (OECD, 2020e). A forthcoming OECD report in support of Slovakia's Circular Economy Roadmap also points to the need to improve sustainable production in Slovakia's manufacturing and metals production and processing industries, for example by developing a secondary raw materials strategy. In addition, the government could stimulate research and innovation in areas related to the circular economy.

Table 1.10. Past OECD recommendations on environment

Recommendations in previous Surveys	Actions taken since 2019
Align the implicit taxation on emissions of CO_2 and other pollutants across different fuels and uses. Consider introducing a CO_2 tax in sectors not covered by the EU- ETS and raising the tax rate on diesel.	No action taken.
Gradually phase out coal subsidies and tax breaks for energy use.	Subsidies for coal in electricity generation will end in 2023 as the benefitting coal power plant is scheduled to close.

Table 1.11. Recommendations on macroeconomic and structural policies

MAIN FINDINGS	RECOMMENDATIONS (key in bold)
Supporting the exit from the crisis	
The share of the population fully vaccinated is about 25 percentage points below the EU average as of early-January 2022.	**Continue efforts to accelerate vaccinations**.
The build-up of imbalances has continued in the housing market. Strong mortgage credit growth over the last decade has increased the exposure of banks to the real estate sector.	Closely monitor developments in the housing market and adjust macro-prudential measures if necessary
The crisis has hit low-skilled workers particularly hard. Long-term unemployment remains high.	**Expand active labour market programs, in particular re-training measures for the low-skilled.** Strengthen the counselling and guidance capacity of the public employment service and effective profiling of jobseekers.
The crisis has differing impacts across sectors. Too early withdrawal of support would trigger unnecessary bankruptcies and labour shedding, and may result in scarring and increased vulnerability. Ageing will create substantial fiscal pressures in the long-term.	**Continue to provide targeted fiscal support until the recovery has become self-sustained.** **Adopt and stand ready to implement a medium-term fiscal consolidation strategy to prepare for long-run fiscal challenges, including ageing, and strengthen implementation of saving measures identified by spending reviews.** **Strengthen the rules-based fiscal framework by implementing multi-annual expenditure ceilings while adjusting the escape clause of the debt rule to allow flexibility in times of crisis.**
The number of firms with liquidity problems and high debt may increase and congested courts may prevent a timely restructuring of viable firms.	**Promote out-of-court restructuring proceedings, especially for small and medium-sized enterprises.**
The ambitious national recovery plan contains numerous reforms and investment of 6.9% of GDP. The absorption rate of EU funds has been historically low.	**Streamline public procurement verification and control procedures.** **Further strengthen cost-benefit analysis and oversight of public investment over the project life-cycle.**
The labour tax wedge is high, particularly for low-income earners. Tax revenues from property and environmental harmful activities are low. Slovakia is one of few OECD countries that still uses an area-based assessment for recurrent real estate taxes. Despite substantial improvements, the VAT tax gap is much higher than on average in the EU. Corporate income tax evasion also remains high.	**Reduce the tax wedge in particular for low-income earners.** **Shift the tax mix towards property and environmental taxes.** Change the tax base for recurrent taxes on immovable property to regularly updated market values. Fully roll out electronic cash registers, implement electronic invoicing, and strengthen audits through risk-based tools.

Boosting productivity and making the recovery more inclusive and environmentally sustainable	
Educational outcomes are weak and strongly dependent on socioeconomic background. There is a lack of childcare facilities, especially in some regions.	**Expand the supply of high-quality and affordable childcare facilities, especially in underserved regions.** **Strengthen initial and continuing teacher training with a focus on methods to identify and address learning weaknesses. Increase the number of teaching assistants speaking Roma, and provide Slovak language support for Roma children.**
Vocational education has little work-based learning. Participation of firms in the dual VET programme remains low.	Evaluate financial incentives for firms to participate in the dual VET programme and support the establishment of employer-led training associations.
Immigration is low and many high-skilled Slovaks leave the country.	Enhance efforts to attract and retain high skilled labour, including by developing and implementing a diaspora engagement strategy.
Business R&D and the share of innovative companies is very low. The share of firms receiving government support for innovation is low. The R&D tax allowance is among the most generous in the OECD and the share of SMEs receiving R&D tax support is relatively low. The tax allowance will be lowered in 2022.	**Expand the use of direct R&D support, such as grants, and make the R&D tax allowance refundable for small and young firms.** Evaluate the R&D tax allowance scheme. Strengthen research collaboration with innovative companies in the funding of higher education institutions and public research institutions.
Slovakia is lagging behind in e-government users and trust in e-government services is low.	Expand usage of e-government services and improve trust by involving a broader group of stakeholders in designing new services.
The administrative burden on start-ups is relatively high.	**Reduce the administrative burden on start-ups by introducing “silence is consent” licensing rules.**
High levels of perceived corruption, a low level of trust in institutions, and a perceived lack of independence of the judiciary are longstanding concerns in Slovakia, despite some recent improvements.	Continue with efforts to fight corruption including by adopting and implementing ongoing reforms to strengthen trust in the judiciary and public sector integrity**.** Strengthen post-employment restrictions for public officials by extending cooling off periods to senior civil servants involved in top-executive functions and by rules excluding top officials from lobbying activities after leaving office. Complete guidance on the proper application and enforcement of the new judicial code of conduct and lower the threshold for declaring gifts received by judges and prosecutors.
Only 30% of carbon emissions were priced above EUR 30 per tonne of CO_2, a low-end estimate of the social costs of carbon. Air pollution is high. Landfilling remains the dominant waste management strategy, with more than half of waste volume still disposed in landfills.	**Introduce an explicit carbon tax in sectors not covered by the EU-ETS and gradually phase out remaining environmentally harmful subsidies. Redistribute revenues towards the most vulnerable households.** **Accelerate the green transition by investing in energy efficiency renovation in buildings and sustainable transport**. Continue to increase the landfill tax to better reflect environmental costs. Expand the coverage of pay–as-you-throw systems and consider introducing a tax on waste incineration in the medium-term.

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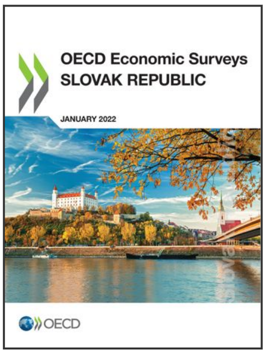

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