Structural Challenges

2026

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Abbreviations

5G	The fifth and current generation of cellular network technology.
AI	artificial intelligence
AMECO	annual macroeconomic database (of the European Commission's Directorate-General for Economic and Financial Affairs)
ARDAL	Debt and Liquidity Management Agency (Agentúra pre riadenie dlhu a likvidity)
AROPE	at risk of poverty or social exclusion
ATC	Anatomical Therapeutic Chemical (drug classification system)
BOD	biochemical oxygen demand
BRR	balanced repeated replication
CI	confidence interval
CLIFS	Country-Level Index of Financial Stress
CO_2	carbon dioxide
CT	computed tomography
CVT	continuing vocational training
DG ECFIN	Directorate-General for Economic and Financial Affairs (of the European Commission)
DTP	diphtheria, tetanus and pertussis (vaccination)
EA	euro area
EC	European Commission
ECB	European Central Bank
EPO	European Patent Office
ESCS	(PISA index of) economic, social and cultural status
EU	European Union
EU-SILC	European Union Statistics on Income and Living Conditions
EU27	The 27 Member States of the European Union.
EUR	euro
EUROPOP2025	Eurostat's most recent long-term population projections for the period from 2025 to 2100.
FDI	foreign direct investment
FTE	full-time equivalent
GDP	gross domestic product
GHG	greenhouse gas
GVA	gross value added
HFCS	Household Finance and Consumption Survey
HICP	Harmonised Index of Consumer Prices
HS	Harmonized System (short for Harmonized Commodity Description and Coding System)
ICT	information and communication technology
IEA	International Energy Agency
IFR	International Federation of Robotics
IMF	International Monetary Fund
IPP	intellectual property product
ISCED	International Standard Classification of Education
kg	kilogram
LFS	Labour Force Survey
lhs	left-hand scale
Mbps	megabits per second
MRI	magnetic resonance imaging
NACE	statistical classification of economic activities in the European Community
NBS	Národná banka Slovenska
NEET	not in employment, education or training

NPL	non-performing loan
NUTS 2	nomenclature of territorial units for statistics, level 2 (basic regions for regional policy, including four in Slovakia)
NUTS 3	nomenclature of territorial units for statistics, level 3 (small regions for detailed regional analysis, including Slovakia's eight administrative regions (*kraje*))
OECD	Organisation for Economic Co-operation and Development
PIAAC	Programme for the International Assessment of Adult Competencies
PISA	Programme for International Student Assessment
PM2.5	Particulate matter with a diameter of 2.5 micrometres or less.
pp	percentage point(s)
PPP	purchasing power parity
PPS	purchasing power standard
R&D	research and development
RCA	revealed comparative advantage
rhs	right-hand scale
ROE	return on equity
S2	A long-term indicator of fiscal sustainability, measuring the structural primary balance adjustment that would be required to stabilise public debt over the long term.
S80/S20	The income quintile share ratio: the income of the richest fifth of the population relative to that of the poorest fifth.
SD	standard deviation
SITC	Standard International Trade Classification
SMEs	small and medium-sized enterprises
SO SR	Statistical Office of the Slovak Republic
STEM	science, technology, engineering and mathematics
TFP	total factor productivity
tCO_2e	tonnes of CO_2 equivalent
UNCTAD	United Nations Conference on Trade and Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
USD	US dollar
V4	Visegrad Four (Czechia, Hungary, Poland and Slovakia)
WB	World Bank
WGI	Worldwide Governance Indicator
WLE	weighted likelihood estimate (also known as the Warm estimator)

Introduction: Slovakia is not just losing momentum; the real challenge is how to succeed in a changing world

The Slovak economy is facing a transformation that extends far beyond the next few years. Technology and artificial intelligence are reshaping the way people work and businesses operate, the population is ageing, the world is becoming less predictable, and the green transition is influencing business investment decisions. The question is therefore no longer only how fast Slovakia will grow, but what will drive its future growth.

The model that helped Slovakia substantially raise living standards has been a successful one. Integration into the European economy, foreign investment, exports, and a strong industrial base have generated jobs, boosted productivity, and increased prosperity. These pillars remain important for Slovakia. On their own, however, they will not be enough to sustain convergence with more advanced economies.

Slovakia does not need to abandon its existing growth model. It needs to build on it by developing new sources of growth based on innovation, talent and skills, new technologies, and higher business productivity.

To restart convergence towards the living standards of Europe's most advanced economies, Slovakia must generate greater value from its labour and capital.

This means strengthening its ability to adopt new technologies, innovate, and make more effective use of both people and investment. Artificial intelligence is accelerating this process, but the deployment of AI alone will not automatically lead to higher productivity. The decisive factor will be whether firms have the people, capabilities, and conditions needed to use it effectively.

Technology is only one part of the story. People are no less important.

The population is ageing, and Slovakia will have fewer people of working age in the future. This makes their health, education, skills, and ability to work where they create the greatest value all the more important.

We need to improve educational outcomes, nurture top talent, and make better use of the abilities of those already working in Slovakia. Some talented people leave to study or work abroad. At the same time, many people at home have skills and qualifications that remain underutilised.

In a technology-driven economy, what people know and what they are able to create will increasingly determine success.

Population ageing makes this transformation even more urgent. Slovakia will need to improve people's health, support reskilling and upskilling throughout working life, and make better use of the experience of older generations.

However, Slovakia's ability to grow will not depend solely on businesses and workers. Equally important will be the environment in which they operate.

High-quality, predictable institutions and sustainable public finances influence a country's ability to invest in the future and respond to emerging challenges.

Health, education, and affordable housing are not merely outcomes of prosperity; they are preconditions for creating it.

Healthier people can work longer and more productively. Better education strengthens the economy's innovative capacity. Housing affordability affects whether people can move to places where more productive job opportunities are available.

The future of the Slovak economy will therefore also depend on how effectively we can make use of the people, capital, and technologies at our disposal.

1 Executive summary

Slovakia has made little progress in catching up with wealthier EU countries for several years, and this trend did not reverse over the past year. The conditions in which Slovakia must address its structural challenges are also changing. Technological change, population ageing, growing global competition and vulnerable public finances are increasing the costs of delaying the necessary reforms.

The diagnosis of Slovakia's structural challenges remains broadly unchanged from previous editions of Structural Challenges. The model based primarily on foreign investment and export-oriented manufacturing remains an important foundation of Slovakia's prosperity, but it is no longer sufficient on its own to sustain convergence with Europe's most advanced economies. Future growth will require a shift towards a more innovation-driven economy, supported by a stronger education system, enhanced skills, a better business environment, more effective public institutions, and more investment, including in ICT and research. Greater resilience requires healthier public finances and reduced exposure to external and energy shocks. Relatively equal incomes coexist with weaker and unequal health, education and social outcomes. The annexes reinforce the need to improve learning and skill use and to make longer working lives healthy, productive and adaptable.

The structure of this year's Structural Challenges reflects the areas that will be key for Slovakia's future. The first substantive section examines why convergence has slowed and which factors can support future growth. The second assesses the economy's capacity to sustain growth while maintaining macroeconomic stability, withstanding domestic and external shocks, and preparing for technological, energy and climate challenges. The third considers how far economic progress translates into better quality of life and well-being. Two special annexes examine human capital and population ageing, which will increasingly shape the country's growth potential and its ability to address other structural challenges.

Convergence and factors of growth

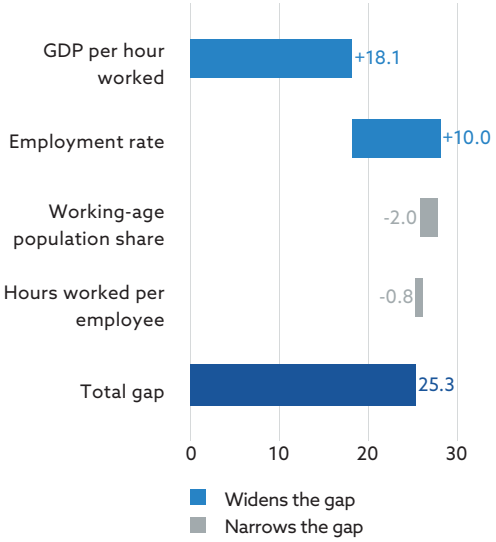
Convergence has stalled, and Slovakia's income gap is mainly a result of lagging productivity and employment. In 2025 GDP per capita in purchasing power terms was about three-quarters of the EU average. As shown in Chart 1, panel A, lower output per hour accounts for the largest part of the gap, while lower employment among working-age people is the second main factor. Recent productivity gains were not enough to offset weaker contributions from employment and hours worked, leaving convergence close to a standstill in recent years.

Renewed convergence will require a shift towards a more productive and innovation-driven economy. The recent productivity improvement has been narrow and concentrated mainly in services, while industrial productivity, historically a key source of Slovakia's productivity gains, has struggled. Industry also faces a challenging external environment marked by trade disruptions, high energy prices and stronger competition from China. Nevertheless, Slovakia can still build on its industrial base and broadly favourable headline labour market outcomes. Investment remains relatively low and too focused on traditional assets, while research and innovation are weak. Shortcomings in the business environment and quality of regulation make it harder for productive domestic firms to invest, innovate and grow. Better education and skills, higher-quality investment, more effective use of labour and more favourable and predictable conditions for businesses will therefore be central to future growth.

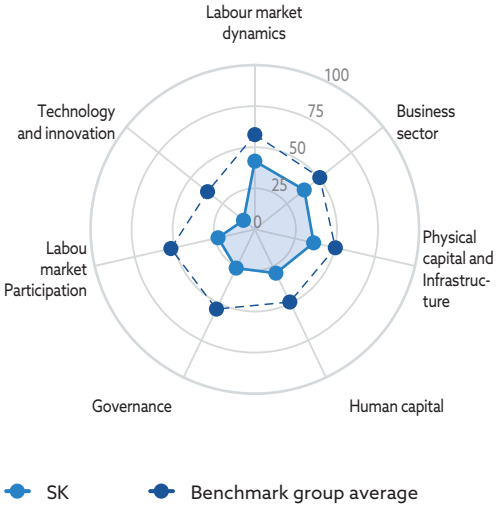
Chart 1
Slovakia's structural challenges

A Convergence gap

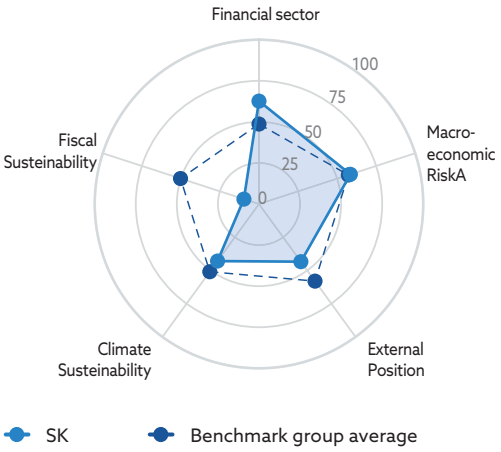
Decomposition of Slovakia's GDP per capita gap
Percentage-point contribution relative to the EU27, 2025



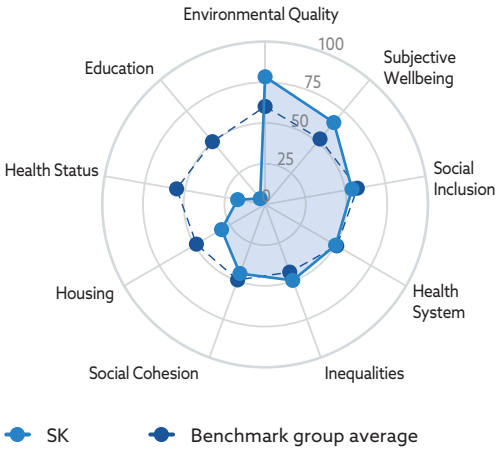
B Drivers of growth (Section 2)



C Resilience and sustainability (Section 3)



D Well-being and prosperity (Section 4)



Note: Per capita decompositions are NBS calculations based on Eurostat data. For panels B to D, scores are calculated using the min–max method and rescaled to a range of 0–100, where 100 indicates the highest score. The value for each pillar represents the leading indicator or a composite of leading indicators for that pillar. For further information on the benchmarking method and the choice of leading indicators, see Section 7 (Methodological annex). For details about the indicators and their sources, see Section 8 (Tables annex).

Resilience and sustainability

Resilience of Slovak economy is uneven. As shown in Chart 1, panel C, the financial sector is a relative strength, while fiscal sustainability is the clearest weakness. The economic outlook remains subdued amid weak external demand and high uncertainty. The banking sector remains profitable and resilient, although vulnerabilities are becoming more visible in consumer credit and in parts of the corporate sector, particularly industry. Persistent deficits, rising public debt

and ageing-related spending are reducing the room to respond to future shocks and to finance investment that could support stronger growth.

The large role of industry in the Slovak economy is associated with specific external and energy vulnerabilities. The current account is broadly stable, but competitiveness is under pressure from rapidly rising industrial labour costs, structural change in the automotive industry and stronger competition from China. Low emissions per person and a low-carbon electricity mix are relative strengths. However, the economy remains energy- and emissions-intensive, renewable deployment is slow, grid capacity and flexibility are limited, and dependence on imported energy remains high. These weaknesses reduce resilience, weigh on competitiveness and complicate the climate transition.

Well-being and prosperity

Well-being extends beyond income. Economic growth creates the conditions for better health, education, housing affordability and social cohesion. These outcomes, in turn, increasingly influence the country's future growth potential. As shown in Chart 1, panel D, Slovakia performs relatively well in income equality and social inclusion, while national measures of environmental quality and life satisfaction are also favourable. Health status shows the largest shortfall, while education and housing also lag considerably behind peers.

Health, education and housing are the main constraints on long-term well-being. Poor health is associated with weak prevention and shortcomings in care. It shortens healthy working lives and may add to the pressures created by population ageing. A large share of young people is in education, but learning outcomes remain weak and continue to depend heavily on social background and region. Limited housing supply, overcrowding and a small rental market restrict housing choices and labour mobility. Many households, including some that are relatively well-off, lack financial buffers they can readily use, leaving them vulnerable to unexpected expenses or a temporary loss of income. Despite favourable environmental indicators overall, poorer households face greater environmental risks. Air pollution remains harmful and wastewater-treatment coverage is below the EU average.

Special annex 1: Human capital: education, skills and labour market matching

Slovakia's future growth will increasingly depend on the quality of its human capital. The first special annex therefore examines how effectively the education system and labour market develop and use the skills the economy will need.

Slovakia has expanded educational participation but learning outcomes have not kept pace. Most young people complete upper secondary education, and younger cohorts are increasingly likely to enter tertiary education, pointing to continued convergence in the quantity of education attained. This expansion has not been matched by comparable progress in quality. PISA results for 15-year-olds have declined over the past decade and now stand below the OECD average, while performance differences between schools remain large. Pupils from poorer regions and less educated families often start at a disadvantage, and the school system does not do enough to narrow these gaps. At the same time, Slovakia has too few students reaching the highest performance levels, limiting the future pool of researchers, innovators, entrepreneurs and highly skilled professionals. The key issue is therefore not simply how long young people stay in education, but how much they learn and how widely high-quality learning is distributed.

Slovakia loses part of its talent pipeline and does not fully use the skills of those who remain. Boys fall behind in reading and are less likely to progress to university, while well-educated women

face persistent barriers to using their skills fully in the labour market. Around one in five graduates works in a job that does not require a degree, rising to almost one in four among women. Slovakia also loses part of its talent as students leave to study abroad, mainly in Czechia.

Artificial intelligence makes these weaknesses more consequential. Its gains will be largest where workers use judgement, problem-solving and adaptable skills, but Slovakia's educated workforce appears more exposed to tasks that are susceptible to automation than to tasks where AI can augment productivity. This may reflect both the routine task content of some graduate work and qualification mismatch, where graduates are employed in jobs that do not fully use their education.

Human capital takes time to build, so early and sustained action can yield particularly high returns. Slovakia could continue strengthening early childhood education and enhancing teacher development and support. More attention and resources should be directed towards schools and regions facing the greatest challenges. Giving students sufficient time to develop before they enter different educational pathways could help promote equal opportunities. Vocational education, training and adult learning should respond more flexibly to changing labour market needs. Measures that encourage talented students to remain in Slovakia, or to return after studying abroad, could strengthen the country's human capital.

Special annex 2: Population ageing: implications for productivity and business dynamism

Population ageing will progressively reduce the number of people available to work, with older workers accounting for an increasing share of the labour force. This need not automatically lead to lower productivity. Productivity may decline at later stages of workers' careers, for example when skills are not updated or health conditions limit work capacity. At the same time, older workers can bring firm-specific knowledge, experience and established working practices. The main challenge is therefore to find ways for older workers to remain healthy, keep their skills up to date and share knowledge across generations. A shrinking working-age population strengthens the case for extending working lives, but this would in turn further shift the age structure of employment towards older cohorts.

Older workers change jobs less often, and regions with older populations tend to see fewer new firms being created. This may make it harder for workers to find jobs in which they could be more productive and for firms to recruit people with the skills they need.

Workers in Slovakia already move from one job to another less often than in other EU countries, and this indicator has deteriorated further in recent years. Across Europe, regions with older populations also tend to see fewer new firms being created, although Slovak regions perform somewhat better than expected. The findings presented in the annex do not provide causal evidence that ageing produces these outcomes, but they do point to relevant correlations that deserve further investigation.

Migration and new technologies could partly mitigate the effects of population ageing in Slovakia. Foreign workers migrating to Slovakia are generally younger than native workers. Although their share has increased over time, it remains well below the European average. They are also not concentrated in the segments of the economy with the oldest workforces. Slovakia has increased its use of robots in recent years, but firms appear to adopt them mainly where tasks are readily automated, rather than in response to labour shortages in particular jobs.

Main policy messages

Create better conditions for productive firms to invest, innovate and expand. Stronger productivity growth requires an environment in which the most productive firms can more easily invest, innovate and grow. Greater predictability would help, with proposed regulations subject to thorough assessment and consultation with affected stakeholders. Research support, including the R&D super-deduction scheme, should benefit more small and young firms, while R&D grants should be awarded more consistently through competitive procedures and independent expert assessment. Better preparation and prioritisation of public investment projects, more reliable public administration, transparent procurement, more effective courts and a stronger anti-corruption framework could increase the returns from both public and private investment.

Concentrate education and training resources where they can produce the largest gains. Additional teaching capacity and support should be directed towards schools serving disadvantaged communities and regions with persistently weak outcomes, while access to affordable early childhood education should continue to expand. Active labour market policies should be regularly adjusted to changing skill shortages, with employment programmes placing greater emphasis on retraining low-skilled workers and people whose jobs are at risk. The education system, talent-retention measures and skilled migration should be aimed at helping alleviate shortages in strategically important occupations.

Strengthen public finances and rebuild room to absorb future shocks. Weak public finances limit the country's ability both to respond to crises and to invest in future growth. Fiscal consolidation should therefore be credible, sustained and framed over several years, taking into account ageing-related costs and higher defence spending. Spending reviews should help identify savings and inform budget priorities, while productive investment and spending on education and R&D should be protected and increased. Social policy, including energy support, should be targeted more effectively towards vulnerable groups, improving protection while containing fiscal costs. The choice and timing of consolidation measures should limit adverse effects on growth, employment and social cohesion.

Raise employment and extend healthy working lives. As the working-age population declines, more people will need to work and remain economically active for longer. Greater childcare availability and more flexible forms of work would allow more parents, particularly women, to participate more in the labour market. The duration and design of parental leave could be reconsidered to encourage a more balanced division of care between parents and higher labour market participation. Pension system rules should strengthen incentives for older workers to remain in employment and retire later. Longer working lives should be supported by better healthcare, including preventive care, continuous training and workplace adaptation to the needs of older workers. Employment services should provide more intensive guidance and retraining opportunities to the long-term unemployed, especially in regions with limited job opportunities.

Improve population health and housing availability. Healthier people can work for longer, while suitable housing makes it easier to move for work. Healthcare resources should shift towards prevention and accessible primary care, accompanied by measures to stabilise the medical workforce. Interventions should be concentrated in regions and population groups with the poorest health outcomes, while care for dependent older people should be strengthened. Faster and more predictable planning and building procedures would help increase housing supply. A larger rental sector and more affordable housing would make it easier for people to move for work and support productivity-enhancing reallocation.

Accelerate investment in a more diversified and resilient energy system. The economy's energy intensity and dependence on imported energy increase Slovakia's vulnerability to supply and price shocks. Policy should therefore reduce administrative barriers, speed up permitting and grid connections, and provide a predictable framework for investment in renewable generation, storage and electricity networks. These investments would complement Slovakia's nuclear-based electricity generation and support greater electrification. Further diversification of energy imports would reduce exposure to external supply and price shocks. Energy support should protect vulnerable households without weakening incentives to conserve energy.

2 Convergence and factors of growth

Reviving economic convergence with more advanced EU economies remains one of Slovakia's central structural challenges. Sustained economic growth is essential for raising wages and pensions and bringing overall living standards closer to those in more advanced European countries. The growth model that supported Slovakia's earlier progress – foreign investment, export-oriented manufacturing and integration into European production networks, largely at the assembly stage – remains an important foundation of its prosperity. However, it is no longer sufficient to sustain rapid catch-up and may risk locking the economy into a middle-income trap. Renewing convergence will require a shift towards a more productive, knowledge- and innovation-based growth model.

This section shows that Slovakia's economic convergence has lost momentum. Despite recent improvements in labour productivity, weaker contributions from employment and hours worked have constrained GDP per capita growth and limited further convergence with the EU. Productivity growth has also been uneven across sectors: recent gains have been concentrated mainly in services, whereas industry has weakened in both productivity and labour input. This is a particular concern for a small, open economy whose competitiveness and convergence continue to depend heavily on manufacturing, exports and technology diffusion.

The analysis also identifies several structural constraints on future growth, alongside some important strengths. Slovakia's investment rate has declined over the past decade and now stands below the EU average, with investment in ICT, intellectual property and business R&D remaining particularly weak. Participation in adult learning and the adoption of technologies such as artificial intelligence provide some positive signals, but firm-based training, patenting and domestically generated innovation remain weak. Low headline unemployment and relatively stable employment relationships coexist with limited worker mobility and persistent long-term unemployment, particularly among people with low educational attainment. Although firm turnover and employment in high-growth enterprises indicate some business dynamism, the economy remains dominated by very small firms, while weaknesses in governance and the business environment constrain investment and firm growth. Together, these findings underline the need to improve the quality of investment, strengthen skills and innovation, facilitate the movement of workers and resources towards more productive activities, and create more predictable conditions for productive firms to expand.

2.1 Economic convergence

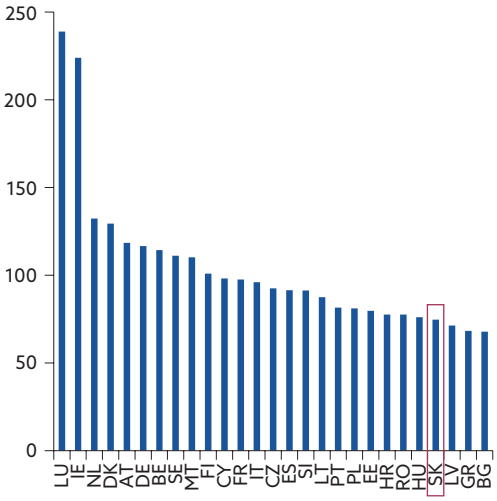
Slovakia has moved from easy catch-up to a more demanding phase of convergence. Earlier convergence was supported by foreign direct investment, integration into European manufacturing and participation in cross-border production networks. These drivers are no longer enough to secure steady catch-up. Further convergence now depends more on stronger productivity growth, higher labour utilisation, greater innovation capacity and the ability of domestic firms to upgrade and scale up. The task is made harder by a weaker European environment, where subdued growth prospects coincide with broader concerns about competitiveness, diffusion of innovation, and fragmentation across markets. In that setting, a gradual narrowing of the gap

to the EU average would not by itself be enough to deliver sufficiently strong income gains for Slovakia, especially if the European benchmark itself remains under pressure.[1]

Slovakia remains well below the EU average in GDP per capita measured in purchasing power standards (PPS). In 2025 its GDP per capita stood at 74.7% of the EU27 average, corresponding to a gap of roughly 25 percentage points.[2] Given methodological limitations, including incomplete cross-country harmonisation, small differences between countries should not be overinterpreted and precise rankings should be treated with caution. Nevertheless, Slovakia remains among the lowest-performing EU Member States, with GDP per capita substantially below the levels recorded in Czechia (92.5% of the EU average) and Poland (81.2%), and slightly below that of Hungary (76.1%).

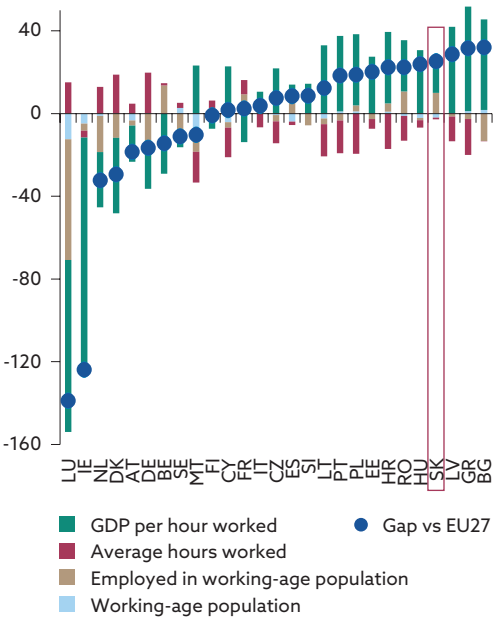
Lower labour productivity accounts for most of Slovakia's income gap with the EU27. Of the 25 percentage-point shortfall, 18 percentage points are attributable to lower GDP per hour worked, while a further 10 percentage points reflect a lower number of domestically employed people among the working-age population. These effects are partly offset by demographic structure and hours worked per employee, which marginally narrow the overall gap. Data limitations prevent a similarly detailed decomposition of the latest labour productivity gap relative to the EU27. However, the 2023 comparison with Germany presented in Box 1 provides insight into its underlying drivers: lower total factor productivity accounts for around 88% of the GDP-per-worker gap, while weaker human capital also contributes. Capital deepening, by contrast, does not appear to be the main constraint.

Chart 2
PPP-adjusted GDP per capita relative to the EU27 average, 2025 (percentages of EU27 average)



Sources: Eurostat, and NBS calculations.

Chart 3
Decomposition of the PPP-adjusted GDP per capita gap relative to the EU27 average, 2025 (percentage point contributions)



Sources: Eurostat, and NBS calculations.

[1] Draghi, M., *The future of European competitiveness*, European Commission, September 2024 (the Draghi report), Part A: A competitiveness strategy for Europe.

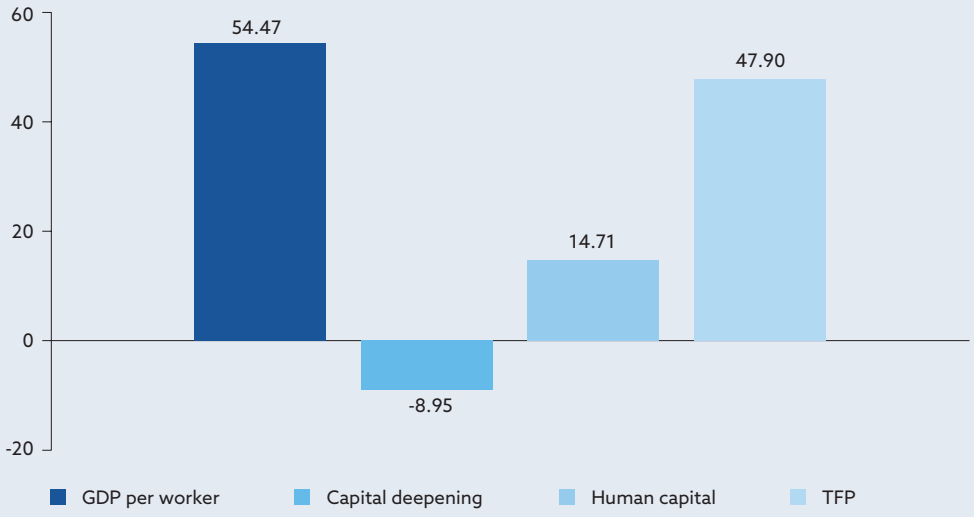
[2] The data in this report do not incorporate the GDP revision released on 20 October 2026, as the analysis had already been completed. The Statistical Office of the Slovak Republic revised real GDP growth from 0.8% to 0.9% for 2025, from 1.9% to 2.6% for 2024 and from 2.1% to 2.5% for 2023, incorporating final annual survey results in its regular national accounts revision. Although the revised figures indicate somewhat stronger growth, they do not change the overall assessment of economic developments and the longer-term weakening of convergence. Statistical Office of the Slovak Republic, "Revision of gross domestic product 2026", press release, 20 October 2026.

BOX 1

Decomposing the labour productivity gap

Slovakia's labour productivity gap with Germany is driven primarily by lower total factor productivity (TFP) and weaker human capital. Chart A indicates that Germany's GDP per worker is about 54.5% higher than Slovakia's. A simple development-accounting exercise allows the different sources of labour productivity to be disentangled: capital deepening, human capital and the TFP residual. The largest underlying difference is in TFP, suggesting that the main gap lies in the efficiency with which labour and capital are used. Germany also displays higher human capital than Slovakia. Roughly one-third of the human-capital gap is accounted for by differences in the quality of education, measured by PISA performance, while the remainder reflects differences in years of schooling. By contrast, the capital-deepening gap with Germany appears to be closed, or even favourable to Slovakia. This result should be interpreted cautiously, however, as Slovakia's investment expenditure is heavily concentrated in traditional assets, which may raise measured capital deepening without necessarily strengthening the type of capital most relevant for future productivity growth.

Chart A
Sources of labour productivity: Slovakia vs Germany (2023, percentages)

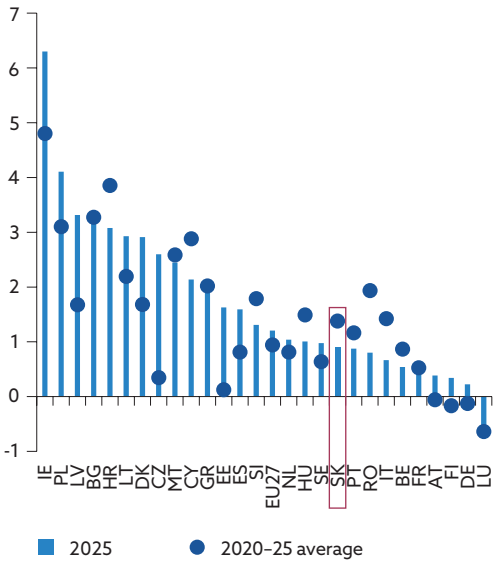


Sources: Penn World Tables 11.0, OECD, UNESCO, and NBS calculations.

In terms of contributions, TFP is the dominant factor, accounting for around 88% of the GDP-per-worker gap. This implies that the productivity gap is driven mainly by differences in how efficiently inputs are combined. While the role of human capital is smaller than that of TFP, the gap still suggests scope for catch-up with the EU frontier, both by increasing years of schooling and, importantly, by improving the quality of education as captured by student performance outcomes. The apparent closing of the capital-deepening gap with Germany should not be interpreted as evidence that Slovakia has no further investment needs. Rather, the key issue is the composition and quality of investment: to obtain future growth Slovakia would benefit from a shift towards productivity-enhancing capital, including intangible and technology-related assets as highlighted in 2.3.1.

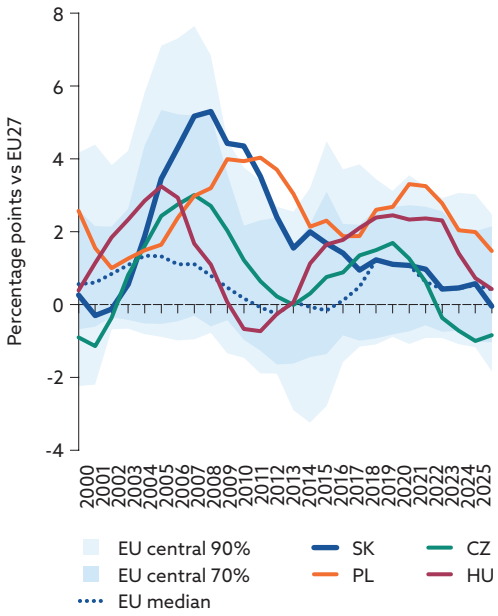
Convergence has come to a standstill. As Chart 6 shows, during 2020–2025 – a period marked by the COVID-19 pandemic and the energy crisis related to the war in Ukraine – Slovakia's real GDP per capita grew by an average of 1.4% per year, compared with 0.9% in the EU27. However, this placed Slovakia well behind the faster-converging economies. In 2025 growth slowed to 0.9%, below the EU27 rate of 1.2%. The longer-term trend is even less favourable: Chart 7 presents the five-year moving average of Slovakia's growth differential vis-à-vis the EU27, smoothing annual fluctuations to provide a clearer measure of the pace of catch-up. This differential has declined steadily from the high levels recorded before the global financial crisis, when Slovakia was among the EU's fastest-growing economies, towards zero. The long-term pattern therefore points to a gradual erosion of the convergence rate and, most recently, a standstill in catch-up.

Chart 4
Real GDP per capita growth (percentages)



Sources: Eurostat, and NBS calculations.

Chart 5
Real GDP per capita growth differential relative to the EU27 (five-year moving average; percentage points)



Sources: Eurostat, and NBS calculations.

BOX 2

Economic convergence indicators

Slovakia's persistent gap with the EU average is visible across the range of economic indicators. Table A shows consistent gaps in output, productivity, incomes and consumption, all pointing to a substantial and long-standing gap in living standards.

Low labour productivity remains a central constraint. It limits the scope for sustained increases in value added generated. This in turn affects compensation per employee and per hour worked, which remain well below EU levels. Lower earnings are also associated with lower consumption. Without renewed convergence in GDP per capita and labour productivity, Slovakia is unlikely to achieve sustained convergence in household incomes and living standards with the EU average.

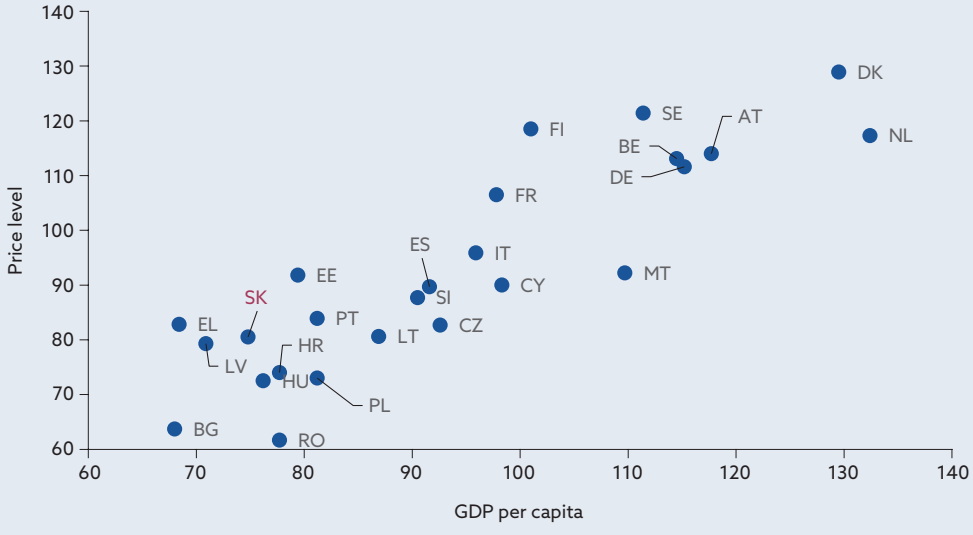
Table A
Economic convergence indicators (percentage of EU27 average; PPP)

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Gross domestic product per capita	72.8	70.0	69.7	69.6	73.8	73.4	70.5	74.1	74.3	74.7
Labour productivity per hour worked	72.6	70.1	69.6	70.1	76.1	79.8	76.1	79.6	80.3	81.1
Actual individual compensation per capita	68.3	67.6	67.3	68.5	74.9	74.8	76.3	76.6	77.7	77.9
Compensation per employee	63.3	62.7	62.8	64.8	69.0	70.6	69.1	71.5	72.7	73.6
Compensation per hour worked	59.6	59.8	60.2	62.6	67.8	71.3	69.3	71.4	72.5	73.7
Comparative price level of GDP	72.4	75.2	77.6	78.4	76.6	76.5	78.7	80.0	80.2	
Comparative price level of actual individual consumption	72.2	75.6	78.5	78.9	76.6	76.2	79.5	80.3	81.1	
Comparative price level of household final consumption	77.9	82.4	84.5	86.0	83.2	82.4	85.2	83.8	84.7	

Source: Eurostat.

Price convergence has advanced further than real convergence. In 2024 Slovakia's comparative price level reached 80.2% of the EU average for GDP and 84.7% for household consumption. By comparison, GDP per capita stood at 74.3% of the EU average in 2025, while labour productivity per hour worked reached 80.3%. **Chart A** illustrates the same broad pattern: Slovakia's relative price level is higher than its relative level of GDP per capita. This development was reinforced by the energy shock and associated inflation, which affected central and eastern European economies more strongly and accelerated their convergence towards EU price levels.

Chart A
Comparative price level of GDP and GDP per capita at PPP, 2025 (EU27 = 100)

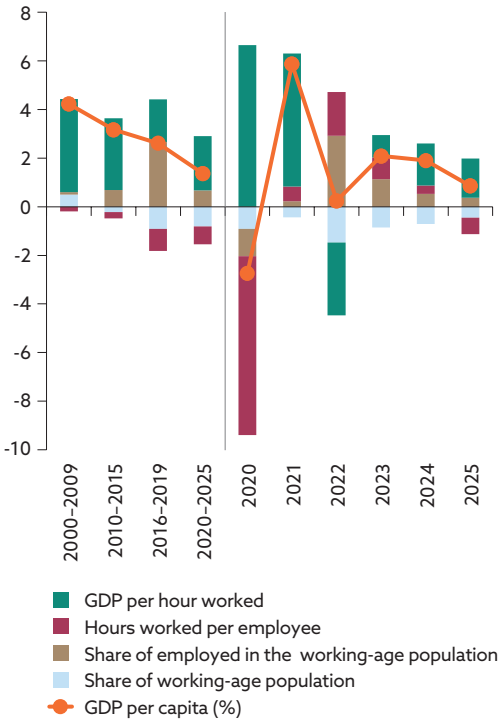


Source: Eurostat.
Notes: Ireland and Luxembourg are excluded because of exceptionally high GDP per capita levels.

2.2 Productivity and employment trends

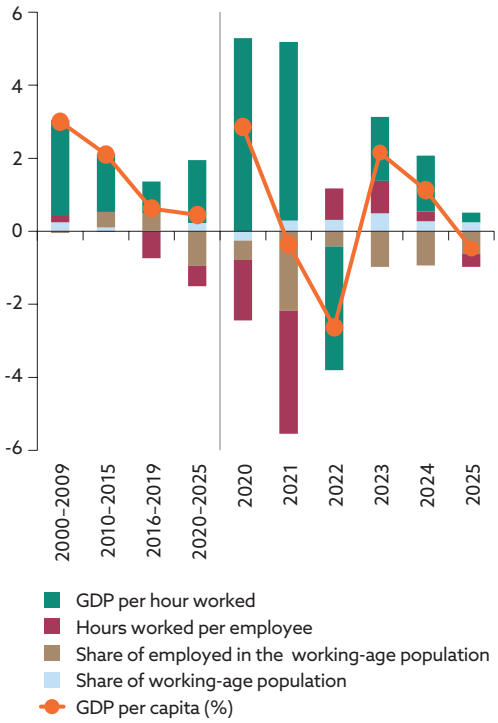
Although productivity improved after the pandemic, it was not enough to sustain faster GDP per capita growth. Before the pandemic, that growth relied more heavily on labour input, while productivity per hour worked contributed comparatively little. Since 2020, GDP per hour worked has made a stronger contribution, but much weaker contributions from employment and hours worked meant that overall real GDP per capita growth did not strengthen accordingly. The recent improvement in productivity was therefore insufficient to keep overall catch-up on a firmer path.

Chart 6
Contributions to real GDP per capita growth of Slovakia (percentage points)



Sources: Eurostat, and NBS calculations.

Chart 7
Differential in real GDP per capita growth between Slovakia and the EU27 (percentage points)

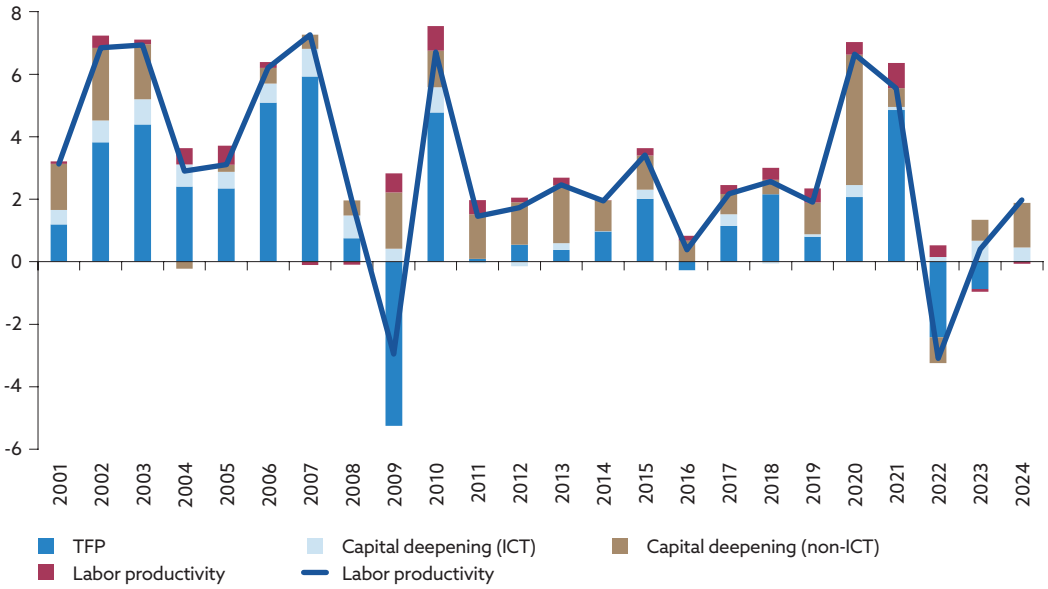


Sources: Eurostat, and NBS calculations.

Part of the productivity boost may also reflect temporary post-crisis adjustment rather than a durable broad-based shift. Some of the improvement may have come from reallocation during the COVID crisis and from lower labour hoarding in Slovakia.[3] This helps explain why the stronger productivity contribution did not translate into faster overall convergence vis-à-vis the EU27: labour market contributions weakened and overall GDP per capita growth remained too soft to sustain a stronger catch-up dynamic.[4]

[3] Ostapenko, N., "Global Shocks and Local Responses: Labour Hoarding in Slovakia and Beyond", *NBS Occasional Paper*, No 2/2025, Národná banka Slovenska, 2025.
[4] Sutóris, I. and Vaňko, M., "Slovakia's Productivity Shift: Grounds for Optimism or Cause for Concern?", *NBS Policy Brief*, No 24/2026, Národná banka Slovenska, 2026.

Chart 8
Labour productivity growth and contributions from capital deepening, labour quality and total factor productivity (percentages; percentage points)



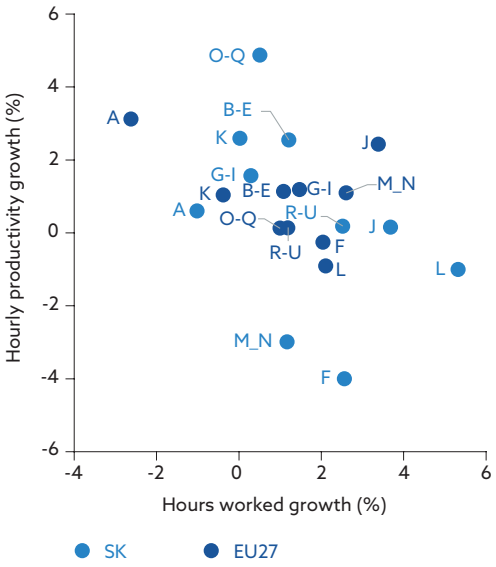
Source: The Conference Board.

Recent growth in value produced per hour worked has been slowed down by developments in total factor productivity. Output per hour worked in the economy depends on the amount of capital per worker, on labour quality (i.e. education composition of the workforce) and on the residual, total factor productivity. Chart 8, based on The Conference Board's Total Economy Database, plots the decomposition of Slovak labour productivity growth into these components, while distinguishing between ICT and non-ICT capital.[5] ICT capital and labour quality play only a minor role in the short run, although they can matter more over the longer term. Most of year-to-year movements in labour productivity are due to changes in non-ICT capital and TFP, which has contributed negatively over the last three years. For future economic growth, it will therefore be imperative to strengthen the economy's productive capacity through research, technology adoption and improvements in the business environment.

The recent productivity improvement also appears narrow in sectoral terms. **Charts 10 and 11** indicate that the pre-pandemic pattern was mixed, but that Slovak industry still performed relatively favourably, while the main weak spots were construction and professional and administrative services. Since 2020, by contrast, stronger productivity growth has been concentrated in trade, transport, accommodation and food services and in professional and administrative services, while industry has weakened in both productivity and hours worked and has underperformed the EU27 in both respects.

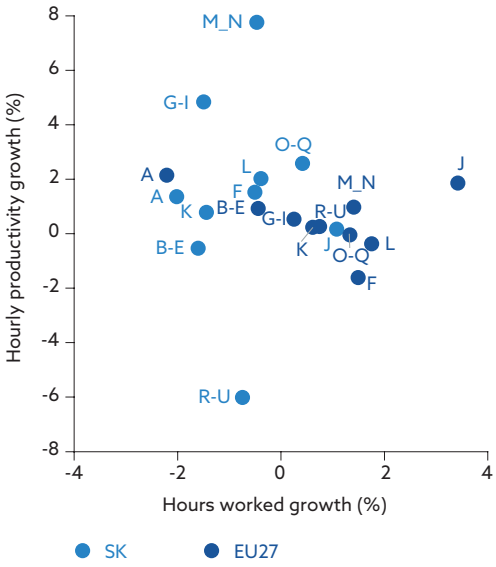
[5] The estimation of economy-wide TFP is not straightforward and is sensitive to the measurement of the economy's capital stock. For example, a similar decomposition by OECD (Compendium of Productivity Indicators 2026) finds a negative contribution of capital deepening and a positive effect of TFP for Slovakia in 2024. The difference is likely due to the OECD's use of net capital stocks from national accounts, while The Conference Board estimates the stock by cumulating past investments. And in the case of Slovakia, national accounts series on capital stock exhibit a somewhat puzzling drop in 2023 and 2024, possibly due to revaluations and other adjustments.

Chart 9
Average growth in productivity and hours worked (2016–2019, percentages)



Sources: Eurostat, and NBS calculations.

Chart 10
Average growth in productivity and hours worked (2020–2025, percentages)



Sources: Eurostat, and NBS calculations.

Note: Productivity is defined as real value added per hour worked. Sector abbreviations: A refers to agriculture; B-E to industry; F to construction; G-I to trade, transport, accommodation and food services; J to information and communication; K to finance and insurance; L to real estate; M-N to professional and administrative services; O-Q to public and social services; and R-U to arts and other services.

This sectoral split is important for the durability of convergence. A service-led rebound can lift aggregate productivity for a time, but it is less likely to sustain catch-up if tradable sectors remain weak. For a small open economy such as Slovakia, convergence still depends heavily on sectors that support exports, investment and technology diffusion. Persistent weakness in industry would therefore limit the extent to which higher headline productivity translates into stronger competitiveness and faster income convergence.[6]

2.3 Drivers of growth

Further convergence will increasingly depend on reinventing Slovakia's growth model rather than simply renewing the model that delivered past catch-up. Integration into European production networks, foreign investment, and export-oriented manufacturing remain an important foundation of the Slovak economy, but alone are no longer sufficient to sustain faster gains in productivity and living standards. The next stage of growth requires more productive and innovation-oriented investment, stronger technology diffusion, continuous upgrading of skills, better movement of workers towards more productive jobs, and more domestic firms able to grow and compete. The quality of public institutions and the business environment will shape progress across all these areas.

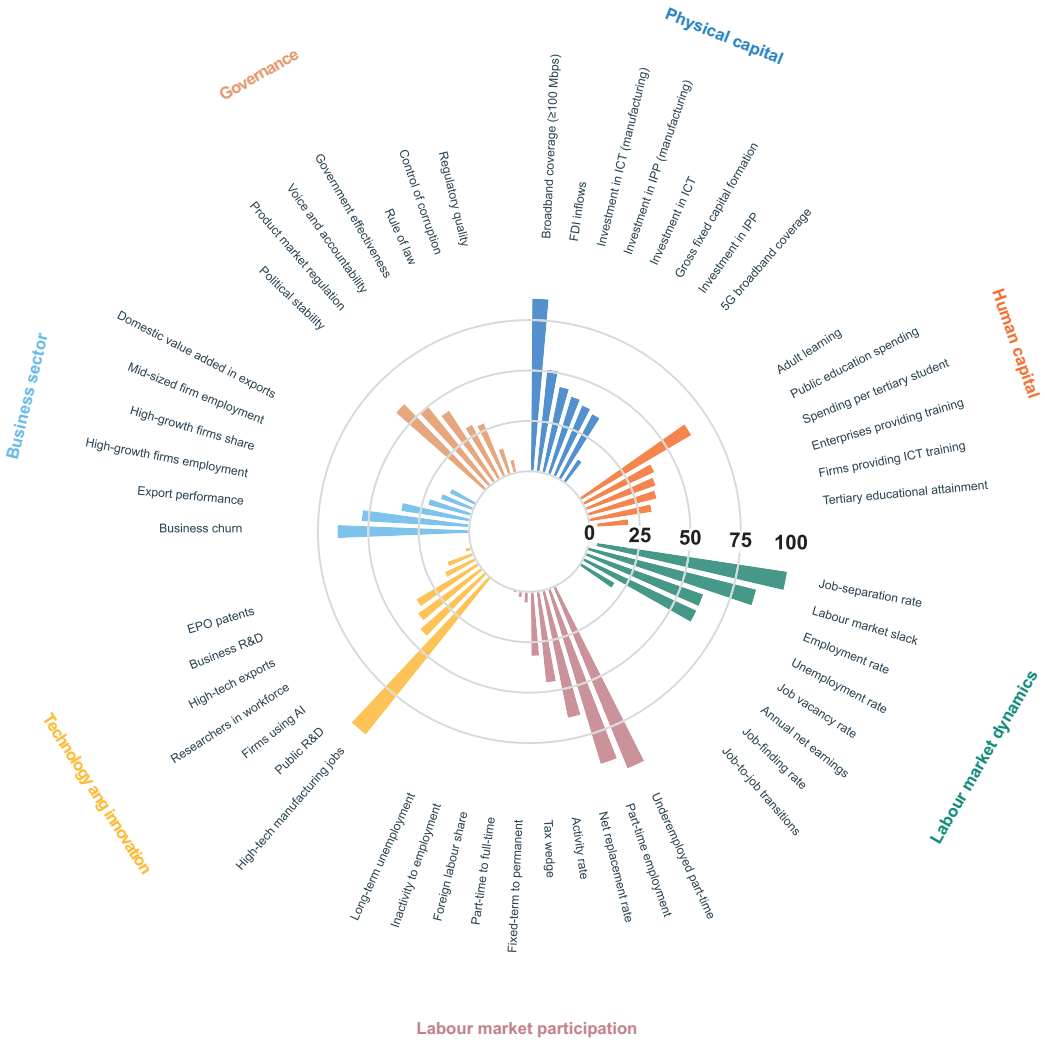
Slovakia combines relatively favourable labour market outcomes with a strong industrial base. Employment relationships are stable, meaning that workers generally face a low risk of involuntary job loss and employment tends to be sustained over time. However, very limited move-

[6] Sutóris, I. and Vaňko, M., "Slovakia's Productivity Shift: Grounds for Optimism or Cause for Concern?", *NBS Policy Brief*, No 2/2026, Národná banka Slovenska, 2026.

ment between jobs suggests that this stability also reflects weak labour reallocation, which can slow the transfer of workers towards more productive firms and activities. Manufacturing remains technologically advanced, and higher-technology activities in manufacturing account for a relatively large share of employment. An additional advantage is provided by strong, high-speed fixed broadband coverage. These strengths reflect the established production model but are unlikely, on their own, to support a transition towards innovation-led growth.

Slovakia's main growth constraints concern investment, domestic innovation, skills and firm growth. Total investment has declined over the past decade to levels moderately below the EU average and too little investment is directed towards ICT, intellectual property and business R&D. Human-capital outcomes are mixed: adult learning is a relative strength, while tertiary attainment and firm-based training – particularly ICT training – remain weaker. Limited domestic value creation in exports, persistent long-term unemployment, a business structure dominated by very small firms, and weaknesses in governance and the business environment make it harder for productive firms to scale up and for productivity gains to spread across the economy.

Chart 11
Benchmarking of indicators related to drivers of growth (score 0–100)

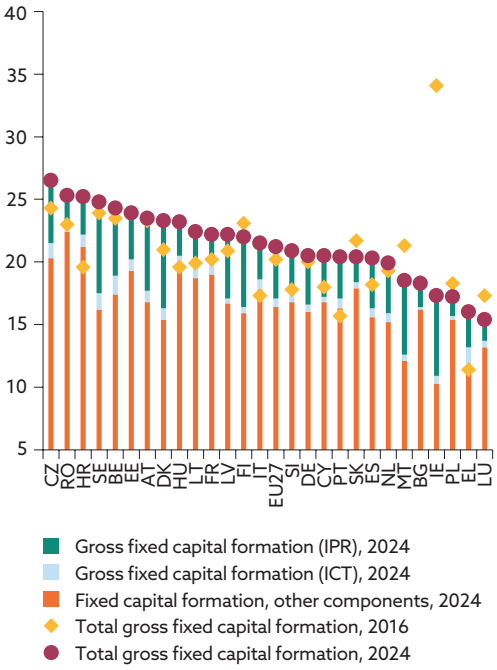


Note: For details about the indicators and their sources, see Section 8 (Tables annex). Scores are calculated using the min–max method and rescaled to a range of 0–100, where 100 indicates the highest score. For further information on the benchmarking method, see Section 7 (Methodological annex).

2.3.1 Physical capital, human capital and innovation

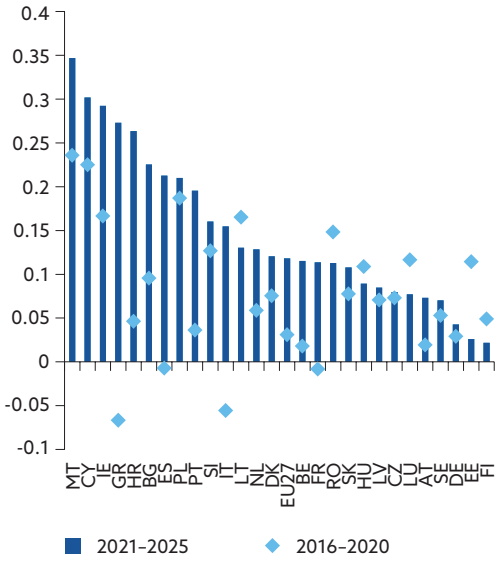
Slovakia's investment rate has deteriorated over the last decade but remains close to EU standards. In 2024 gross fixed capital formation stood at 20.4% of GDP, placing Slovakia slightly below the EU average. This represents a weakening compared with 2016, when Slovakia's investment rate was close to 21.7% of GDP and among the highest in the EU. The fall of around 1.3 percentage points is sizeable. In absolute terms, this decline was driven primarily by lower investment in traditional assets, while, at the same time, investment in ICT and intellectual property products remained comparatively low. Hence, Slovakia's investment effort weakened over time and remained below the EU average. Slovakia also compares less favourably with some of its closest regional peers. In 2024 Czechia recorded one of the highest investment rates in the EU, at around 26% of GDP, while Hungary stood at around 23%. By contrast, Poland recorded a lower investment rate, at around 17%. In addition, Slovakia's investment in ICT and intellectual property products remains relatively limited by EU standards. In 2024, investment in these two categories accounted for roughly 2.5% of GDP, compared with around 4.8% in the EU. Relative to its closest regional peers, Slovakia also lagged behind Czechia and Hungary, while remaining above Poland. Overall, Slovakia's below-average investment rate is mainly driven by an insufficient contribution from ICT and intellectual property investments.

Chart 12
Gross fixed capital formation (percentages of GDP)



Sources: Eurostat, and NBS calculations.

Chart 13
Marginal efficiency of capital (Change in GDP per unit of gross fixed capital formation)



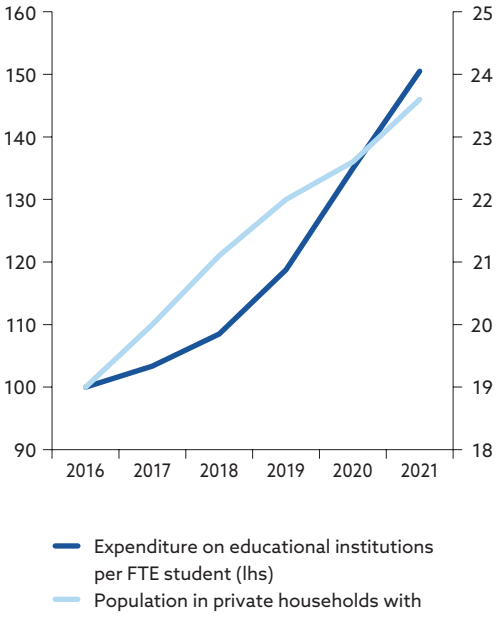
Sources: AMECO, and NBS calculations.
Notes: The marginal efficiency of capital is measured as change in GDP at constant market prices in year *t* per unit of gross fixed capital formation at constant prices in year *t*−0.5, i.e. investment lagged by about half a year. Bars refer to the average during the period 2021–2025; diamonds to the period 2016–2020.

Capital efficiency has improved modestly but does not compensate for the weak investment effort. The marginal efficiency of capital stood at roughly 0.1 in 2021–2025, close to but slightly below the EU average and up from around 0.08 in 2016–2020. This suggests that Slovakia combines

a relatively low level of investment with only moderate returns on additional capital, despite some improvement in recent years. Consequently, there may be scope to reorient investment towards more productive forms of capital.

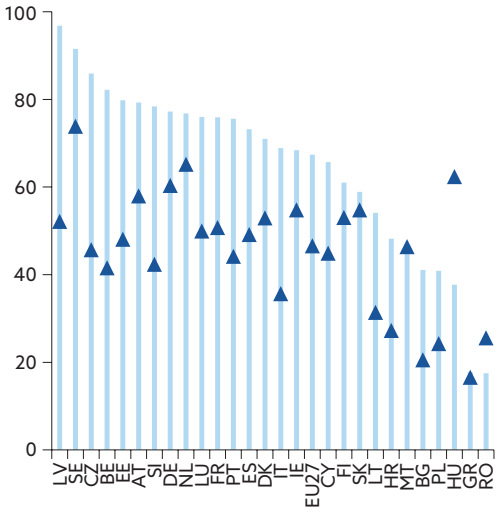
Participation in education and training and government investment in human capital are high, but firms do not provide sufficient on-the-job learning opportunities. Government spending on tertiary education per full-time-equivalent student increased by around 50% between 2016 and 2021, while the share of the population aged 15–74 with tertiary education rose from around 19% to almost 24% over the same period. Although both indicators point to a strengthening of human capital, this has not been accompanied by a broader improvement in innovation capacity, suggesting that constraints may lie less in educational attainment itself and more in the way skills are deployed, upgraded and utilised (educational quality, skills mismatches and the use of human capital are examined in greater detail in Section 5 (Special annex 1: Human capital: education, skills and labour market matching). Participation in education and training, at around 55%, is above the EU average of roughly 46%. However, only around 59% of Slovak enterprises provide training, compared with roughly 67% in the EU.

Chart 14
Population aged 15–74 with tertiary education and government spending on educational institutions per FTE student



Sources: Eurostat, OECD, and NBS calculations.
Notes: Tertiary education comprises ISCED levels 5–8. The expenditure measure refers to government spending on students in tertiary education. It is expressed in US dollars per student, PPP converted, at constant prices (2016=100).

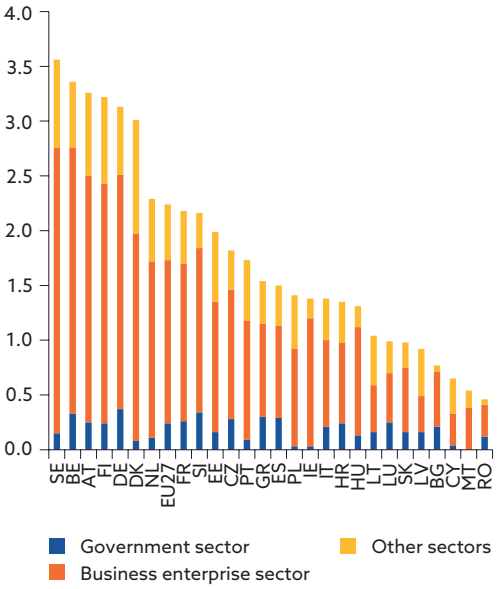
Chart 15
On-the-job training and lifelong learning



Sources: Eurostat, and NBS calculations.
Notes: The types of training provided by enterprises include both CVT courses and other forms of CVT. Participation rates are calculated for individuals aged 25 to 64. Training and education cover both formal and non-formal learning activities. The chart presents the latest available data points for both series.

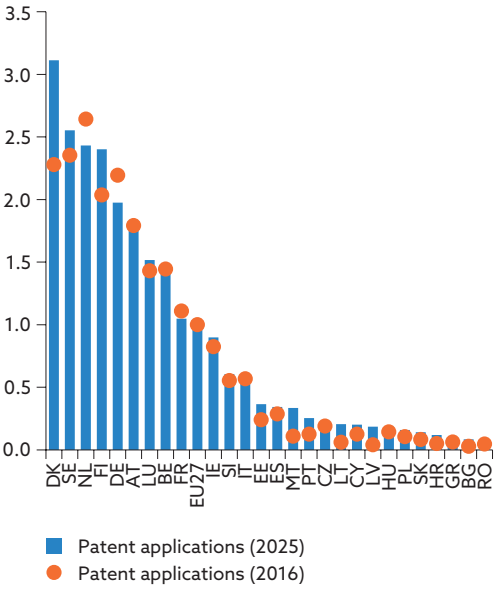
Slovakia's R&D intensity remains well below the EU average, largely owing to weaker research expenditure by the business sector. Gross domestic expenditure on R&D amounted to approximately 1% of GDP in 2024, compared with 2.2% on average in the EU. A closer look at the components shows that the R&D expenditure of the business sector reached only 0.6% of GDP, against approximately 1.5% in the EU. Government expenditure was also modest, but comparatively in line with other EU countries. Hence, Slovakia's low R&D intensity primarily reflects weak research activity in the business sector.

Chart 16
R&D expenditure, government and private sector (2024) (percentages of GDP)



Sources: Eurostat and NBS calculations.

Chart 17
Number of patent applications by inventors relative to the EU (EU27 = 1)

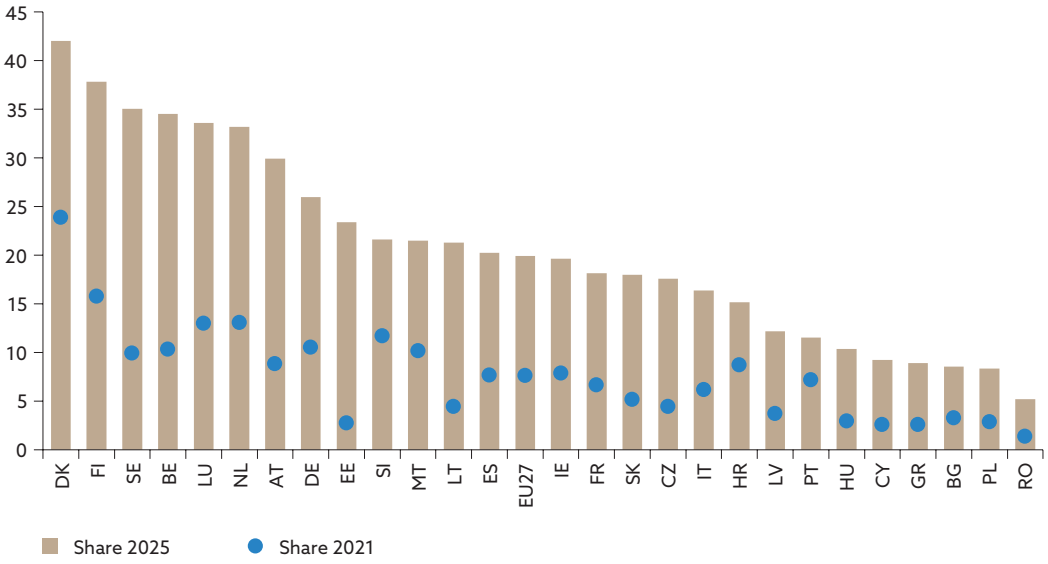


Sources: Eurostat and NBS calculations.
Notes: The indicator counts applications, not granted patents, and refers to the country of residence of the applying inventor. For both periods, country values are expressed relative to the EU27 average.

Slovakia's low R&D intensity is also reflected in patenting activity, which is weak despite gradual improvement. Relative to the EU average, Slovak patent applications increased from around 0.08 in 2016 to approximately 0.14 in 2025. Nevertheless, Slovakia remained among the weakest performers in the EU and continued to lag behind Czechia, Hungary and Poland, although patenting activity remains weak across all V4 countries. Taken together, comparatively low R&D investment and weak patenting point to a persistent innovation gap relative to more innovation-intensive economies.

Slovakia's adoption of artificial intelligence provides a more positive picture, having substantially increased in recent years. Based on a technology-adoption indicator, rather than a measure of AI intensity, the share of Slovak enterprises using AI reached 18%, moving close to the EU average. This marks an increase of almost 13 percentage points over the five-year period, pointing to a relatively strong uptake of AI technologies among firms. This performance contrasts with Slovakia's weaker results in R&D expenditure and patenting activity. Taken together, these patterns suggest that Slovak firms may have a relatively strong capacity to adopt existing technologies, even though their own innovation activity remains more limited.

Chart 18
Share of enterprises using AI technologies



Sources: Eurostat, and NBS calculations.
Notes: Share of enterprises with 10 or more employees using at least one type of AI technology. The sectoral coverage excludes agriculture, forestry and fishing, mining and quarrying, as well as the financial sector. The following AI technologies are considered in this category: AI_TTM, AI_TSR, AI_TNLG, AI_TIR, AI_TML, AI_TPA, AI_TAR, E_AI_TPVSG.

2.3.2 Labour market

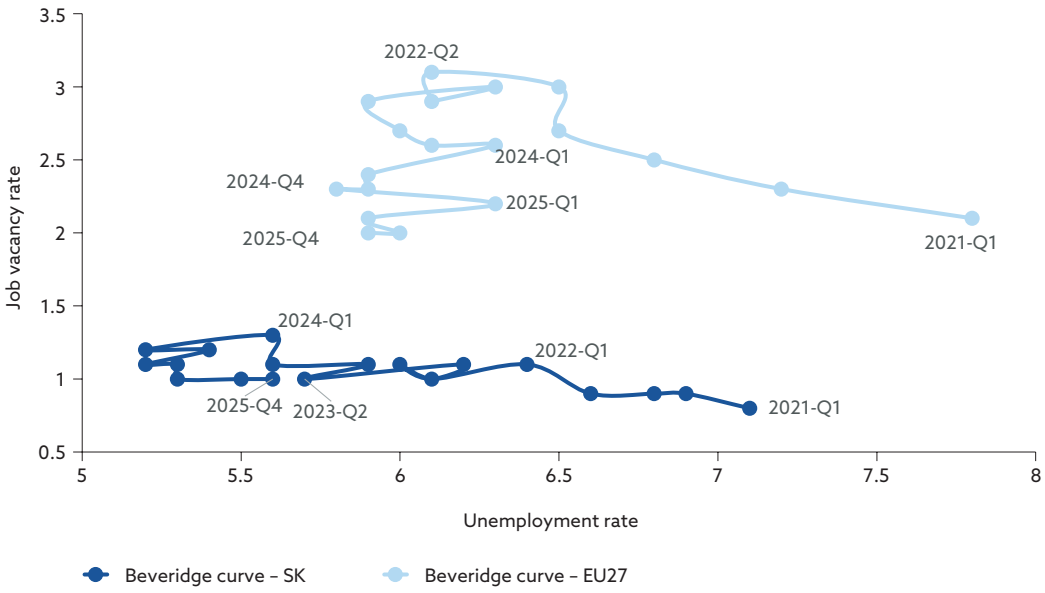
Slovakia's labour market records low unemployment levels and generally performs well, although labour market dynamism remains limited. Employment and unemployment rates are close to EU levels. However, persistently low vacancy rates and declining job-to-job transitions point to inefficiently low labour reallocation. Long-term unemployment, which is concentrated among people with low educational attainment, remains a significant structural problem. The main policy challenge rests therefore on finding ways to improve matching and mobility while reconnecting the long-term unemployed with employment opportunities.

Slovakia's Beveridge curve moved towards lower unemployment rates between 2021 and 2025, while vacancy rates remained low and fluctuated within a relatively narrow range. The unemployment rate declined from around 7.1% in the first quarter of 2021 to approximately 5.2% in the second quarter of 2024, before mildly increasing thereafter. Over the same period, vacancy rates picked up only modestly, reaching a modest level of 1.3% in the first quarter of 2024. Slovakia thus features low unemployment rates and persistently low vacancy rates throughout most of the period. The EU27 followed a similar trajectory towards lower unemployment, albeit combining it with substantially higher vacancy rates. The leftward shift of the Beveridge curve in Slovakia could be interpreted as an improvement in labour market matching efficiency over time. In particular, declining unemployment rates were the primary source of this progress, as vacancy rates remained broadly constant.[7] Persistently low vacancy rates may reflect several factors. One possibility is that firms may refrain from posting vacancies because they do not expect to find suitable candidates for the advertised positions. Another is that limited competition for workers reduces poaching and labour reallocation across firms. At the same time, the available evidence does not allow us to identify if these or other mechanisms are driving the observed low vacancy rates. The remainder of this section, and the report more broadly, presents descriptive evidence

[7] Modhurima, O., "Understanding Beveridge Curve Shifts in Slovakia: Implications for Matching Efficiency and Labour Market Policies", *NBS Policy Brief*, No 19/2025, Národná banka Slovenska, 2025.

pointing to a relatively rigid labour market, characterised by limited dynamism and worker reallocation.

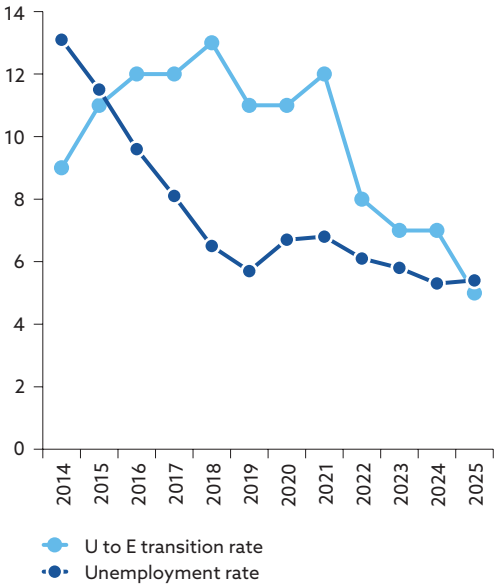
Chart 19
Beveridge curve – SK and EU



Sources: Eurostat, and NBS calculations.
Notes: The unemployment rate refers to individuals aged 15–74. Vacancy rates are computed for NACE sectors B–S using unadjusted data.

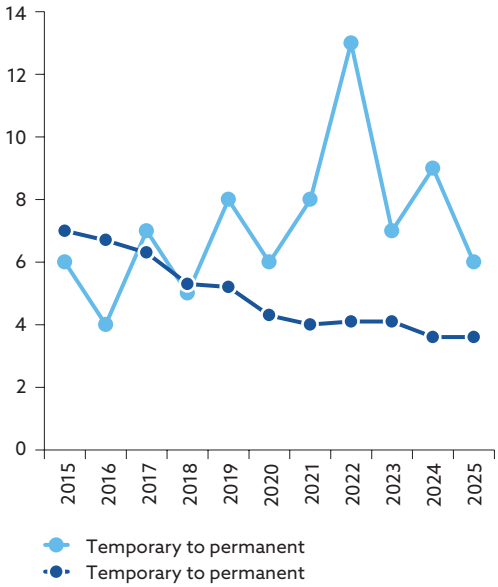
Labour market dynamism in Slovakia has been persistently declining in recent years. **Chart 20** shows that Slovakia's unemployment rate declined from 13.1% in 2014 to 5.4% in 2025, bringing it slightly below the EU average of 6.0%. The transition rate from unemployment to employment peaked at 13% in 2018 and then steadily declined to 5% in 2025. The probability of moving from unemployment to employment has therefore fallen substantially over time. Two factors may have contributed to this development. First, unemployment declined between 2014 and 2019 and subsequently stabilised at relatively low levels, contributing to reducing the pool of jobseekers. Second, the composition of unemployed workers appears to have changed over time, with chronically discouraged workers accounting for an increasingly larger share of the unemployed population (Chart 24). At the same time, the transition rate from fixed-term to permanent contracts increased over time, standing at 6% in 2025, with a peak of 13% in 2022. One possible interpretation of these developments is that some hires initially undertaken under temporary contracts subsequently transitioned into permanent employment relationships, although such a conclusion cannot be established on the basis of these statistics alone. This development coincided with a decline in the share of temporary employees, which fell from around 6% of total employment in 2014 to approximately 4% in 2025.

Chart 20
Unemployment and unemployment-to-employment transition rates (percentages)



Sources: Eurostat, and NBS calculations.

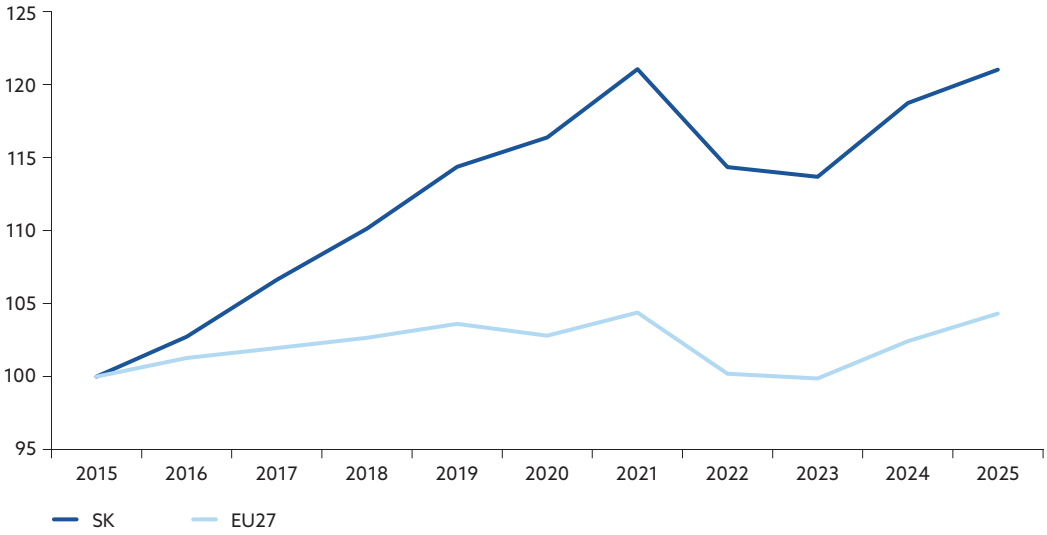
Chart 21
Temporary employees and transition to permanent contract (percentages)



Sources: Eurostat, and NBS calculations.

Since 2015, real compensation per employee in Slovakia has grown more rapidly than in the EU and, after a transitory decline, has fully recovered. By 2021, real compensation per employee in Slovakia was around 21% above its 2015 level, compared with an increase of only 4% in the EU over the same period. The downturn was more pronounced in Slovakia, where real compensation fell by around 10 percentage points, compared with a decline of roughly 4 percentage points in the EU. By 2025, however, both Slovakia and the EU had returned to their respective 2021 levels. Taken together, this and previous charts suggest that Slovakia combined sustained real compensation growth with weak labour market dynamism. These patterns suggest that compensation growth may have been more associated with tightening labour market conditions than with increased worker mobility or a more dynamic reallocation of labour across firms.

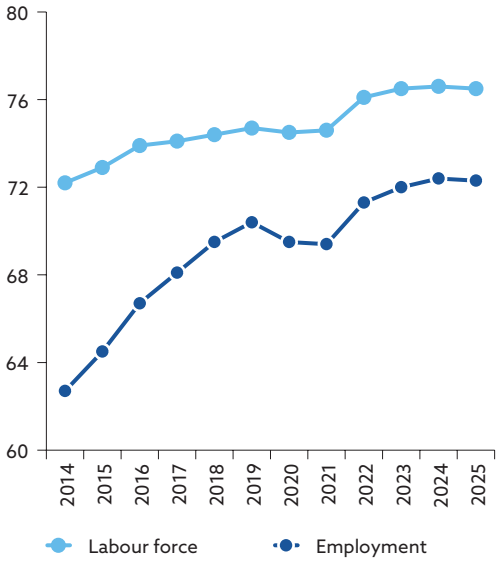
Chart 22
Real compensation per employee (index: 100 = 2015)



Sources: Eurostat, and NBS calculations.
Notes: Series deflated by the HICP.

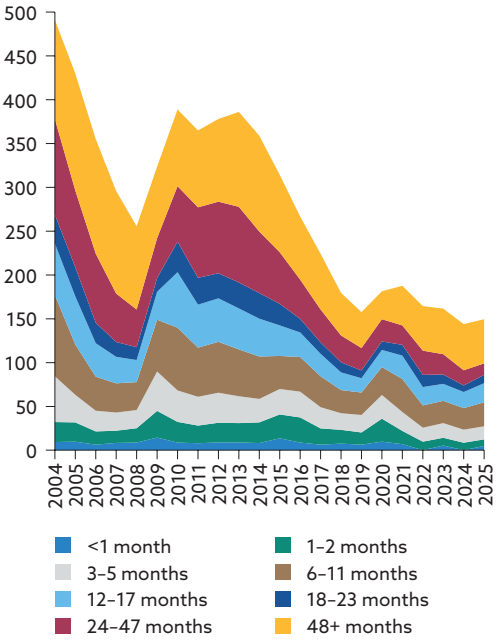
Unemployment in Slovakia has declined substantially over the past two decades, while long-term unemployment continues to represent a sizeable share of the total. The number of unemployed persons aged 15–74 decreased from around 491 thousand in 2004 to 150 thousand in 2025. This reduction was observed across all unemployment-duration categories but was particularly pronounced among individuals experiencing longer unemployment spells. However, when examining recent years, total unemployment was slightly lower in 2025 than in 2019, while the number of persons unemployed for 48 months or more increased from around 41 thousand to around 50.5 thousand. Combined with the evidence presented in Chart 20 and 21 (U-E and temporary-to-permanent), these developments suggest that the decline in unemployment primarily reflected transitions from unemployment to employment rather than movements into inactivity, as both the labour force participation rate and the employment rate increased over the period.

Chart 23
Labour force and employment (percentage of total population)



Sources: Eurostat, and NBS calculations.
Note: The statistics refer to individuals aged 15–64.

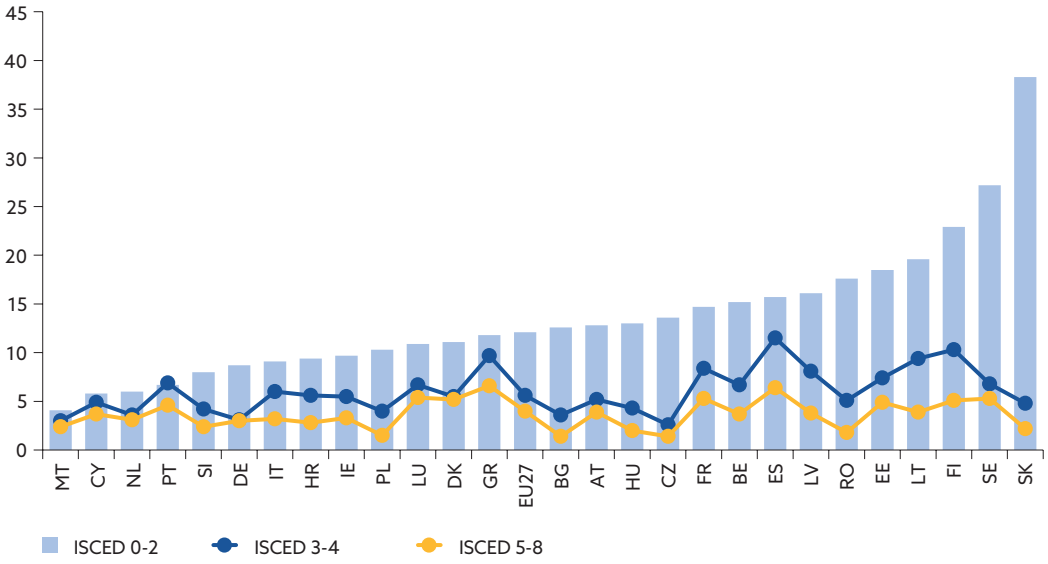
Chart 24
Unemployed in Slovakia by duration of unemployment (2003–2025, thousands)



Sources: Eurostat, and NBS calculations.
Note: The statistics refer to individuals aged 15–74.

Unemployment in Slovakia is strongly heterogeneous across educational attainment levels, with particularly high unemployment rates among individuals with lower education. In 2025 the unemployment rate of individuals with lower secondary education or less (ISCED 0–2) stood at around 38.3%, compared with 4.8% for those with upper secondary education (ISCED 3–4) and 2.2% for graduates (ISCED 5–8). The unemployment rate for low-educated individuals declined from around 46% in 2004 but remained exceptionally high by EU standards, with Slovakia ranking as the worst-performing country. Educational attainment is strongly associated with employability in Slovakia, as high unemployment rates are mainly concentrated among individuals with lower levels of education.

Chart 25
Unemployment rate by educational attainment, 2025 (percentages)



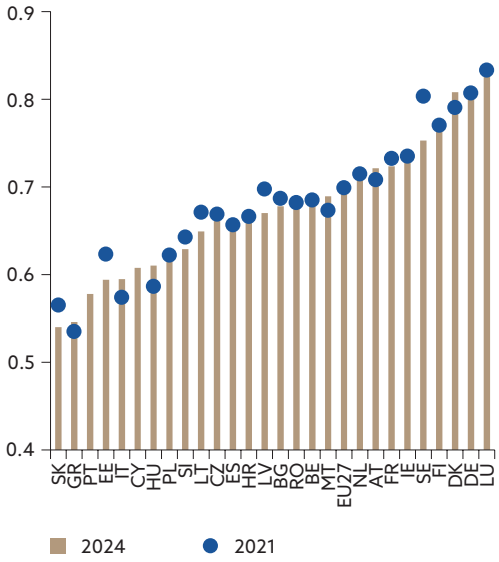
Sources: Eurostat, and NBS calculations.

2.3.3 Business dynamism, governance and institutions

Slovakia records the lowest share of workers in enterprises with at least 10 employees, while employment in high-growth enterprises has increased in recent years. In 2024 workers in firms with at least 10 employees accounted for 54% of employment, the lowest share in the EU and down from 56.5% in 2021. By contrast, the employment share of high-growth enterprises rose from 9.7% in 2021 to 12.9% in 2023, placing Slovakia slightly above the EU average. A business structure tilted towards smaller firms has long been a well-known characteristic of the Slovak economy. Vaňko and Novák (2025) document that firms with fewer than 10 employees accounted for 97% of all firms in 2019. Nevertheless, these small businesses employed less than 50% of workers and generated 23% of the total value added.[8] Despite accounting for only a very small share of enterprises, large firms generated a share of value added that was close to the EU average.

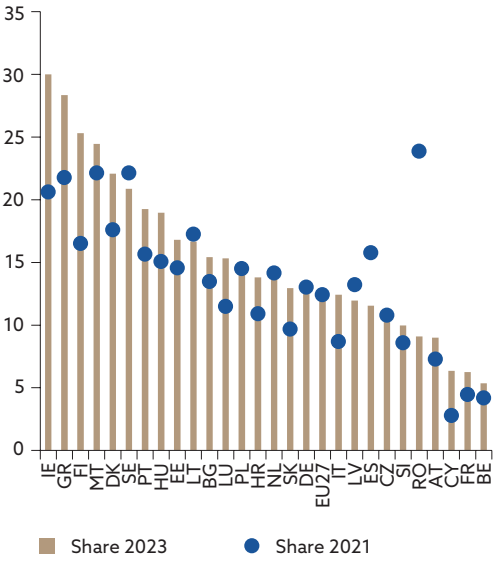
[8] Vaňko, M. and Novák, V., "Stylised facts of Slovak productivity and business demography (1995–2019)", *NBS Occasional Paper*, No 1/2025, Národná banka Slovenska, 2025.

Chart 26
Share of workers in enterprises with at least 10 employees



Sources: Eurostat, and NBS calculations.
Notes: Calculated as the total number of employees in enterprises with at least 10 employees divided by the total number of employees. Data for Portugal and Cyprus are unavailable for 2021.

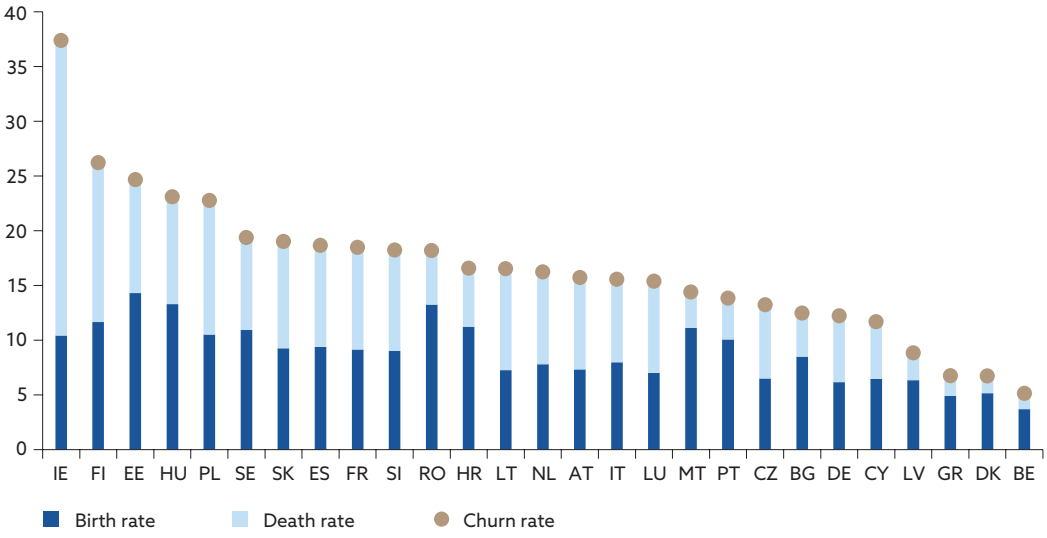
Chart 27
Employment share of high-growth firms



Sources: Eurostat, and NBS calculations.
Notes: Calculated as the number of employees in high-growth enterprises divided by the number of employees in active enterprises with at least 10 employees.

Slovakia shows relatively strong business dynamism, with above-average firm turnover. In 2023 Slovakia recorded an employer-business churn rate of 19%, indicating relatively strong turnover (this statistic considers enterprises with at least one employee). In Slovakia, business churn was broadly balanced, with firm death rates only marginally exceeding firm birth rates. The birth rate, measured as the share of enterprises hiring their first employee, stood at 9.3%, while the death rate, measured as the share of enterprises that ceased to employ any workers, reached 9.8%. Compared with regional peers, Hungary displays higher churn rates with stronger birth dynamics, while Poland exhibits high turnover but alongside higher death rates. By contrast, Czechia recorded substantially lower turnover overall.

Chart 28
Business churn rate: firm birth and death rates (2023)

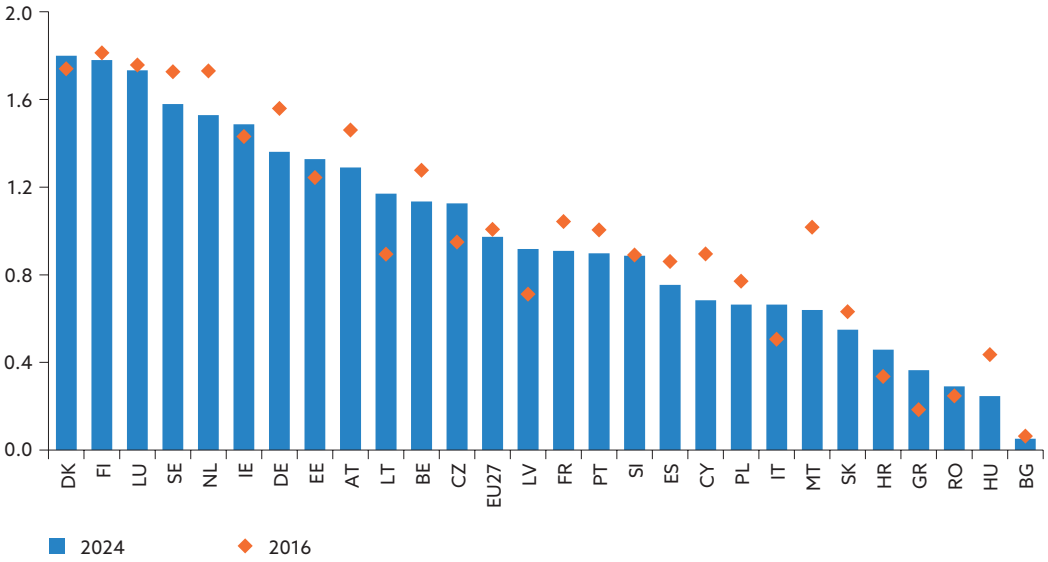


Sources: Eurostat, and NBS calculations.
Notes: Birth rate is defined as the percentage of enterprises that hired their first employee relative to all enterprises with at least one employee. Death rate is defined as the percentage of enterprises that no longer have any employees, relative to all enterprises with at least one employee. The churn rate is the sum of the birth rate and the death rate.

Slovakia's average score across the Worldwide Governance Indicators, produced by the World Bank, remains low and has slightly deteriorated over time, with the main weaknesses concentrated in the institutions that shape policy implementation and the business environment. Chart 29 shows that the overall governance measure has declined in recent years and remains below the EU average, although weakening governance has also been observed in some regional peers. The benchmarking results reveal a more differentiated picture across the individual indicators. Political stability compares relatively favourably with other EU countries, while voice and accountability presents a more moderate picture. By contrast, Slovakia performs less favourably in government effectiveness, regulatory quality, the rule of law and control of corruption. Regulatory quality stands out as the weakest area in the latest benchmark and has worsened over time, while the recent deterioration in control of corruption points to additional room for improvement in the quality and predictability of the institutional environment, which is also stressed by the 2026 country-specific recommendations, which call for a stronger judicial system and a more effective anti-corruption framework.[9] Overall, governance indicators suggest that institutional quality remains an area where Slovakia continues to lag behind the EU average.

[9] Council of the European Union, *Council Recommendation on the economic, social, employment, structural and budgetary policies of Slovakia*, 11137/26, Brussels, 3 July 2026, recommendation no 3.

Chart 29
Worldwide Governance Indicators (WGI)

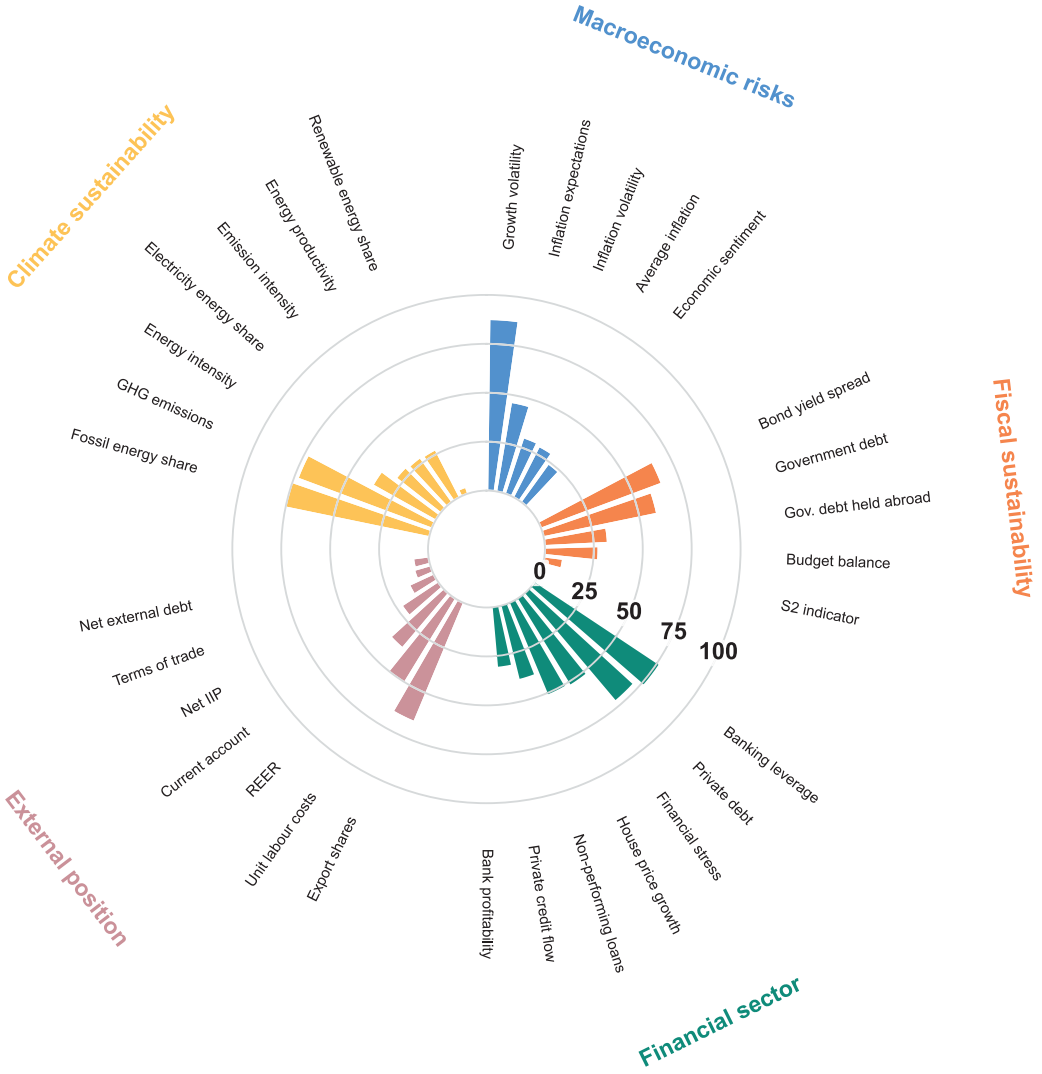


Sources: World Bank, and NBS calculations.
Notes: The reported score is the average value in the following six categories: Voice and Accountability, Political Stability, Governance Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption. Scores range from -2.5 (weak) to 2.5 (strong).

3 Resilience and sustainability

Sustaining convergence requires not only stronger growth potential, but also the resilience to absorb shocks and reconcile growth with climate neutrality. While the first section examined Slovakia's convergence and the economy's capacity to generate growth, this section turns to the conditions under which that growth can endure. It asks how Slovakia can grow without allowing fiscal, financial or external vulnerabilities to build up, and how the economy can preserve competitiveness while moving towards climate neutrality. These questions are closely connected: stronger policy and financial buffers make adjustment less disruptive, while a timely green transition can increase resilience to fossil fuel-price swings and supply shocks.

Chart 30
Benchmarking of indicators related to resilience and sustainability (score 0–100)



Note: For details about the indicators and their sources, see Section 8 (Tables annex). Scores are calculated using the min–max method and rescaled to a range of 0–100, where 100 indicates the highest score. For further information on the benchmarking method, see Section 7 (Methodological annex).

The benchmarking exercise (Chart 30) points to an uneven resilience profile. It suggests that Slovakia retains several relevant shock absorbers. GDP growth has been comparatively less volatile in the recent past, while private-sector indebtedness remains contained and the banking

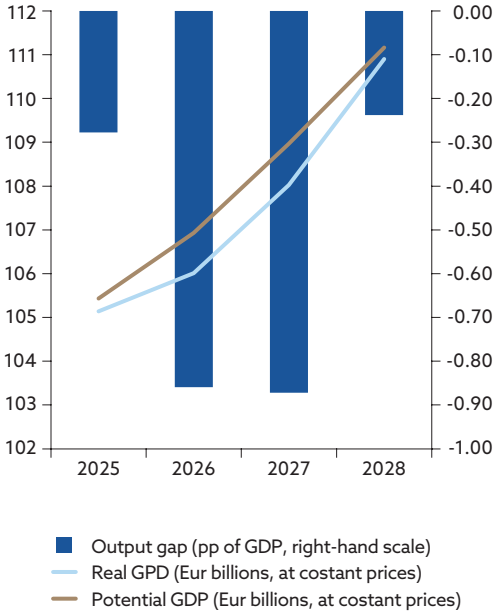
system is not highly leveraged. The climate indicators also show some favourable conditions, notably comparatively low emissions per inhabitant and a lower reliance on fossil fuels in the energy mix.

The main domestic constraint is public finances. Persistent deficits, rising debt and ageing-related spending pressures are narrowing fiscal space, while public finances will come under further pressure from the investment gap in the economy as well as from higher military spending. Slovakia can build on its progress in decoupling growth from emissions and relatively low carbon power generation; however, high energy intensity, slow renewable deployment and insufficient grid capacity remain obstacles to competitiveness and the green transition. Strengthening resilience therefore calls for credible, growth-friendly consolidation, structural reforms to boost growth potential, and the lowering of both energy costs and energy dependence.

3.1 Macroeconomic outlook and risks

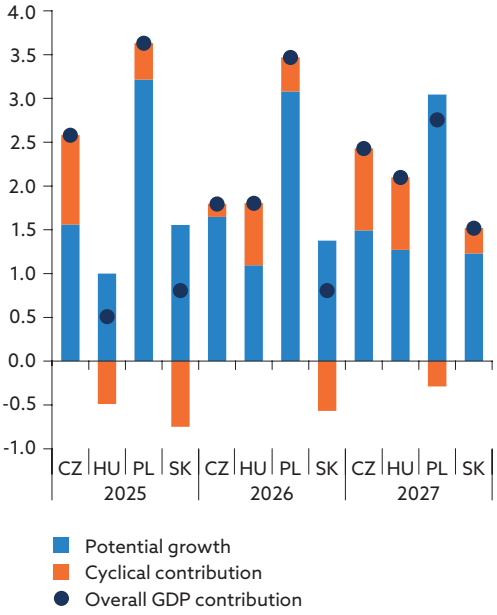
The current macroeconomic outlook remains subdued. Chart 31 shows that the NBS forecasts a weakening of Slovakia's cyclical position, with the negative output gap remaining sizeable before narrowing towards the end of the forecast horizon. The EC forecast in Chart 32 places this weakness in a regional context. Slovakia remains among the weakest V4 performers. Near-term growth is held back by a negative cyclical contribution, while potential growth remains modest. Although the cyclical drag later eases and turns positive, Slovakia continues to lag behind its peers, suggesting that the subdued outlook reflects both cyclical weakness and structural constraints on potential growth.

Chart 31
Cyclical developments



Source: NBS.
Note: NBS forecast in *Economic and Monetary Developments – Autumn 2026.*

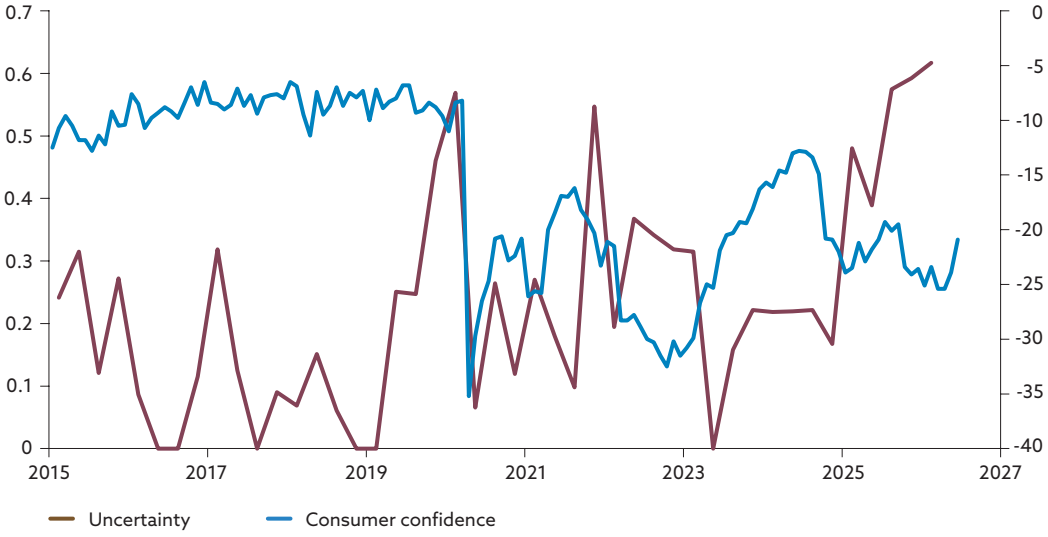
Chart 32
Growth forecasts of V4 countries (percentages)



Source: Ameco.
Note: Projections from the European Commission Spring 2026 Economic Forecast.

Soft indicators corroborate the negative outlook. Chart 33 plots the consumer confidence indicator based on consumer surveys, and economic uncertainty based on text analysis of Economist Intelligence Unit country reports.[10] After a partial recovery over 2023–24, consumer confidence dropped again and has recently stagnated – never recovering from its dramatic COVID-related collapse in 2020. At the same time, uncertainty has exhibited a growing trend over the last two years. Depressed confidence and heightened uncertainty have a negative impact on economic activity by lowering domestic demand and delaying investments, thereby contributing to the macroeconomic headwinds facing the Slovak economy.

Chart 33
Uncertainty and consumer confidence in the Slovak economy (left-hand scale: index; right-hand scale: percentage balances)



Sources: EC business and consumer surveys, and Ahir, Bloom and Furceri (2022).

Geopolitical risks remain material even though the most adverse scenarios have not materialised. Tariff fragmentation has so far proved less disruptive than feared, and the Strait of Hormuz situation stabilised after the immediate shock. Nevertheless, the Middle East conflict continues to be a source of macroeconomic risk and possible shocks to commodity prices, external demand and uncertainty. Higher energy prices would substantially raise firms' costs and erode households' real incomes, while increased uncertainty, tighter financial conditions and weaker foreign demand would dampen exports, investment and private consumption. Overall, the shock would weigh on economic activity while adding to inflationary pressures.[11]

Artificial intelligence creates a further, two-sided risk to the outlook. Faster and broader AI adoption could raise productivity and potential growth, but the scale and timing of these gains remain highly uncertain because they depend not only on model capabilities, but also on diffusion across firms, complementary investment, skills and institutional readiness.[12] The transition could nevertheless be turbulent even under a favourable long-run outcome: automation may displace workers or compress incomes before new tasks and jobs emerge, while limited

[10] The Slovak-specific uncertainty index is sourced from the April 2026 update of the dataset in Ahir, H., Bloom, N. and Furceri, D., "The World Uncertainty Index", *NBER Working Paper*, No 29763, February 2022: https://worlduncertaintyindex.com.
[11] Národná banka Slovenska, *Economic and Monetary Developments*, Autumn 2026.
[12] Barhoumi, K. et al., "Global Economic and Financial Implications of Artificial Intelligence: Lessons from a Scenario-Planning Exercise", *IMF Notes*, No 2026/002, April 2026.

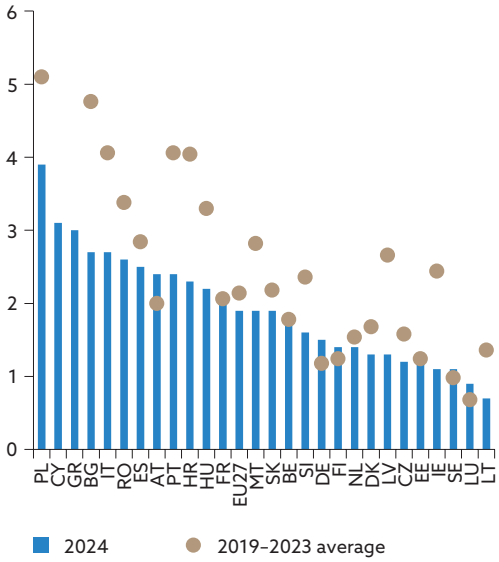
retraining and worker mobility could make the adjustment longer and more unequal.[13] For Europe, limited domestic frontier-model capacity creates an additional strategic dependency: reliance on US and Chinese models and their supporting cloud infrastructure could expose firms and public services to changes in access, pricing, licensing or geopolitical restrictions.[14] At the same time, large expectations are already embedded in technology-sector valuations and an exceptionally strong wave of investment in chips, data centres and energy infrastructure. These exposures are concentrated in a small number of firms and are relying increasingly on debt, creating a risk that disappointing earnings or slower-than-expected productivity gains trigger a broad repricing, tighter financing conditions and weaker consumption and investment.[15] According to IMF modelling, even a moderate correction in AI-related equity valuations, accompanied by tighter financial conditions, could reduce global growth by 0.4 percentage points relative to the baseline.[16]

3.2 Financial stability

Slovakia's financial system remains stable, profitable and resilient, although the weaker economic outlook and heightened external uncertainty are increasing risks.[17] Aggregate non-performing loans remain below 2% and close to the EU average (Chart 34), while balance-sheet leverage remains contained by European standards (Chart 35). NBS data provide a similarly reassuring picture: at the end of 2025, the banking sector's consolidated capital adequacy ratio stood at 20.9%, its regulatory leverage ratio at 7.5%, its liquidity coverage ratio at 191% and its net stable funding ratio at 135%. Banks earned a net profit of EUR 1.1 billion in 2025, only 3% less than in the previous year. NBS stress tests showed that the banking sector would remain resilient even in the event of a significant deterioration in the economic and financial environment, while maintaining profitability and its ability to continue lending to the economy. The capital adequacy ratio would decline by approximately 1 percentage point under the stress scenarios.

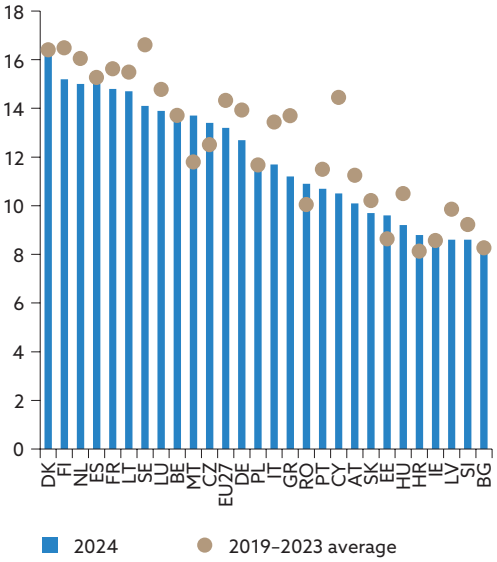
13 Barhoumi et al. (2026) stress that even when AI raises aggregate productivity and income, the transition may involve prolonged labour displacement, income concentration and financial stress (see IMF Notes 2026/002).
14 See Chapter 5 in *Investment Report 2025/2026: Capitalising on Europe's Strengths*, European Investment Bank, 2026.
15 Národná banka Slovenska, *Financial Stability Report*, May 2026, pp. 15–17.
16 "Global Economy Shakes Off Tariff Shock Amid Tech-Driven Boom", *IMF Blog*, 19 January 2026. This article discusses the downside scenario in the October 2025 World Economic Outlook.
17 This section is based on Národná banka Slovenska's May 2026 Financial Stability Report. For a detailed assessment of financial-sector and broader economic developments, with a particular focus on risks to financial stability, as well as the sources of the underlying data unless stated otherwise, see the report.

Chart 34
Non-performing loan ratio (percentages)



Source: Eurostat.
Note: Past averages are not shown for Greece and Cyprus due to scale.

Chart 35
Banking sector leverage



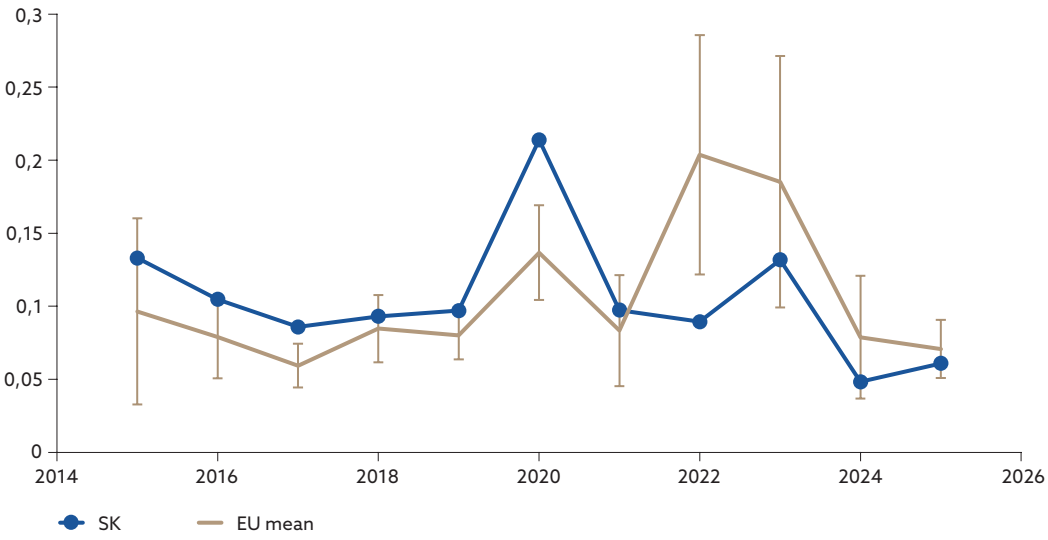
Source: Eurostat.
Note: Leverage is defined as total assets divided by equity.

Resilience at the aggregate level nevertheless masks rising vulnerabilities among households. The non-performing loan ratio for mortgages remains at a historical low, but the ratio for consumer credit increased from 6.8% at the end of 2024 to 8.0% in February 2026, while the net default rate reached its highest level in eight years. Slower income growth, increased living costs and a weakening labour market have reduced the debt servicing capacity of some households, while mortgages granted to self-employed people and entrepreneurs warrant particular attention. Rapid housing price growth adds a further medium-term vulnerability: annual growth in flat prices accelerated to 14% in March 2026, alongside strong demand for investment properties.

The financial position of firms remains sound by historical standards, but the weaker economy is becoming more visible in credit developments. Corporate profitability declined only marginally in 2025 and the aggregate non-performing loan (NPL) ratio remained low, at 2.5% in March 2026. Risks are more concentrated in industry, where the NPL ratio rose to 5.2%, and in commercial real estate. Corporate lending has slowed, particularly for the largest firms and industrial companies. The automotive industry is exposed to structural change, US tariffs and stronger competition from China; however, domestic banks' direct exposure to the sector and its suppliers is relatively low, while carmakers have so far shown some ability to redirect exports.

The Slovak non-bank financial sector does not currently exhibit material systemic risks from liquidity mismatch, leverage or interconnectedness, and insurers remain profitable and adequately capitalised. Market risk is nevertheless increasing as investment and pension funds allocate a growing share of their portfolios to equities. Exposure to US equities has stabilised at around 70% of total direct and indirect equity holdings. This points to greater sensitivity of household savings to market corrections even though the potential for systemic amplification remains limited.

Chart 36
Country Level Index of Financial Stress



Sources: ECB, and NBS calculations.
Note: The index is a composite measure of financial volatility with values from 0 to 1. The EU mean series is an unweighted average, and error bars show +/- standard deviation across EU countries.

Domestic financial market stress has remained comparatively low since the pandemic and below the EU average (Chart 36), although the indicator[18] does not capture the latest geopolitical and market developments. NBS identifies the external environment as the main source of risk to domestic financial stability. A persistent energy shock, weaker foreign demand or a global correction in highly valued technology and AI-related assets could tighten financial conditions and reinforce pressures on households and firms.

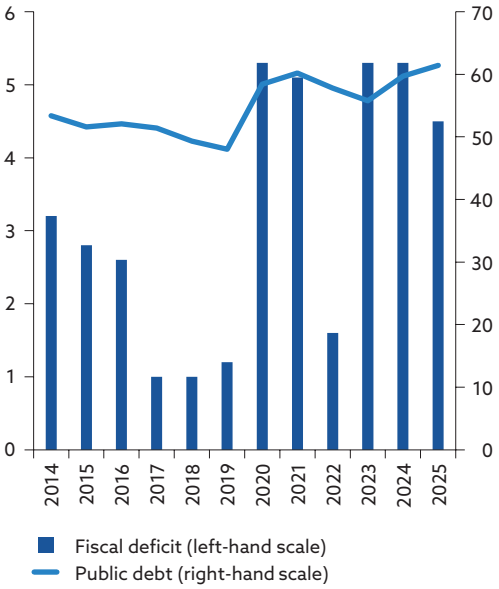
3.3 Fiscal sustainability

Multiple years of high deficits are becoming a problem. Ever since the COVID pandemic in 2020, with the exception of a single year driven by temporary effects, Slovak government budgets have involved large deficits in the range of 4-5% of GDP (Chart 37). Inevitably, government debt has been rising, from 48% GDP in 2019 to 61% in 2025, which now exceeds the highest threshold of the constitutional fiscal responsibility framework, also known as the 'debt brake'.[19] While in comparison with other EU countries the debt level is not yet excessive (Chart 38), the persistent path of high deficits is worrying and will require further rounds of fiscal consolidation in the future.

[18] The data on financial stress is based on the ECB's Country-Level Index of Financial Stress (CLIFS), a composite index of financial volatility in stock, bond and currency markets in each country. One caveat is that given the underdeveloped stock market in Slovakia, volatility of stocks is not necessarily a meaningful measure of systemic stress in the Slovak financial sector.

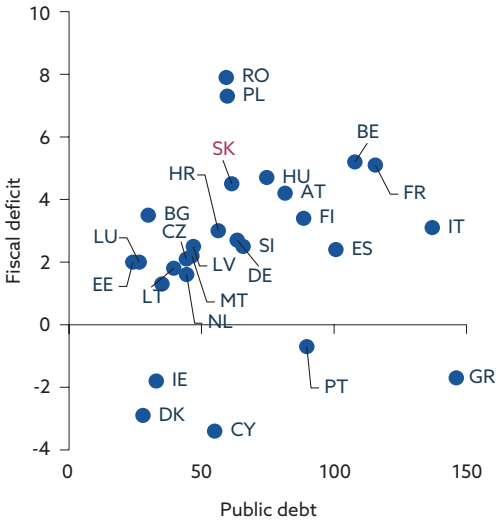
[19] See, for example, *Medium-term fiscal outlook for 2026 to 2028*, Council for Budget Responsibility, June 2026.

Chart 37
Slovakia's fiscal deficit and gross government debt (percentages of GDP)



Source: Eurostat.

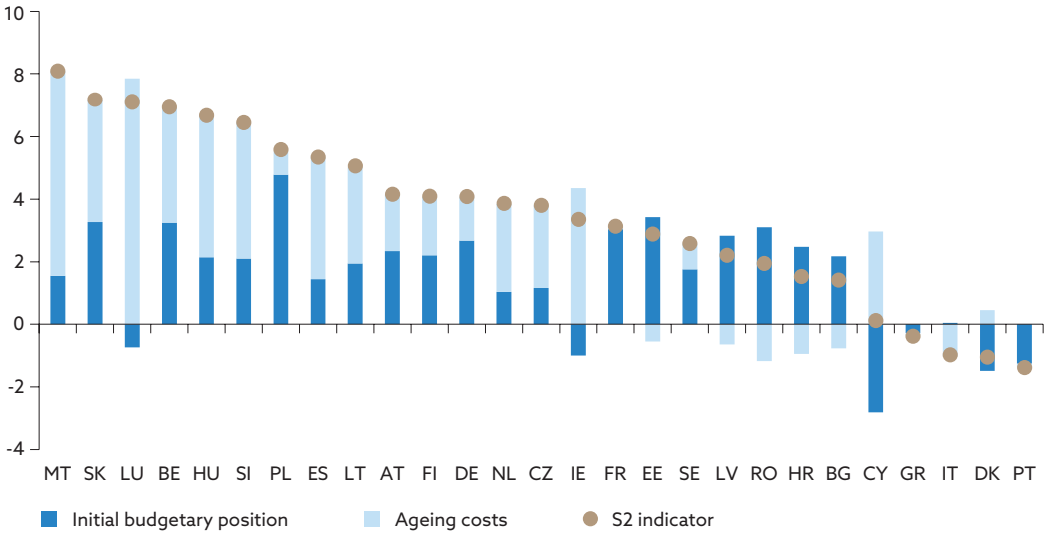
Chart 38
Fiscal deficits and public debt in EU countries, 2025 (percentages of GDP)



Source: Eurostat.

The long-term fiscal effort required to stabilise the debt is substantial. The European Commission's S2 indicator, shown in Chart 39, estimates the necessary permanent reduction in the deficit (in percentages of GDP) that is consistent with the debt-to-GDP ratio stabilising in the very long term. The S2 value for Slovakia is the second highest in the EU, at 7.2% of GDP, reflecting not only the high initial fiscal deficit, but also expected impacts of population ageing on pension, healthcare and long-term care expenditures, as estimated in the European Commission's 2024 Ageing Report.

Chart 39
The European Commission's S2 indicator (percentages of GDP)

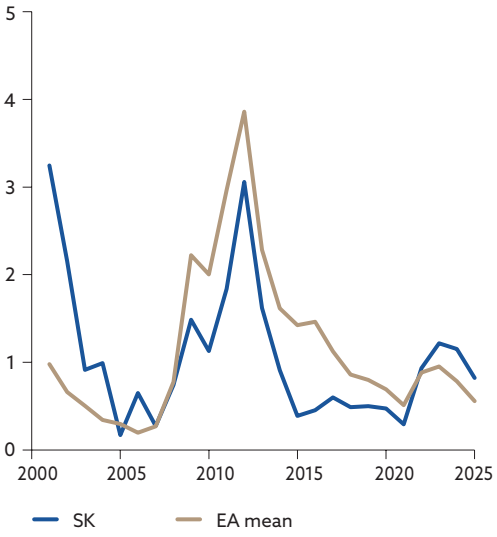


Source: EC 2025 Debt Sustainability Monitor.

Fiscal vulnerabilities appear to be increasingly reflected in financial market indicators. Chart 40 shows the spread of Slovak government bond yields over German yields, which provides a rough

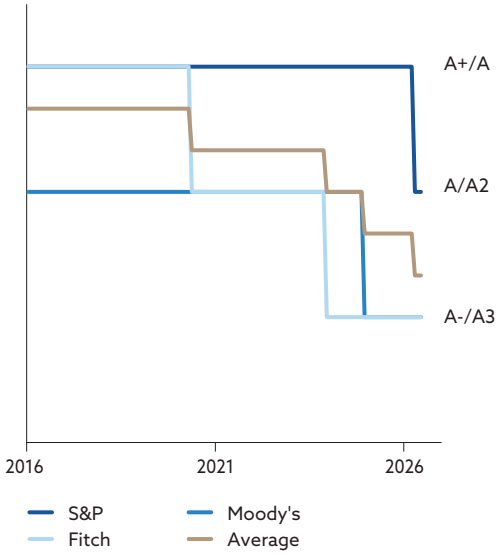
indication of the risk premium required by financial markets to hold Slovak government debt. For a long period, Slovakia traded at a below-average spread relative to other euro area countries. More recently, however, the spread has risen above the euro area average. This development should be interpreted with some caution, as earlier spreads may have been affected by asymmetric compression of sovereign risk premia during the period of ECB asset purchases. At the same time, the recent widening is consistent with a less favourable assessment of Slovakia's fiscal outlook. Over this period, Slovak sovereign debt was also downgraded by all three major rating agencies.[20] (Chart 41).

Chart 40
Spread of long-term government bond yields over Germany (percentage points)



Sources: Eurostat, and own calculations.
Note: The EA mean is the unweighted average across the current 21 euro area countries (fixed composition).

Chart 41
Credit ratings of Slovak government debt



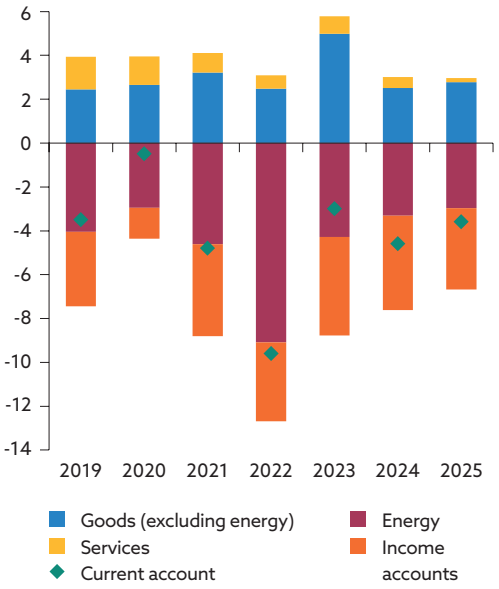
Sources: ARDAL, and own calculations.

3.4 External vulnerabilities

Slovakia's current account balance is negative but stable. Chart 42 shows the evolution of Slovakia's current account balance, which comprises trade in goods and services and income flows. Over the past five years, the balance has remained at around -4% of GDP, except in 2022, when the energy crisis resulted in a substantial trade deficit due to higher energy imports. In other years, trade in goods and services was roughly balanced, with the primary income deficit accounting for the largest negative contribution to the current account. This reflects payments to foreign factors of production, typically in the form of income on foreign direct investment.

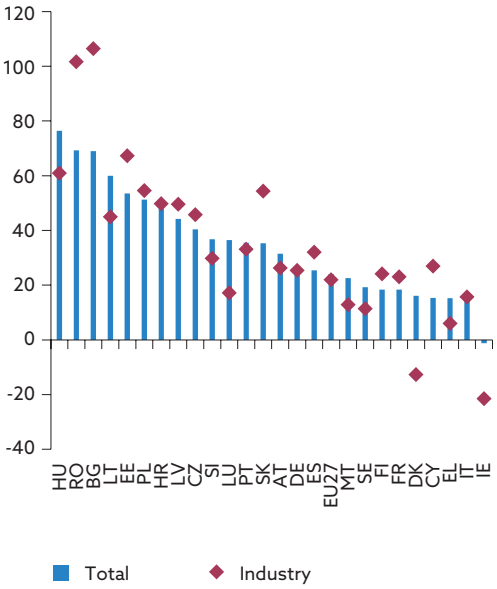
[20] https://www.ardal.sk/en/economy/rating-of-the-slovak-republic/rating-development-of-the-slov

Chart 42
Slovak current account balance and components (percentages of GDP)



Sources: Eurostat, SO SR, and NBS calculations.

Chart 43
Nominal unit labour cost growth in the total economy and in industry (percentages)

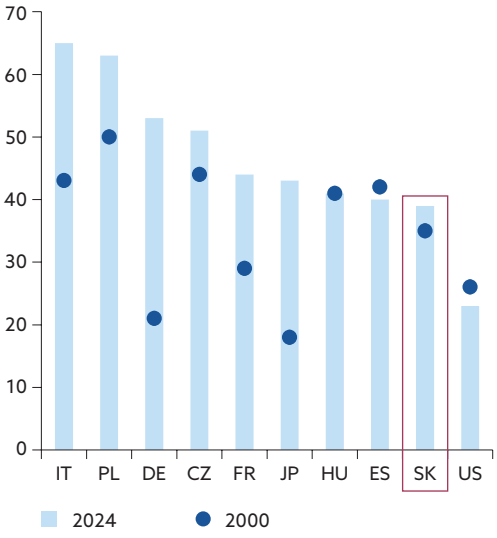


Sources: Eurostat, and own calculations.
Note: Bars show cumulative nominal unit labour cost growth in the total economy between 2019 and 2025. Diamonds show the same measure for industry (B-E).

Nominal unit labour costs have risen sharply, particularly in industry. The COVID-19 pandemic, the energy crisis and the subsequent inflationary episode have driven up labour costs across Europe, with Slovakia being no exception. Chart 43 shows the increase in nominal unit labour costs across EU countries between 2019 and 2025. For the economy as a whole, Slovakia ranks around the middle of the EU distribution. In industry, however, unit labour cost growth has been above average, not because of higher wages (during the same period, nominal compensation per hour grew by 50% in industry, compared with 54% in the total economy), but rather because of stagnant real labour productivity. [21] A continuation of this trend would pose a significant risk to Slovakia's small open economy, which relies heavily on industrial exports.

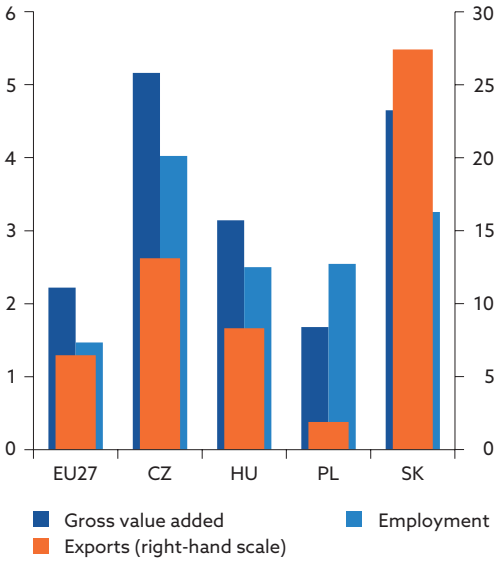
[21] For further details, see Eurostat tables *nama_10_lp_ulc* and *nama_10_lp_a21*.

Chart 44
Number of products competing with China



Sources: UNCTAD, and NBS calculations.
Note: Competing products (SITC 3-digit) are those for which the given country and China both have an RCA greater than 1.

Chart 45
Share of automotive industry (2024) (percentages)



Sources: Eurostat, and NBS calculations.
Notes: 'Automotive industry' refers to NACE Rev. 2 divisions C29 and C30 as a share of total GVA and total employment. 'Exports' refer to HS 8703 as a share of total goods exports. The chart is shown for 2024, with 2023 values used where 2024 data are missing: EU27 GVA, EU27 employment and Poland GVA.

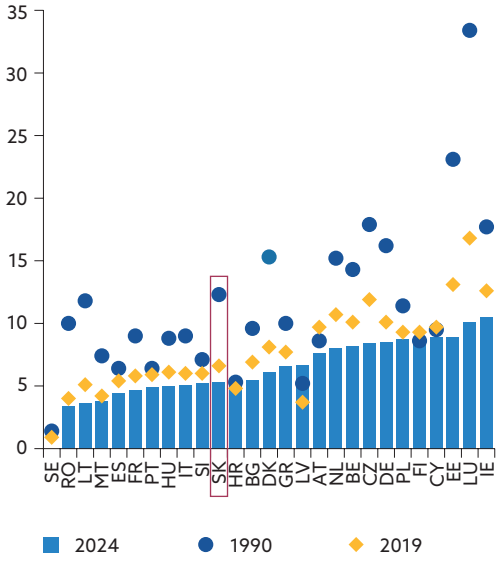
The recent deterioration in cost competitiveness is compounded by intensifying international competition. As Chart 44 shows, exposure to Chinese competition has broadened across major European manufacturing economies, including Slovakia. These pressures are particularly relevant in the automotive industry, on which the Slovak economy remains strongly reliant (Chart 45). Rising unit labour costs are putting pressure on Slovak exporters just as European carmakers face a rapid shift towards electric vehicles and stronger competition from Chinese producers. As the Draghi report stresses, this transformation exposes Europe's automotive industry to simultaneous cost and technology gaps.[22] Slovakia faces the same pressures as the rest of Europe, but its concentration in automotive production makes the adjustment especially important.[23]

3.5 Climate Sustainability

Slovakia's relatively low greenhouse gas emissions per capita conceal an energy-intensive production structure, making decarbonisation a challenge for sustainability, resilience and competitiveness. Per-capita emissions are among the lower ones in the EU, but GDP emission intensity remained among the highest in 2024 (Chart 46); the favourable per-capita outcome partly reflects income levels below the EU average rather than an energy- efficient and low-carbon economy. Furthermore, high energy intensity of the economy (Chart 47) amplifies vulnerability to fossil fuel-price swings and disruptions to energy imports.

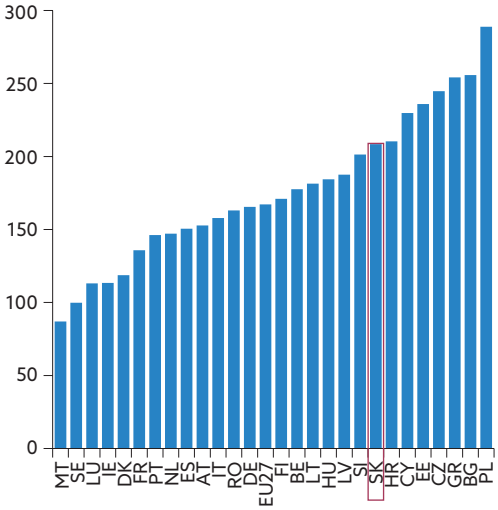
[22] Draghi, M. *The future of European competitiveness*, European Commission, September 2024 (the Draghi report), Part B: In-depth analysis and recommendations, Chapter 6, pp. 140–146.
[23] Národná banka Slovenska, *Financial Stability Report*, May 2026, Box 5, pp. 53–56.

Chart 46
Net greenhouse gas emissions per inhabitant (tonnes of CO_2 equivalent per inhabitant)



Source: Eurostat.

Chart 47
GDP emission intensity in EU countries, 2024 (grams of CO_2 equivalent per PPS)



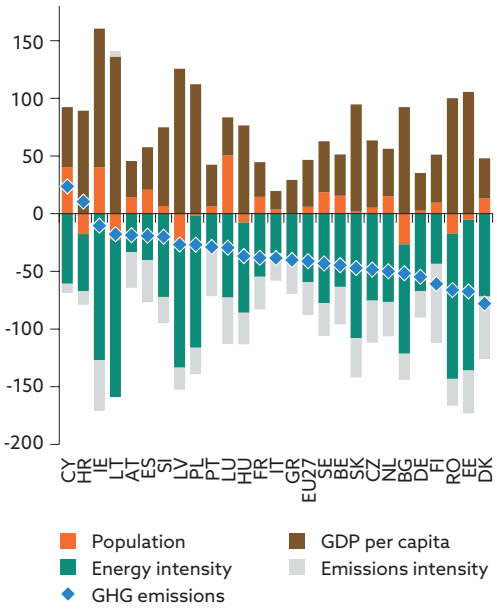
Sources: Eurostat, and NBS calculations.

Substantial progress has been achieved in decoupling GDP growth from emissions, but further emissions reductions are likely to be more difficult. Between 1995 and 2024, output increased while greenhouse gas emissions per unit of output fell markedly (**Charts 48 and 49**). The Kaya decomposition indicates that the decline in emissions was driven mainly by improved energy efficiency and a cleaner energy supply. Together, these factors more than compensated for the emissions pressure associated with continued economic growth. With population remaining largely stable over the period, demographic change played only a minor role in shaping the overall emissions trajectory.[24] Adjustment risks are concentrated: sectors accounting for about three-quarters of emissions produce around one-fifth of output and employ 15% of workers. While the next phase of decarbonisation may be more challenging, an early and orderly transition would be less costly than delay.[25]

[24] The Kaya identity decomposes total GHG emissions into four multiplicative drivers: population (P), GDP per capita, the energy intensity of output and the emissions intensity of energy use: GHG = P × (GDP/P) × (Energy/GDP) × (GHG/Energy). In logarithmic changes, Δln(GHG) = Δln(P) + Δln(GDP/P) + Δln(Energy/GDP) + Δln(GHG/Energy), so the four contributions sum to the total change in emissions shown in Charts 48 and 49. Kaya, Y., *"Impact of Carbon Dioxide Emission Control on GNP Growth: Interpretation of Proposed Scenarios"*, paper presented to the IPCC Energy and Industry Subgroup, Response Strategies Working Group, Paris, 1990.

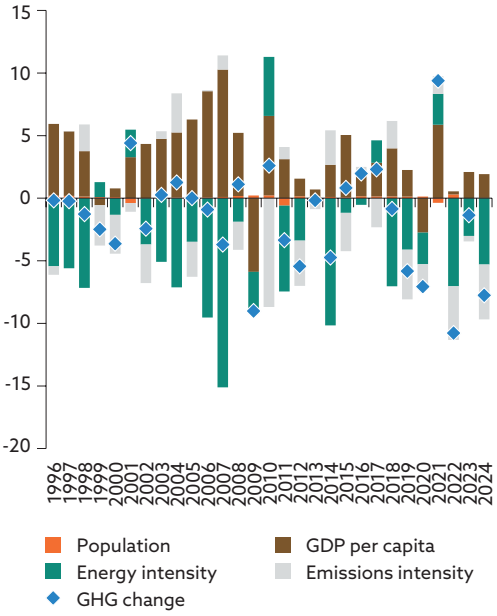
[25] Národná banka Slovenska, *Structural Challenges 2025*.

Chart 48
Cumulative Kaya decomposition across EU countries (change in log points between 1995 and 2024)



Sources: Eurostat, and NBS calculations.

Chart 49
Slovakia: year-on-year Kaya decomposition (change in log points)



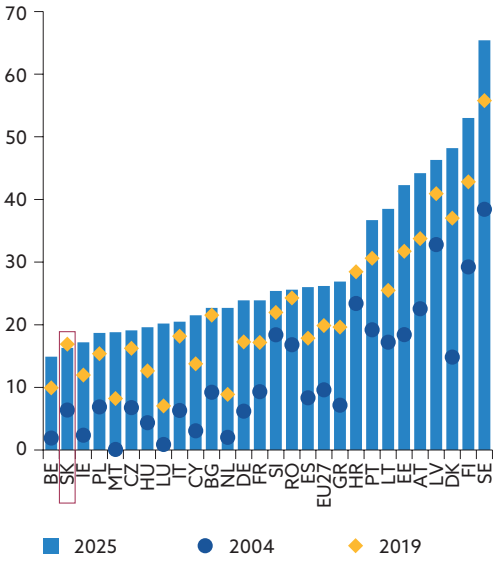
Sources: Eurostat, and NBS calculations.

Electricity generation is comparatively low carbon, but renewable deployment remains limited. The high share of nuclear power in electricity generation, which is expected to increase further with the commissioning of Mochovce Unit 4, contributes to a comparatively low fossil-fuel share of final energy consumption. Renewables accounted for 16.3% of gross final energy consumption in 2025, below the EU27 average of 26.2% (Chart 50). The slow deployment of renewables suggests that Slovakia has yet to fully capitalise on advances in renewable-energy generation and storage.

Electrification remains below the EU average but is expected to increase, strengthening the case for investment in renewable generation, grids and storage to support competitiveness, economic resilience and the green transition. Although electricity accounted for 20.3% of final energy consumption in 2024, below the EU average of 23.4% (Chart 51), its share is expected to increase if electric vehicles, industrial electrification and AI-related computing expand (see Box 2). This will require further modernisation and expansion of grid infrastructure: investment in solar and wind electricity generation, and battery storage.[26] This is also reflected in the country-specific recommendations for Slovakia, which call for faster renewable deployment, more efficient grid-connection procedures, further network investment, electrification and diversification away from Russian energy sources.[27] Realising the potential of additional renewable generation and storage capacity could lower electricity prices, strengthen competitiveness and increase resilience to energy-supply shocks and price swings. Together with stronger R&D support and greater venture-capital investment in green technologies, this could also foster net-zero manufacturing, including electric vehicles, batteries and heat pumps, as highlighted by the OECD.[28]

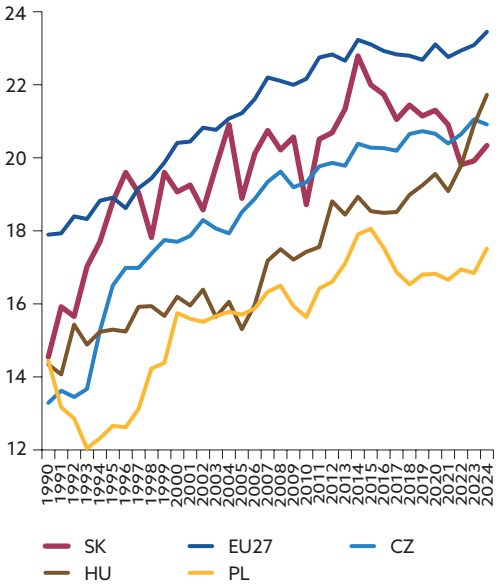
[26] European Commission, *2026 Country Report - Slovakia*, Commission Staff Working Document, SWD(2026) 225 final, Brussels, 3 June 2026.
[27] Council of the European Union, *Council Recommendation on the economic, social, employment, structural and budgetary policies of Slovakia*, draft document 11137/26, Brussels, 3 July 2026.
[28] OECD, *OECD Economic Surveys: Slovak Republic 2026*, OECD Publishing, Paris, 25 June 2026.

Chart 50
Share of renewable energy in the energy mix (percentages)



Source: Eurostat.

Chart 51
Electricity share in final energy consumption (percentages)



Sources: Eurostat and NBS calculations.

BOX 3

AI, computing infrastructure and the green transition

The green transition is a structural shift of the economy from being dependent on fossil fuels towards lower environmental impact and dependence on natural resources.[29] In the EU, it is based on the European Green Deal,[30] ensuring that EU-member states are committed to achieving a 55% reduction in greenhouse gas (GHG) emissions by 2030 as compared to 1990 levels. Europe's green transition is closely tied to the digital transition – the decarbonisation of energy, transport, construction, industry and manufacturing sectors depends heavily on high-quality data, smart and reliable infrastructure and fast adoption of innovative technologies. This, in turn, is rooted in the EU's Digital Decade agenda,[31] which sets goals for connectivity, digital skills, public services and business digitalisation. The policy challenge is therefore twofold – digital technologies must support the delivery and attainment of climate neutrality goals, while ensuring the digital sector itself is sustainable and energy-efficient.

AI can both support the green transition and undermine sustainability. AI can help integrate renewables into electricity grids, improve forecasts of energy demand, optimise transport networks, monitor emissions and promote more efficient use of resources and materials. At the same time, the computing infrastructure that enables AI consumes substantial amounts of electricity. If demand from data centres and computing infrastruc-

29 OECD, *Environment at a Glance Indicators*, OECD Publishing, Paris, 5 November 2025.
30 European Commission, *The European Green Deal*, Brussels.
31 Decision (EU) 2022/2481 of the European Parliament and of the Council of 14 December 2022 establishing the Digital Decade Policy Programme 2030 (OJ L 323, 19.12.2022).

ture grows faster than the supply of clean electricity or available grid capacity, AI could increase emissions and become a constraint on the green transition. According to the IEA 2025 Energy and AI report, electricity consumption by data centres in Europe could rise by roughly 70% between 2024 and 2030. The key question is therefore whether AI applications can deliver energy and resource savings that outweigh the additional consumption associated with their use.

At the EU level, this implies the promotion of AI growth while mitigating risks related to the excess pressure on the electricity systems. The European Commission's AI Continent Action Plan[32] aims to increase the AI-related computing infrastructure within the next decade via AI factories and sustainable data centres. According to Eurostat's data on AI adoption,[33] about 20% of EU firms have implemented AI in 2025. This increases the importance of the sustainability concern – scaling AI will only support the green transition if its own footprint can be quantified and managed. The EU AI Act calls for this, by setting risk-based rules for reliable AI and requiring providers of general-purpose AI-models to certify estimated energy consumption. It also encourages further standard-setting and voluntary codes of conduct aimed at improving the resource efficiency of AI systems throughout their entire lifecycle.

Slovakia faces a dual challenge: accelerating AI adoption while managing the technology's sustainability footprint and directing digital tools towards green-transition bottlenecks. The European Commission's 2025 Digital Decade Country Report[34] notes that despite significant progress in broadband coverage, 5G deployment and ICT skills, Slovakia lacks digital infrastructure and adoption of advanced technologies in the business sector, especially among SMEs. As for the green transition, Slovakia's electricity mix is already relatively low carbon primarily due to nuclear power; however, according to IEA,[35] Slovakia is lagging in renewables, energy efficiency and construction. This also presents a realistic opportunity for Slovakia – AI and digital technologies can help modernise the electricity grid, support construction and renovation, improve industrial efficiency, while contributing to bridging the national digitalisation gap with the EU average. Policy should therefore go beyond promoting AI uptake: it should also account for the technology's energy and resource demands and prioritise applications that can alleviate sustainability pressures.

32 European Commission, *AI Continent Action Plan*, COM(2025) 165 final, Brussels, 9 April 2025.
33 Eurostat, "20% of EU enterprises use AI technologies", *news article*, 11 December 2025.
34 European Commission, *Slovakia 2025 Digital Decade Country Report*, 18 June 2025.
35 International Energy Agency, *Slovak Republic 2024*, Energy Policy Review, Paris, 19 November 2024.

4 Well-being and prosperity

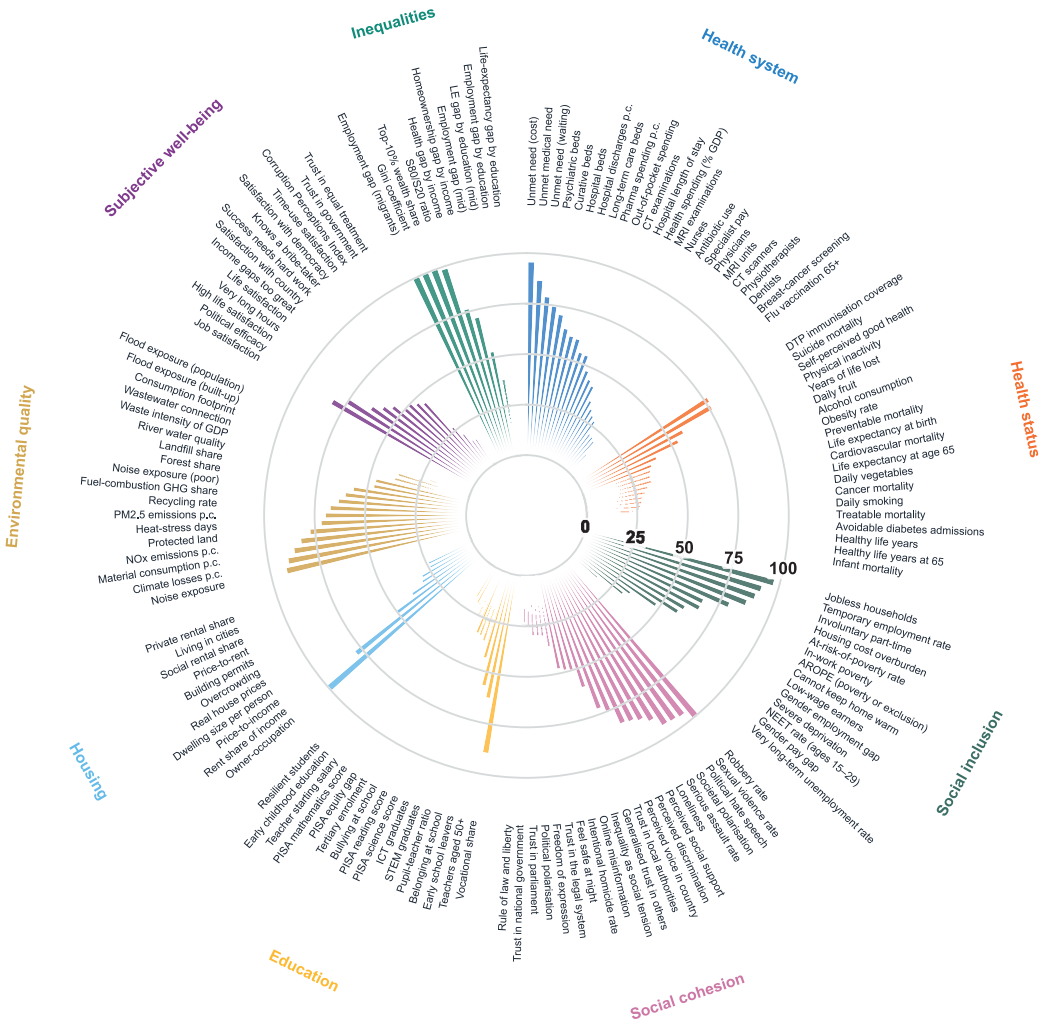
Well-being is both an outcome of prosperity and a foundation for durable growth. While the previous sections examined Slovakia's growth potential, economic resilience and the sustainability of growth, this section considers prosperity more broadly. Health, education, housing, social inclusion, environmental quality, inequalities and people's perceptions shape quality of life directly. They also influence labour market participation, productivity, mobility, trust and the economy's capacity to adapt to demographic and environmental change.

The well-being benchmark reveals a dual profile with relatively favourable distributional outcomes alongside a weaker capability base. Income inequality, social inclusion and many social-cohesion indicators compare relatively well with other EU countries, whereas education, population health and housing are among the weaker areas of the benchmark. This contrast suggests that relatively favourable aggregate social outcomes should not be interpreted as evidence of a sufficiently strong foundation for long-run prosperity.

Health, education and housing are the main constraints on long-term well-being. Poor population health reflects weaknesses in prevention, healthy lifestyles and the effectiveness and continuity of care, even though reported financial barriers to accessing healthcare are comparatively limited. The education system generally keeps students in school but struggles to provide strong and equitable learning outcomes, beginning with low participation in early-childhood education and continuing through differences associated with socioeconomic background. High home ownership is widespread, but a limited housing supply, overcrowding and a thin rental market restrict housing choices and may also impede regional and labour mobility. As the population ages, weak prevention and fewer years lived in good health can reduce labour supply and productivity, increase demand for healthcare and long-term care, and add to fiscal pressures.

National averages conceal important inequalities in opportunity, exposure and resilience. Differences in health and education are strongly associated with educational and socioeconomic background, while regional disparities in opportunity warrant further analysis. Older people face comparatively high material and social deprivation, while many households lack financial buffers even when income-based poverty indicators appear favourable. Environmental conditions are mixed: favourable results on several national indicators coexist with greater exposure among poorer households, adverse health effects from air pollution and gaps in wastewater infrastructure.

Chart 52
Benchmarking of indicators related to well-being and prosperity (score 0–100)



Note: For details about the indicators and their sources, see Section 8 (Tables annex). Scores are calculated using the min–max method and rescaled to a range of 0–100, where 100 indicates the highest score. For further information on the benchmarking method, see Section 7 (Methodological annex).

4.1 Health

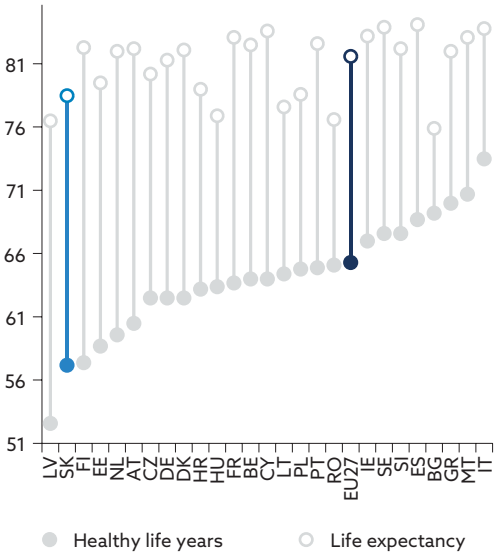
Slovakia continues to record some of the weakest health outcomes in the EU. Life expectancy at birth reached 78.4 years in 2024, 3.1 years below the EU27 level of 81.5 years. The gap is even larger for healthy life years. At 57.1 years, Slovakia had the second-lowest value in the EU, 8.1 years below the EU27 level of 65.2 years (Chart 53). A person born in Slovakia can therefore expect to spend about 21 years, or more than one quarter of their life, in less than good health, compared with about 16 years in the EU27.

These outcomes might have substantial economic consequences. Poor health reduces labour market participation and productivity, increases expenditure on healthcare and long-term care, and places additional care responsibilities on households. In an ageing economy with a shrinking working-age population, extending the number of years lived in good health is becoming increasingly important.

The health gap is particularly pronounced at older ages. At age 65, a person in Slovakia can expect to live another 18.3 years, compared with 20.2 years in the EU. Only 4.9 of those years are expected to be lived in good health, less than half the EU27 figure of 10.3 years. This limits the potential for longer working lives and increases demand for formal and informal care.

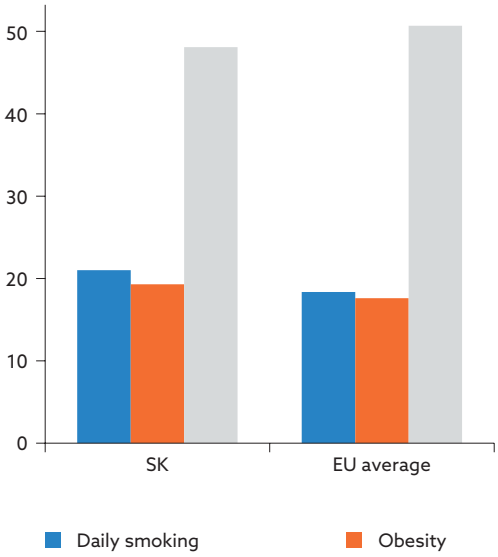
Unfavourable health outcomes are also related to lifestyle risks. In 2019, 21% of adults smoked daily and 19% were obese, both above the EU27 average (Chart 54). Alcohol consumption remained high at 9.4 litres of pure alcohol per adult, although it was slightly below the EU27 average of 9.9 litres. These risk factors contribute to the high burden of chronic disease. Mortality from circulatory diseases reached 600 deaths per 100,000 inhabitants, compared with 313 in the EU27. Infant mortality, at 5.9 deaths per 1,000 live births, was the second highest in the EU.

Chart 53
Healthy life years and life expectancy at birth, 2024 (years; countries sorted by healthy life years)



Source: Eurostat.
Note: The distance between the two markers is the expected time lived in less than good health. EU27 is Eurostat's EU27 aggregate. Luxembourg is not shown because healthy life years were not published for it in 2024.

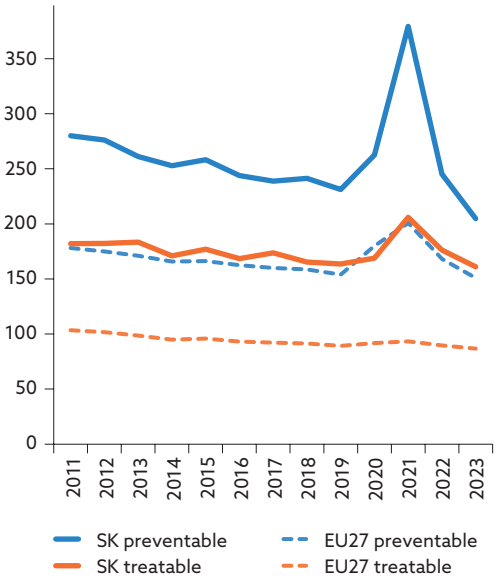
Chart 54
Behavioural risk factors, 2019 (percentages of adults)



Sources: Eurostat, and OECD.
Note: EU average over countries with available data.

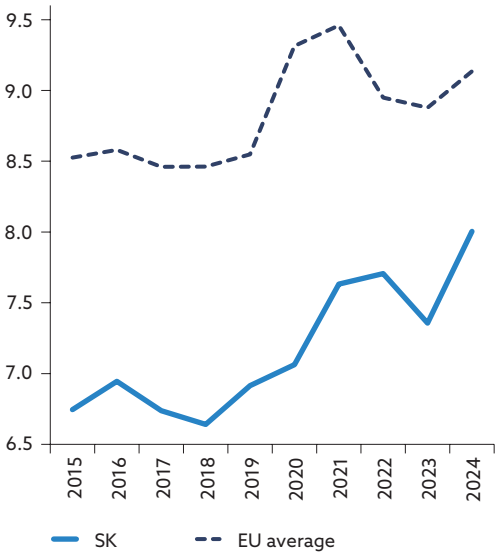
A large part of Slovakia's mortality gap could be avoided. Preventable mortality stood at 205 deaths per 100,000 inhabitants in 2023, around 36% above the EU27 rate of 151. Treatable mortality, which captures deaths that could be avoided through timely and effective healthcare, reached 161 deaths per 100,000 inhabitants, around 85% above the EU27 rate of 87 (Chart 55). Both indicators have improved in recent years, but the differences remain substantial. The results point to weaknesses in two areas. Prevention and the reduction of health risks remain insufficient, while high treatable mortality also suggests shortcomings in the timeliness, continuity or effectiveness of healthcare.

Chart 55
Preventable and treatable mortality (standardised death rates per 100,000 inhabitants)



Source: Eurostat

Chart 56
Current health expenditure (percentages of GDP)

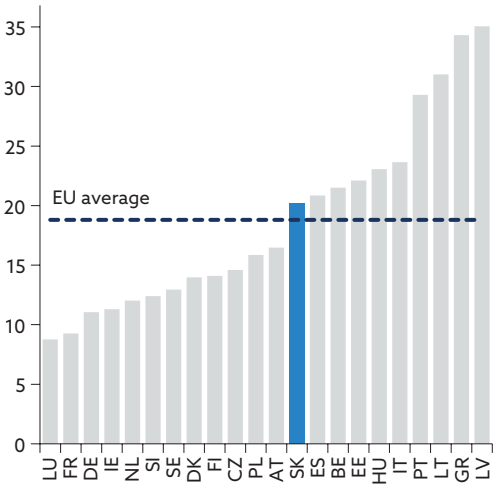


Source: OECD.
Note: The EU average is the unweighted mean of available EU countries in the OECD data.

Health expenditure is below the EU27 average, but the organisation and effectiveness of the health system are equally important. Although current health expenditure stood at 8% of GDP in 2024, below the EU27 average of 9.1% (Chart 56), it has been increasing rapidly in recent years. Out-of-pocket payments accounted for 20% of total health expenditure, slightly above the EU27 average of 19% (Chart 57). The number of physicians, at 382 per 100,000 inhabitants in 2023, was also below the EU27 average of 447 across reporting countries.

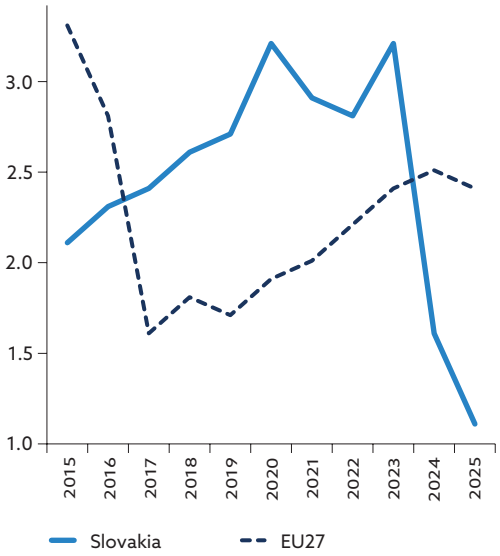
At the same time, Slovakia had 566 hospital beds per 100,000 inhabitants in 2024, more than the EU27 average of 469, and the average length of a hospital stay remained 7.2 days. This combination suggests that the health system remains relatively oriented towards inpatient treatment, while primary, outpatient and preventive care require further strengthening.

Chart 57
Out-of-pocket share of health expenditure, 2023 (percentages of current health expenditure)



Source: OECD
Note: EU countries available in the OECD data.

Chart 58
Unmet need for medical care (percentage reporting unmet need due to cost, distance or waiting)

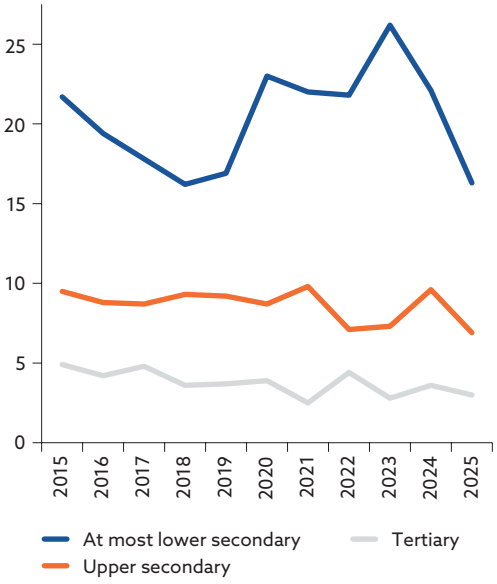


Source: Eurostat.

Access to medical care has improved, but this has not yet translated into comparable health outcomes. The share of people reporting an unmet need for medical care due to cost, distance or waiting time declined from 3.2% in 2020 to 1.1% in 2025, well below the EU27 rate of 2.4% (Chart 58). This is a favourable development. However, low self-reported unmet need does not necessarily imply that care is provided sufficiently early or with adequate continuity and quality. Persistently high treatable mortality indicates that the challenge concerns not only entry into the health system, but also the care received afterwards.

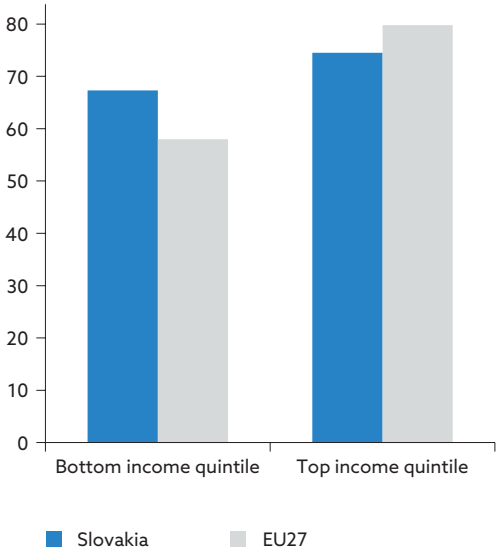
Health inequalities remain pronounced, and they follow education more than income. Among people aged 45–64, 16.3% of those with at most lower secondary education reported a severe limitation in daily activities in 2025, against 6.9% with upper secondary and 3.0% with tertiary education (Chart 59). The gap of 13.3 percentage points is the fifth widest in the EU, against an EU27 average of 9.3 points, and the ratio between the two ends of the education scale, 5.4:1 in 2025, has not fallen below 3.5:1 in any year since 2015. Measured on the same survey question, the gap between the lowest and the highest income quintile is 9.8 points, close to the EU27 average of 10.4 and only the seventeenth widest. The income gradient in self-reported health is similarly modest: in 2024, 67.3% of people in the lowest income quintile reported good or very good health, compared with 74.5% in the highest, a difference of 7.2 percentage points against an EU27 difference of 22 points (Chart 60).

Chart 59
Severe activity limitation by education (percentages of people aged 45–64 reporting a severe limitation in daily activities)



Source: Eurostat.

Chart 60
Self-perceived good or very good health by income, 2024 (percentages of population aged 16+)



Source: Eurostat.

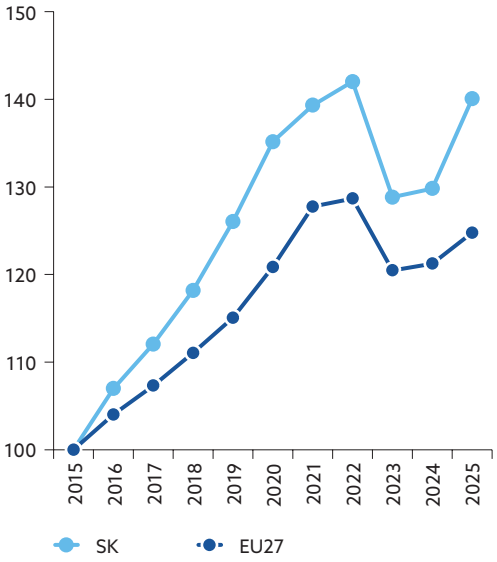
The education and income gradients above come from the same survey question in the same year, so the contrast between them is real rather than an artefact of differing sources. This suggests that income is the wrong variable on which to assess health inequality in Slovakia. Measured by income, the country is unremarkable by European standards; measured by education, however, it is among the most unequal in the European Union. Prevention efforts and access to effective care should therefore be targeted along educational lines and focused on regions where low educational attainment is concentrated, rather than on income alone.

Improving population health will thus require a combination of stronger prevention, better primary and outpatient care, a stable healthcare workforce and interventions targeted at groups with the poorest objective health outcomes.

4.2 Living conditions, housing affordability and social inclusion

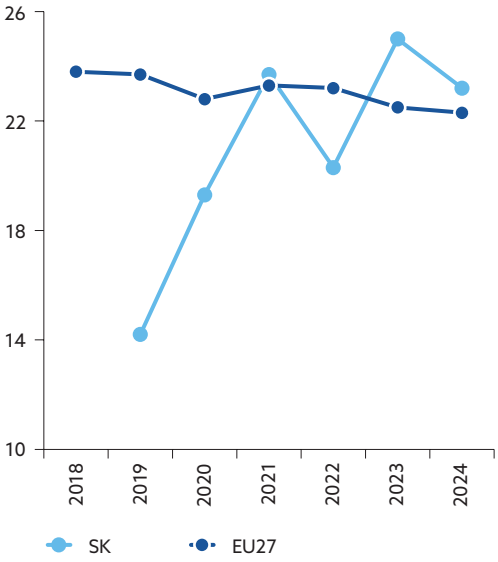
Real house prices have risen strongly in recent years but remain below their 2022 peaks. In both Slovakia and the EU, real house prices have recovered from the decline observed in 2023, but remain below their 2022 peaks. The rebound has been more pronounced in Slovakia, where the deflated house price index increased from around 129 in 2023 to 140 in 2025, while the EU average rose more moderately, from about 120 to 125. This suggests that, although the recent correction has not been fully reversed, real house prices in Slovakia have regained momentum more quickly than in the EU. Over a longer horizon, the increase in real house prices has also been considerably stronger in Slovakia than in the EU, pointing to a potentially greater deterioration in housing affordability.

Chart 61
House price index (deflated, 2015=100)



Source: Eurostat.

Chart 62
Rent as a share of disposable household income

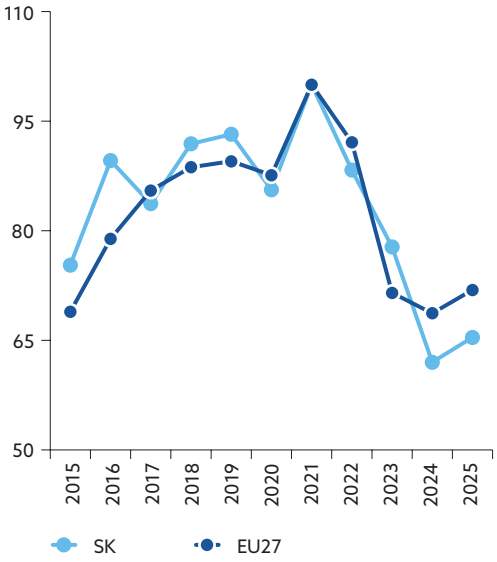


Source: Eurostat.

Rental affordability has improved, although it matters for a smaller share of households. In Slovakia, rent as a share of disposable household income increased from about 14% in 2019 to around 25% in 2023, before falling sharply to roughly 18% in 2025 (**Chart 62**). By contrast, the EU average remained much more stable, fluctuating within a narrower range of around 22% to 24% and standing at about 22.5% in 2025. The share of household income spent on rent in Slovakia declined by around 7 percentage points from its 2023 peak, moving from above the EU average to clearly below it. However, these developments should be interpreted in the context of Slovakia's small rental market, as around 90% of households own their homes. For renting households, the recent fall in the rent-to-income ratio points to an easing of rent pressures, although the overall impact on housing affordability is limited by the relatively small share of tenants.

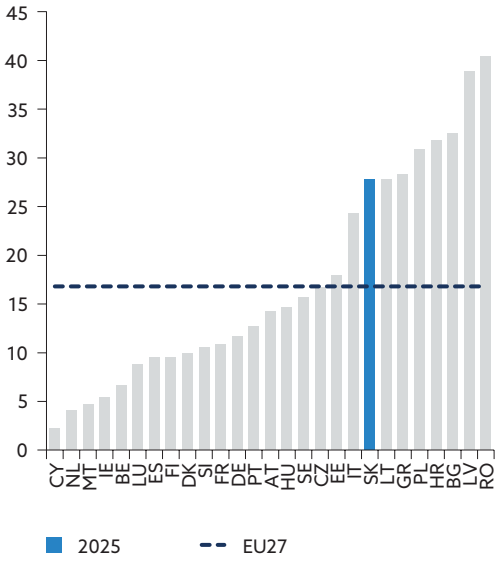
Residential construction has weakened sharply in Slovakia, while overcrowding remains persistently high. The indicator of building permits for dwellings – measured as square metres of useful floor area and indexed to 2021 – points to a marked weakening in new housing supply in Slovakia. As **Chart 63** shows, after fluctuating at relatively high levels, the indicator fell steeply after 2021, dropping from 100 to around 62 in 2024, with only a slight rebound in 2025. The EU27 indicator also declined after 2021, but it has been higher than the Slovak indicator in recent years. This suggests an overall slowdown in residential construction activity. At the same time, the overcrowding rate in Slovakia remains high by EU standards, as shown in **Chart 64**. With a rate of around 28% of the population, Slovakia stands well above the EU average of close to 17%, and remains among the more affected EU Member States. Taken together, the two charts suggest that housing supply constraints may remain relevant, as the sharp slowdown in permitted residential floor area comes at a time when overcrowding is still affecting a comparatively large share of the population.

Chart 63
Building permits for dwellings (m² of useful floor area; index: 2010 = 100)



Source: Eurostat.
Notes: The indicator refers only to residential buildings. The series is not adjusted.

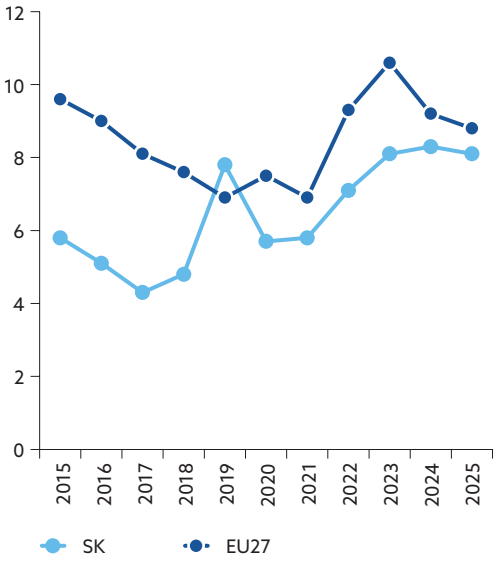
Chart 64
Overcrowding rate, 2025 (percentages of population)



Source: Eurostat.
Notes: A person is considered as living in an 'overcrowded household' if the household does not have at its disposal a minimum number of rooms (e.g. one room for the household; one room per couple in the household etc.).

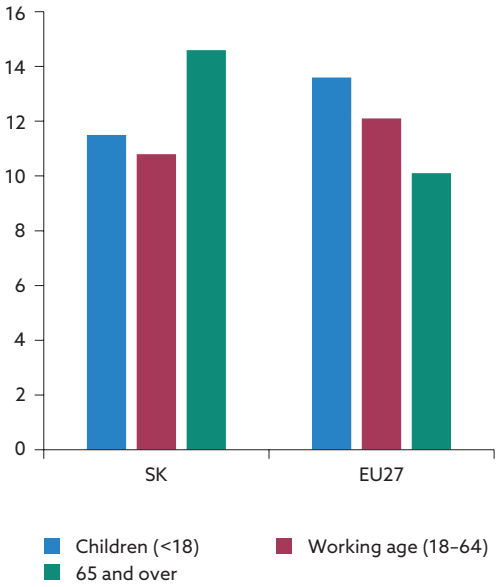
Energy poverty has increased in Slovakia, while older people face particularly high levels of material and social deprivation. As Chart 65 shows, difficulties in keeping homes adequately warm have become more widespread in Slovakia since 2021. By 2025, the share of people affected had risen to around 8%, bringing Slovakia closer to the EU27 average of 9%. Looking instead at a broader measure of social hardship, Chart 66 points to a clear age pattern. Slovakia records lower rates of severe material and social deprivation than the EU average among children and the working-age population, at around 11.5% and 10.8%, respectively. However, the rate is clearly higher among people aged 65 and over, at around 14.5%, compared with about 10% in the EU27. Population ageing adds to this concern, as it may increase the share of people exposed to social and material vulnerability. More broadly, the charts point to growing pressure on living conditions in Slovakia, with difficulties in keeping homes warm becoming more widespread and older people facing comparatively high levels of social and material vulnerability.

Chart 65
Population unable to keep home adequately warm (percentages)



Source: Eurostat.

Chart 66
Severe material and social deprivation by age, 2025 (percentages of population)



Source: Eurostat.

Low-income poverty coexists with limited financial buffers. In-work poverty, at 6.6% in 2025, is below the EU average, yet 26% of the population lives in households unable to face an unexpected financial expense. Households without buffers tend to cut consumption almost one-for-one with income shocks, amplifying downturns; they also judge the economic system differently. Box 2 uses household balance-sheet data to show that this liquidity margin, largely invisible in income statistics, covers more than a quarter of Slovak households, including many that are asset-rich.

BOX 4

Liquidity-constrained households and attitudes toward the economic system

Just over a quarter of Slovak households live from hand to mouth: their liquid savings would not cover half a month's income. Hand-to-mouth households are those with limited liquid financial buffers: operationally, households whose liquid financial wealth, such as deposits, falls below half of their monthly income.[36] This leaves little room to absorb income losses or unexpected expenses without cutting consumption. The concept is related to, but distinct from, standard poverty and social-exclusion measures such as the AROPE (at-risk-of-poverty or social exclusion) rate: where AROPE focuses on low income, material deprivation and weak labour market attachment,

[36] The concept follows Kaplan, G., Violante, G.L. and Weidner, J., "The Wealthy Hand-to-Mouth", *Brookings Papers on Economic Activity*, Spring 2014, pp. 77–138.

hand-to-mouth status asks whether households hold buffers they can actually use when a shock arrives.

The 2023 Household Finance and Consumption Survey (HFCS) puts the phenomenon at the centre of Slovak household finance. This harmonised European survey collects detailed household-level data on assets, debts, income and consumption. In the Slovak data,[37] only around 3% of households are poor hand-to-mouth, holding neither liquid nor other wealth, but roughly 23% are wealthy hand-to-mouth: asset-rich, typically in housing, yet cash-poor. The key issue is therefore not how much wealth households hold, but whether that wealth is liquid enough to absorb shocks. Hand-to-mouth status is more common among younger, lower-income, lower-wealth and less-educated households, among the unemployed, and among households with lower financial literacy.

Hand-to-mouth status is common among owners and even more common among renters. Around 24% of both outright owners and owners with a mortgage are hand-to-mouth, almost all of them wealthy hand-to-mouth: they own housing wealth but hold little that could be spent next month (**Chart A**). Among renters the share exceeds 40%; around 30% of all renter households are poor hand-to-mouth, with neither liquid assets nor other wealth. Liquidity constraints thus affect owners and renters alike, but they are more frequent and more severe among renters, the same group this section identifies as the thinnest segment of the housing market.

Households with limited buffers are more supportive of redistribution, even when they are not poor in total wealth. HFCS respondents were asked whether the government should redistribute income from high-income to low-income earners, on a 1–7 scale. High support (6–7) rises from 30% among households that are not hand-to-mouth to 36% among the poor hand-to-mouth and 42% among the wealthy hand-to-mouth. The strongest support comes from households that own assets but lack liquidity.

Perceptions of the economic system follow the same liquidity gradient. The economic system is perceived as unfair by 69% of wealthy hand-to-mouth and 66% of poor hand-to-mouth households, against 58% of other households (**Chart B**). That attitudes track liquidity rather than total wealth suggests that thin buffers, not poverty alone, shape how households judge the system they live in.

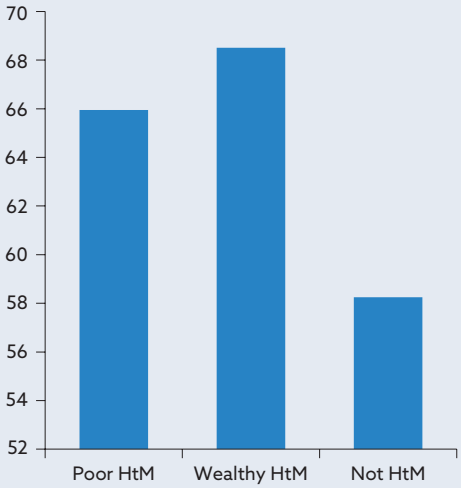
[37] Cupák, A., Jurašeková, J., Strachotová, A., Babecký, J., Orlov, D., Marenčák, M. and Novák, V. "Household Finance and Consumption Survey 2023: Results from Slovakia", *NBS Occasional Paper*, No 1/2026, Národná banka Slovenska, 2026.

Chart A
Hand-to-mouth households by tenure status (percentage of households)



Sources: HFCS 2023, and NBS calculations.
Note: Statistics computed using survey weights and multiple imputed data.

Chart B
Perception of the economic system as unfair by hand-to-mouth status (percentage of households perceiving economic system as unfair)



Sources: HFCS 2023, and NBS calculations.
Note: Statistics computed using survey weights and multiple imputed data.

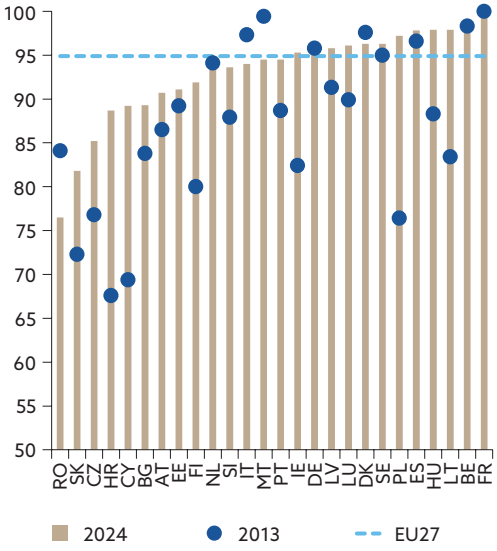
Hand-to-mouth status adds a liquidity perspective to social inclusion, and a macroeconomic one. Buffer-poor households tend to cut consumption almost one-for-one with income shocks, so an economy where more than a quarter of households live hand to mouth amplifies downturns and transmits energy and price shocks faster into demand. The patterns above are descriptive rather than causal, but they widen the lens of this section: inclusion depends not only on income and total wealth, but on whether households hold buffers they can use, and on how the resulting insecurity feeds back into support for the economic system.

4.3 Education

Low participation in early childhood education may have lasting consequences for skills development. Participation in early childhood education in Slovakia remains among the lowest in the EU. In 2024 around 82% of children aged 3 and above participated in early childhood education, compared with an EU average of about 95%. Although participation has increased since 2013, the improvement has been insufficient to close the sizeable gap with the EU average. This is a concern because early childhood education plays a key role in the development of foundational cognitive and socio-emotional skills that support learning and human capital accumulation throughout life. Low participation in early childhood education therefore risks undermining future human capital formation. At the same time, it may constrain labour supply, particularly among mothers, by limiting access to formal childcare.

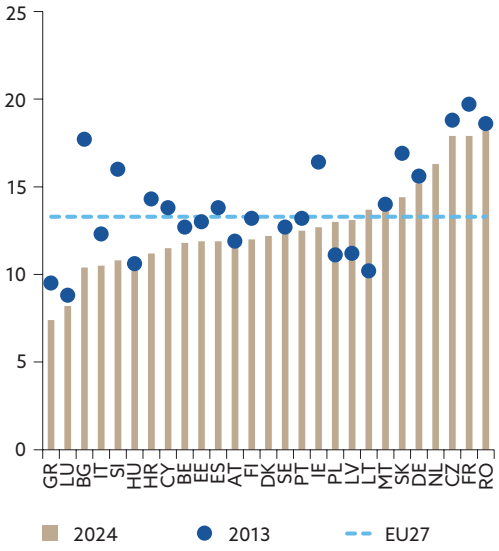
A relatively high pupil-teacher ratio points to persistent resource constraints in primary education. Slovakia has a higher pupil-teacher ratio in primary education than the EU average. In 2024 there were 14.4 pupils per teacher, compared with about 13.3 in the EU on average. Slovakia is therefore positioned in the upper half of the EU distribution. The ratio has changed little since 2013, suggesting that pressures on educational resources have remained largely unchanged over the past decade. While pupil-teacher ratios do not directly measure education quality, persistently high ratios may limit learning support and increase pressures on teachers, potentially affecting educational outcomes.

Chart 67
Participation in early childhood education (percentages of children between age 3 and compulsory school age)



Source: Eurostat.
Notes: The indicator measures the share of children between the age of three and the starting age of compulsory primary education who participated in early childhood education and care, which can be classified as ISCED level 0. The dashed line refers to the EU27 average in 2024.

Chart 68
Pupil-teacher ratio in primary education (pupils per teacher)



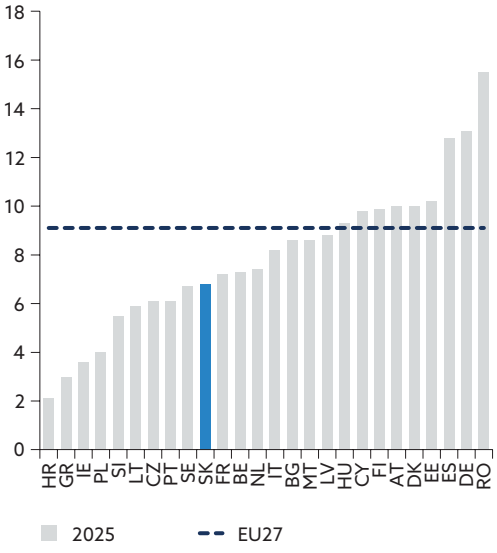
Source: Eurostat.
Notes: The dashed line refers to the EU27 average in 2024.

The school system succeeds in keeping students in education but struggles to ensure equitable learning outcomes. The share of early leavers from education and training remains below the EU average in Slovakia. At around 6.8% in 2025, the share was lower than the EU average of about 9.1% and is among the better results across Member States. This suggests that the education system is relatively successful in keeping students in education and training until completion, indicating that the main challenge lies in the quality and inclusiveness of learning outcomes rather than in early school leaving. Slovakia records weak outcomes in terms of upward educational mobility: only 6.1% of pupils from the bottom socio-economic quartile reach the top quartile of PISA performance, compared with an EU average of 9.4%, and this share has declined over the last three assessment waves.[38] This points to persistent challenges in ensuring equal opportunities for educational success, regardless of socio-economic background.

[38] See Table 20 (Education).

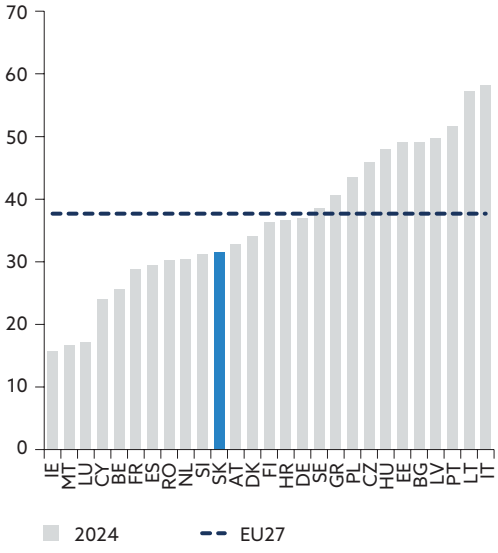
A comparatively younger teaching workforce does not prevent broader challenges in schooling resources. The share of primary school teachers aged 50 or over is lower in Slovakia than in the EU on average. At around 31.4% in 2024, compared with an EU average of about 37.5%, Slovakia had a relatively younger teaching workforce, suggesting that population ageing within the profession is less of a concern than in many other Member States. However, this does not eliminate pressures on the education system. At the same time, the statutory starting salary of a primary school teacher in Slovakia was USD 23,371 in purchasing-power terms, compared with an average of USD 43,228 across the 24 EU countries covered by OECD data, or roughly half the average.[39] This suggests that, despite a relatively favourable age structure of the teaching profession, financial resources devoted to primary education remain comparatively limited. Lower remuneration may also reduce the attractiveness of the profession relative to other career options, potentially making it more difficult to attract and retain qualified teachers over time.

Chart 69
Early leavers from education and training, 2025 (percentages of population aged 18–24)



Source: Eurostat.
Notes: The dashed line refers to the EU27 average.

Chart 70
Primary school teachers aged 50 or over, 2024 (percentages of classroom teachers, ISCED 1)



Source: Eurostat.
Notes: The dashed line refers to the EU27 average.

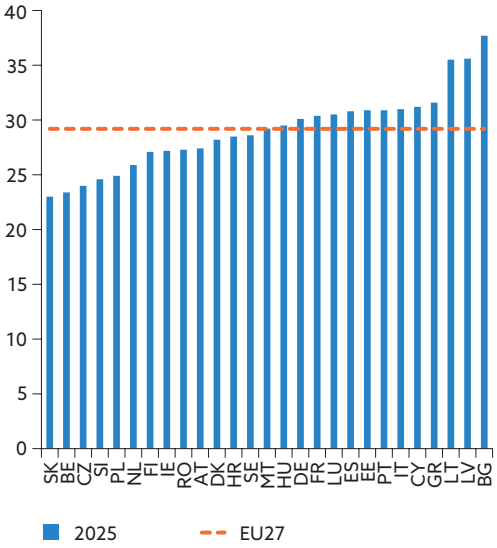
4.4 Inequality, perceptions and social cohesion

Income inequality in Slovakia remains among the lowest in the EU. In 2025 Slovakia had the lowest Gini coefficient of disposable income in the EU, at around 23, well below the EU27 average of about 29 (**Chart 71**). This indicates that disposable income is distributed more equally in Slovakia than in any other EU Member State shown in the chart. However, this measure captures only income inequality. As discussed in the previous sections, a relatively equal income distribution does not necessarily imply equal outcomes in other areas, such as health or access to liquid financial buffers, where disparities may be more pronounced.

[39] See Table 20 (Education).

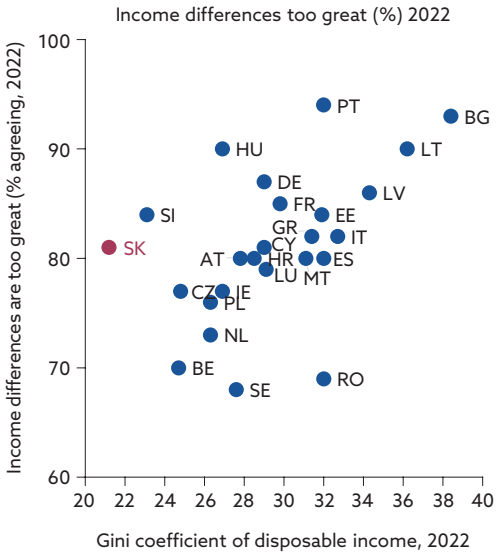
Perceived inequality is considerably higher than measured inequality. In 2022, 81% of Slovaks agreed that income differences in their country were too great, even though Slovakia had the lowest measured income inequality in the EU, with a Gini coefficient of around 21. **Chart 72** illustrates the disconnect: Slovakia is at the far left of the EU distribution for measured inequality, yet perceived inequality is similar to that in countries with much wider income disparities. Preferences for redistribution therefore appear to respond not only to measured inequality, but also to perceptions of fairness and economic insecurity. BOX 4 documents a similar pattern within households, where limited liquidity, rather than low income alone, is associated with viewing the system as unfair. For policy, perceived fairness therefore matters alongside actual redistribution.

Chart 71
Gini coefficient of disposable income, 2025 (0–100)



Source: Eurostat.
Notes: The dashed line refers to the EU27 average.

Chart 72
Measured versus perceived income inequality, 2022



Sources: Eurostat, and Eurobarometer.
Note: The y-axis shows the percentage of respondents in 2022 who agreed that income differences in their own country were too large. The x-axis shows the Gini coefficient in 2022.

BOX 5

Regional disparities: the inequality that national averages conceal

Slovakia has the most equal distribution of income in the European Union and one of the least equal distributions of economic activity across its own territory. In 2024 the Bratislava Region reached 153% of the EU27 average of GDP per capita in purchasing power standards, the 19th highest of the 244 NUTS 2 regions in the EU, while Eastern Slovakia reached 54%, the 19th lowest. Among the eight Slovak regions the range runs from 153% in Bratislava to 46% in Prešov (**Chart A**). Measured between people, income differences in Slovakia are the smallest in Europe. Measured between places, they are among the widest.

The gap narrows substantially as the measure moves from where output is produced to the income households actually receive. The ratio between the richest and the poorest NUTS 2 regions is 2.8-to-1 in GDP per capita, 2.1-to-1 in the primary income of households and 1.6-to-1 in their disposable income. Commuting into Bratislava and the recording of profits where production takes place rather than where owners live explain much of the first step; taxes and transfers, the second. Regional GDP therefore overstates how unequally living standards are distributed, although a gap of 1.6-to-1 in disposable income remains wide for the country with the lowest Gini coefficient in the EU.

The divide runs across every domain this section measures, not only income (Chart C). Scored against all EU NUTS 2 regions on eleven indicators spanning income, work, schooling, health, social inclusion and innovation, Eastern Slovakia falls below 40 out of 100 on ten of them and below 30 on eight, while the Bratislava Region scores above 60 on nine. Tertiary attainment was 54.8% in the Bratislava Region in 2025 against 25% to 27% in each of the other three regions, with the lowest rate recorded in Western Slovakia. Long-term unemployment was 1.3% in Bratislava against 7.2% in Eastern Slovakia in 2023; and the share of the population at risk of poverty or social exclusion was 26.3% in Eastern Slovakia against 16.7% nationally. Part of the east's position reflects the concentration of marginalised Roma communities, which Special Annex 1 discusses alongside the 83-point regional gap in PISA scores.

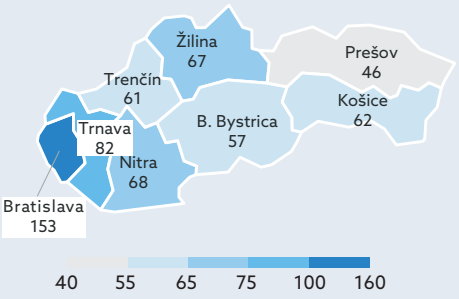
Two indicators break the pattern, and both are informative. The first is health, but only on one measure. Life expectancy at birth ranges only from 78.0 years in Central Slovakia to 80.6 in the Bratislava Region, against a spread of almost 12 years across EU regions, and all four of Slovakia's NUTS 2 regions sit below the EU regional median of 81.8 years, the best of them 170th of 244. On life expectancy the deficit is national rather than regional. Infant mortality is the opposite: 2.6 deaths per 1,000 live births in the Bratislava Region against 10.6 in Eastern Slovakia in 2024, one of the two highest rates of any EU region reporting for that year, with the eastern rate close to twice the national figure that already places Slovakia second highest in the EU. The second indicator is high-technology employment, with Bratislava having the highest share of such employment (14.3%) of any region in the European Union, ahead of Prague and Budapest, and with Eastern Slovakia, with a share of 4.7%, not being the weakest of the four regions. The capital's lead is largest in precisely the activities that are hardest to move elsewhere.

Territorial differences in output have nevertheless been narrowing faster in Slovakia than anywhere else in the EU. The population-weighted coefficient of variation of GDP per capita across Slovakia's eight NUTS 3 regions fell from 57.1% in 2013 to 42.7% in 2023, a decline twice that of the next largest in the EU. The year 2023 is the most recent for which every Member State can be compared, because only 20 of the 27 have a complete set of NUTS 3 figures for 2024; the Slovak series itself runs to 2024, when dispersion edged back up to 43.5%. Part of this is a statistical revision rather than convergence. The 2021 census saw the population of the Bratislava Region rise by 7.1% in a single year and the populations of the Prešov, Košice and Banská Bystrica regions decline by 2.2%, 2.6% and 3.3%, respectively, which accounts for about 4 of the 14 percentage points. The rest is genuine catching up: between 2013 and 2024, GDP per capita in purchasing power standards rose by 42% to 57% in every region outside Bratislava, against 18% in the capital region.

Convergence in output has not extended to the labour market (Chart C). As the dispersion of regional GDP per capita fell, the dispersion of regional unemployment rose from

26% in 2010 to 50% in 2025, and the two crossed in 2022. Unemployment fell everywhere, but far more in the west, with the result that the worst region's rate moved from three times the best region's to close to four times. Dispersion in long-term unemployment rose from 32% in 2010 to 61% in 2023. Net migration in 2024 was clearly positive only in the Bratislava and Trnava regions and negative in five of the eight regions.

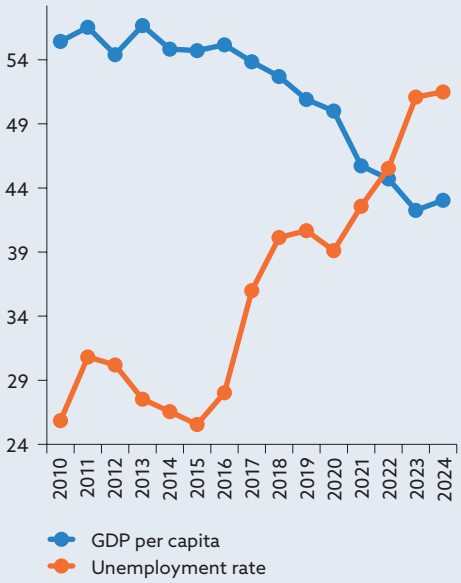
Chart A
GDP per capita by region, 2024



GDP per capita, PPS, % of the EU27 average, 2024

Sources: Eurostat, and NBS calculations.
Notes: NUTS 3 regions. GDP per capita in purchasing power standards. Regional GDP is measured where output is produced, so the Bratislava figure is raised by commuting from neighbouring regions.

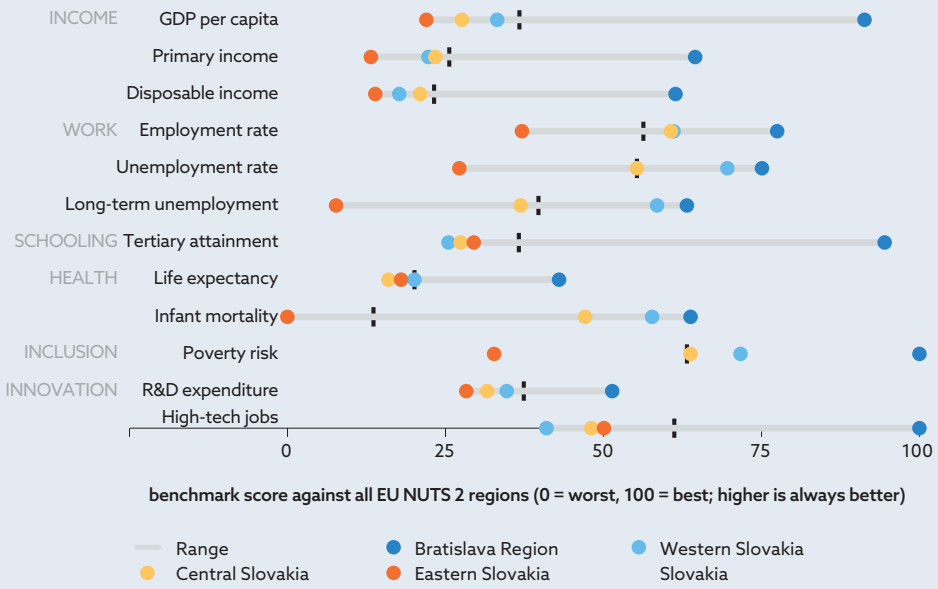
Chart B
Regional dispersion of GDP per capita and of unemployment (coefficient of variation, percentages)



Source: Eurostat, and NBS calculations.
Note: Regional dispersion is measured by the population-weighted coefficient of variation, Eurostat's own definition.[40] GDP per capita is dispersed across the eight NUTS 3 regions and the unemployment rate across the four NUTS 2 regions; hence the two lines are comparable in direction but not in level. Only years in which every region is reported are shown, so no segment interpolates across a suppressed value. Part of the fall in GDP dispersion after 2020 reflects the 2021 census revision discussed in the text.

[40] The dispersion of indicator y across regions i is $100 \times \sqrt{(\Sigma_i\, w_i\, (y_i - \bar{y})^2)} / \bar{y}$, where w_i is region i's share of the national population and $\bar{y} = \Sigma_i\, w_i\, y_i$ is the population-weighted national value. It is the standard deviation of the regional values around the national value, expressed as a percentage of that value: zero when every region has the same value, and rising as regions move apart. Being scale-free it can be compared over time and across indicators measured in different units; however, it depends on how many regions it is computed over, so a series built on eight regions and one built on four regions cannot be compared in level.

Chart C
Slovak regions benchmarked against all EU regions across six domains, latest available year



Sources: Eurostat regional statistics, and NBS calculations.
Notes: The chart covers the four NUTS 2 regions in Slovakia, with scores of 0–100 against all EU NUTS 2 regions (min-max against bounds two standard deviations either side of the peer mean and capped at 0 and 100). A higher score is always better, so unemployment, long-term unemployment, poverty and infant mortality are inverted. The grey bar spans the four Slovak regions and the vertical lines denote Slovakia as a whole. The most recent years for the indicators are 2025 for the employment rate, unemployment, tertiary attainment, poverty and high-technology jobs, 2024 for GDP per capita, life expectancy and infant mortality, and 2023 for household income, long-term unemployment and R&D. Infant mortality is scored against the 206 EU regions reporting for 2024; Germany has not yet reported, which moves the peer mean by less than 0.05.

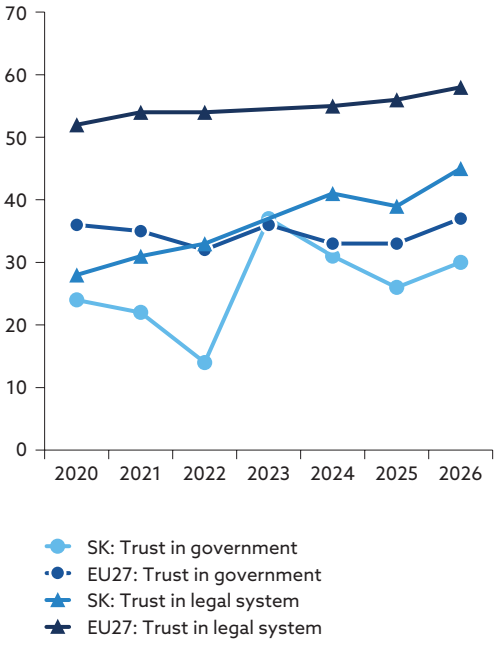
A converging map of output sitting over a diverging map of employment is an expensive combination. Prešov is the youngest region in the country by median age and among those losing most people to migration, so the working-age population that ageing will make scarce is draining out of the places where it is least replaceable and where the return to employing it would be highest. Slovakia's low measured income inequality rests on transfers and on a compressed wage structure rather than on comparable opportunities across the country. That makes the regional dimension a question of where the priorities set out at the end of this section are concentrated rather than an addition to them.

Trust in institutions is recovering but remains below the EU average. In 2026, 30% of Slovaks tended to trust the national government, compared with an EU average of about 37%. Trust in the legal system was higher, at 45% in Slovakia, but still below the EU average of about 58%. Both indicators have improved since their recent lows: trust in government rose from around 14% in 2022 to 30% in 2026, while trust in the legal system increased from around 31% in 2021 to 45% in 2026. This suggests that confidence in public institutions in Slovakia has strengthened, especially since 2022, but the recovery remains incomplete. The gap with the EU average is moderate for trust in government, at around 7 percentage points in 2026, and larger for trust in the legal

system, at around 13 percentage points. Overall, the chart points to improving institutional trust in Slovakia, but also to a persistent shortfall compared with the EU average.[41]

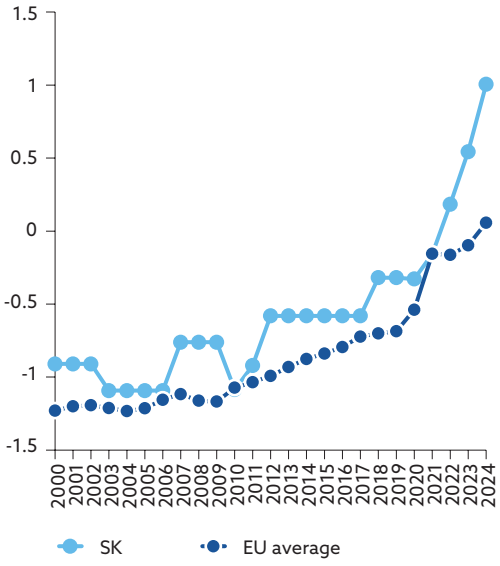
Political polarisation has increased sharply since 2019. The V-Dem measure of polarisation into antagonistic political camps has risen steeply since 2019 and now stands among the highest in the EU (**Chart 74**). In polarised systems, reforms are more likely to be implemented unevenly and to be reversed by successive governments, increasing the cost of structural policies whose benefits materialise only over time. However, political polarisation is not accompanied by equally deep divisions in society. The same V-Dem data identify Slovakia as one of the least societally polarised countries in the EU, with a score of -2.6 against an EU average of -0.3.[42] This suggests that current tensions are driven more by political competition and institutional weaknesses than by deep social divisions. This matters for reform capacity, as sustained reforms in areas such as health and education depend on credible institutions and a stable policy environment.

Chart 73
Trust in institutions (percentages who tend to trust)



Source: Eurobarometer.
Notes: The 'Trust in government' indicator shows the percentage of respondents who tend to trust the national government. The 'Trust in legal system' indicator shows the percentage who tend to trust the legal system. The black lines represent the unweighted EU average.

Chart 74
Political polarisation (V-Dem point estimate; higher = more polarised)



Source: V-Dem Institute.
Notes: The indicator measures 'To what extent is society polarised into antagonistic political camps'. The latent scores range from -4 to 4.

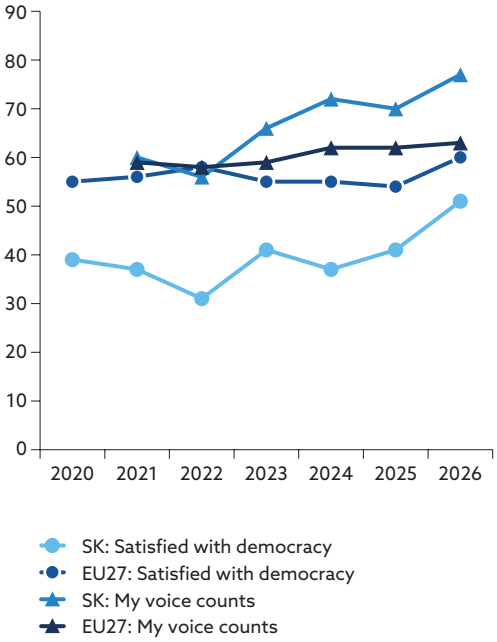
Satisfaction with democracy has improved but remains below the EU average, even as more people feel that their political voice counts. In Slovakia, satisfaction with democracy increased from around 31% in 2022 to about 51% in 2026, but it remained below the EU average, which rose from roughly 58% to around 60% over the same period. By contrast, the share of people in Slovakia who feel that their voice counts increased considerably, from around 59% in 2021 to about 77% in 2026, clearly above the EU level of around 63%. This suggests that perceptions of

41 On the growth effects of trust, see Algan, Y. and Cahuc, P., "Inherited Trust and Growth", *American Economic Review*, Vol. 100, No 5, December 2010, pp. 2060–2092.
42 See Table 23 (Social cohesion).

political efficacy have strengthened markedly, although the overall assessment of how democracy works remains less favourable than in the EU.

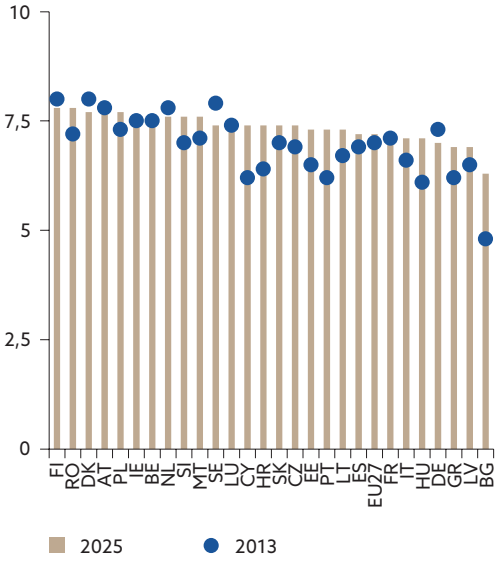
Life satisfaction in Slovakia remained close to the EU average following a modest improvement. In 2025 the average life satisfaction index in Slovakia stood at around 7.1, compared with about 6.8 in 2013. This was little different from the EU27 average, also close to 7.1. As Chart 76 shows, there is also limited variation across most EU countries, with values generally concentrated between 6.5 and 7.5. This suggests that life satisfaction in Slovakia improved modestly over time while remaining broadly comparable with the EU average.

Chart 75
Satisfaction with democracy and political efficacy (percentages of respondents)



Source: Eurobarometer.
Notes: The 'Satisfied with democracy' indicator shows the sum percentage of respondents answering, 'Very satisfied' and 'Fairly satisfied'. The 'My voice counts' indicator shows the sum of the percentage of respondents answering, 'Totally agree' and 'Tend to agree'.

Chart 76
Overall life satisfaction (mean rating, 0–10)



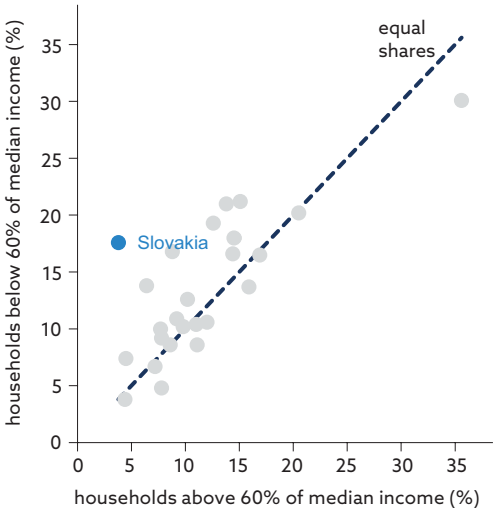
Source: Eurostat.
Notes: The indicator ranges from 0 to 10.

4.5 Environment

Section 3 asked whether Slovakia's economy can decarbonise; this section asks what the environment does to the people living in it. What matters for well-being is exposure: the air people breathe, the water and noise around their homes, the waste their municipalities handle, and whether those conditions are shared evenly across the population. Read that way, Slovakia's position is more mixed than its aggregate score on the benchmark suggests.

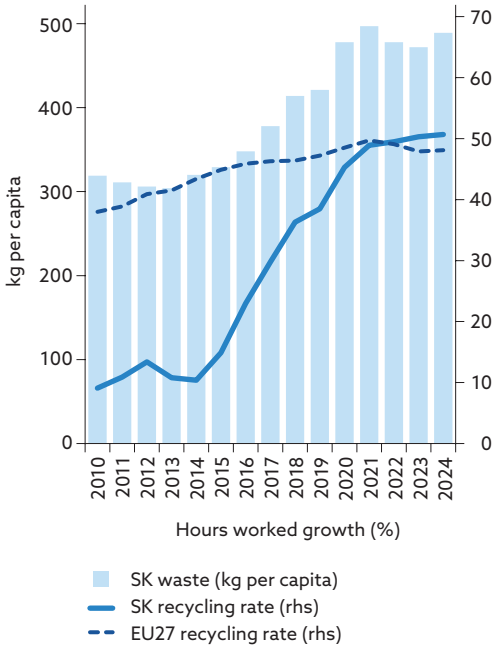
Measured as an average, local environmental quality is genuinely good. Protected areas cover 37.4% of the territory against an EU27 figure of 26.4%. Self-reported exposure to noise is 8.6%, the second lowest in the EU, and 5.8% of households report pollution, grime or other environmental problems, the third lowest. River water quality is close to the EU27 level. Waste management has improved substantially: the municipal recycling rate rose from 14.9% in 2015 to 50.7% in 2024 and is now above the EU27 rate of 48.21%, while municipal waste generation, at 489 kilograms per person against 517, remains below it (Chart 78).

Chart 77
Environmental problems by household income, 2023 (percentages of households reporting pollution, grime or other environmental problems)



Source: Eurostat.
Note: Each circle represents a Member State. The dashed line marks equal shares for households below and above 60% of median equivalised income.

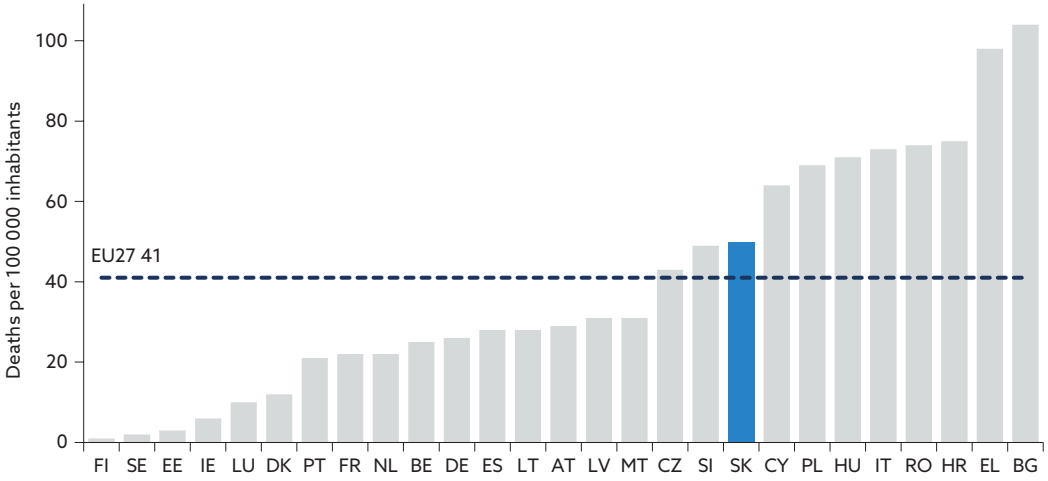
Chart 78
Municipal waste and recycling in Slovakia (left-hand scale: kg per capita; right-hand scale: percentages of waste recycled)



Source: Eurostat.

Those averages conceal the widest social gradient in the European Union. Among households below 60% of median income, 17.6% report pollution, grime or other environmental problems, against 3.8% among households above that threshold (Chart 77). The ratio of 4.6 is the highest of any Member State and compares with an EU27 average of 1.3. Noise shows the same pattern, at 17.6% against 7.1%, again the widest gap in the EU. Slovakia has the best environmental conditions in the EU for its better-off households and conditions worse than the EU average for its poorest, so the favourable aggregate masks an unusually unequal distribution rather than uniformly clean surroundings.

Chart 79
Premature deaths attributable to PM2.5, 2023 (deaths per 100 000 inhabitants)



Source: Eurostat.
Note: EU average is the unweighted mean of the 27 Member States.

In terms of environmental exposure with a measurable health cost, Slovakia is worse than the EU27. Premature deaths attributable to fine particulate matter reached 50 per 100,000 inhabitants in 2023, against an EU27 rate of 41, the ninth highest rate in the EU (Chart 79). Connection to at least secondary wastewater treatment stands at 71.8% against an EU27 average of 78.2%. Both are environmental channels that feed directly into the health outcomes documented in Section 4.1, and both are amenable to policy in a way that the country's favourable geography and low population density are not.

Environment is an endowment Slovakia has not yet had to spend rather than a system it has built. Once the pillar is judged on the exposure that damages health rather than on the emissions the economy produces, the benchmark places environment below the EU average rather than above it, at 0.52 against 0.63. On the evidence presented in this section Slovakia combines relatively good average environmental conditions with the most unequal distribution of those conditions in the EU and a genuine air-quality deficit. The policy implication is narrower and cheaper than decarbonisation: completing wastewater connection, addressing air quality in the districts where it is worst, and attending to the conditions where poor households actually live.

5 Special annex 1: Human capital: education, skills and labour market matching

Human capital is one of the principal engines of economic growth: recent estimates show that it accounts for roughly 60% of the differences in average incomes across countries.[43] The macroeconomic implications are particularly significant for small, open economies, whose competitive advantage can rest neither on the size of their domestic markets nor on cheap labour. In such economies, workforce skills are among the few durable determinants of long-run prosperity. Education is widely viewed as an investment in human capital that raises workers' productivity and earnings. In line with this perspective, evidence from more than a thousand estimates across over a hundred countries finds that each additional year of schooling is associated with roughly a 10% increase in pay.[44] For policymakers, the implication is clear: understanding the stock and evolution of human capital is essential. Establishing where Slovakia stands on this dimension, and where it is heading, is the central purpose of this section.

The central distinction drawn in this section is between the quantity of education and its quality. Quantity is conventionally measured by time spent in education, either through average years of schooling or the share of the population with a tertiary degree. This approach reflects the logic of the Mincer earnings equation,[45] which links wages to years of schooling: each additional year of education is associated with a measurable wage premium. Quality, by contrast, is better captured through core competencies. PISA provides an internationally comparable measure of the competencies acquired by 15-year-olds and can therefore be interpreted as a proxy for the quality of learning during compulsory education. PIAAC, by contrast, measures the skills of adults, reflecting the competencies people use in working life.[46] A large body of research shows that these competencies have significant long-run economic payoffs, both for individual earnings and for aggregate economic performance. In this sense, the economic value of education depends not only on how long people stay in school, but also on the level of skills and competencies they acquire and retain over time.[47],[48]

On quantity, Slovakia has largely converged; on quality, it is moving in the wrong direction. Average years of schooling are in line with those in advanced economies. A margin remains in tertiary attainment, which is still below the EU average, but it narrows mechanically as younger,

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43 Lagakos, D. and Schoellman, T., "Accounting for cross-country income differences revisited", unpublished manuscript, 2026.

44 Deming, D. and Silliman, M., "Skills and human capital in the labour market", *Discussion Paper Series*, No 20/25, ROCKWOOL Foundation Berlin, June 2025.

45 Mincer, J.A., *Schooling, Experience, and Earnings (Human Behavior & Social Institutions No. 2)*, National Bureau of Economic Research, 1974.

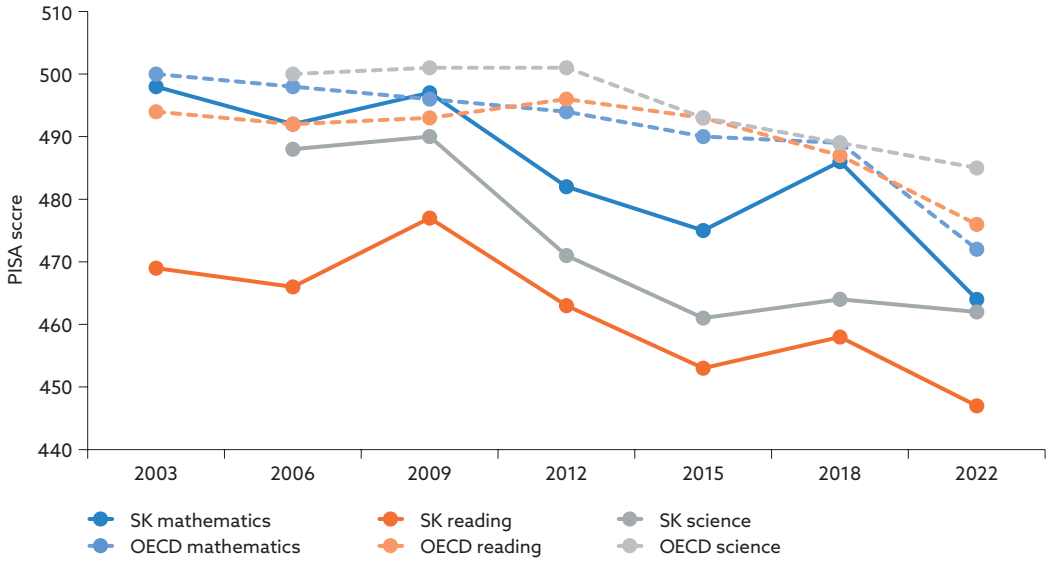
46 PISA (Programme for International Student Assessment) is the OECD's triennial survey of 15-year-old students, run since 2000; the 2022 wave tested about 690,000 students in 81 countries and economies in mathematics, reading and science, on a scale set to an OECD mean of 500 and standard deviation of 100. PIAAC (Programme for the International Assessment of Adult Competencies, the Survey of Adult Skills) assesses adults aged 16–65; its second cycle, conducted in 2022–23 in 31 countries and economies, measures literacy, numeracy and adaptive problem solving on a 500-point scale.

47 Hanushek, E.A. and Woessmann, L., "The Role of Cognitive Skills in Economic Development", *Journal of Economic Literature*, Vol. 46, No 3, September 2008, pp. 607–668.

48 Hanushek, E.A., Schwerdt, G., Wiederhold, S. and Woessmann, L., "Returns to skills around the world: Evidence from PIAAC", European Economic Review, Vol. 73, 2015, pp. 103–130.

more educated cohorts replace older ones. The quality picture is the opposite: as Chart 80 shows, Slovak 15-year-olds' results have declined for over a decade across all three tested domains over the period to 2022, and faster than the OECD average.[49] Three further developments sharpen the challenge. First, gender gaps in educational progression are widening, with implications for attainment patterns and labour market outcomes. Second, Slovakia has a relatively high rate of student emigration by EU standards, draining part of the high-skilled pipeline before graduates enter the domestic economy. Third, advances in artificial intelligence are reshaping labour market demand. While they may enhance productivity and create new high-skill opportunities, they also expose graduates whose work relies heavily on routine tasks to a greater risk of automation.

Chart 80
Slovak PISA performance has been falling for over a decade



Source: OECD PISA.

In this section we show, among other things, that:

- Slovakia lags the OECD average in education quality by about 0.15 of a standard deviation, and its PISA results have fallen by 0.3 SD since 2009, roughly as much as its entire gap to Czechia;
- the central problem is not the average but inequality: more than half of the variation in pupils' results lies between schools (the fourth-highest share in the OECD), while regions differ by up to 0.8 SD, and children of tertiary-educated parents enjoy a performance advantage of around 0.5 standard deviation that the education system seldom offsets;
- Slovakia lags most at the top of the distribution (7.9% of pupils reach the top tier against 10.8% in the OECD), which directly weakens its innovation potential;
- a marked gender gap has opened in tertiary attainment, with far more women than men now holding university degrees;

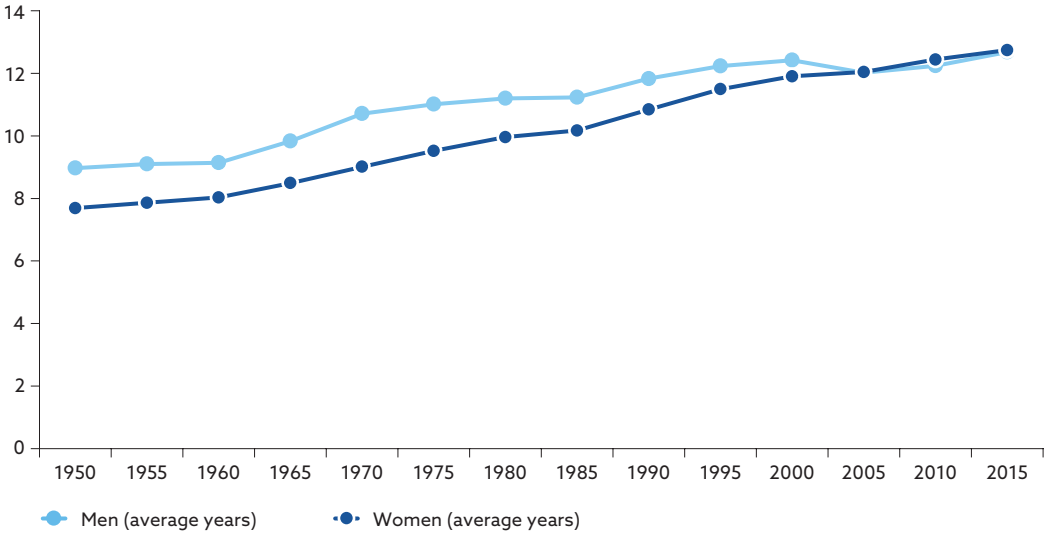
[49] The analysis in this annex uses PISA 2022, as the PISA 2025 results were released on 8 September 2026, after analytical work on the annex had been completed. The new results show a partial reversal of Slovakia's earlier decline, led by gains in science, while the OECD average declined further. The gap in the average mathematics and science score has therefore largely closed. On the annex's mathematics-and-science measure, the share of top performers is also now close to the OECD average, but these pupils still come predominantly from advantaged families. Most of the annex's broader structural findings should therefore remain relevant, particularly those concerning unequal learning opportunities and the need to develop and use skills more effectively. OECD, PISA 2025 Results (Volume I): Slovak Republic, country note, 8 September 2026.

- student emigration is substantial: around 28,000 Slovak students study abroad, equivalent to roughly one in six tertiary students, with the large majority enrolled in Czechia;
- one in five graduates works below degree level (among women almost one in four), and the tasks of Slovak tertiary workers are more exposed to AI's automation than to its augmentation, which is the reverse of the Czech pattern.

5.1 The rise of educational attainment and its limits

Slovakia's expansion in schooling has been broad-based, with women catching up to men in recent decades. The twentieth century's great educational expansion reached Slovakia in full: average years of schooling rose from 8.2 in 1950 to 12.7 in 2015.[50] This increase reflects a broad rise in educational attainment across the population, placing Slovakia among countries with widespread participation in primary and secondary education. On this margin, the scope for further catch-up is now limited. As Chart 81 shows, the rise in schooling took place for both men and women, but at different speeds. Men had more years of schooling than women throughout much of the second half of the twentieth century, while women's schooling rose faster and the gap narrowed steadily. Around 2005, women reached men's average years of schooling, and by 2015 Slovak women aged 25 to 64 had slightly more years of schooling on average. This pattern is also reflected in tertiary-attainment data, where women now record higher attainment than men, as more educated younger cohorts have entered the working-age population.[51]

Chart 81
Average years of schooling by gender, Slovakia



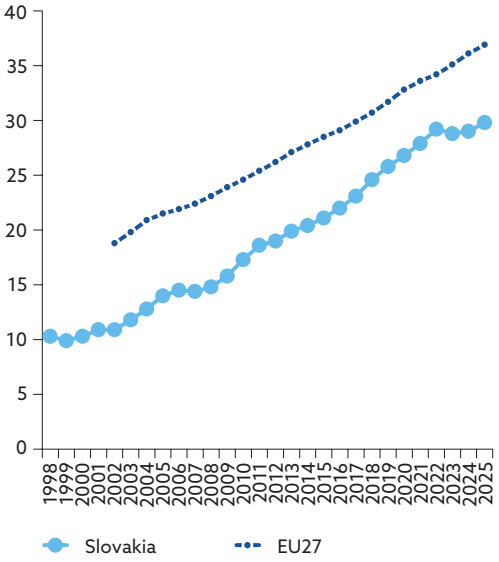
Source: Barro-Lee v3 (population aged 25-64).

Slovakia's tertiary-attainment gap has narrowed, but convergence remains incomplete and regionally uneven. In tertiary education, the quantitative gap with the EU has narrowed substantially but has not yet closed. The share of the population aged 25–64 with tertiary education has roughly tripled since the late 1990s and reached 29.8% in 2025, compared with an EU27 average of 36.9%.

[50] Barro, R.J. and Lee, J.W., "A New Data Set of Educational Attainment in the World, 1950–2010", *Journal of Development Economics*, Vol. 104, September 2013, pp. 184–198; UIS-UNESCO.
[51] Novák, V., "One road, two speeds: Generations X and Y in Slovakia and Czechia", *NBS Policy Brief*, forthcoming.

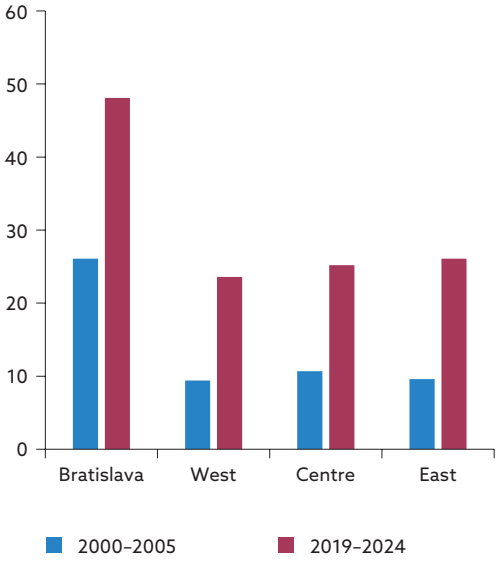
Further convergence is likely as younger, more highly educated cohorts continue to replace older cohorts in the working-age population. However, Slovakia remains below the EU average, suggesting that the quantity margin in tertiary education has not yet been fully exhausted. Tertiary attainment is heavily concentrated in the Bratislava Region, where the share reached close to 48% in 2019–2024, while the other regions remain much lower, at around 24–26%. This regional pattern matters because tertiary attainment both reflects and reinforces Slovakia's broader territorial disparities: regions with a weaker tertiary-educated workforce may find it harder to attract high-productivity activities, while Bratislava's advantage is further strengthened by the concentration of skills, firms and opportunities.

Chart 82
Tertiary educational attainment: Slovakia vs the EU27 (percentages)



Source: Eurostat.

Chart 83
Tertiary educational attainment by region (percentages)

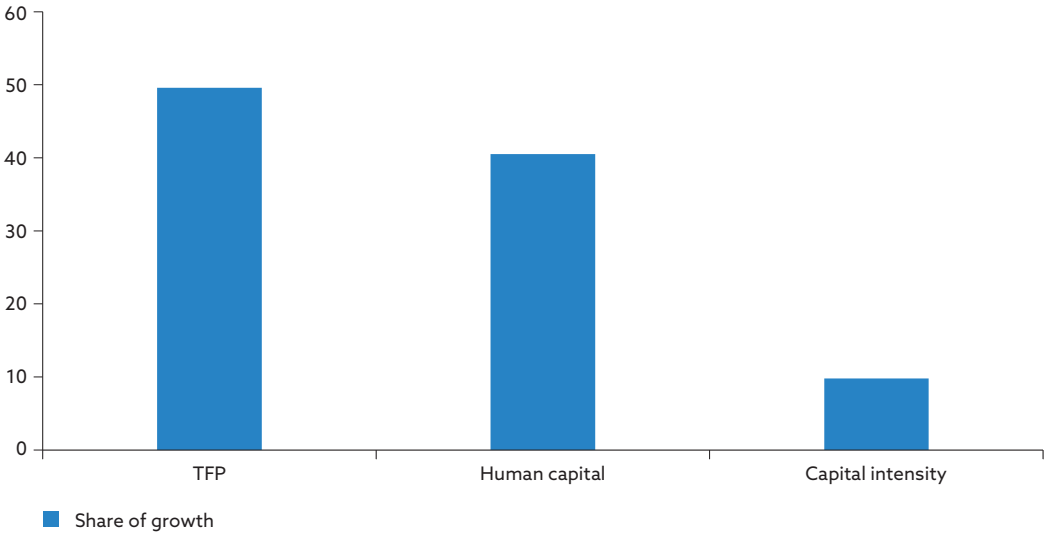


Source: Eurostat.

Human capital has been one of the main sources of Slovakia's productivity growth in the last decades. The expansion of education has had a visible payoff in Slovakia's growth performance. A standard growth-accounting decomposition based on Penn World Table data[52] shows that between 1991–1995 and 2016–2020 output per worker grew by roughly 1.7% per year. Around half of this growth came from total factor productivity, about 40% from human capital, and the remaining 10% from capital deepening (Chart 84). Human capital was therefore not a marginal contributor: together with productivity improvements, it was one of the main drivers of rising living standards.

[52] Feenstra, R.C., Inklaar, R. and Timmer, M.P., "The Next Generation of the Penn World Table", *American Economic Review*, Vol. 105, No 10, October 2015, pp. 3150–82.

Chart 84
Decomposition of labour productivity growth, Slovakia (percentages)



Sources: NBS calculations, and Penn World Table 11.0.
Note: TFP stands for total factor productivity.

Measured human-capital gains mainly reflect years of schooling, not the quality of skills acquired. The growth-accounting result reflects an important but narrow concept of human capital. The Penn World Table human-capital index is based on average years of schooling and estimated returns to education, so it mainly captures how much education the population has accumulated. It says much less about the quality of learning, the relevance of acquired skills, or the capacity of the education system to support productivity growth and innovation. For Slovakia, both margins remain important: further increases in attainment can still contribute, especially in tertiary education and in lagging regions, but long-term economic development will also depend on whether additional education translates into stronger skills and better learning outcomes. The economics of skill formation shows that early investments in human capital matter: early skills foster later learning, while early deficits tend to persist.[53,54]

5.2 What the tests reveal: declining and unequal school quality

Quality of education matters because rich countries differ far more in what pupils learn than in how long they stay in school. Among OECD economies, almost all young people are enrolled in education until age 15, and differences in years of schooling are relatively small. Yet the skills of 15-year-olds vary widely across countries. Test scores are an imperfect measure of human capital: they capture mainly cognitive skills, not motivation, creativity, practical ability or social skills. Still, they are the best internationally comparable evidence available on learning outcomes, and they are closely linked to adult skills, wages and employment. For a converging economy, this makes them an important signal of human-capital quality.

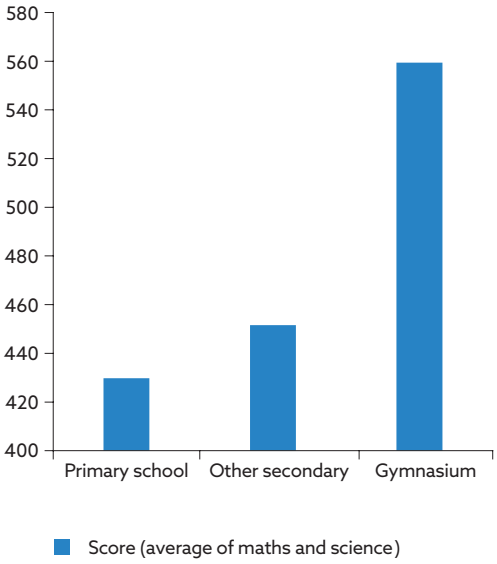
53 Cunha, F. and Heckman, J.J., "The Technology of Skill Formation", *American Economic Review*, Vol. 97, No 2, May 2007, pp. 31–47.
54 OECD (2024), *Education at a Glance 2024: OECD Indicators*, OECD Publishing, Paris.

In PISA 2022, Slovak 15-year-olds scored on average 464 points in mathematics, 462 in science and 447 in reading.[55] Measuring quality by the indicator used in the growth literature, the average of mathematics and science, Slovakia reaches 463 points against an OECD average of 478, a gap of about 15 points, or 0.15 of a standard deviation (100 PISA points ≈ 1 SD). Although the gap appears modest, the patterns embedded in the trend and distribution suggest deeper structural differences.

The trend comes first: Slovak performance has been falling for over a decade. As Chart 80 shows, the average of mathematics and science fell from a peak of 493 points in 2009 to 463 in 2022, a decline of 0.3 SD that is about as large as Slovakia's entire current gap to Czechia. The fall began around 2012, spans all three domains, and is steeper than the OECD average's own downward trend. Slovakia is thus deteriorating not only relative to its own past but relative to an already-declining international benchmark. The cohorts behind these weaker results are now reaching university age and entering the labour market, transmitting the consequences of educational underperformance directly into the future workforce.

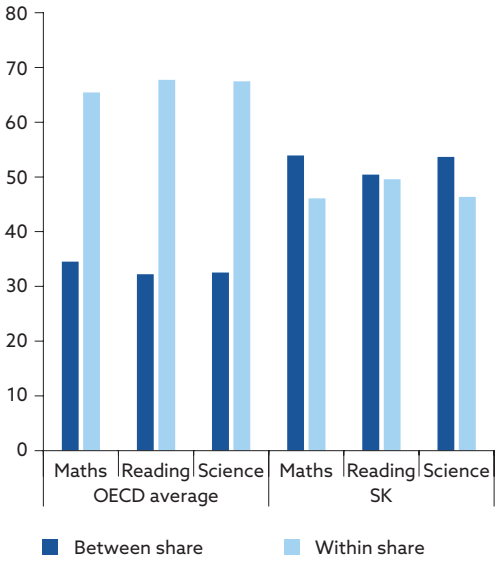
One of the defining features of Slovak schooling is the significant inequality between school types. Part of the gap between school types reflects early selection into gymnasiums (Chart 85), so it cannot be read as a pure difference in school quality. However, OECD equity analyses consistently show that highly stratified education systems, in which students are sorted into different tracks at an early age, tend to strengthen the influence of socioeconomic background on educational outcomes without improving overall student performance.[56]

Chart 85
PISA scores by school type



Sources: PISA 2022, and NBS calculations.

Chart 86
Between-within decomposition of PISA scores by school



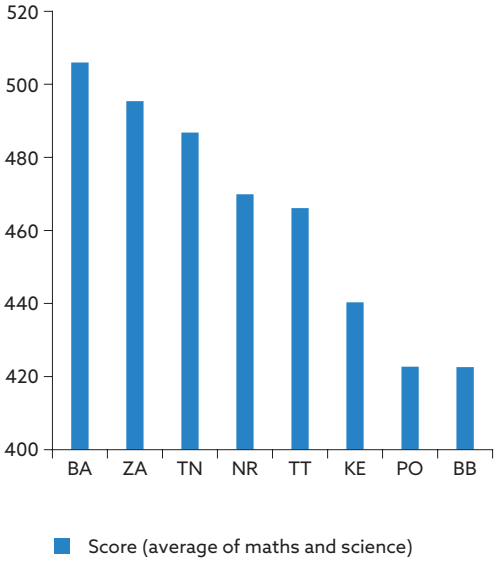
Sources: PISA 2022, and NBS calculations.

[55] OECD (2023), *PISA 2022 Results (Volume I): The State of Learning and Equity in Education*, PISA, OECD Publishing, Paris. Slovak values verified from the microdata (NBS calculations).

[56] OECD (2023), *PISA 2022 Results (Volume II):* Learning During – and From – Disruption, PISA, OECD Publishing, Paris.

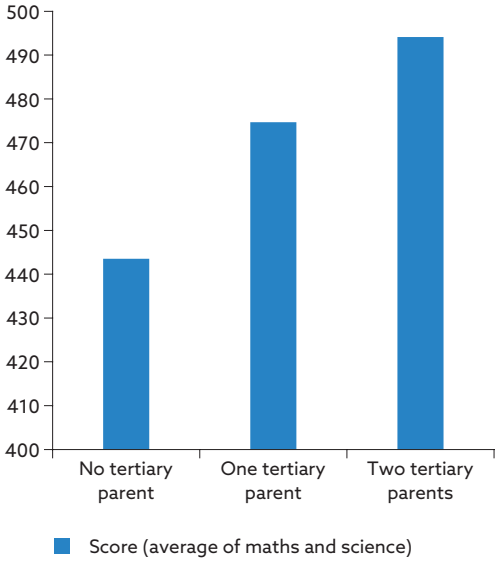
School is an important determinant of inequality: in Slovakia more of the variation in pupil performance lies between schools than within them. The decomposition of PISA microdata confirms that school is a significant determinant of educational inequality in Slovakia. Across mathematics, reading and science, the pattern is very similar: around half of total performance variation lies between schools, with between-school shares of about 54% in mathematics, 50% in reading and 54% in science. This is high in comparative terms, as the OECD average is closer to one third, meaning that in most OECD systems performance differences are driven more by variation among pupils within the same schools than by differences across schools. Slovakia ranks near the top of OECD countries on this indicator in all three domains: fourth in mathematics, fourth in reading and third in science. This matters because between-school variation reflects not only individual differences in ability or effort, but also how the education system allocates pupils across schools through admissions, tracking, residential segregation and early selection, including into eight-year gymnasiums. The relatively large between-school component across all three domains suggests that school-level differences play an important role in shaping pupil outcomes in Slovakia. The scale of these disparities suggests that the school a pupil attends matters more in Slovakia than in many other OECD systems, potentially contributing to the persistence of educational disadvantage.

Chart 87
PISA scores by region



Sources: PISA 2022, and NBS calculations.

Chart 88
PISA scores by parental education



Sources: PISA 2022, and NBS calculations.

Results differ dramatically across regions. Regional differences are stark, with the Bratislava Region scoring highest at about 506 points while Prešov and Banská Bystrica are close to 423 points, a gap of roughly 83 points, or around 0.8 standard deviations, comparable to several years of schooling. This gap should not be read only as a difference in school effectiveness, however, because Bratislava is also a highly selected region: it concentrates better-educated, higher-income families, public-sector and knowledge-intensive jobs, and parents with stronger capacity to support learning at home. By contrast, lagging eastern and central regions include a higher share of disadvantaged households and marginalised Roma communities, which PISA captures only imperfectly because the most excluded children are likely under-represented in the sample. Educational underperformance in these regions both reflects and reinforces Slovakia's wider east–west divide, limiting social mobility and weakening the human-capital base needed for regional convergence.

Family background continues to influence educational achievement beyond school and regional factors. Having at least one parent with some tertiary education is associated with an increase of approximately 10.5 points in mathematics and 11.8 points in science, relative to students whose parents have lower educational attainment. In reading, the corresponding coefficient is small and statistically insignificant (table 1). The persistence of these effects after controlling for regional and school-level characteristics suggests that family resources and educational environments continue to shape learning outcomes beyond differences in school attendance or geographic location. The explanatory power of the models is substantial. Gender, parental education, region, and school type jointly account for around 27% of the variation in reading scores and approximately 29% of the variation in mathematics and science achievement (R^2 = 0.27-0.29). These findings underline the importance of students' socio-economic circumstances in shaping educational performance and point to persistent inequalities in learning opportunities.

Table 1
Regression results: PISA scores

	Reading	Mathematics	Science
Some university	0.706	10.522***	11.838***
	(3.779)	(3.268)	(3.548)
Constant	547.197***	576.166***	571.754***
	(7.889)	(8.293)	(8.458)
Gender	Yes	Yes	Yes
Region	Yes	Yes	Yes
School type	Yes	Yes	Yes
R-squared	0.269	0.291	0.293
Observation	5,642	5,642	5,642

Sources: PISA 2022 and NBS calculations.
Notes: Standard errors are reported in parentheses. The reference category for parental background is students who have parents without university education. All specifications control for gender, region, and school type. Asterisks indicate significance levels: *** p<0.01, ** p<0.05, * p<0.1.

The socio-economic gradient is steep, and steeper than in almost any OECD peer. Children with no tertiary-educated parent, 53% of all pupils, score on average 444 points; those with one such parent 475, and those with two 494, a gap of about 0.5 SD (Chart 88). Measured with the OECD's continuous index of economic, social and cultural status (ESCS), the pattern becomes even starker: socio-economic background alone explains about 28% of the variance in Slovak pupils' results (95% CI [24, 31]), the highest share of any OECD country against an OECD average of about 16%; and each one-standard-deviation increase in ESCS is associated with 54 score points (95% CI [50, 58]), again the steepest gradient in the OECD (average 40).[57],[58] The fitted lines in Chart 89 make the contrast plain: Slovakia's gradient runs below the OECD

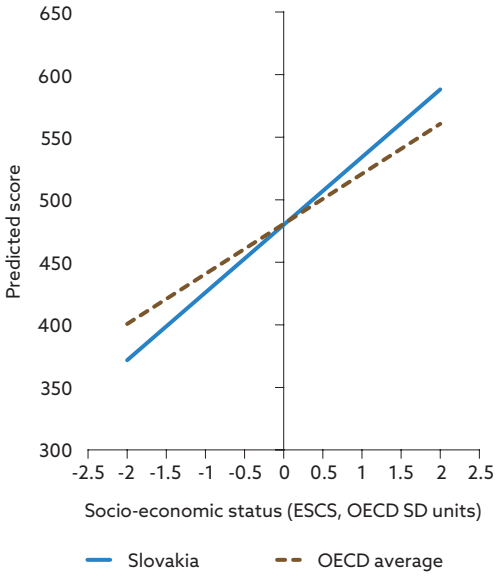
[57] NBS calculations on the full OECD PISA 2022 student file (CY08MSP_STU_QQQ). ESCS refers to the PISA index of economic, social and cultural status (parental education, occupation and home resources; standardised to OECD mean 0, SD 1). Strength = weighted R^2, slope = coefficient, from a regression of the (math+science)/2 score on ESCS, computed per plausible value for every OECD country. 95% confidence intervals from Fay's balanced repeated replication (BRR) replicate weights and plausible values.

[58] Error bars and bracketed ranges are 95% confidence intervals. Sampling variance is estimated using the 80 replicate weights (Fay's BRR, k = 0.5 for PISA 2022; bootstrap replication for the second cycle of PIAAC) and, for statistics based on test scores, is combined with the imputation variance across the 10 plausible values using Rubin's rules. Charts without error bars, and the growth-accounting and Eurostat/Barro-Lee figures, report point estimates. Source: NBS calculations.

average for the most disadvantaged pupils and above it for the most advantaged, so the same difference in family background buys a far larger difference in measured skill here than almost anywhere else.

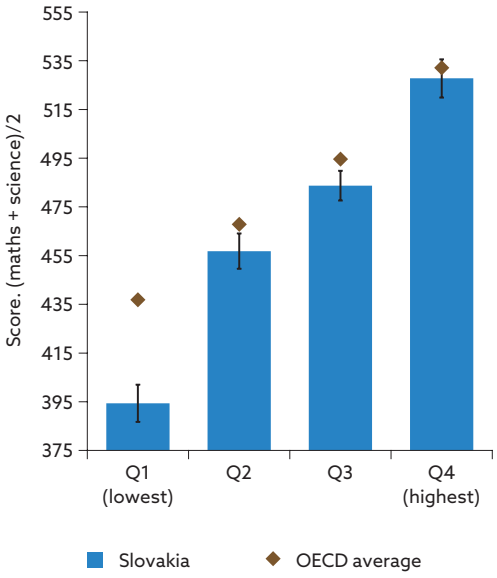
Expressed as test-score differences, the gap is among the largest in the OECD. Pupils in the top quarter of the ESCS distribution outscore those in the bottom quarter by 133 points (Chart 90); in every quartile, Slovak pupils score below the OECD average for the same quartile, but the shortfall is largest at the bottom (−43 points) and nearly closed at the top (−4). Because socio-economic status is itself transmitted across generations, this is a central mechanism through which Slovakia's inequalities reproduce themselves: family background shapes early skills, early skills shape school placement, and school placement entrenches the gap – the cumulative process described by Cunha and Heckman.[59] Reducing this gap would serve both fairness and long-term growth by allowing Slovakia to develop talent that is currently constrained by pupils' family background and school placement.

Chart 89
The socio-economic gradient: Slovakia vs OECD



Sources: PISA 2022, and NBS calculations.
Note: The fitted score is based on the OECD ESCS index.

Chart 90
PISA scores by socio-economic quartile: Slovakia vs OECD



Sources: PISA 2022, and NBS calculations.
Notes: ESCS quartiles are defined within each country. The OECD average is calculated across 36 OECD member countries using the same methodology.

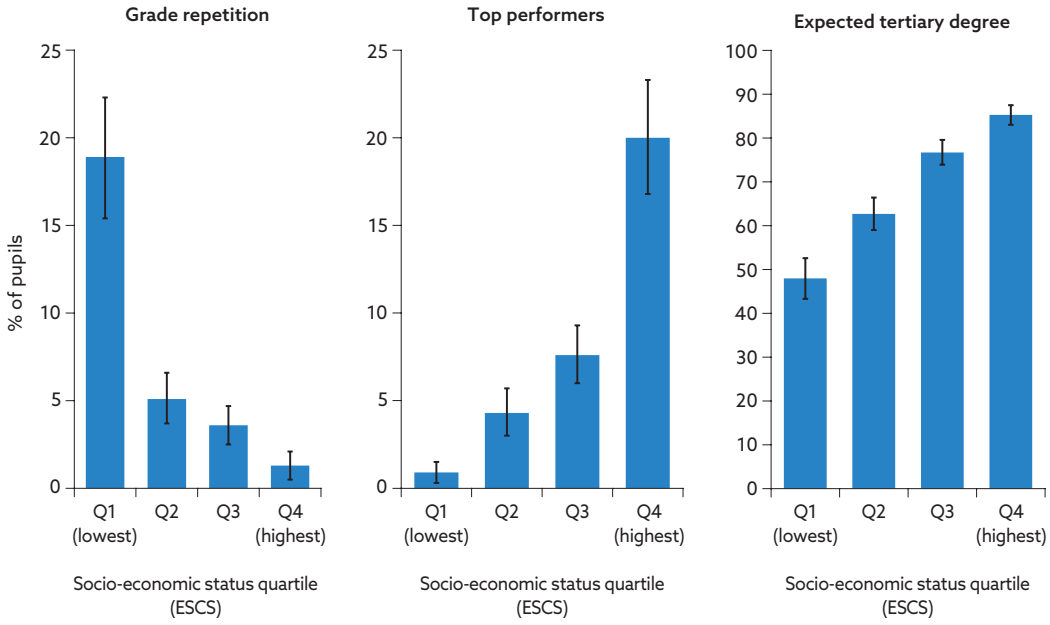
Socio-economic background shapes not only test scores but the whole trajectory through school. Three outcomes make the gradient concrete (Chart 91).[60] Grade repetition, itself a strong predictor of early school leaving, falls from 19% of pupils in the poorest quarter to barely 1% in the richest. Top performance moves the other way: only 0.9% of the most disadvantaged pupils reach the top tier of 600 points, against 20% of the most advantaged. The country's thin layer of excellence is thus drawn almost entirely from well-off homes, a direct loss of potential talent that the brain drain (Section 5.5) then compounds. And the gap is already internalised as ambition: 48%

[59] Cunha, F. and Heckman, J.J., "The Technology of Skill Formation", *American Economic Review*, Vol. 97, No 2, May 2007, pp. 31–47.

[60] NBS calculations on the full PISA 2022 student file. Grade repetition, the top-performer share and tertiary expectations are computed by ESCS quartile (quartiles defined within Slovakia; missing-coded responses excluded); mathematics anxiety and self-efficacy are the OECD WLE indices (mean 0, SD 1). Error bars are 95% confidence intervals (Fay's BRR replicate weights; plausible values for the score-based statistics).

of disadvantaged pupils expect to complete tertiary education, against 85% of their advantaged peers. Disadvantage accumulates at every margin (repetition, achievement and aspiration) long before the labour market is reached.

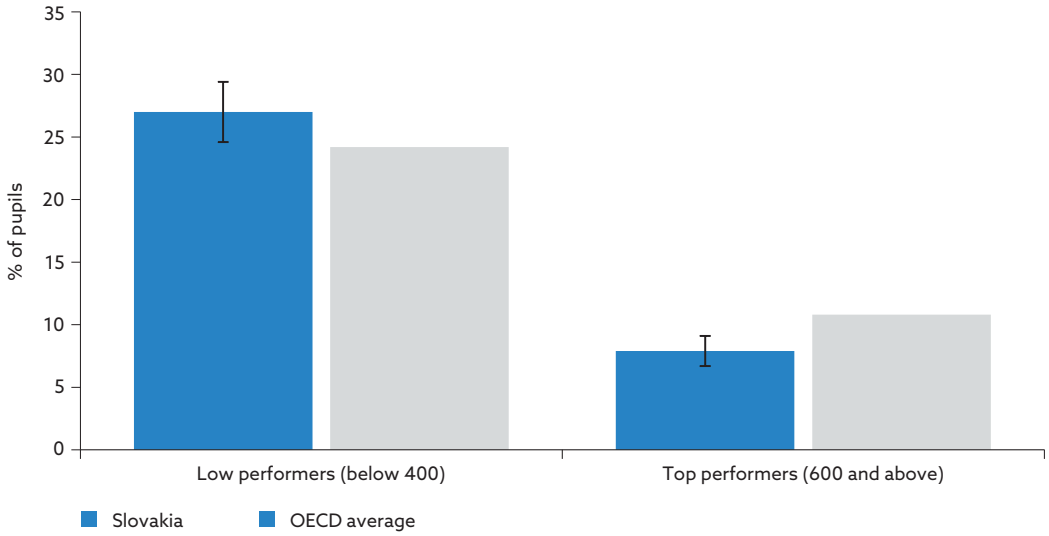
Chart 91
Outcomes by socio-economic quartile: grade repetition, top performers, tertiary education expectations (percentages of pupils)



Sources: PISA 2022, and NBS calculations.
Notes: Results are shown by ESCS quartile within Slovakia.

Slovakia, moreover, lags more at the top of the distribution than at the bottom. The share of pupils below 400 points, at 27% (95% CI [25, 29]), is close to the OECD average of about 24%; but the share of top performers above 600 is just 7.9% (95% CI [6.7, 9.1]), against 10.8% in the OECD (Chart 92). The underdevelopment of high-performing pupils is particularly costly because this group forms an important source of future inventors, entrepreneurs and highly skilled professionals. A thin top tail therefore weakens Slovakia's innovation potential and long-run growth prospects.

Chart 92
Low and top performers: Slovakia vs OECD



Source: PISA 2022, NBS calculations, and OECD reference values from PISA 2022 Results (Volume I).

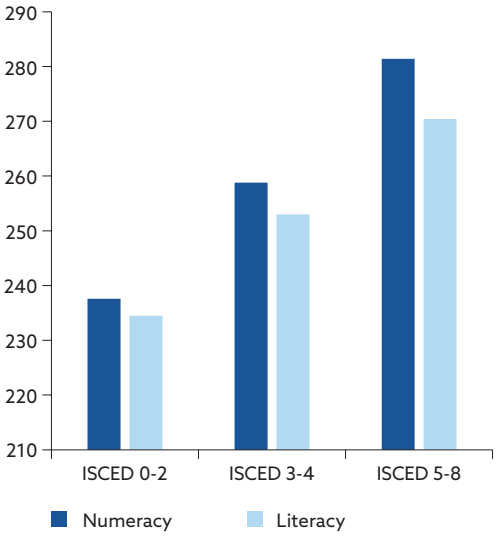
5.3 Adult skills: what PISA foreshadows, PIAAC confirms

Slovakia's adult skills profile is close to the OECD average, but literacy remains weaker. In PIAAC 2023, Slovak adults aged 16–65 scored on average 261 points in numeracy against an OECD average of 263, statistically a near-miss rather than a deficit, while literacy (254 against 260) and adaptive problem solving (247 against 251) sit more clearly below the average.[61] These results suggest that the recent deterioration in student performance has not yet fully translated into measured adult skills. However, as weaker-performing cohorts enter and progress through the labour market, lower school outcomes are likely to weigh increasingly on Slovakia's adult skills profile.

Within the adult population, skills rise steeply with education, and with parents' education, decades after school. Adult numeracy climbs from about 238 points among those with basic education to 281 at tertiary level (Chart 93). More telling for the persistence of inequality, adult literacy still tracks parental education almost as closely (Chart 94): adults whose mother or father had tertiary education score roughly 30 points above those whose parents had only primary education. The socio-economic gradients visible in PISA among 15-year-olds do not fade with age; they persist into the adult workforce, exactly as the human-capital framework predicts.

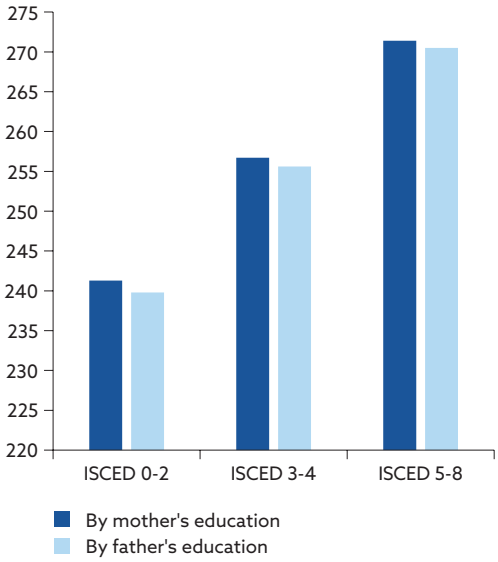
[61] OECD (2024), *Do Adults Have the Skills They Need to Thrive in a Changing World? Survey of Adult Skills 2023*, OECD Skills Studies, OECD Publishing, Paris. Slovak values verified from the microdata (NBS calculations).

Chart 93
PIAAC scores by educational attainment



Sources: PIAAC 2023, and NBS calculations.

Chart 94
PIAAC literacy scores by parental education



Sources: PIAAC 2023, and NBS calculations.

Two features of Slovakia's age-skill profile stand out. First, Slovakia's youngest adults are no more skilled than their parents' generation: as shown in **Charts 117**, 16–25-year-olds score about the same in numeracy (262) as those aged 36–55 (264). Second, skills erode after 55 (numeracy falls to 254 among 56–65-year-olds), underlining the case for lifelong learning in an ageing society; yet participation in adult education in Slovakia is among the lowest in the EU,[62] so the workforce has limited means of repairing skills that initial schooling did not build. The age profile of skills is examined more closely in Section 6 (Special annex 2: Population ageing) .

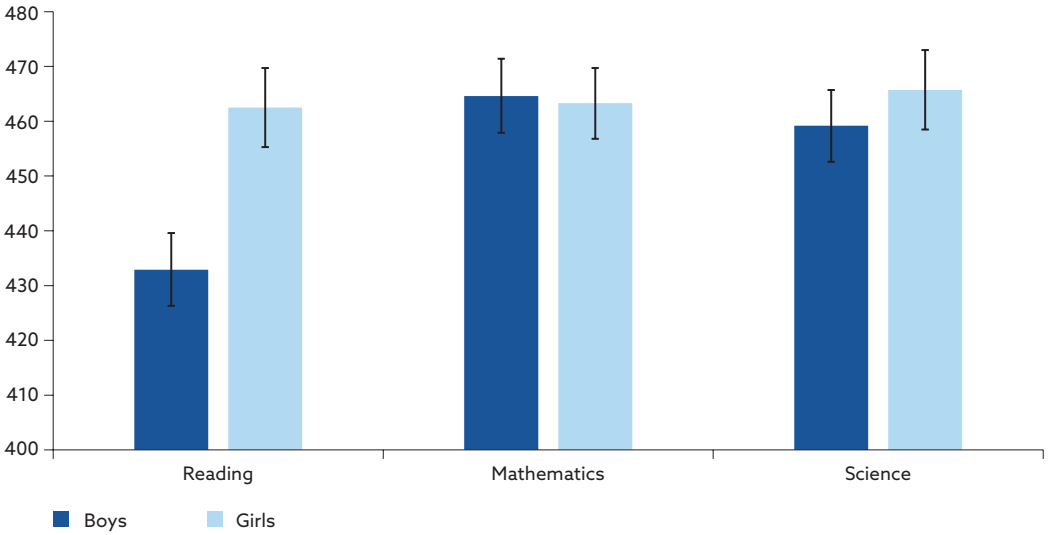
5.4 The gender reversal: girls, boys and the widening education gap

The reversal of the gender gap in education is a major, yet often overlooked, shift in Slovakia's human capital structure. The reversal of the university gender gap, first documented for the United States by Goldin, Katz and Kuziemko, is now a feature of almost every advanced economy: having once trailed men, women have overtaken them in higher education and continue to pull ahead.[63] What stands out in Slovakia is the speed and size of the shift, and the way it compounds the country's other educational divides.

One important difference appears already at age 15: girls have a sizeable advantage in reading. In PISA 2022, Slovak girls scored almost 30 points higher than boys in reading, 462 compared with 433, while gender differences were much smaller in mathematics and science (Chart 95). Given the importance of reading proficiency for learning across subjects, this gap may be relevant for understanding later differences in educational trajectories.

62 OECD (2024), *Education at a Glance 2024: OECD Indicators*, OECD Publishing, Paris.
63 Goldin, C., Katz, L.F. and Kuziemko, I., "The homecoming of American College Women: The Reversal of the College Gender Gap", *Journal of Economic Perspectives*, Vol. 20, No 4, 2006, pp. 133–156.

Chart 95
PISA scores by gender and domain, Slovakia



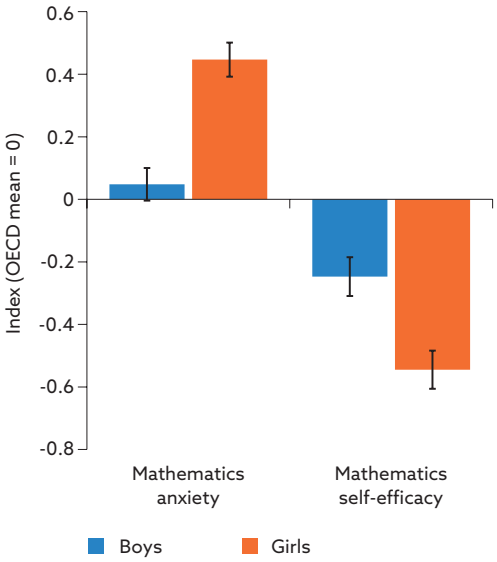
Sources: PISA 2022, and NBS calculations.

The most notable gender difference at age fifteen is not in performance but in confidence. In mathematics, Slovak girls and boys perform almost identically (Chart 95), but their attitudes diverge sharply: girls report markedly higher mathematics anxiety (an index of +0.45 against +0.05 for boys) and markedly lower mathematics self-efficacy (−0.54 against −0.25), gaps of 0.40 and 0.30 of a standard deviation (Chart 96).[64] The same asymmetry appears in the top tail, where boys still outnumber girls (8.6% vs 7.1% reach 600 points) despite equal averages. This suggests that differences in confidence and attitudes, rather than ability, may influence educational choices and help explain why women's strong representation in tertiary education does not extend to STEM fields.

Among adults, literacy and numeracy skills show no significant gender differences. In PIAAC, Slovak men and women record very similar scores in both numeracy and literacy (Chart 97). Men score slightly higher in numeracy, while women score slightly higher in literacy, but the differences are small and the confidence intervals overlap. Overall, the chart suggests that adult skills in Slovakia are broadly balanced by gender in these two core domains. There is no clear evidence of a meaningful gender gap in either numeracy or literacy among adults.

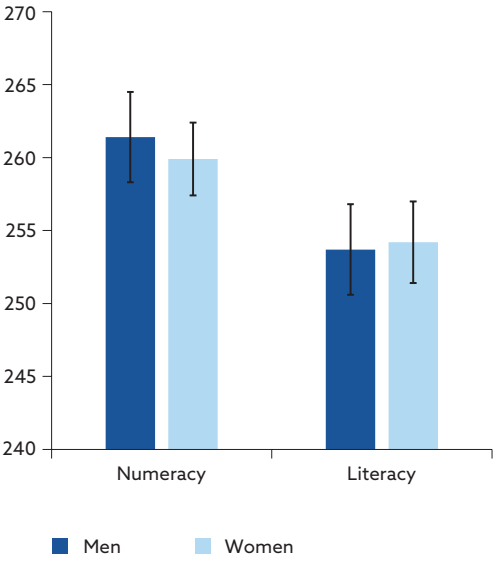
[64] NBS calculations on the full PISA 2022 student file. Grade repetition, the top-performer share and tertiary expectations are computed by ESCS quartile (quartiles defined within Slovakia; missing-coded responses excluded); mathematics anxiety and self-efficacy are the OECD WLE indices (mean 0, SD 1). Error bars are 95% confidence intervals (Fay's BRR replicate weights; plausible values for the score-based statistics).

Chart 96
Mathematics anxiety and self-efficacy by gender (15-year-olds)



Sources: PISA 2022 (full student file), NBS calculations, and OECD WLE indices (mean 0, SD 1).

Chart 97
PIAAC scores by gender, Slovakia



Source: PIAAC 2023, and NBS calculations.

The gender divide extends beyond achievement to well-being. Slovak girls report a markedly weaker sense of well-being at school than boys: they feel less safe (an index of −0.31 against +0.04 for boys), report a weaker sense of belonging (−0.28 vs −0.13) and considerably lower emotional control (−0.29 vs +0.15), gaps of roughly a third of a standard deviation (Chart 98).[65] Slovakia did not administer PISA's optional questionnaire on life satisfaction and psychosomatic symptoms, so school-climate indicators provide the closest available measure of adolescent well-being. These indicators point to a clear burden on girls and, in the case of feeling safe and belonging at school, also on disadvantaged pupils, who report the weakest sense of safety and attachment to school. The well-being gap therefore overlaps with the same groups already facing weaker achievement and aspiration outcomes.

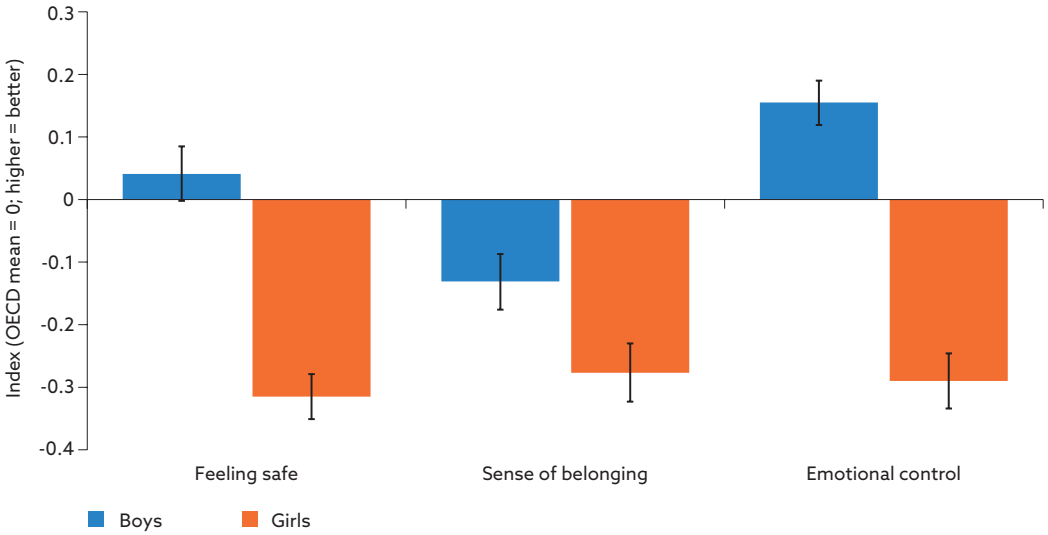
This matters for growth, not only for welfare. In the Cunha-Heckman framework, learning depends on the environment in which it takes place: anxiety, a weak sense of belonging and an unsafe classroom lower the productivity of every hour of teaching, so poor well-being today yields less human capital tomorrow.[66] The socio-emotional skills involved, such as emotional control, perseverance and cooperation, are not only foundations for learning; they are also forms of human capital, increasingly rewarded by the labour market as routine cognitive tasks are automated.[67]

[65] NBS calculations on the full PISA 2022 student file. 'Feeling safe', 'sense of belonging' and 'emotional control' are OECD WLE indices (mean 0, SD 1; higher = better). Slovakia did not field PISA's optional well-being module, so the direct life-satisfaction and psychosomatic-symptom indices are unavailable; these school-climate measures are the closest available proxies. Error bars are 95% confidence intervals (Fay's BRR replicate weights).

[66] Cunha, F. and Heckman, J.J., "The Technology of Skill Formation", *American Economic Review*, Vol. 97, No 2, May 2007, pp. 31–47.

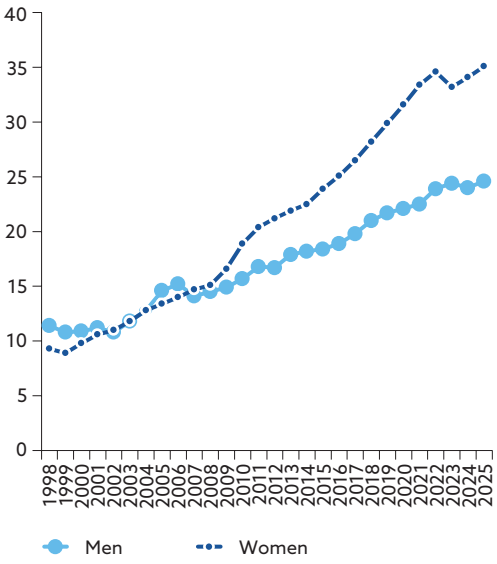
[67] Deming, D. and Silliman, M., "Skills and human capital in the labour market", *Discussion Paper Series*, No 20/25, ROCKWOOL Foundation Berlin, June 2025.

Chart 98
School well-being by gender: feeling safe, belonging, emotional control



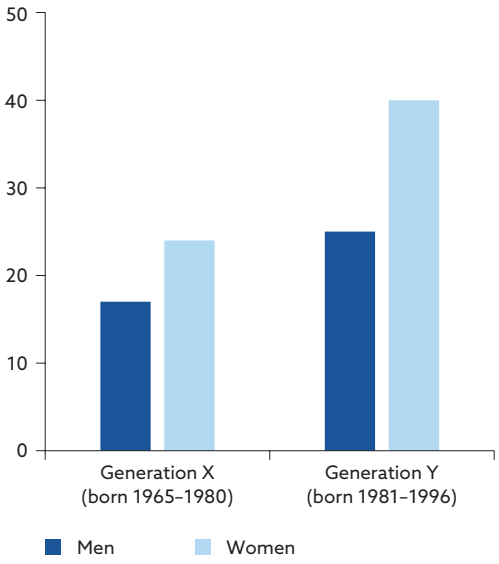
Sources: PISA 2022 (full student file), NBS calculations, and OECD WLE indices (mean = 0; higher = better).

Chart 99
Tertiary educational attainment by gender (percentages)



Source: Eurostat.

Chart 100
Tertiary educational attainment by generation and gender



Sources: NBS (*Structural Challenges 2025*, Thematic annex 2).

Gender differences in education become much larger by tertiary level. Among Slovaks aged 25–64, far more women than men now hold tertiary degrees, about 35% compared with 25% in 2025, and the gap has widened steadily over time (Chart 99). The generational comparison shows that this is not only a level difference, but an accelerating one. Among Generation X, born between 1965 and 1980, 24% of women and 17% of men held a tertiary degree, a gap of 7 percentage points; among Generation Y, born between 1981 and 1996, the shares rose to 40% for women and 25% for men, widening the gap to 15 points (Chart 100).[68] Crucially, men improved

[68] Novák, V., "Two generations, two worlds?", *Structural Challenges 2025*, Thematic annex 2, Národná banka Slovenska.

far less than women: Slovak millennial men barely advanced on their fathers and, for the first time, fell behind their Czech peers.

A widening education gap between women and men carries economic consequences that reach well beyond the classroom, beginning with household inequality. As education becomes more strongly sorted by gender, couples increasingly pair like with like. This educational homogamy mechanically widens the distance between high-earning, dual-graduate households and the rest, raising between-household income inequality;[69] a society in which the highly educated are concentrated in the same households is more unequal even when average attainment rises. The effect interacts with the socio-economic gradient in Section 5.2: advantage is increasingly transmitted not only through schools but through who marries whom.

The second consequence runs through the marriage market and fertility. When highly educated women substantially outnumber highly educated men, a growing share of women do not find a partner of comparable education, while less-educated men become progressively less 'marriageable'. Our generational analysis already documented the outcome on the ground: among Slovak millennials marriage has retreated sharply, and the share living with a dependent child has fallen relative to Generation X.[70] Fewer family formations and lower fertility, in turn, intensify exactly the ageing and pension pressures analysed elsewhere in this report; the education gap thus feeds back into Slovakia's central long-run fiscal challenge.

The third consequence is a growing risk of detached young men, though the Slovak data require care. Overall, the NEET rate (young people aged 15–29 not in employment, education or training) is higher for women than men (12.7% vs 9.5% in 2025) and has been falling (Chart 101);[71] but the two are different phenomena. Women's NEET is predominantly inactivity, largely tied to caring for young children, whereas men's NEET is predominantly unemployment, involuntary detachment from the labour market rather than withdrawal into the home. The concern, well documented internationally, is that as routine and manual jobs are automated and trade-exposed, lower-educated men face the sharpest fall in demand and the weakest prospects of retraining; the resulting detachment has been linked to regional decline, falling marriage rates and political polarisation.[72] In Slovakia these men are concentrated precisely in the lagging eastern and central regions where PISA results and male tertiary attainment are already lowest. The boys' reading gap at 15, the male tertiary shortfall, regional disadvantage and labour market detachment are therefore closely connected parts of a broader human-capital problem.

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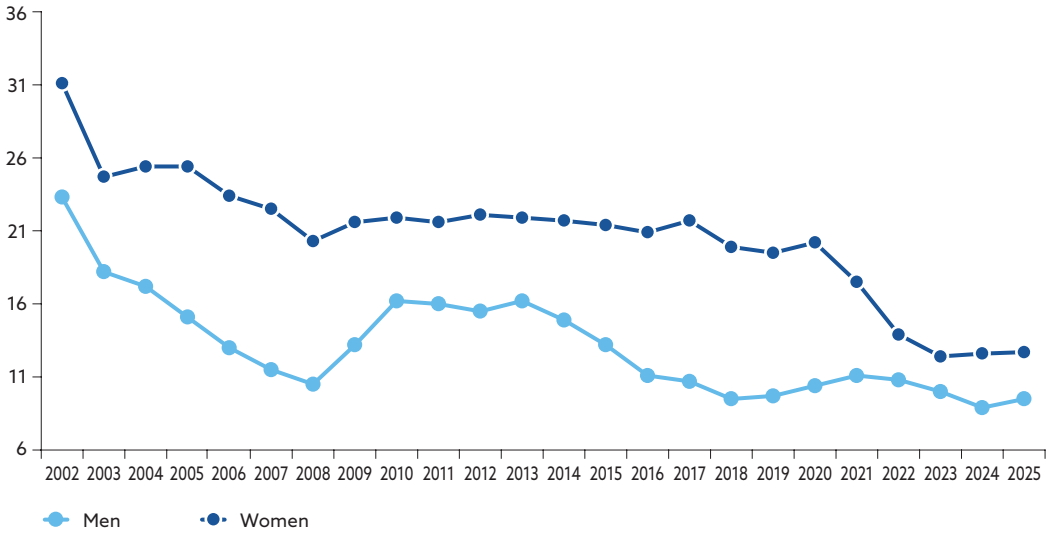
69 Greenwood, J., Guner, N., Kocharkov, G. and Santos, C., "Marry Your Like: Assortative Mating and Income Inequality", *American Economic Review*, Vol. 104, No 5, May 2014, pp. 348–53.

70 Novák, V., "Two generations, two worlds?" *Structural Challenges 2025*, Thematic annex 2, Národná banka Slovenska.

71 Eurostat (edat_lfse_20): NEET rate for young people aged 15–29; NBS calculations.

72 Autor, D.H., Dorn, D. and Hanson, G.H., "The China Syndrome: Local Labor Market Effects of Import Competition in the United States", *American Economic Review*, Vol. 103, No 6, October 2013, pp. 2121–68.

Chart 101
NEET rate of young people (15–29) by gender, Slovakia (percentages)



Source: Eurostat.

The gender reversal therefore calls for policy attention on both sides of the divide. On one side, the barriers that still keep talented women out of the labour market (limited availability of pre-school care and quality part-time work) waste accumulated human capital and depress the return on the country's investment in their education; the OECD repeatedly identifies this as one of Slovakia's largest untapped sources of growth.[73] On the other hand, the early disengagement of boys, particularly in reading and in disadvantaged regions, calls for targeted intervention well before higher education, otherwise educational and labour market gaps may widen across successive cohorts.

5.5 Brain drain: the cost of student emigration

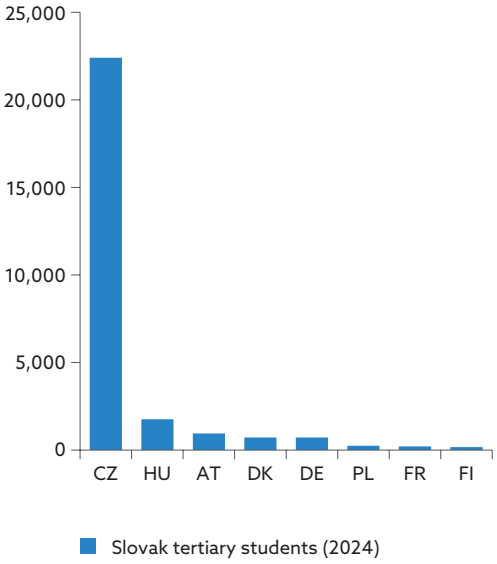
Slovakia has, relative to its size, one of the highest rates of student emigration in the European Union. In 2024 about 28,000 Slovak students were enrolled at universities abroad, four-fifths of them in Czechia, followed at a distance by Hungary and Austria (Chart 102).[74] One in six Slovak tertiary students (16.6%) studies abroad, which, after Luxembourg and Cyprus, represents the highest share in the EU and more than six times the EU-wide share of 2.5% (Chart 103). A shared language, recognised degrees, and the perceived quality gap make studying in Czechia almost frictionless. Student flows have remained broadly stable, at between 27,000 and 31,000 Slovak students per year since 2013, indicating a structural feature of the education system rather than a temporary wave.

[73] OECD (2024), *Education at a Glance 2024: OECD Indicators*, OECD Publishing, Paris.

[74] Eurostat (educ_uoe_mobs02: mobile students by country of origin; educ_uoe_enrt01: enrolment), NBS calculations, 2024. The share abroad is students abroad divided by all students of the origin country (abroad + at home). Destinations cover the European statistical system only, so flows to countries such as the United States or, since 2020, the United Kingdom are not counted and the true outflow is somewhat larger.

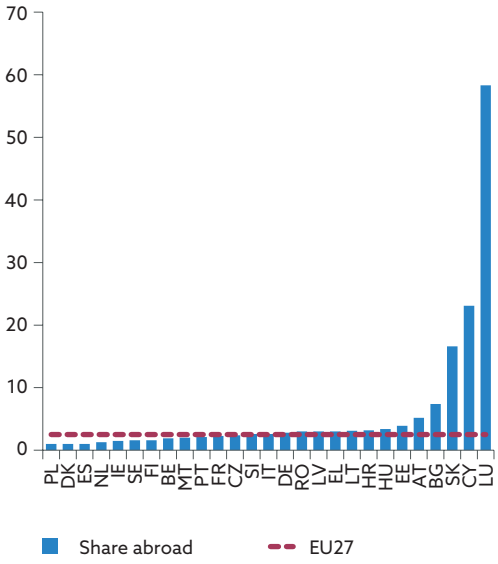
This outflow is costly above all because those who leave are disproportionately the ablest, and most do not return. Slovakia loses precisely the thin top tail whose scarcity Section 5.2 documented: a system that already produces too few top performers then exports a large share of those it does produce. The literature on regional labour markets shows that persistent outflows of the skilled can entrench decline in the places left behind,[75] reinforcing the east–west divide referred to in Section 5.2. Czech institutions may offer better-ranked programmes, stronger expected labour market returns, and the option of returning to Slovakia with limited barriers. At the national level, however, this represents a cumulative loss. Slovakia bears the cost of educating these students through primary and secondary school, while a significant share of the returns to that investment is realised abroad. The loss is not only fiscal but also economic: when high-performing students leave, Slovakia loses part of the talent pool that could otherwise contribute to innovation, productivity and institutional capacity at home.

Chart 102
Slovak tertiary students abroad, by destination (2024)



Source: Eurostat.

Chart 103
Students abroad as a share of all tertiary students (2024; percentages)



Source: Eurostat.

5.6 Skills demand versus supply: the mismatch problem

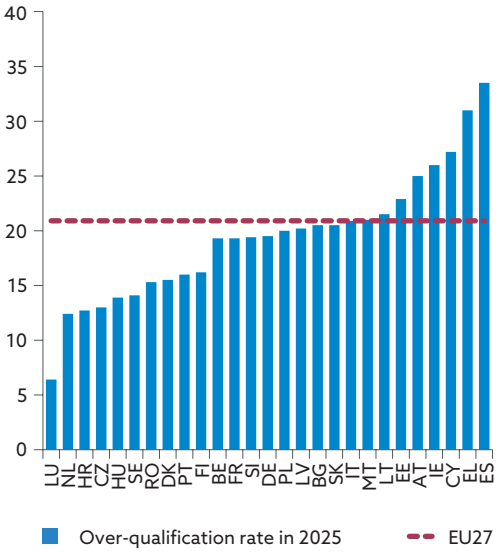
The problem is not only how much human capital Slovakia produces but how well the labour market uses it. The over-qualification rate, defined as the share of tertiary-educated people aged 25–64 working in jobs that do not require a degree, stood at 20.5% in Slovakia. This is almost identical to the EU27 average of 20.9%, but well above the levels observed in several regional peers, including Czechia, where the rate was only 13.0% (Chart 104).[76] In other words, roughly one in five Slovak graduates is employed below the level of their qualification. Nor does this appear to be a legacy problem that is gradually fading: the rate has increased by around seven percentage

[75] Autor, D.H., Dorn, D. and Hanson, G.H., "The China Syndrome: Local Labour Market Effects of Import Competition in the United States", *American Economic Review*, Vol. 103, No 6, October 2013, pp. 2121–68.

[76] Eurostat (edat_lfse_03/04; lfsa_eoqgan); NBS calculations.

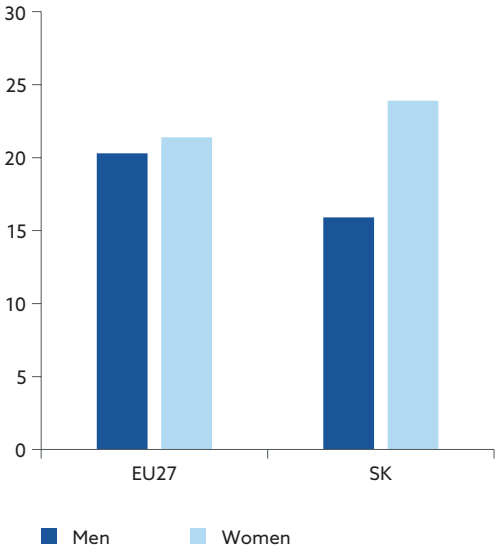
points since 2011, peaking at 23.5% in 2018, even as graduates became a larger share of the workforce.

Chart 104
Labour market over-qualification rate (2025; percentages)



Source: Eurostat.

Chart 105
Over-qualification rate by gender: Slovakia vs EU27 (2025; percentages)

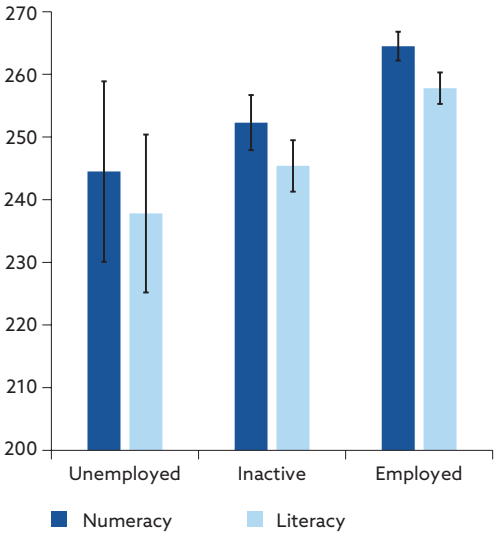


Source: Eurostat.

Over-qualification in Slovakia is far more of an issue among women than men. Nearly one in four Slovak women with a tertiary degree (23.9%) works below her qualification level, against one man in six (15.9%). That gap of eight percentage points is far larger than the EU-wide gap of barely one (21.4% vs 20.3%; Chart 105). Since women's measured skills are comparable to men's (see Section 5.4), the higher over-qualification rate among women is unlikely to reflect differences in ability. It is more plausibly linked to demand-side constraints and labour market frictions documented throughout this report: graduate employment is concentrated in Bratislava while many families are rooted elsewhere; flexible and part-time work remains scarce; parental interruptions are long; and childcare coverage is limited. These constraints affect women to a far greater extent, pushing many into jobs below their qualification level. The result is a double loss: Slovakia invests heavily in women's education but then fails to make full use of that human capital.

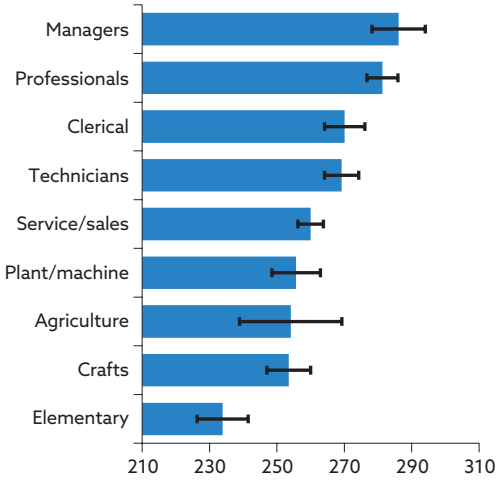
Degree mismatch does not mean that skills go unrewarded. Over-qualification and measured skills capture different dimensions of labour market outcomes. Over-qualification reflects the gap between a worker's educational attainment and the formal requirements of the job, while PIAAC measures actual skills and how they vary across labour market positions. The Slovak evidence is consistent with a clear skills gradient: employed adults score higher in both numeracy and literacy than do inactive and unemployed adults, and measured skills rise across the occupational ladder, from elementary occupations to professional and managerial roles. Skills therefore still appear to be associated with stronger labour market attachment and higher-skilled occupations. The issue is different: Slovakia seems to produce more graduates than the economy can absorb into graduate-level jobs, while differences in the quality of qualifications may mean that some degrees certify less skill than expected. As a result, formal credentials alone may not guarantee access to graduate jobs, and some tertiary-educated workers end up in positions below their qualification level, with women disproportionately affected.

Chart 106
PIAAC scores by labour market status



Sources: PIAAC 2023, and NBS calculations.

Chart 107
PIAAC numeracy score by occupation



Sources: PIAAC 2023, and NBS calculations.

5.7 Human capital and artificial intelligence

The advent of artificial intelligence raises, rather than lowers, the value of high-quality human capital. AI automates a growing share of routine cognitive tasks, shifting the premium towards higher-order skills such as judgement, problem framing and collaboration, and towards the ability to direct, evaluate and supervise the work of AI itself.[77] The capacity to use these tools effectively is itself a demanding skill that rests on solid foundations of knowledge and critical reasoning.

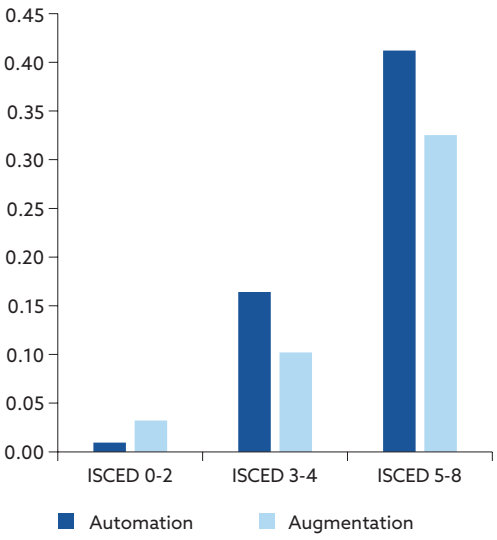
Slovakia enters the AI transition with high exposure among its best-educated workers and limited scope for augmentation. Occupations can be classified according to whether AI is more likely to substitute for workers' tasks or to complement them by raising productivity. A mapping of these categories by education level is provided in **Charts 108 and 109**. In Slovakia, exposure among workers with primary educational attainment is negligible, while exposure rises strongly with education. Among tertiary-educated workers, however, exposure is tilted towards automation: around 44% of employment is in occupations with high automation potential, compared with about 30% in occupations where AI is more likely to augment work. Czechia shows the opposite pattern among tertiary-educated workers, with around 26% of employment exposed to automation and 55% to augmentation.[78] Slovak tertiary-educated workers appear more likely than their Czech peers to perform routine, codifiable tasks with limited discretion, including within jobs that formally require higher education. This makes AI more likely to substitute for parts of their work rather than augment their productivity. Moreover, qualification mismatch may reinforce this pattern: some graduates work in jobs below their level of education, as shown in Section 5.6, exposing them further to routine tasks. Slovakia's AI exposure may therefore be shaped by two

[77] Deming, D. and Silliman, M., "Skills and human capital in the labour market", *Discussion Paper Series*, No 20/25, ROCKWOOL Foundation Berlin, June 2025.

[78] The definition of AI exposure closely follows André and Schief (2026): Using PIAAC 2023 data, workers are considered exposed to AI technologies if they report using computers or other electronic devices daily to access information, create or edit electronic documents, use specialised software, or write computer code. Among these workers, those with little discretion over how they perform their tasks are classified as exposed to AI automation, while those with greater discretion are classified as exposed to AI augmentation.

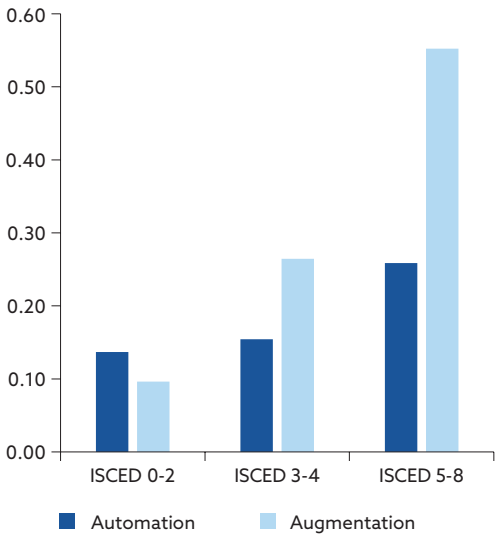
related but distinct factors: the task content of graduate work and the extent to which graduates are matched to jobs that fully use their qualifications.

Chart 108
Exposure to AI automation vs AI augmentation by education: Slovakia



Sources: NBS, and PIAAC.

Chart 109
Exposure to AI automation vs AI augmentation by education: Czechia



Sources: NBS, and PIAAC.

AI strengthens the case for better education quality. Recent experimental evidence shows that over-reliance on AI assistance can impair novices' acquisition of foundational skills (conceptual understanding, reading and debugging) even as it appears to raise short-run productivity.[79] Strong human capital is thus a precondition for a country to benefit from AI, not a substitute for it. For Slovakia, with declining PISA results, a thin top tail, a persistent brain drain and automation-tilted graduate employment, the AI era raises the stakes of the education-quality problem rather than relieving it. The economies best placed to capture AI's gains will be those whose workforces can complement it.

5.8 What should be studied

Effective policy needs better domestic evidence on what actually raises the quality of education. International research suggests that, within a school, the largest single influence on pupils' results is teacher quality,[80] yet Slovakia lacks domestic estimates of teachers' value added, of the returns to specific interventions, and of the drivers of its regional, social and gender gaps. The priorities for further analytical work should therefore be:

- estimating teachers' value added and the return to investment in teacher quality on Slovak data;
- identifying the causes of the extreme between-school segregation and the tools that effectively reduce it;

[79] Shen, J.H. and Tamkin, A., "How AI Impacts Skill Formation", arXiv:2601.20245, January 2026.
[80] Krajčová, J., Münich, D. and Protivínský, T., "Kvalita práce učitelů, vzdělanost, ekonomický růst a prosperita ČR" (The quality of teachers' work, educational attainment, economic growth and prosperity in the Czech Republic), *Study 5/2019*, Institute for Democracy and Economic Analysis (IDEA), June 2019.

- mapping in detail the regional gaps and the situation of marginalised Roma communities, who are under-represented in current data;
- understanding the drivers of the gender reversal, especially boys' early disengagement, and its labour market and demographic consequences;
- linking adult skills to health, ageing and labour market transitions in the PIAAC microdata, in step with Section 6 of this report (Special annex 2: Population ageing);
- tracking which occupations and graduates are gaining or losing tasks to AI, using linked labour force and administrative data; and
- evaluating policies to curb the brain drain and to encourage the return of educated emigrants.

5.9 Conclusions and policy implications

The quality of human capital is among the most important and, at the same time, most neglected structural challenges facing Slovakia. The country has essentially completed the quantitative expansion of education, but the quality of learning has been declining for over a decade, is extremely unequally distributed across schools, regions and social backgrounds, and is further eroded as the ablest young people leave to study abroad. A widening gender divide is reshaping family formation, household inequality and the labour market prospects of less-educated men, while the labour market underuses the education of the very group that now attains it most, women. The AI transition sharpens every one of these diagnoses.

The cross-country growth literature consistently finds that differences in test scores of the size Slovakia has lost since 2009, a third of a standard deviation, are associated over the long run with differences in growth paths worth many times any plausible cost of educational reform, and applications of this framework to neighbouring Czechia reach the same conclusion.[81],[82],[83] Two properties of those gains matter for policy more than their exact size: they are large, and they are slow. A school reform helps only the cohorts that pass through the reformed school, so its economic effect builds up over a working lifetime. That is exactly why the costs of educational decline are invisible in any single budget year, and why reform is so easy to postpone.

Improving the quality and equity of education would generate significant returns. This would mean reducing between-school segregation and regional disparities; supporting children from disadvantaged backgrounds; ensuring basic skills for all while broadening the currently thin top-performing group; addressing gender divides in both directions; and raising the quality of teaching, the most direct means available to policymakers to improve educational outcomes. In an era in which artificial intelligence further raises the value of high-quality, adaptable skills, improving education quality is not optional but a national priority for sustaining Slovakia's convergence. The sooner it begins, the sooner its slow-building returns will start to accrue.

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81 Hanushek, E.A. and Woessmann, L., "The Role of Cognitive Skills in Economic Development", *Journal of Economic Literature*, Vol. 46, No 3, 2008, pp. 607–668.

82 Hanushek, E. A., and Woessmann, L., The High Cost of Low Educational Performance: The Long-Run Economic Impact of Improving PISA Outcomes, PISA, Organisation for Economic Co-operation and Development (OECD), OECD Publishing, Paris, 2010/2015.

83 Münich, D. and Protivínský, T., "Dopad vzdělanosti na hospodářský růst: ve světle nových výsledků PISA 2012" (The impact of education on economic growth: in the light of the new PISA 2012 results), *Study 10/2013*, Institute for Democracy and Economic Analysis (IDEA), December 2013.

Five priorities follow directly from the evidence, ordered to combine the largest growth returns with the largest equity gains:

- build the domestic evidence base (teacher value added, the causes of segregation, the drivers and returns of migration, AI task exposure) so that scarce public resources are directed where they raise learning the most;
- reduce between-school segregation and early tracking, and steer the best teachers and additional resources to the weakest schools and lagging regions;
- invest early and in the disadvantaged, where the return to skill formation is highest, including pre-school access for marginalised communities, since skills beget skills;
- raise teacher quality through selection, training, pay and deployment, the lever most directly under public control;
- address the gender divide on both sides: pre-school care, flexible and part-time work so that educated women can work at their qualification level, and early support for boys' literacy and engagement.

6 Special annex 2: Population ageing: implications for productivity and business dynamism

6.1 Introduction

Labour markets across Europe are facing increasing structural pressures stemming from population ageing. Slovakia is no exception to this trend. The country's population reached its peak in 2020 and is not projected to grow further over the foreseeable horizon, reflecting a persistent population decline – with mortality rates significantly exceeding birth rates – and net migration inflows remaining insufficient to offset these demographic losses (NBS, *Structural Challenges 2024*).

These demographic developments provide a strong policy rationale for extending working lives, helping to sustain labour supply and ease mounting fiscal sustainability pressures on pension systems. At the same time, such measures contribute to a further rightward shift in the age distribution of the labour force, raising the median age of the active population. This compositional change may have broader macroeconomic implications for aggregate productivity, labour market dynamism, and ultimately economic growth.

As workers approach retirement age, their productivity may gradually diminish, particularly when their skills do not keep pace with fast-evolving labour markets characterised by rapid technological change. Moreover, older workers are less likely to make use of new technologies in their day-to-day work, slowing down their adoption in production processes. These workers may also face poorer health conditions, hindering their productive capacity. At the same time, a balanced workforce age structure within firms can generate complementarities between senior and younger workers, with positive effects on aggregate productivity. An appropriate mix of workers across age groups facilitates the transmission of firm-specific know-how, accumulated experience, and established best practices. Such intergenerational spillovers may help mitigate productivity losses associated with population ageing.

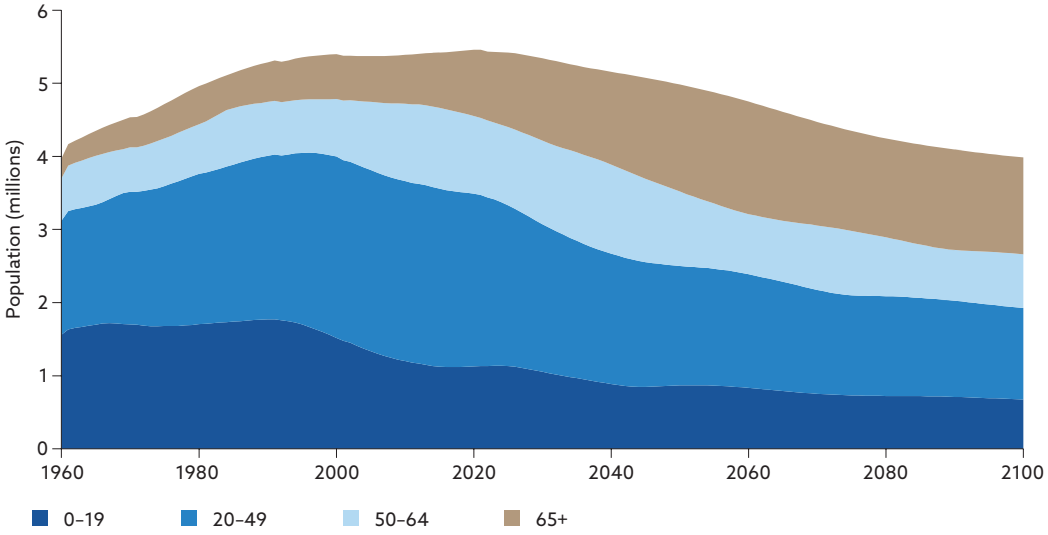
An ageing labour force negatively impacts labour market dynamics and business creation. Younger cohorts are more likely to switch jobs, contributing to higher levels of labour market dynamism. In addition, as older workers remain economically active for longer, entrepreneurial activity in the form of new business creation may slow down, potentially limiting the emergence of new ideas, products and innovative business models.

Migration and automation are two mechanisms through which labour markets and firms respond to the demographic pressures associated with population ageing. While migration could in principle alleviate labour shortages associated with an ageing workforce, evidence suggests that migrants are not systematically employed in the occupations most exposed to demographic pressures, limiting their scope in this regard. At the same time, ageing alters the relative supply of workers, potentially encouraging firms to substitute labour with capital. Recent research suggests that automation can emerge as a key margin of adjustment, as firms respond to labour shortages by increasing robot adoption.

6.2 The challenges

The Slovak population is ageing and is projected to continue doing so in the coming decades. Chart 110 illustrates past and projected population trends across four age groups: children and youth (0–19), younger and middle-aged working-age individuals (20–49), senior working-age individuals (50–64), and people aged 65 and over. Starting approximately in the late 1990s, declining fertility rates led to a reduction in the size of the youngest cohorts. At the same time, increases in life expectancy, together with ongoing demographic trends, have contributed to a rise in both the number and the relative share of older individuals. These trends are expected to persist, with the total population projected to decline to around 4 million by the end of the 21st century.

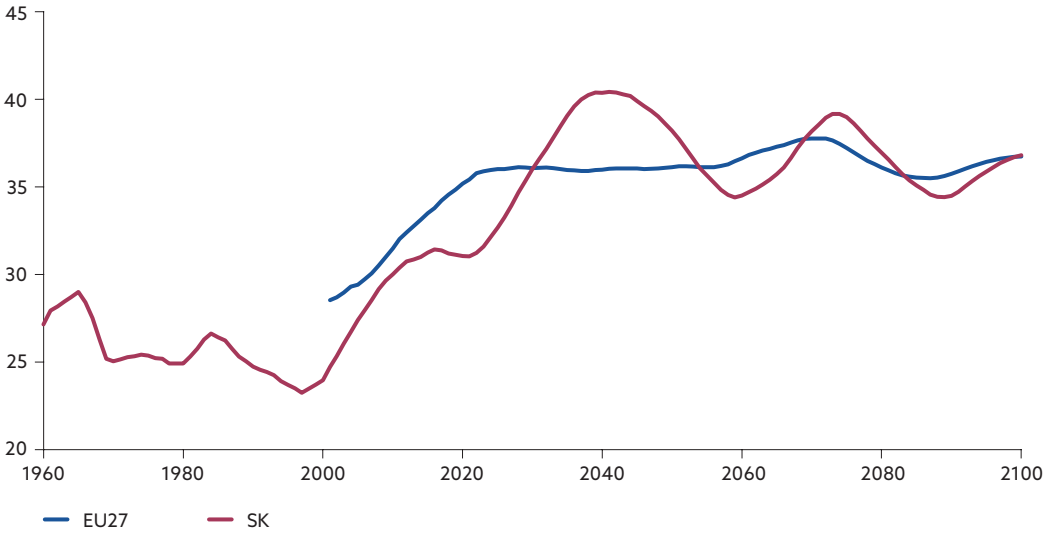
Chart 110
Population distribution by age group, Slovakia



Sources: Eurostat, and NBS calculations.
Note: From 2026 onwards, the projected year-on-year growth rates from EUROPOP2025 were applied to the historical population series, using the observed 2025 levels as the starting point.

Demographic trends are expected to increase the share of older individuals within the working-age population. Chart 111 shows the evolution of the share of the population aged 50-64 over the past 65 years, together with projections for the next 75 years. After a prolonged period of relative stability across European countries, this share started to increase from the late 1990s. In Slovakia, the share of the 50-64 population remained slightly below the EU in 2025 but is projected to rise more rapidly in the coming years, eventually exceeding the EU. It is expected to peak around 2040 and then fluctuate around levels close to the European average over the remainder of the projection horizon.

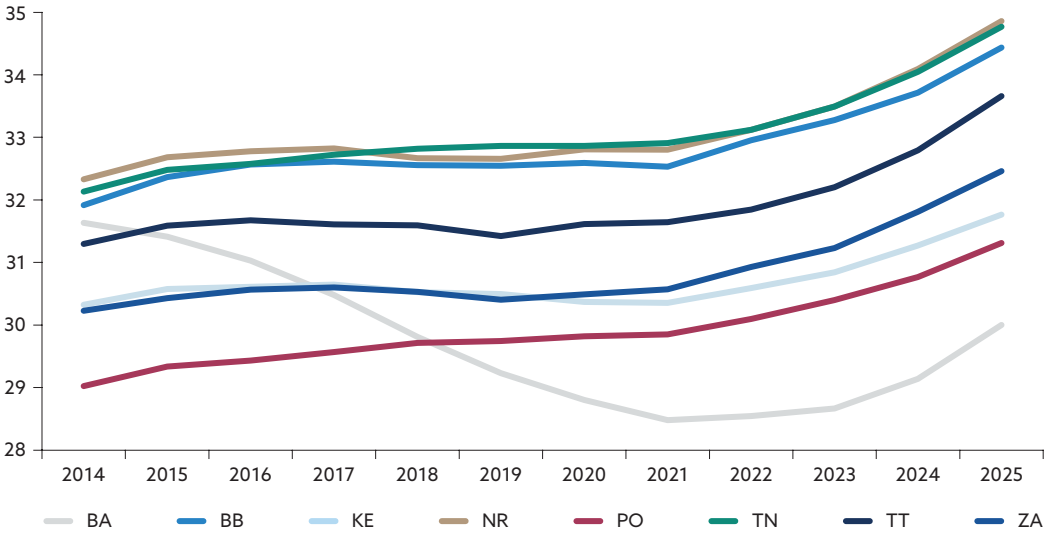
Chart 111
Share of the population aged 50-64 in the population aged 20-64: current, historical, and projected values



Sources: Eurostat, and NBS calculations.
Notes: Data from 2026 onwards are based on EUROPOP2025 projections.

Slovakia is therefore already experiencing a rebalancing of its population towards older age groups, and this trend is expected to continue over the next 15 years. Decomposing this variation across Slovak NUTS 3 regions over the past 15 years (Chart 112), we observe an increasing pattern in all regions except Bratislava, the country's most dynamic region, which attracts younger workers due to a higher number of job opportunities. Nevertheless, even for the Bratislava Region, the trend reversed in 2022.

Chart 112
Share of 50-64 population in 20-64 population in Slovak regions

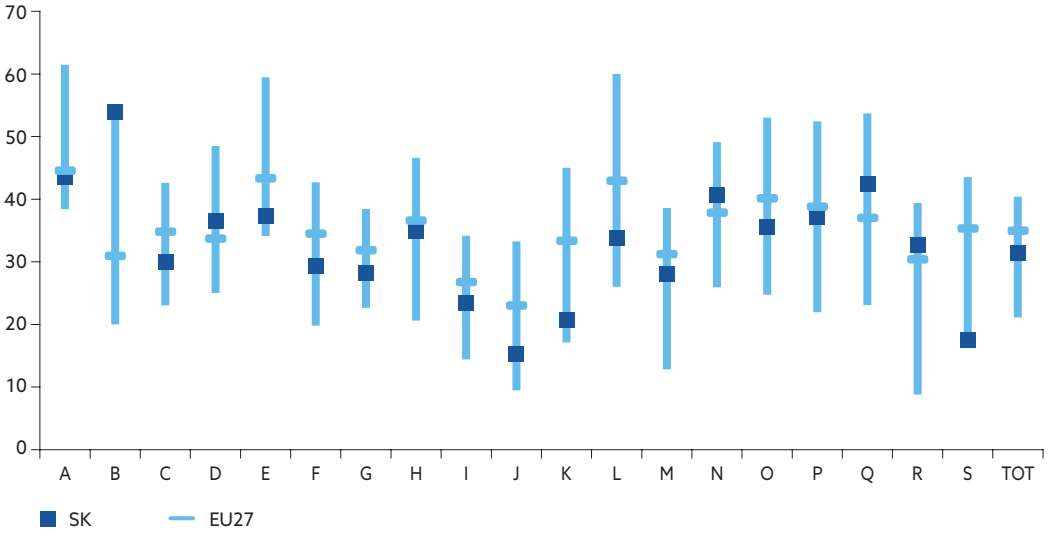


Sources: Eurostat, and NBS calculations.
Note: BA stands for Bratislava Region, TT for Trnava Region, TN for Trenčín Region, NR for Nitra Region, ZA for Žilina Region, BB for Banská Bystrica Region, PO for Prešov Region, and KE for Košice Region.

The compositional aspect of ageing across occupations and sectors is also relevant, as its effects may have different implications across occupations and industries. At first glance,

Chart 113 shows that, in most sectors, workers aged 50-74 account for roughly 30-40% of total employment. The main outliers are agriculture (A), mining and quarrying (B), administrative and support service activities (N), and human health and social work activities (Q), where higher shares are observed (more than 40% of workers aged 50-74). However, the first two sectors have been undergoing a long-term decline in economic importance. At the other end of the spectrum, information and communication (J), where around 15% of workers are aged 50-74, other service activities (S), financial and insurance activities (K), and accommodation and food service activities (I) display the lowest proportions of older workers. Some of these sectors have also recorded stronger employment growth, which may point to a greater capacity to absorb younger cohorts entering the labour market, although this cannot be inferred from the age composition alone. Comparing Slovakia with the EU average, the former exhibits a lower share of workers aged 50-74 both in the overall economy and in 14 of the 19 sectors. In particular, the age structure of high-skill service sectors in Slovakia, such as information and communication (J), financial and insurance activities (K), and professional, scientific and technical activities (M), shows a relatively smaller proportion of older workers than the EU average.

Chart 113
Share of workers aged 50-74 by NACE sector, 2024



Sources: Eurostat, and NBS calculations.
Notes: The y-axis shows the percentage of workers aged 50–74 relative to the total employed population aged 15–74. Vertical bars denote range of values across EU countries. The data point for NACE sector 'B' corresponds to 2020, the most recent year available.

Slovakia follows ageing trajectories that are broadly similar to those observed for the EU average. Workforce ageing is observed across most economic sectors in both Slovakia and the EU. As seen in Chart 114, the steepness of these trends, however, varies substantially across sectors, indicating significant heterogeneity in the rate at which workforce ageing has unfolded at the sectoral level. Focusing on Slovakia, financial and insurance activities (K) and accommodation and food service activities (I) exhibit more rapid ageing, with index-based evidence pointing to an almost doubling of the share of older workers over the period considered. These are followed by wholesale and retail trade (G) and mining and quarrying (B), although the latter should be interpreted with caution given the scarcity of data and the specific characteristics of the sector. Leaving aside mining and quarrying, the faster-ageing sectors may be those where longer working lives are relatively more feasible, possibly contributing to a higher retention of older workers.

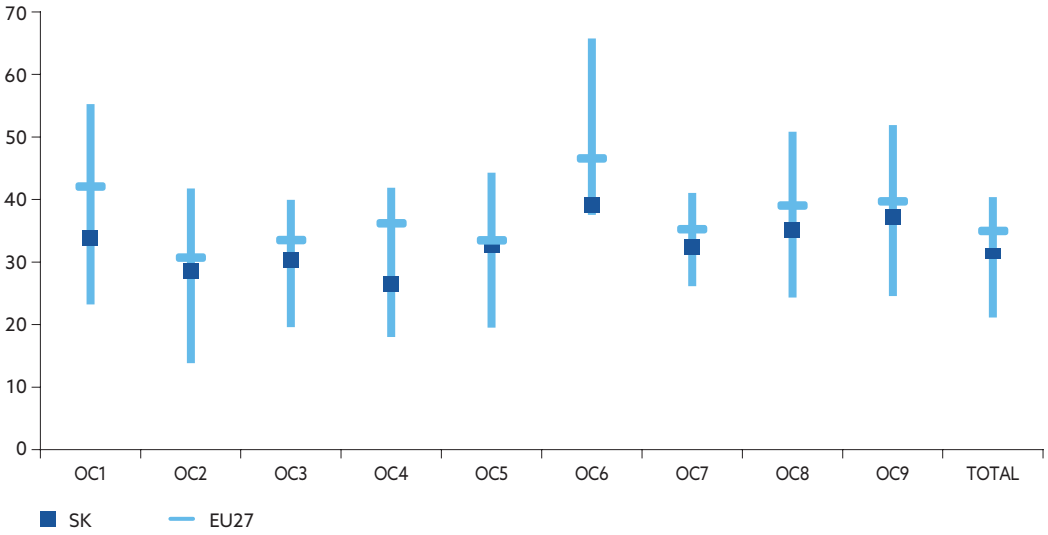
Chart 114
Evolution of the share of workers aged 50 and over by NACE sector



Sources: Eurostat, and NBS calculations.
Note: The y-axis shows the percentage of workers aged 50–74 relative to the total employed population aged 15–74.

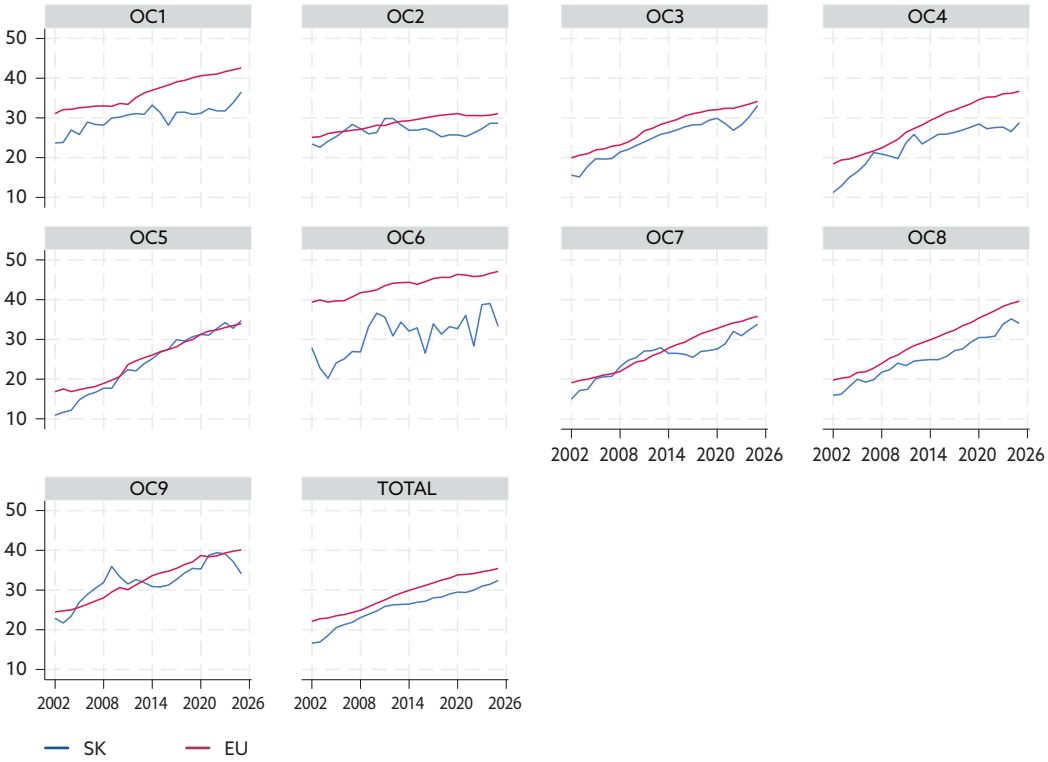
Ageing trends appear less heterogeneous across occupations than across sectors. Chart 115 highlights two main points. First, Slovakia records a lower share of workers aged 50-74 than the EU average in most occupations. Second, the variation in the proportion of workers aged 50-74 across occupations within Slovakia is relatively limited, ranging from roughly 27% to 39%. Chart 116, which tracks the evolution of the share of older workers by occupation since 2002, shows that Slovakia has broadly followed the ageing trends observed in the rest of the EU, but some occupations continue to display lower shares, indicating the persistence of some gaps despite broad convergence over time.

Chart 115
Share of workers 50 and over by occupation, 2024



Sources: Eurostat, and NBS calculations.
Notes: The y-axis shows the percentage of workers aged 50–74 relative to the total employed population aged 15–74. Vertical bars denote range of values across EU countries. OC1 refers to managers; OC2 to professionals; OC3 to technicians and associate professionals; OC4 to clerical support workers; OC5 to service and sales workers; OC6 to skilled agricultural, forestry and fishery workers; OC7 to craft and related trades workers; OC8 to plant and machine operators and assemblers; and OC9 to elementary occupations.

Chart 116
Evolution of the share of workers aged 50 and over by occupation



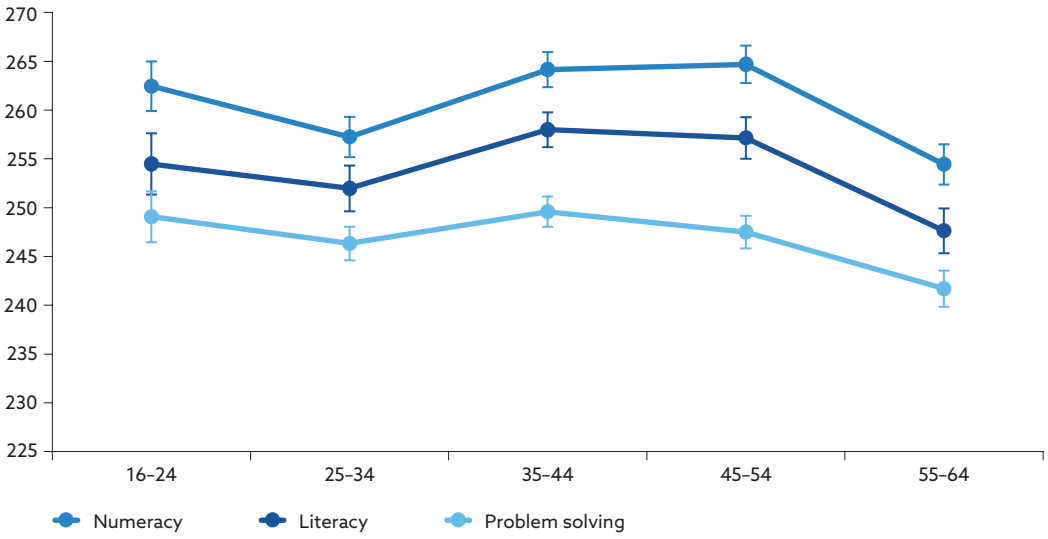
Sources: Eurostat, and NBS calculations.
Notes: The y-axis shows the percentage of workers aged 50–74 relative to the total employed population aged 15–74. OC1 refers to managers; OC2 to professionals; OC3 to technicians and associate professionals; OC4 to clerical support workers; OC5 to service and sales workers; OC6 to skilled agricultural, forestry and fishery workers; OC7 to craft and related trades workers; OC8 to plant and machine operators and assemblers; and OC9 to elementary occupations.

6.3 Impacts

6.3.1 Labour productivity

Productivity-related skills decline with age. While earnings tend to increase steadily until the end of working life, evidence suggests that individuals' job performance typically rises during the first years after labour market entry, before declining towards the end of their careers (Skirbekk, 2004). Chart 117 points to this pattern by presenting average scores in three domains assessed by PIAAC: numeracy, literacy, and problem solving. In each domain, average performance reaches its highest level among individuals aged 35–44 and its lowest level among those aged 55–64. While these test scores do not measure labour productivity directly, they capture cognitive and problem-solving abilities that are closely related to workers' productive capacity. This pattern is also consistent with standard life-cycle models of human capital accumulation in which individuals acquire and build skills during the early and middle stages of their working lives, while incentives to invest in human capital decline as workers approach retirement and their expected remaining labour market horizon shortens (Ben-Porath, 1967; Fan, Seshadri and Taber, 2024).

Chart 117
Cognitive abilities by age group, Slovakia



Source: OECD PIAAC 2023.
Notes: Bars denote 95% confidence intervals.

As workers approach retirement age, they may find it more difficult to keep pace with technological change, particularly in sectors and occupations more exposed to labour-augmenting technologies. At the same time, a balanced age distribution in firms' workforce structure can support the transmission of firm-specific know-how and established best practices, which can mitigate productivity losses associated with ageing. Recent empirical evidence is mixed. Aiyar, Ebeke and Shao (2016) find that workforce ageing is associated with lower productivity growth in Europe. By contrast, using data on production errors from the assembly line of a large car manufacturer, Börsch-Supan and Weiss (2016) find that productivity does not decline, at least up to age 60. However, it is unclear whether these findings remain valid for more cognitively intensive occupations. The effect of an older workforce on labour productivity is therefore a priori ambiguous.

Based on a simple descriptive analysis, a higher share of older workers appears to be associated with lower labour productivity, both per worker and per hour worked. Table 2 reports the coefficients from regressions of labour productivity per worker and per hour worked on the share of older workers, defined as workers aged 55-74 as a proportion of total employment aged 15-74. The analysis uses sectoral data across EU countries, combining information from the Labour Force Survey (LFS) and National Accounts. The results indicate that a ten-percentage-point increase in the share of workers aged 55-74 is associated with a decline of approximately 0.74 points in the labour productivity per worker index and 0.68 points in the labour productivity per hour worked index, with productivity measured relative to the 2015 base year. The empirical specifications include country and year fixed effects, which control for time-invariant cross-country heterogeneity and common shocks over time. These estimates should be interpreted as conditional correlations rather than causal effects. However, related causal evidence on the effects of workforce ageing is documented by Kotschy and Bloom (2023) and Maestas et al. (2023).

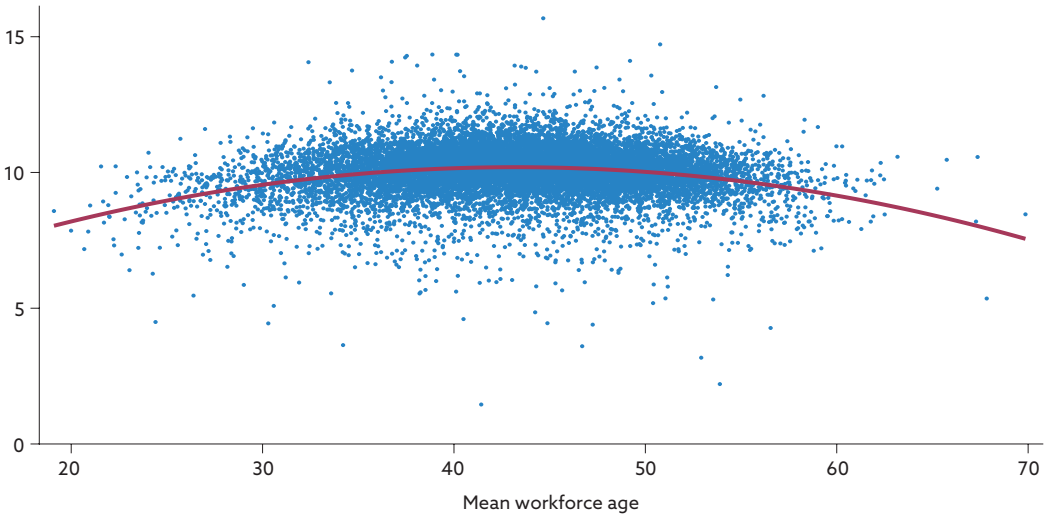
Table 2
Regression results: labour productivity per worker and per hour
(Dependent variables: labour productivity per worker (1), labour productivity per hour (2))

	(1)	(2)
Share of older workers	-0.074**	−0.068*
	(0.036)	(0.037)
Constant	103.750***	104.405***
	(0.685)	(0.693)
Country fixed effects	Yes	Yes
Year fixed effects	Yes	Yes
R squared	0.081	0.104
Observations	6,455	6,455

Sources: Eurostat, and NBS calculations.
Notes: Standard errors are reported in parentheses. The share of older workers is defined as the proportion of employed individuals aged 55–74 within the total employed population aged 15–74. Labour productivity is expressed as an index, 2015 = 100. Asterisks indicate p-values, with: *** p<0.01, ** p<0.05, * p<0.1.

Firm-level evidence for Slovakia suggests that labour productivity peaks when the average age of a firm's workforce is approximately 42 years. The analysis combines administrative data from the Slovak Social Insurance Agency with firm-level financial information from FinStat. The former provides data on firms' average workforce age and firms' size, while the latter provides firms' value added, age, and location. Labour productivity is measured as value added per employee, computed as a firm's value added divided by its average number of employees over the year. The analysis is conducted on a cross-section of firms observed in 2023. The sample is restricted to firms reporting strictly positive value added and employing at least ten workers on average over the year, hence excluding micro firms. Chart 118 plots an inverted U-shaped relationship between the average age of a firm's workforce and its labour productivity, unconditional on other firm-level characteristics. In a subsequent step, we examine this relationship in greater detail, while still descriptively, by estimating a firm-level regression of labour productivity on a quadratic specification of mean workforce age, controlling for sector and district fixed effects, firm age, and firm size. The results, reported in Table 3, indicate that labour productivity is highest for firms with a mean workforce age of 42. According to the EUROPOP projections, the average age of the working-age population is expected to increase by roughly one year between 2023 and 2040. Evaluated at the sample mean (approximately 43.5 years), a simple back-of-the-envelope calculation indicates that this would translate into a 0.65% decline in labour productivity.

Chart 118
Log-labour productivity per person vs workforce age



Sources: Sociálna Poisťovňa (Social Insurance Agency), FinStat, and NBS calculations.
Notes: The figure includes firms with at least 10 employees in both data sources and strictly positive value added.

Table 3
Regression results: log labour productivity per worker and workforce age
Dependent variables: log labour productivity per worker (1)

	(1)
Mean employee age	0.183***
	(0.010)
Mean employee age squared	-0.002***
	(0.000)
Constant	6.160***
	(0.231)
Sector fixed effects	Yes
District fixed effects	Yes
Firm size fixed effects	Yes
Firm age fixed effects	Yes
R squared	0.390
Observations	13,905

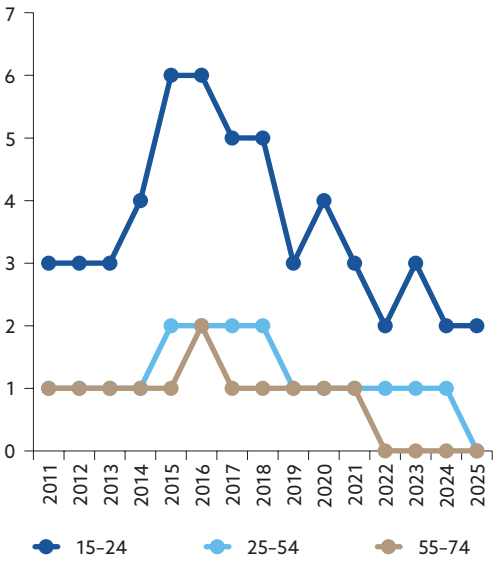
Sources: Sociálna Poisťovňa (Social Insurance Agency), FinStat, and NBS calculations.
Notes: Standard errors are reported in parentheses. The figure includes firms with at least 10 employees and with strictly positive value added. Fixed effects include 5-digit sectors and 79 districts. Dummies are: firm size – small (10-49 employees), medium (50-249 employees), large (250+ employees); firm age brackets – 0-2, 3-4, 5-9, 10-13, 14+. Time period = 2023. Asterisks indicate p-values, with: *** p<0.01, ** p<0.05, * p<0.1.

6.3.2 Labour market dynamism and business creation

An ageing labour force may also have a negative impact on labour market dynamism with possible repercussions for labour productivity growth. Older cohorts are typically less likely to switch jobs (because of, for example, family ties, homeownership, job security) as illustrated in Charts 119 and 120, thereby contributing to lower levels of labour market dynamism. Higher job-to-job mobility enhances productivity growth, by allowing firms and workers to find the best

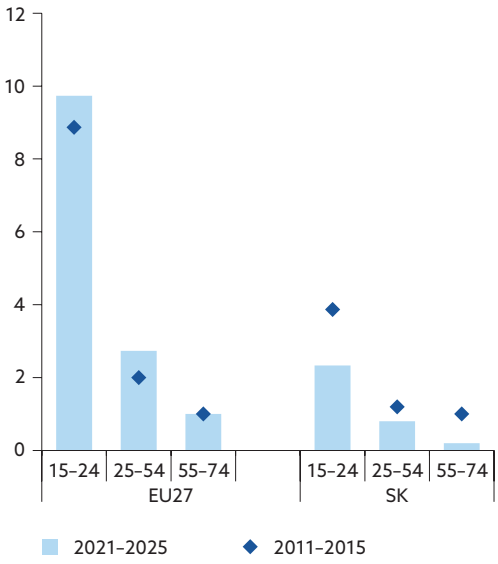
fit for each other. According to the OECD (2025), job-to-job mobility contributed 0.9 percentage points to productivity growth between 2000 and 2019, while job reallocation (also including employment-to-non-employment transitions) accounts for 41% of the cross-country variation in productivity growth. Chart 119 shows a declining trend in job-to-job mobility in Slovakia across all age groups over the past decade, pointing to a generalised slowdown in labour market dynamism. This trend is not observed in the rest of Europe on average, where, as shown in Chart 120, job-to-job transition rates have increased mildly over the same period. Chart 120 also shows two other important facts: (i) compared with the EU average, Slovakia is characterised by lower overall job-to-job transition rates; and (ii) in both Slovakia and the EU, job-to-job mobility is higher among younger cohorts. Among the other V4 countries (not shown in the charts), job-to-job transition rates follow a similar structure across age groups, with mobility rates decreasing from young workers to prime-age and older workers. However, job-to-job mobility rates vary considerably within the V4 countries, with Slovakia recording the lowest transition rates in the group.

Chart 119
Job-to-job transition rate – Slovakia



Source: Eurostat.
Note: Annual averages of estimated quarterly transition probabilities, expressed in percent.

Chart 120
Job-to-job transition rate – EU and Slovakia



Sources: Eurostat, and NBS calculations.
Note: Bars refer to the mean value for the 2021–2025 period; diamonds refer to 2011–2015.

A higher share of young workers is associated with higher job-to-job mobility. In Table 4, we regress job-to-job transition rates across EU countries on the share of young workers, defined as the proportion of employed individuals aged 15–29 relative to total employment among individuals aged 15–74. The period covered extends from 2011 to 2025. The results indicate that a one percentage point increase in the share of young workers is associated with about a 0.2 percentage point increase in the job-to-job transition rate.

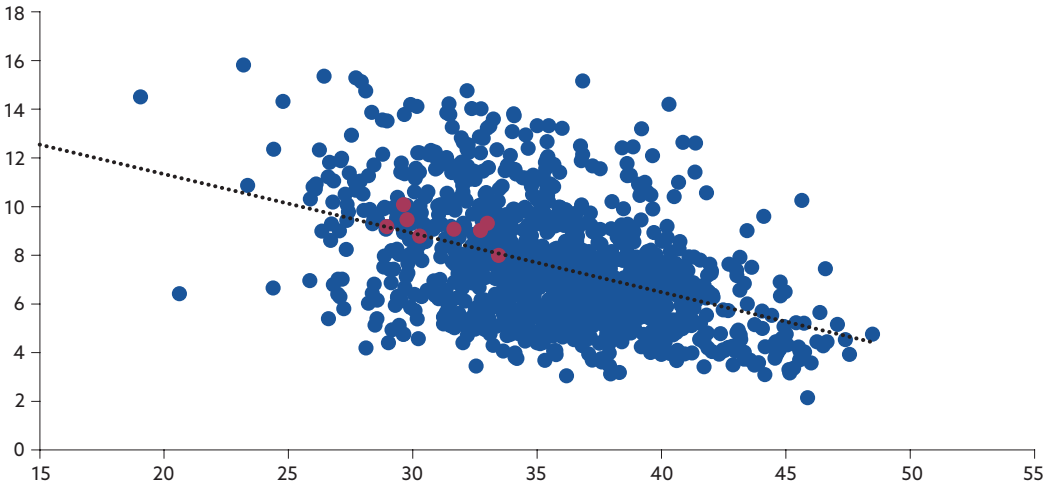
Table 4
Regression results: job-to-job transition rate
Dependent variables: job-to-job transition rate (1)

	(1)
Share of young workers	0.189***
	(0.028)
Constant	−0.791
	(0.500)
Country fixed effects	Yes
Year fixed effects	Yes
R squared	0.816
Observations	367

Sources: Eurostat, and NBS calculations.
Notes: Standard errors are reported in parentheses. The share of young workers is defined as the proportion of employed individuals aged 15–29 within the total employed population aged 15–74. Asterisks indicate p-values, with: *** p<0.01, ** p<0.05, * p<0.1.

Population ageing also has important implications for business dynamism, particularly through its effects on firm creation. In labour markets characterised by a higher share of older workers, incumbent employees tend to be less mobile and thus less likely to switch jobs, reducing the pool of potential recruits for newly created firms. Moreover, young firms often search for workers with skills linked to new technologies. These workers may become relatively scarcer as labour supply shifts towards older cohorts. Chart 121 illustrates a clear negative association between the rate of new business formation and the share of older workers in local labour markets. Areas with a higher proportion of older workers tend to exhibit lower firm birth rates, suggesting that demographic structure may affect entrepreneurial dynamism. Regressing enterprise birth rates on the share of population aged 55–74 over the total population aged 15–74 across NUTS 3 regions in the EU, we estimate that a 1 percentage-point increase in the share of the senior population is associated with a 0.24 percentage-point lower business creation rate. This relationship is economically relevant given that the average enterprise birth rate in the sample is approximately 7.67%. Since the standard deviation of the share of older individuals is around 4 percentage points, a one-standard-deviation increase in this share would correspond to an estimated decline in the enterprise birth rate of roughly 1 percentage point. Nevertheless, Slovak regions appear to perform better than predicted by this relationship, as all red dots lie above the fitted line.

Chart 121
Business creation and ageing



Sources: Eurostat, and NBS calculations.
Notes: Dark blue dots represent European NUTS 3 regions, while red dots denote Slovak NUTS 3 regions. The x-axis shows the share of the population aged 55–74 within the total population aged 15–74, and the y-axis shows enterprise birth rates (in percent). Year: 2023.

6.4 Adaptations: migration, technology and youth labour market participation

Slovakia's population ageing is leading to a gradual narrowing of the domestic working-age population, increasing the relevance of activating segments of the labour supply that are currently underutilised. Some room for improvement remains, particularly among younger workers and, to a lesser extent, people over 60, while further gains could also come from groups with weaker labour market attachment, including low-skilled workers, who are more exposed to long-term unemployment. Higher participation among these underutilised segments could partly ease the labour market pressures associated with ageing, although it would not fully offset the underlying demographic challenges.[84]

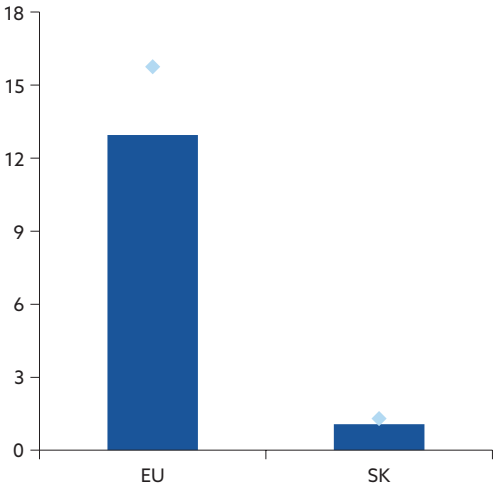
Migration could, in principle, also help mitigate the labour market pressures associated with an ageing population. A key question, however, is whether the occupations and sectors more exposed to population ageing are also those that attract higher shares of foreign workers. Put differently, are foreign workers filling labour market shortages associated with adverse demographic trends? While we cannot directly assess the impact of ageing on labour shortages, we descriptively examine whether the occupations and sectors most exposed to population ageing are also those that employ higher shares of migrants.

Foreign-born workers account for a small share of total employees in Slovakia.[85] In 2025 foreign-born residents –who both reside and work in Slovakia – accounted for around 1.3% of total employment according to the Eurostat definition (see Chart 122). When the second generation (native-born individuals with one or both parents born abroad) is included, the share of non-native workers approximately doubles, but remains low compared with the European average (roughly

[84] Národná banka Slovenska, *Structural Challenges 2024*.
[85] Note that the choice between total employment and total employees has a negligible impact on the estimated share of migrants.

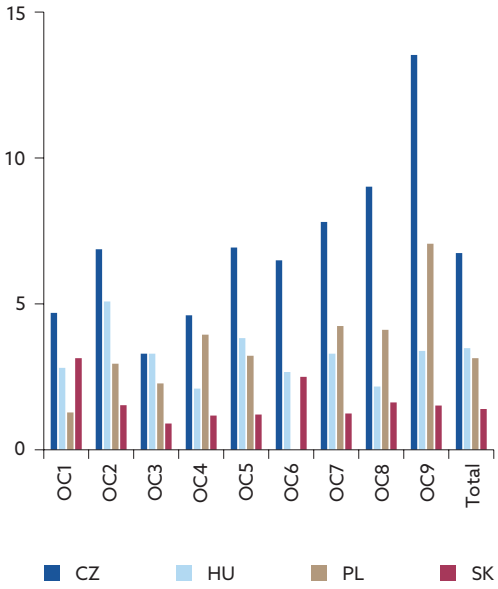
one-tenth). Moreover, this share has remained broadly stable over the past five years, while it has increased moderately in the rest of the EU. However, data from Slovakia's Social Insurance Agency indicate that the number of foreign citizens employed in Slovakia increased significantly between 2021 and 2025, with Ukrainian nationals accounting for around two thirds of the overall rise. However, even when considering this alternative source, the share of migrants in total employment remains relatively low compared with other EU countries, including regional peers.

Chart 122
Share of foreign-born workers (first generation) in total number of employees



Sources: Eurostat, and NBS calculations.
Note: Bars refer to 2025; diamonds refer to 2021.

Chart 123
Share of foreign workers by occupation, 2025



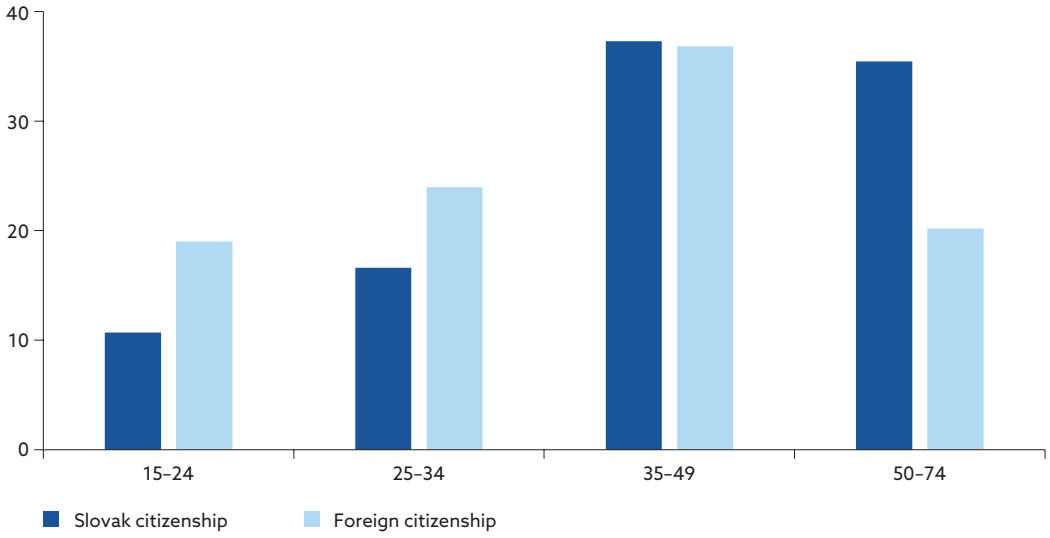
Sources: Eurostat, and NBS calculations.
Notes: Numbers for foreign workers in Slovakia were obtained by assuming that unknown responses were similarly distributed across missing occupational categories, as in non-missing ones. For Slovakia, the residual category (unknown responses) for non-missing occupations always reports zero; therefore, the number of foreigners working in Slovakia should be interpreted as an upper bound. The age group considered is 15–74. Data for PL is not available for the OC6 category.

Migration is helping ease labour market pressures, with the benefits concentrated in selected occupations and sectors. Chart 115 shows that, with a few exceptions – notably skilled agricultural, forestry and fishery workers, and elementary occupations – the share of older workers varies only modestly across occupations. Hence, ageing pressures are relatively broad-based across the occupational structure, rather than concentrated in a few specific segments of the labour market. By contrast, Chart 123 shows that while migrant employment in Czechia and in Poland is concentrated in a limited number of occupations, the share is more homogenous in Slovakia and Hungary. Moreover, for the latter, elementary occupations, despite having a relatively high share of older workers, do not attract a proportionate share of migrants. This points to a mismatch between the occupational distribution of migrant employment and the distribution of demographic ageing pressures. In other words, while ageing affects most occupations relatively evenly, migrant employment remains concentrated in selected segments of the labour market, indicating room for improvement in this dimension.

Foreign workers are generally younger than native workers, but they are also more likely to sort into sectors that tend to employ younger workers overall. Chart 124 shows that migrant employment contributes to lowering the average age of the Slovak labour force. However, Chart 125 indicates that migrants are also disproportionately employed in sectors that are already characterised

by a younger age structure. One possible explanation is that these sectors are more dynamic, exhibit stronger employment growth and generate a larger number of vacancies, thereby attracting both more native and foreign workers. Nevertheless, this evidence suggests that sectors more exposed to population ageing are not those attracting the largest shares of migrants. A caveat to bear in mind when interpreting these figures is that some sectors are mostly involved with the public part of the economy, such as O, P and Q. In addition, employment agencies are classified under sector N.[86] Since many foreign workers in Slovakia are formally employed by these agencies while working in firms operating in other sectors, this inflates the recorded share of foreigners employed in sector N and may partly distort the observed sectoral distribution of foreign workers across the rest of the economy.

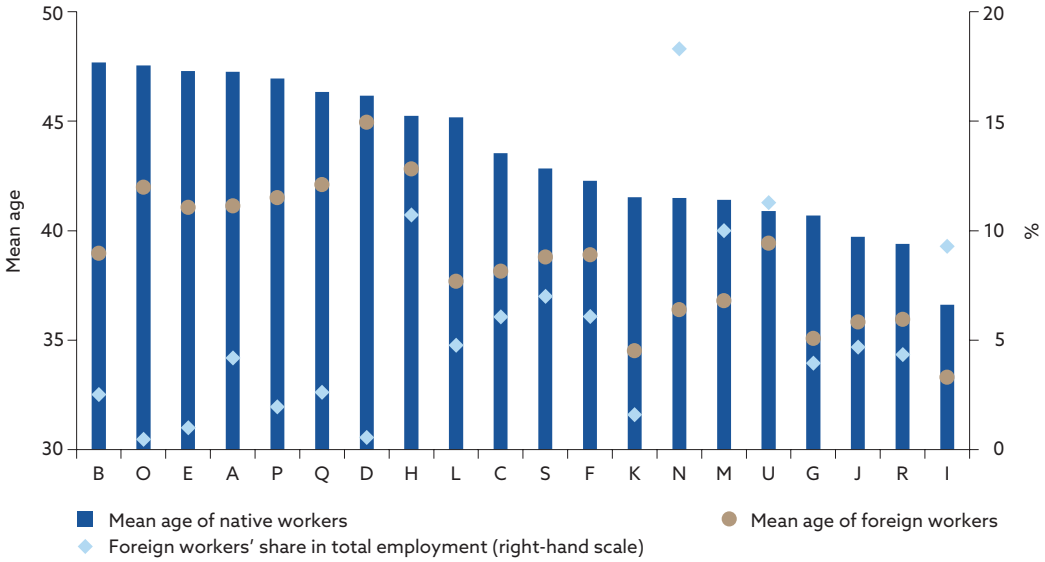
Chart 124
Employment shares by age and citizenship, 2025



Sources: Sociálna Poisťovňa (Social Insurance Agency), and NBS calculations.
Notes: Bars represent the share of employees allocated to each age bracket, expressed as a percentage of the total within each citizenship category.

[86] Sector codes O, P, Q and N denote, respectively: public administration and defence, including compulsory social security; education; human health and social work activities; and administrative and support service activities.

Chart 125
Mean age of native and foreign workers, and share of foreign workers in total employees, by sector, 2025

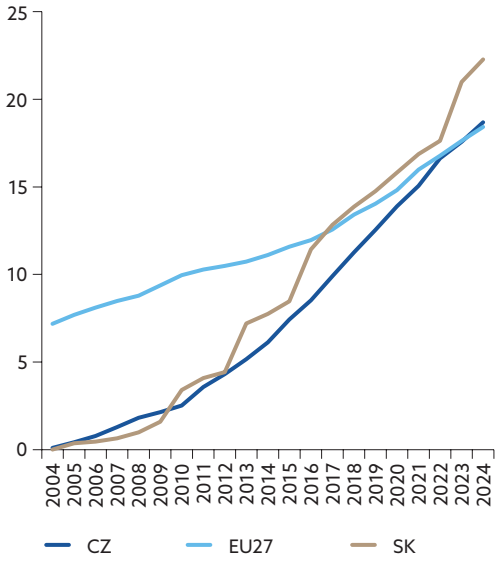


Sources: Sociálna Poisťovňa (Social Insurance Agency), and NBS calculations.
Notes: For each sector, bars denote the mean age of native workers, dots denote the mean age of foreign workers, and diamonds denote foreign workers' share in total employees. Sector letters denote sections of NACE Rev. 2. A – agriculture, forestry and fishing; B – mining and quarrying; C – manufacturing; D – electricity, gas, steam and air conditioning supply; E – water supply; sewerage, waste management and remediation activities; F – construction; G – wholesale and retail trade; repair of motor vehicles and motorcycles; H – transportation and storage; I – accommodation and food service activities; J – information and communication; K – financial and insurance activities; L – real estate activities; M – professional, scientific and technical activities; N – administrative and support service activities (including employment agencies); O – public administration and defence; compulsory social security; P – education; Q – human health and social work activities; R – arts, entertainment and recreation; S – other service activities; U – activities of extraterritorial organisations and bodies.

Automation is another possible way to help alleviate the labour market pressures associated with ageing. Automation reduces the amount of labour required for jobs intensive in manual and routine tasks. In response to these demographic changes and the relative scarcity of young and prime-age workers, firms may increase their adoption of automation technologies, such as industrial robots, with potentially positive effects on TFP (Acemoglu and Restrepo, 2022).

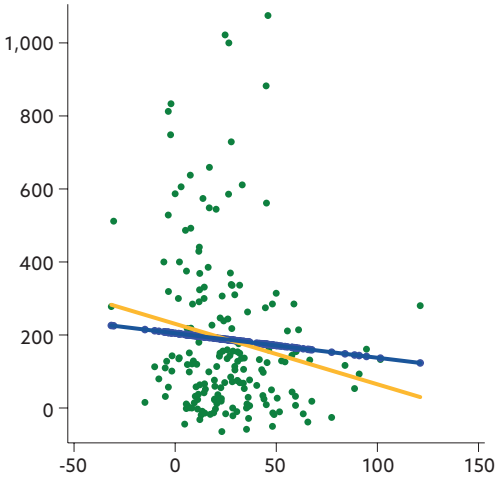
The Slovak economy has been catching up in the use of automation technologies. As automation is difficult to measure directly, we rely on data on the number of industrial robots reported by the International Federation of Robotics. We construct a measure of robot density by dividing the stock of robots in manufacturing by the number of workers employed in the sector. As shown in Chart 126, robot density increased faster in Slovakia than in the EU over the past two decades, closing the gap and eventually surpassing it.

Chart 126
Robot density in manufacturing



Sources: International Federation of Robotics, Eurostat, and NBS calculations.
Notes: Manufacturing refers to NACE sector C. Values on the y-axis are in thousands.

Chart 127
Growth in robot density and older-worker share in manufacturing sectors (2015–2024)



Sources: International Federation of Robotics, Eurostat, and NBS calculations.
Notes: The y-axis reports percentage growth in the number of industrial robots per 1,000 workers across two-digit manufacturing sectors in EU countries. The x-axis reports growth in the share of older workers, defined as workers aged 50–74 as a percentage of the total employed population aged 15–74. The blue line connects the fitted values (the blue dots) from a regression of robot growth on growth in the share of older workers, controlling for two-digit sector fixed effects. The yellow line shows the unconditional correlation between the two variables.

Robot adoption appears to be more closely related to sector-specific factors than to demographic pressures. In the following analysis, we seek to assess whether firms respond to labour market shortages associated with population ageing by substituting labour with robots. While we do not directly tackle this question using microdata or through a rigorous causal analysis, we address it descriptively by calculating the growth in the stock of robots and the growth in the share of older workers across two-digit manufacturing sectors in EU countries over the 2015–2024 period. We then examine the correlation between these two variables, first unconditionally and then controlling for two-digit sector fixed effects, which account for differences in unobservable characteristics across manufacturing subsectors. Chart 127 suggests that, once sector-specific differences are taken into account, the relationship is not statistically significant, indicating that robot adoption is more closely related to sector-specific demand than to demographic pressures. More granular data would be needed to identify a causal relationship between population ageing, sectoral labour shortages and, subsequently, firms substituting labour with robots.

6.5 Conclusions and policy implications

Population ageing is one of the main structural challenges for the Slovak economy. Workforce ageing has become pervasive across sectors and occupations over the last two decades, as the share of older workers has increased across the labour force.

A direct implication is a smaller and older labour supply, while the impact on productivity is less straightforward. Sectoral evidence suggests that a higher share of older workers is associated with lower value added per worker. At the firm level, however, the relationship is an inverted U-shape: productivity peaks when the average age of the workforce is around 42. This evidence disregards the possible benefits of having an age-diverse firm workforce, where young workers can learn from more experienced ones. We believe this aspect deserves further attention in future research. Labour market dynamics and business dynamism are also negatively affected by population ageing: a shift in the age composition of the workforce towards older workers reduces job mobility and discourages business creation.

Migration and technology adoption are two potential responses to the demographic pressures on the labour market. However, the evidence suggests that neither channel is yet fully at play in Slovakia. While migrants are on average younger than native workers, they are not concentrated in the sectors and occupations with the highest shares of older workers. Robot adoption has also risen significantly in Slovakia and across Europe over recent decades, but the increase does not appear to have been stronger in the sectors most affected by ageing.

Policies should support longer and more productive working lives while strengthening the economy's capacity to adapt. Ageing is a global policy challenge, and relevant lessons can be drawn from the existing evidence base and policy recommendations developed by international institutions (André, Gal and Schief, 2024; OECD, 2020; OECD, 2025; OECD, 2026). It will be necessary to make longer working careers healthy and sustainable, by supporting adaptation and flexibility that allow older workers to participate in the labour market. Improving continuous skill renewal for workers through lifelong education and retraining will be key in maintaining a productive workforce. Age-inclusive hiring and management practices must be broadly implemented. Finally, labour market policies should be complemented by measures that facilitate migration and technology adoption, helping ease ageing-related pressures in affected sectors.

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7 Methodological annex

Indicators are grouped by the report's sections and policy pillars. The framework shows Slovakia's relative strengths and weaknesses among comparable economies. It does not provide an absolute measure of policy performance or set a policy target. Results should therefore be read together with the economic analysis in the relevant section.

Scoring individual indicators

Each indicator is converted to a common scale from 0 to 100. Indicators are oriented so that a higher score always represents a more favourable relative position. A score of 100 means the best position within the benchmark range; it does not mean that performance is perfect.

In the equations below, *S* is the benchmark score, *x* is the observed value, *L* is the lower benchmark bound and *U* is the upper benchmark bound. The subscripts identify the indicator, country and year.

Where higher values are more favourable, the score is calculated as:

$$S_{i,c,t} = 100 \times \frac{x_{i,c,t} - L_{i,t}}{U_{i,t} - L_{i,t}} \quad (1)$$

Where lower values are more favourable, the direction is reversed:

$$S_{i,c,t} = 100 \times \frac{U_{i,t} - x_{i,c,t}}{U_{i,t} - L_{i,t}} \quad (2)$$

Managing extreme values

The benchmark limits are based on peer observations that fall within two standard deviations of the peer-group mean. This prevents a single extreme observation from stretching the scale and compressing differences between most countries. Observations outside these limits remain in the comparison, but their scores are capped at 0 or 100.

Constructing pillar results

Summary comparisons use the latest usable observation for each indicator. Each pillar is represented by its designated lead indicator. Where a pillar has several lead indicators, their scores receive equal weight.

Lead indicators used in the report

The indicators below drive the pillar-level benchmarking summaries. They are grouped in report order to make clear which evidence underpins each section.

Section 2: Drivers of growth

Pillar	Lead indicator(s)
Physical capital and infrastructure	Gross fixed capital formation
Human capital	Tertiary educational attainment; Public expenditure on education
Labour market dynamics	Unemployment rate; Employment rate; Job-to-job transitions
Labour market participation	Activity rate; Long-term unemployment
Technology and innovation	Business R&D; EPO patent applications
Business sector	Export value added; Employment in high-growth firms; Business churn
Governance	Government effectiveness; Regulatory quality; Rule of law; Control of corruption; Product market regulation

Section 3: Resilience and sustainability

Pillar	Lead indicator(s)
Macroeconomic risks	GDP growth volatility (5-year average); Average inflation (5-year average)
Fiscal sustainability	S2 indicator
Financial sector	Private sector debt; Non-performing loans; Banking leverage
External position	Nominal unit labour costs; Real effective exchange rate
Climate sustainability	Greenhouse gas emissions per inhabitant; Emission intensity of GDP; Energy productivity

Section 4: Well-being and prosperity

Pillar	Lead indicator(s)
Health system	Physicians; Unmet need for medical care
Health status	Healthy life years at birth; Preventable mortality
Social inclusion	Population at risk of poverty or social exclusion; NEET rate (ages 15–29)
Social cohesion	Generalised trust in others; Political polarisation
Education	PISA mathematics score; PISA score gap by socio-economic background; Participation in early childhood education
Housing	Real house price index; Overcrowding rate (total population)
Environmental quality	Domestic material consumption per capita; PM2.5 emissions per capita
Subjective well-being	Life satisfaction; Perceived ability to influence government decisions
Inequalities	Gini coefficient; Employment gap by education (high minus low)

8 Tables annex

This annex presents the detailed benchmarking tables for each pillar, grouped by the three dimensions used in the report. Each table compares Slovakia with the relevant EU or OECD benchmark and reports the corresponding min-max score, where 100 denotes the best performance among the countries included in the comparison (see Section 7: Methodological annex). In the tables, 'average' denotes the simple unweighted average of the countries in the relevant benchmarking group for which data are available.

8.1 Drivers of growth

Table 5
Physical capital

Indicator	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
Gross fixed capital formation	SK	21.8	24.3	21.7	19.8	19.6	20.9	21.1	20.4	20.5
(% of GDP) *Source: Eurostat*	EU average	20.7	20.6	22.6	22.4	21.9	22.3	22.4	21.4	21.7
Investment in ICT	SK	1.1	0.7	0.5	0.7	0.6	0.7	0.7	0.5	0.7
(% of GDP) *Source: Eurostat*	EU average	1.0	0.9	0.8	0.9	0.8	0.8	0.8	0.7	0.8
Investment in IPP	SK	2.9	2.2	2.1	2.1	1.9	2.0	2.1	2.0	2.3
(% of GDP) *Source: Eurostat*	EU average	2.9	3.5	4.7	4.7	4.0	4.0	4.1	3.9	4.2
Investment in ICT (manufacturing)	SK	217.7	100.0	101.1	109.5	157.0	260.5	209.1	236.5	
(index: 2015=100) *Source: Eurostat*	EU average	154.5	100.0	151.0	143.5	195.6	182.5	198.4	281.5	186.4
Investment in IPP (manufacturing)	SK	170.8	100.0	157.0	88.9	136.8	145.1	183.6	160.8	
(index: 2015=100) *Source: Eurostat*	EU average	94.9	100.0	152.9	143.9	141.7	158.9	159.2	158.2	171.2
Broadband coverage (≥100 Mbps)	SK		45.0	57.3	61.9	75.4	80.2	84.7	85.9	97.3
(% of households) *Source: Eurostat*	EU average		52.5	72.2	77.6	82.4	85.1	87.6	89.2	92.5
5G broadband coverage	SK					13.8	55.3	79.0	87.9	93.9
(% of households) *Source: Eurostat*	EU average				26.0	49.3	74.3	86.4	93.2	97.0
FDI inflows	SK	2.3	1.7	2.2	-1.0	2.3	4.2	0.4	3.5	1.3
(% of GDP) *Source: Eurostat*	EU average	11.8	52.5	7.1	-2.0	18.5	-5.2	-10.8	5.1	1.0

Table 5
Physical capital (continued)

Score	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
Gross fixed capital formation	SK score	83	86	66	40	30	43	32	42	37
Investment in ICT	SK score	62	38	11	30	18	40	44	27	38
Investment in IPP	SK score	42	15	15	8	9	11	9	9	14
Investment in ICT (manufacturing)	SK score	51		29	43	29	74	42	44	
Investment in IPP (manufacturing)	SK score	100		52	20	50	40	56	41	
Broadband coverage (≥100 Mbps)	SK score		45	27	25	35	45	47	44	86
5G broadband coverage	SK score					10	39	55	58	0
FDI inflows	SK score	43	4	8	43	83	9	37	25	51

Table 6
Human capital

Indicator	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
Tertiary educational attainment	SK	16.5	20.2	24.1	24.9	26.1	27.1	26.7	26.7	27.2
(%) *Source: Eurostat*	EU average	24.6	29.0	32.1	33.1	34.2	34.8	35.1	36.1	37.0
Public expenditure on education	SK		9.1	9.0	9.1	9.1	9.3			
(% of total government expenditure) *Source: OECD*	OECD average	11.3	10.9	10.8	9.9	10.2	10.1	11.3		
Expenditure per tertiary student	SK		12,528.4	9,326.0	10,596.0	11,817.4				
(PPP-adjusted USD per student) *Source: OECD*	OECD average	11,284.6	11,323.0	11,713.9	11,585.5	12,086.0	11,194.4			
Enterprises providing training	SK	69.0	70.0		58.9					
(% of enterprises) *Source: Eurostat*	EU average	62.2	70.7		64.6					
Adult participation in learning	SK						54.8			
(%) *Source: Eurostat*	EU average						45.7			
Firms providing ICT training	SK		18.5	18.1	16.2		15.4		18.5	
(% of enterprises) *Source: Eurostat*	EU average		21.2	22.8	21.0		22.5		23.2	
Score	**Series**	**2010**	**2015**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Tertiary educational attainment	SK score	17	18	27	27	25	30	23	20	20
Public expenditure on education	SK score		30	32	50	34	39			
Expenditure per tertiary student	SK score		42	27	46	37				
Enterprises providing training	SK score	67	48		36					
Adult participation in learning	SK score						64			
Firms providing ICT training	SK score		41	30	38		26		32	

Table 7
Technology and innovation

Indicator	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
Public R&D	SK		0.3	0.2	0.2	0.2	0.2	0.2	0.2	
(% of GDP) *Source: Eurostat*	EU average		0.2	0.2	0.2	0.2	0.2	0.2	0.2	
Business R&D	SK		0.3	0.5	0.5	0.5	0.6	0.6	0.6	
(% of GDP) *Source: Eurostat*	EU average		1.0	1.1	1.1	1.1	1.1	1.1	1.2	
High-tech exports	SK		10.0	9.1	9.2	8.2	7.4			
(% of exports) *Source: Eurostat*	EU average		11.9	12.2	12.9	12.2	12.1			
Researchers in labour force	SK		0.9	1.1	1.1	1.1	1.1	1.2		
(% of labour force) *Source: Eurostat*	EU average		1.2	1.3	1.3	1.4	1.3	1.5	1.9	
High-tech jobs (manufacturing)	SK		10.6	10.9	11.2	11.9	11.3	10.3	10.1	9.8
(% of employment) *Source: Eurostat*	EU average		4.9	5.0	5.1	5.1	5.0	5.1	5.1	5.0
Firms using AI	SK					5.2		7.0	10.8	18.0
(% of enterprises) *Source: Eurostat*	EU average					7.7		8.2	14.3	20.7
EPO patent applications	SK		11.8	14.3	17.6	11.0	17.3	22.7	24.2	22.0
(Applications per million inhabitants) *Source: Eurostat*	EU average		107.4	119.3	120.9	137.8	125.5	127.1	127.5	134.3
Score	**Series**	**2010**	**2015**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Public R&D	SK score		79	50	53	52	44	47	43	
Business R&D	SK score		10	13	10	10	13	15	14	
High-tech exports	SK score		31	23	23	17	17			
Researchers in labour force	SK score		32	40	41	36	40	36		
High-tech jobs (manufacturing)	SK score		100	100	100	100	100	100	100	100
Firms using AI	SK score					26		40	31	39
EPO patent applications	SK score		2	2	3	2	4	4	4	4

Table 8
Labour market dynamics

Indicator	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
Unemployment rate	SK	14.3	11.5	5.7	6.7	6.8	6.1	5.8	5.3	5.4
(% of labour force) Source: Eurostat	EU average	10.5	10.0	6.2	7.0	6.6	5.8	5.8	5.8	5.8
Employment rate	SK	66.5	69.6	75.6	74.6	74.6	76.7	77.5	78.1	78.1
(% of population) Source: Eurostat	EU average	67.4	69.4	74.3	73.4	74.6	76.4	76.9	77.3	77.7
Annual net earnings	SK	13,567.1	15,545.1	15,289.6	16,130.6	17,518.4	18,364.1	20,563.4	26,799.1	28,612.1
(PPS) Source: Eurostat	EU average	24,257.2	26,172.7	28,750.4	29,185.7	30,254.2	31,762.7	34,017.1	37,726.5	39,688.1
Job-finding rate	SK		11.0	11.0	11.0	12.0	8.0	7.0	7.0	5.0
(% of unemployed) Source: Eurostat	EU average		18.3	22.0	20.8	25.8	24.6	23.5	23.7	23.0
Job-separation rate	SK		1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0
(% of employment) Source: Eurostat	EU average		1.5	1.0	1.3	1.1	1.0	1.1	1.2	1.1
Job-to-job transitions	SK		2.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0
(% employed) Source: Eurostat	EU average		2.6	2.9	2.4	2.6	2.7	2.6	2.4	2.3
Job vacancy rate	SK	0.8	0.9	1.1	0.8	0.9	1.0	1.0	1.2	1.0
(as a % of occupied jobs + job vacancies) Source: Eurostat	EU average	0.9	1.3	2.2	1.7	2.1	2.5	2.2	2.0	1.7
Labour market slack	SK	16.5	14.4	7.7	8.7	8.9	7.8	7.2	7.0	6.7
(% of extended labour force) Source: Eurostat	EU average	17.1	17.4	12.2	13.5	12.6	10.9	10.8	10.8	10.8
Score	**Series**	**2010**	**2015**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Unemployment rate	SK score	26	40	53	39	40	34	37	64	62
Employment rate	SK score	48	50	66	60	51	57	63	62	62
Annual net earnings	SK score	26	25	19	21	21	20	21	0	0
Job-finding rate	SK score		24	0	0	0	0	0	0	0
Job-separation rate	SK score		100	50	100	100	100	100	100	100
Job-to-job transitions	SK score		33	0	0	0	0	0	0	0
Job vacancy rate	SK score	36	19	8	6	3	5	6	19	20
Labour market slack	SK score	47	62	77	75	74	80	81	84	87

Table 9
Labour market participation

Indicator	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
Transitions from inactivity to employment	SK		1.0	1.0	1.0	2.0	1.0	1.0	0.0	0.0
(% of inactive population) *Source: Eurostat*	EU average		3.5	3.7	3.8	5.0	4.2	4.0	3.8	3.8
Transitions from part-time to full-time	SK		3.0	2.0	5.0	3.0	2.0	2.0	2.0	2.0
(%) *Source: Eurostat*	EU average		10.1	10.4	11.7	15.1	14.6	14.0	14.0	13.4
Transitions from fixed-term to permanent	SK		6.0	8.0	6.0	8.0	13.0	7.0	9.0	6.0
(%) *Source: Eurostat*	EU average		17.5	19.3	19.7	23.6	23.4	24.0	22.4	22.8
Activity rate	SK	77.3	78.4	80.0	79.8	80.0	81.6	82.2	82.4	82.5
(% of population) *Source: Eurostat*	EU average	75.0	76.9	79.0	78.7	79.7	80.8	81.3	81.8	82.2
Long-term unemployment	SK	10.7	8.8	3.9	3.7	3.9	4.1	3.8	3.5	3.4
(% of labour force) *Source: Eurostat*	EU average	4.4	4.9	2.4	2.3	2.5	2.2	2.0	1.8	1.8
Part-time employment	SK	2.6	4.1	3.2	3.2	3.1	3.1	3.3	3.8	4.2
(% of employment) *Source: Eurostat*	EU average	13.2	13.9	13.3	13.2	13.2	13.0	13.0	13.0	12.9
Underemployed part-time	SK	0.6	0.9	0.5	0.4	0.5	0.5	0.3	0.5	0.5
(% of employment) *Source: Eurostat*	EU average	2.9	3.7	2.6	2.7	2.7	2.3	2.2	2.2	2.2
Tax wedge	SK	38.1	41.5	41.9	41.3	41.5	41.6	41.7	42.6	
(% of labor cost) *Source: DG ECFIN*	EU average	40.9	41.4	40.2	40.0	39.9	39.9	40.2	40.3	
Net replacement rate	SK	64.0	65.2	65.0	65.4	65.7	66.0	66.2	65.8	
(% of net income) *Source: DG ECFIN*	EU average	57.5	57.8	57.9	57.8	58.9	58.3	57.7	59.2	
Foreign labour force	SK	0.2	0.3	0.3	0.3	0.4	0.6	0.5	0.5	0.7
(% of labour force) *Source: Eurostat*	EU average	8.3	8.7	10.2	10.8	9.3	9.7	10.4	10.9	11.3
Score	**Series**	**2010**	**2015**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Transitions from inactivity to employment	SK score		0	0	0	13	0	0	0	0
Transitions from part-time to full-time	SK score		5	0	13	6	3	4	3	3
Transitions from fixed-term to permanent	SK score		10	17	6	12	22	10	14	6
Activity rate	SK score	62	57	58	60	47	52	53	50	46
Long-term unemployment	SK score	0	26	38	31	33	22	13	9	0
Part-time employment	SK score	98	93	95	95	94	94	93	92	91
Underemployed part-time	SK score	100	96	97	97	96	95	100	95	98
Tax wedge	SK score	62	49	48	51	38	40	38	32	
Net replacement rate	SK score	63	66	67	68	66	67	68	65	
Foreign labour force	SK score	0	1	1	0	1	2	1	1	2

Table 10
Business sector

Indicator	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
Export performance	SK		90.7	91.8	84.3	90.8	99.1	91.5	85.5	85.1
(% of GDP) *Source: Eurostat*	EU average		66.6	69.7	66.5	71.3	78.8	73.3	70.7	69.2
Export value added	SK	52.0	48.6	47.5	49.5	47.1	44.4	47.9	48.9	
(% of gross exports) *Source: Eurostat, own calculations*	EU average	64.3	63.3	62.4	63.5	61.5	58.4	60.8	61.6	
Employment in high-growth firms	SK					9.7	11.8	13.0	11.9	
(% of employment in active enterprises with at least 10 employees) *Source: Eurostat*	EU average			22.5	17.4	13.7	13.6	15.4	14.3	
Share of high-growth firms	SK					8.4	8.9	10.3	10.0	
(% of active enterprises with at least 10 employees) *Source: Eurostat*	EU average			15.6	12.6	10.0	9.9	11.7	11.3	
Business churn	SK					16.1	19.1	19.0		
(%) *Source: Eurostat*	EU average		22.0	18.4	35.8	16.8	16.7	16.6		
Employment in medium-sized firms	SK					14.9	14.9	14.5	14.2	
(% of business-economy employment) *Source: Eurostat, own calculations*	EU average					17.3	17.4	17.3	17.3	
Score	**Series**	**2010**	**2015**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Export performance	SK score		63	61	50	57	61	56	51	54
Export value added	SK score	15	10	13	4	4	7	12	15	
Employment in high-growth firms	SK score					33	43	33	35	
Share of high-growth firms	SK score					33	44	30	23	
Business churn	SK score					32	60	66		
Employment in medium-sized firms	SK score					28	29	24	17	

Table 11
Governance

Indicator	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
Voice and accountability	SK	0.9	0.9	0.9	1.0	1.0	0.9	1.0	0.9	
(score: -2.5 to +2.5) *Source: WB WGI*	EU average	1.2	1.1	1.1	1.2	1.1	1.1	1.1	1.2	
Political stability	SK	1.1	0.9	0.7	0.6	0.6	0.5	0.6	0.6	
(score: -2.5 to +2.5) *Source: WB WGI*	EU average	0.9	0.8	0.7	0.7	0.7	0.6	0.6	0.5	
Government effectiveness	SK	0.5	0.6	0.4	0.7	0.7	0.8	0.6	0.7	
(score: -2.5 to +2.5) *Source: WB WGI*	EU average	1.0	1.1	1.1	1.2	1.2	1.2	1.1	1.1	
Regulatory quality	SK	1.0	0.7	0.7	0.6	0.7	0.7	0.5	0.4	
(score: -2.5 to +2.5) *Source: WB WGI*	EU average	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.0	

Table 11
Governance (continued)

Indicator	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
Rule of law	SK	0.3	0.2	0.4	0.5	0.7	0.6	0.6	0.6	
(score: -2.5 to +2.5) *Source: WB WGI*	EU average	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	
Control of corruption	SK	0.2	0.2	0.2	0.4	0.4	0.4	0.4	0.1	
(score: -2.5 to +2.5) *Source: WB WGI*	EU average	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Product market regulation	SK							0.9		
(scale: 0-6) *Source: OECD*	OECD average							0.8		
Score	**Series**	**2010**	**2015**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Voice and accountability	SK score	31	34	44	46	46	44	43	43	
Political stability	SK score	72	62	57	35	39	40	47	59	
Government effectiveness	SK score	31	36	25	34	34	31	23	31	
Regulatory quality	SK score	42	33	23	23	25	27	17	7	
Rule of law	SK score	9	0	23	11	35	20	28	29	
Control of corruption	SK score	21	24	16	27	23	21	22	14	
Product market regulation	SK score							50		

8.2 Resilience and sustainability

Table 12
Macroeconomic risks

Indicator	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
Economic sentiment indicator	SK	98.6	102.5	99.5	86.4	96.2	92.2	91.1	98.4	94.6
(index) *Source: Eurostat, own calculations*	EU average	96.9	101.8	104.4	88.4	105.6	98.6	95.5	98.1	98.6
Consumer inflation expectations	SK	32.7	6.8	39.5	44.9	48.9	59.6	26.2	18.0	30.0
(balance) *Source: Eurostat, own calculations*	EU average	22.9	8.3	25.3	22.1	30.6	43.5	16.6	20.2	30.4
GDP growth volatility (five year average)	SK	6.1	1.8	1.3	2.7	3.6	3.9	3.8	3.8	3.0
(percentage points) *Source: Eurostat, own calculations*	EU average	4.7	2.4	1.5	3.3	4.7	5.2	5.3	5.4	4.4
Inflation volatility (five year average)	SK	1.6	1.8	1.3	1.4	1.0	2.6	4.8	4.9	4.7
(percentage points) *Source: Eurostat, own calculations*	EU average	1.9	1.5	1.0	1.0	1.0	2.7	4.3	4.3	4.1
Average inflation (five year average)	SK	2.5	1.9	0.9	1.5	1.9	3.4	5.5	6.2	6.4
(%) *Source: Eurostat, own calculations*	EU average	3.1	1.7	0.9	1.2	1.4	2.6	4.3	4.7	5.0

Table 12
Macroeconomic risks (continued)

Score	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
Economic sentiment indicator	SK score	60	54	6	40	7	5	29	53	24
Consumer inflation expectations	SK score	28	58	19	0	4	2	29	55	46
GDP growth volatility (five year average)	SK score	5	78	70	76	79	80	82	85	88
Inflation volatility (five year average)	SK score	72	29	36	27	54	57	51	51	30
Average inflation (five year average)	SK score	78	38	55	41	28	34	30	23	29

Table 13
Financial sector

Indicator	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
Private sector debt	SK	65.2	79.9	91.7	93.9	92.5	94.4	86.4	82.9	84.3
(% of GDP) *Source: Eurostat*	EU average	152.5	147.6	133.8	140.1	134.1	125.9	119.1	116.7	113.8
Non-performing loans	SK		4.4	2.9	2.5	2.0	1.7	1.8	1.9	1.9
(%) *Source: Eurostat*	EU average		10.4	4.9	4.1	2.7	2.2	2.0	1.9	1.8
Banking leverage	SK	10.4	9.0	9.6	9.7	10.4	10.7	10.7	9.7	9.4
(multiple) *Source: Eurostat*	EU average	15.4	12.3	11.9	12.5	13.0	13.2	12.1	11.9	11.7
Banking sector profitability (ROE)	SK	8.6	6.6	5.0	4.3	5.8	7.0	9.4	7.4	4.9
(%) *Source: ECB*	EU average	-2.4	4.4	7.3	3.3	6.9	9.5	13.0	12.4	11.1
Real house price growth	SK	-1.0	7.6	24.1	28.4	27.2	32.5	20.7	17.8	16.4
(% change over three years) *Source: Eurostat*	EU average	-7.5	5.5	19.7	19.3	23.2	28.5	24.9	21.0	17.1
Private sector credit flow	SK	2.8	5.1	4.4	2.6	5.6	7.3	2.4	1.8	5.1
(% of GDP) *Source: Eurostat*	EU average	0.9	2.5	3.6	5.5	6.4	5.5	1.9	3.2	3.4
Country Level Index of Financial Stress	SK	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.1
(index) *Source: ECB*	EU average	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1
Score	**Series**	**2010**	**2015**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Private sector debt	SK score	100	90	80	79	78	73	74	74	72
Non-performing loans	SK score		80	87	83	72	74	70	48	39
Banking leverage	SK score	81	89	79	79	72	78	72	79	77
Banking sector profitability (ROE)	SK score	92	68	30	56	32	29	29	14	0
Real house price growth	SK score	27	52	28	19	41	43	60	54	51
Private sector credit flow	SK score	29	37	50	62	58	43	43	74	31
Country Level Index of Financial Stress	SK score	41	26	0	0	29	90	76	80	52

Table 14
Fiscal sustainability

Indicator	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
Government budget balance	SK		-2.8	-1.2	-5.3	-5.1	-1.6	-5.3	-5.3	-4.5
(% of GDP) *Source: Eurostat*	EU average		-1.9	0.0	-6.3	-3.9	-2.2	-2.5	-2.1	-2.4
Government debt	SK		51.6	48.0	58.4	60.2	57.8	55.8	59.7	61.4
(% of GDP) *Source: Eurostat*	EU average		71.5	63.6	75.2	71.9	67.4	64.8	64.7	65.2
Long-term government bond yield spread over Germany	SK	1.1	0.4	0.5	0.5	0.3	0.9	1.2	1.2	0.8
(percentage points) *Source: Eurostat, own calculations*	EU average	2.1	1.4	1.1	1.0	0.9	1.5	1.3	1.1	0.9
Share of government debt held abroad	SK						48.1	52.0	57.8	59.8
(%) *Source: Eurostat, own calculations*	EU average		51.2	45.7	46.6	47.0	47.6	48.8	50.6	52.0
S2 indicator	SK	10.4	3.5	3.8	7.7	10.6	11.3	9.9	7.8	7.2
(% of GDP) *Source: EC*	EU average	6.8	2.2	2.4	2.4	3.8	3.3	3.3	3.3	3.5
Score	**Series**	**2010**	**2015**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Government budget balance	SK score		38	33	68	38	49	20	10	27
Government debt	SK score		67	69	71	67	68	69	59	59
Long-term government bond yield spread over Germany	SK score	75	88	82	83	87	73	64	62	66
Share of government debt held abroad	SK score						46	44	36	32
S2 indicator	SK score	24	19	21	0	0	0	0	8	10

Table 15
External position

Indicator	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
Nominal unit labour costs	SK	8.1	1.9	14.8	14.0	10.2	12.0	17.3	23.3	20.7
(% change over three years) *Source: Eurostat*	EU average	9.4	1.8	8.5	11.5	8.5	11.8	16.1	22.6	19.7
Current account balance	SK	-4.8	0.9	-2.3	-1.9	-2.9	-5.0	-5.8	-5.8	-3.8
(% of GDP, three year average) *Source: Eurostat*	EU average	-2.5	1.7	2.0	1.6	1.4	0.3	0.2	0.4	1.3
Net international investment position	SK	-60.9	-63.5	-65.6	-64.1	-59.5	-63.3	-57.8	-55.0	-52.4
(% of GDP) *Source: Eurostat*	EU average	-47.2	-40.2	-23.9	-22.5	-16.7	-15.4	-12.0	-4.3	-3.4
Real effective exchange rate	SK	11.0	-1.2	2.6	5.3	3.1	3.8	7.6	8.4	9.2
(% change over three years) *Source: Eurostat*	EU average	0.8	-1.8	1.6	2.0	0.2	0.6	3.9	3.8	6.1
Export market shares	SK	-7.8	-2.4	-0.6	3.7	-1.1	-4.3	-2.4	-4.8	3.8
(% change over three years) *Source: Eurostat*	EU average	-1.6	4.2	6.2	6.9	6.4	4.5	4.3	1.3	3.0

Table 15
External position (continued)

Indicator	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
Terms of trade	SK	-6.0	-3.2	-2.0	-2.1	-2.6	-5.9	-5.1	-4.4	-4.2
(% change over five years) *Source: Eurostat*	EU average	1.2	1.5	2.5	2.0	-0.1	-2.1	0.2	0.7	-0.1
Net external debt	SK	20.3	28.5	31.8	30.7	30.0	33.7	34.2	37.0	40.0
(% of GDP) *Source: Eurostat*	EU average	-95.1	-29.0	-102.9	-109.1	-124.1	-99.0	-113.5	-127.1	-137.7
Score	**Series**	**2010**	**2015**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Nominal unit labour costs	SK score	34	52	19	44	52	57	43	48	50
Current account balance	SK score	41	45	21	39	27	19	13	15	22
Net international investment position	SK score	41	40	35	35	27	26	24	17	14
Real effective exchange rate	SK score	0	44	46	20	15	34	36	42	37
Export market shares	SK score	31	25	13	37	26	12	19	34	66
Terms of trade	SK score	0	0	1	13	29	27	0	0	9
Net external debt	SK score	21	69	23	16	11	31	9	9	8

Table 16
Climate sustainability

Indicator	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
Greenhouse gas emissions per inhabitant	SK	7.9	6.8	6.6	5.7	6.4	5.8	5.4	5.3	
(tonnes per capita) *Source: Eurostat*	EU average	8.9	8.0	7.8	7.0	7.4	7.2	6.5	6.4	
Emission intensity of GDP	SK	455.0	352.4	335.4	305.8	310.7	266.8	235.8	208.4	
(grams per PPS) *Source: Eurostat, own calculations*	EU average	439.2	342.3	278.3	262.2	248.6	221.7	190.1	177.1	
Energy productivity	SK	5.6	7.0	7.1	7.5	7.5	8.4	9.5	10.4	
(PPS per kilogram of oil equivalent) *Source: Eurostat*	EU average	6.5	8.1	9.1	9.7	10.2	11.6	12.8	13.4	
Energy intensity	SK	177.9	143.3	141.2	133.5	133.6	119.4	105.7	96.7	
(kilograms of oil equivalent per thousand euro PPS) *Source: Eurostat*	EU average	164.6	132.3	118.1	112.2	106.9	95.5	85.7	81.7	
Share of fossil fuels in available energy	SK	67.5	62.0	62.4	62.2	63.8	61.7	60.5	58.9	
(%) *Source: Eurostat*	EU average	78.2	73.7	72.0	69.9	69.8	70.0	68.2	67.2	
Share of renewable energy	SK	9.1	12.9	16.9	17.3	17.4	17.5	17.0	18.1	16.3
(%) *Source: Eurostat*	EU average	16.4	20.3	22.4	24.4	24.8	25.7	27.3	28.0	29.1
Electricity share in final energy consumption	SK	18.7	22.0	21.1	21.3	20.9	19.8	19.9	20.3	
(%) *Source: Eurostat, own calculations*	EU average	21.7	22.7	22.7	23.1	23.0	23.0	23.0	23.4	

Table 16
Climate sustainability (continued)

Score	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
Greenhouse gas emissions per inhabitant	SK score	46	70	53	75	71	74	73	73	
Emission intensity of GDP	SK score	52	46	32	37	22	36	29	28	
Energy productivity	SK score	39	32	24	22	18	18	25	27	
Energy intensity	SK score	43	51	26	26	21	21	10	37	
Share of fossil fuels in available energy	SK score	67	68	64	63	67	76	74	75	
Share of renewable energy	SK score	26	23	28	20	18	13	7	10	4
Electricity share in final energy consumption	SK score	35	49	49	34	32	38	29	29	

8.3 Well-being and prosperity

Table 17
Health system

Indicator	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
Physicians	SK	335.9	345.1	356.7	366.9	368.0	372.5	382.4	394.7	
(per 100,000 inhabitants) Source: Eurostat	EU average	342.5	373.8	403.9	416.9	431.1	437.7	447.1	455.6	456.6
Nurses	SK					572.6	569.1	574.5	579.0	
(per 100,000 inhabitants) Source: Eurostat	EU average	844.3	820.8	880.3	859.6	869.6	870.2	888.5	867.3	1 575.6
Dentists	SK	49.4	48.8	52.3	52.9	52.8	54.7	54.6	54.7	
(per 100,000 inhabitants) Source: Eurostat	EU average	70.6	75.2	84.8	85.7	86.6	87.5	88.7	89.5	120.1
Physiotherapists	SK	32.1	35.1	37.4	37.2	39.3	41.0	43.7	46.7	
(per 100,000 inhabitants) Source: Eurostat	EU average	75.2	90.6	110.3	113.7	118.3	123.7	127.1	131.3	148.3
Hospital beds	SK	646.4	574.7	576.1	568.2	567.5	569.1	566.1	557.7	
(per 100,000 inhabitants) Source: Eurostat	EU average	536.1	521.0	491.8	486.4	483.9	474.6	468.9	466.1	377.7
Curative care hospital beds	SK	540.4	487.5	485.4	481.1	482.3	477.9	474.1	463.4	
(per 100,000 inhabitants) Source: Eurostat	EU average	446.1	419.3	400.1	400.1	398.0	392.0	387.7	385.0	389.7
Psychiatric care hospital beds	SK	80.1	80.8	80.7	80.3	79.7	79.8	79.7	80.7	
(per 100,000 inhabitants) Source: Eurostat	EU average	79.8	79.4	71.7	69.6	70.5	68.6	67.1	66.6	88.1
Unmet need for medical care	SK	1.7	2.1	2.7	3.2	2.9	2.8	3.2	1.6	1.1
(%) Source: Eurostat	EU average	3.6	3.5	2.5	2.3	2.2	2.6	3.1	3.0	2.8

Table 17
Health system (continued)

Indicator	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
Unmet need for care due to waiting times	SK	0.7	1.1	1.7	2.0	2.2	2.2	2.3	1.1	1.0
(%) *Source: Eurostat*	EU average	1.0	1.2	1.4	1.3	1.3	1.5	2.0	1.9	1.7
Unmet need for care due to cost	SK	0.7	0.7	0.6	0.8	0.4	0.4	0.5	0.3	0.1
(%) *Source: Eurostat*	EU average	2.3	2.1	1.0	0.9	0.8	0.9	1.0	0.9	0.9
Average length of hospital stay	SK						7.2	7.2		
(days) *Source: Eurostat*	EU average						7.5	7.3		
CT scanners	SK		17.9	17.8	19.1	19.8	20.1	20.3		
(per 1,000,000 inhabitants) *Source: OECD*	OECD average		23.1	24.9	29.1	27.3	26.9	31.6	32.0	
MRI units	SK		8.9	9.5	9.9	10.8	10.5	10.5		
(per 1,000,000 inhabitants) *Source: OECD*	OECD average		14.8	17.2	19.2	18.6	18.8	21.3	18.5	
CT examinations	SK	8,980.7	15,620.2	16,014.7	14,368.2	16,705.1	17,516.2	16,835.2	18,337.8	
(per 100,000 inhabitants) *Source: Eurostat*	EU average	9,729.1	11,632.9	13,680.2	12,719.5	14,536.5	15,515.1	16,584.0	17,255.9	6,752.8
MRI examinations	SK	3,345.9	5,677.5	7,367.4	6,842.3	7,606.9	7,367.9	7,619.8	7,717.1	
(per 100,000 inhabitants) *Source: Eurostat*	EU average	4,318.8	5,790.5	7,134.8	6,559.5	8,345.3	8,783.6	9,543.1	9,921.8	5,863.5
Current health expenditure	SK		6.7	6.9	7.1	7.6	7.7	7.4	8.0	8.1
(% of GDP) *Source: OECD*	OECD average		8.7	8.8	9.6	9.6	9.1	9.1	9.3	9.4
Out-of-pocket health spending	SK		18.4	19.2	18.8	19.4	19.3	20.2	20.2	
(% of current health expenditure) *Source: OECD*	OECD average		20.5	19.9	18.5	18.5	19.2	19.4	19.3	18.6
Pharmaceutical expenditure per capita	SK		553.2	557.8	580.9	615.0	677.3	763.1	870.8	
(PPP-adjusted USD per capita) *Source: OECD*	OECD average		511.3	588.0	627.9	667.0	722.2	783.4	809.5	840.1
Breast cancer screening coverage	SK		30.4	31.0	27.2	25.5	28.5			
(%) *Source: OECD*	OECD average		55.0	56.0	53.0	54.8	56.2	42.8		
Influenza vaccination, 65+	SK		13.8	11.5	12.8	12.9	5.6			
(%) *Source: OECD*	OECD average		46.6	45.9	53.2	54.5	53.1	54.3		
Long-term care beds	SK		53.1	48.6	46.9	46.2	45.0	44.3	43.2	
(per 1,000 population aged 65+) *Source: OECD*	OECD average		44.1	42.2	40.7	40.6	39.2	39.5	39.0	37.5
Antibiotic consumption (ATC J01)	SK		24.2	19.4	14.4	16.0	20.8			
(defined daily doses per 1,000 inhabitants per day) *Source: OECD*	OECD average		20.5	19.1	15.6	15.9	18.9	20.4		

Table 17
Health system (continued)

Indicator	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
Remuneration of specialist physicians	SK		52,258.3	57,091.0	63,504.2	72,950.2	75,804.9	101,139.4	108,723.4	
(PPP-adjusted USD per year) Source: OECD	OECD average		103,275.9	111,629.5	114,417.5	117,706.2	122,147.2	135,713.7	145,795.1	
Hospital discharges per capita	SK						15,303.6	16,170.9		
(discharges per 100,000 inhabitants) Source: Eurostat, own calculations	EU average						14,660.4	14,918.8		
Score	**Series**	**2010**	**2015**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Physicians	SK score	42	46	20	19	13	13	19	21	
Nurses	SK score					33	32	32	32	
Dentists	SK score	24	21	3	1	1	6	4	4	
Physiotherapists	SK score	16	15	12	11	12	12	12	13	
Hospital beds	SK score	67	58	61	58	58	65	65	65	
Curative care hospital beds	SK score	78	65	68	70	74	72	73	71	
Psychiatric care hospital beds	SK score	39	44	57	59	58	72	75	75	
Unmet need for medical care	SK score	85	78	67	51	40	59	60	82	87
Unmet need for care due to waiting times	SK score	78	74	62	62	53	39	51	78	79
Unmet need for care due to cost	SK score	91	90	83	78	78	88	87	89	96
Average length of hospital stay	SK score						51	44		
CT scanners	SK score		35	28	21	33	31	20		
MRI units	SK score		31	21	22	23	22	21		
CT examinations	SK score	43	76	70	64	65	60	50	48	
MRI examinations	SK score	37	45	58	56	51	39	36	35	
Current health expenditure	SK score		37	37	30	29	31	29	42	42
Out-of-pocket health spending	SK score		69	62	59	57	57	57	55	
Pharmaceutical expenditure per capita	SK score		53	49	46	53	46	51	55	
Breast cancer screening coverage	SK score		0	0	11	8	0			
Influenza vaccination, 65+	SK score		15	7	1	0	0			
Long-term care beds	SK score		64	62	61	57	63	61	61	
Antibiotic consumption (ATC J01)	SK score		39	46	64	49	30			
Remuneration of specialist physicians	SK score		13	9	11	16	15	25	28	
Hospital discharges per capita	SK score						58	62		

Table 18
Health status

Indicator	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
Life expectancy at birth	SK	75.6	76.7	77.7	77.0	74.6	77.0	78.1	78.4	
(years) *Source: Eurostat*	EU average	78.7	79.5	80.3	79.6	79.1	79.9	80.6	80.9	
Life expectancy at age 65	SK	16.3	17.1	17.9	17.1	15.4	17.1	18.0	18.3	
(years) *Source: Eurostat*	EU average	18.6	18.9	19.4	18.8	18.5	18.9	19.5	19.8	
Healthy life years at birth	SK	52.2	54.9	56.2	56.7	56.8	57.3	57.5	57.1	
(years) *Source: Eurostat*	EU average	61.0	61.3	62.4	62.4	62.2	62.1	62.4	64.0	
Healthy life years at age 65	SK	3.1	3.9	4.7	4.7	5.0	4.8	4.9	4.9	
(years) *Source: Eurostat*	EU average	8.3	8.5	9.2	9.0	9.0	8.8	9.0	9.7	
Infant mortality	SK	5.7	5.1	5.1	5.1	4.9	5.4	5.6	5.9	
(per 1,000 live births) *Source: Eurostat*	EU average	4.2	3.6	3.5	3.2	3.1	3.3	3.3	3.4	
Cardiovascular mortality	SK		662.3	567.8	607.1	641.2	627.8	600.5		
(per 100,000 inhabitants) *Source: Eurostat*	EU average		501.9	427.4	437.8	445.1	430.2	394.5		
Suicide mortality	SK		9.2	7.0	6.9	7.5	7.4	6.5		
(per 100,000 inhabitants) *Source: Eurostat*	EU average		12.9	11.1	11.0	10.8	10.9	10.6		
Obesity rate	SK			19.3						
(%) *Source: Eurostat*	EU average			17.6						
Daily smoking	SK			21.0						
(% of population aged 15+) *Source: OECD*	OECD average		15.8	16.5	14.1	13.5	13.7	12.8	12.2	12.5
Alcohol consumption	SK	10.1	10.2	10.3	10.2	9.6	9.5	9.4	9.5	
(litres per capita) *Source: OECD*	OECD average	8.9	8.7	8.6	8.3	8.7	8.7	8.7	8.4	5.5
Physical inactivity	SK			48.1						
(%) *Source: Eurostat*	EU average			50.7						
Self-perceived good health	SK	63.7	66.0	65.2	65.3	65.2	66.1	68.0	66.8	68.2
(%) *Source: Eurostat*	EU average	65.5	65.8	67.1	68.0	67.9	66.9	66.9	67.5	67.1
Preventable mortality	SK		258.3	231.2	262.4	379.3	245.3	204.9		
(per 100,000 inhabitants) *Source: Eurostat*	EU average		192.5	175.6	201.4	237.2	191.5	169.3		
DTP immunisation coverage	SK		96.0	96.7	97.0	97.0	96.5			
(% of children under 1) *Source: OECD*	OECD average		95.2	95.1	94.8	93.8	94.1	93.1		

Table 18
Health status (continued)

Indicator	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
Avoidable diabetes hospital admissions	SK			213.6	188.1	169.6				
(per 100,000 inhabitants) Source: OECD	OECD average			128.5	100.8	100.4	83.7			
Treatable mortality	SK		176.9	163.6	168.8	206.0	176.1	161.1		
(per 100,000 inhabitants) Source: Eurostat	EU average		114.3	104.4	107.1	110.7	104.6	99.2		
Potential years of life lost	SK			6,221.6	6,364.9	7,802.8	6,381.1	5,898.3		
(years lost per 100,000 inhabitants) Source: OECD	OECD average		4,782.7	4,586.8	4,903.7	5,305.5	4,811.3	4,614.0		
Cancer mortality	SK		320.2	293.3	301.8	275.1	267.7	270.3		
(per 100,000 inhabitants) Source: Eurostat	EU average		267.5	253.9	251.3	243.6	240.2	238.2		
Daily fruit consumption	SK			52.9						
(%) Source: OECD	OECD average		59.9	54.3	55.8	57.1	54.6	56.3	54.5	56.6
Daily vegetable consumption	SK			47.3						
(%) Source: OECD	OECD average		68.7	55.4	62.5	70.3	64.1	69.6	66.1	67.4
Score	**Series**	**2010**	**2015**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Life expectancy at birth	SK score	27	28	27	34	18	32	30	32	
Life expectancy at age 65	SK score	12	23	24	26	12	18	24	28	
Healthy life years at birth	SK score	0	13	18	19	2	23	9	0	
Healthy life years at age 65	SK score	0	0	0	4	12	6	1	0	
Infant mortality	SK score	0	17	17	0	0	0	0	0	
Cardiovascular mortality	SK score		39	40	41	32	39	30		
Suicide mortality	SK score		71	79	75	63	77	76		
Obesity rate	SK score			34						
Daily smoking	SK score			23						
Alcohol consumption	SK score	34	35	19	21	30	29	40	35	
Physical inactivity	SK score			54						
Self-perceived good health	SK score	45	54	44	45	29	52	60	50	58
Preventable mortality	SK score		36	33	39	24	39	34		
DTP immunisation coverage	SK score		61	49	74	79	77			
Avoidable diabetes hospital admissions	SK score			16	7	2				
Treatable mortality	SK score		24	20	29	11	17	21		
Potential years of life lost	SK score			16	40	30	28	41		
Cancer mortality	SK score		13	15	2	10	31	27		
Daily fruit consumption	SK score			37						
Daily vegetable consumption	SK score			28						

Table 19
Housing

Indicator	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
House price-to-income ratio	SK	109.3	100.0	107.5	113.1	112.5	116.3	106.7	103.0	
(index: 2015=100) Source: Eurostat	EU average	108.7	100.0	103.6	106.8	109.3	111.6	105.6	103.9	
House price-to-rent ratio	SK	98.7	100.0	130.5	140.8	148.5	162.2	153.7	149.7	160.1
(index: 2015=100) Source: OECD	OECD average	101.6	100.0	113.6	118.5	129.7	140.3	137.1	134.1	136.0
Share of rent related to occupied dwelling in disposable household income	SK	12.8	12.7	14.2	19.3	23.7	20.3	25.0	23.2	18.0
(%) Source: Eurostat	EU average	20.9	22.1	21.4	21.4	21.5	21.7	22.8	22.3	22.5
Real house price index	SK	105.3	100.0	126.1	135.2	139.3	142.0	128.8	129.8	140.1
(index: 2015=100) Source: Eurostat	EU average	106.9	100.0	118.1	123.9	131.8	133.4	128.0	131.7	138.1
Building permits for dwellings	SK	69.7	75.3	93.2	85.6	100.0	88.3	77.8	62.0	65.4
(index: 2021=100) Source: Eurostat	EU average	80.4	61.4	90.9	86.7	100.0	94.1	80.0	79.0	85.2
Overcrowding rate (total population)	SK	40.1	37.8	34.1	30.1	31.2	31.8	30.5	29.9	27.8
(%) Source: Eurostat	EU average	23.2	19.2	18.1	17.6	17.4	17.3	17.2	17.3	17.3
Average dwelling size per person (m^2)	SK							104.0		
(square metres) Source: Eurostat	EU average							105.3		
Owner-occupation rate	SK	90.0	89.3	90.9	92.3	92.9	93.0	93.6	93.1	93.8
(%) Source: Eurostat	EU average	76.7	75.7	75.4	75.6	75.9	75.6	75.0	74.2	74.0
Private rental sector share	SK	8.4	9.2	7.7	6.1	5.2	4.3	3.6	4.1	3.9
(%) Source: Eurostat	EU average	13.2	14.7	15.2	15.1	14.0	14.1	14.8	15.7	16.0
Social rental sector share	SK	1.6	1.5	1.4	1.6	1.9	2.7	2.8	2.8	2.3
(%) Source: Eurostat	EU average	10.0	9.7	9.4	9.3	10.1	10.2	10.2	10.1	10.0
Population living in cities	SK	26.5	23.1	21.2	21.4	21.7	22.1	20.4	21.8	22.4
(% of population) Source: Eurostat	EU average	42.0	37.4	39.2	39.5	37.9	37.7	37.9	38.1	38.0
Score	**Series**	**2010**	**2015**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
House price-to-income ratio	SK score	48		43	39	48	48	46	51	
House price-to-rent ratio	SK score	56		3	4	20	18	21	33	24
Share of rent related to occupied dwelling in disposable household income	SK score	89	93	81	55	40	55	37	47	79
Real house price index	SK score	53		25	24	34	32	31	36	32
Building permits for dwellings	SK score	39	74	59	45		40	49	27	25

Table 19
Housing (continued)

Score	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
Overcrowding rate (total population)	SK score	29	25	21	31	26	25	27	25	30
Average dwelling size per person (m^2)	SK score							39		
Owner-occupation rate	SK score	81	83	88	91	94	95	95	97	100
Private rental sector share	SK score	23	22	19	15	12	9	7	7	7
Social rental sector share	SK score	7	7	7	8	9	13	13	12	11
Population living in cities	SK score	17	26	4	6	8	8	4	8	9

Table 20
Education

Indicator	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
PISA reading score	SK		453.9				447.4			
(PISA points) *Source: OECD PISA*	EU average		488.5				473.9			
PISA mathematics score	SK		476.4				464.6			
(PISA points) *Source: OECD PISA*	EU average		489.8				475.5			
PISA science score	SK		462.0				462.5			
(PISA points) *Source: OECD PISA*	EU average		490.2				484.9			
PISA score gap by socio-economic background	SK		105.8				118.3			
(PISA points) *Source: OECD PISA*	EU average		92.3				96.4			
Academically resilient students	SK		11.4				6.1			
(% of disadvantaged students) *Source: OECD PISA*	EU average		10.9				9.4			
Participation in early childhood education	SK		72.2	77.8	78.1	77.4	78.6	80.8	81.8	
(%) *Source: Eurostat*	EU average		87.6	90.7	91.9	90.8	91.3	92.5	93.1	
Tertiary enrolment (ages 20-24)	SK		31.1	28.6	28.8	30.0	30.8	31.0	31.2	
(%) *Source: Eurostat*	EU average		33.1	34.5	34.7	35.8	36.1	35.9	36.1	
Pupil-teacher ratio in primary education	SK		17.2	17.4	17.5	17.3	13.6	14.3	14.4	
(ratio) *Source: Eurostat*	EU average		13.9	13.2	13.1	13.0	12.7	12.9	12.7	
Teachers' starting salaries in primary education	SK								23,371.1	
(PPP-adjusted USD) *Source: OECD Education at a Glance*	EU average								43,227.9	
Early leavers from education and training	SK	4.7	6.9	8.3	7.6	7.8	7.4	6.4	7.5	6.8
(%) *Source: Eurostat*	EU average	12.0	9.7	8.9	8.7	8.2	8.1	8.2	8.2	7.9

Table 20
Education (continued)

Indicator	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
Students who feel they belong at school	SK		69.7							
(% of students) *Source: OECD*	OECD average		72.6							
Students reporting bullying at school	SK		22.5							
(% of students) *Source: OECD*	OECD average		18.7							
Vocational share of upper secondary enrolment	SK		69.0	67.5	67.3	67.6	67.8	67.7	68.1	
(%) *Source: Eurostat, own calculations*	EU average		48.9	48.1	48.3	48.4	48.8	48.9	49.1	
STEM share of tertiary graduates	SK		5.6	5.7	5.3	4.9	4.8	4.7	4.3	
(%) *Source: Eurostat, own calculations*	EU average	4.7	5.6	5.4	5.3	5.3	5.4	5.4	5.4	
ICT share of tertiary graduates	SK		2.9	3.9	4.4	4.4	4.8	4.8	5.3	
(%) *Source: Eurostat, own calculations*	EU average	3.8	3.9	4.4	4.6	5.1	5.3	5.5	5.7	
Primary teachers aged 50 or over	SK		29.9	30.0	34.8	34.0	32.6	33.0	31.6	
(%) *Source: Eurostat, own calculations*	EU average		32.0	34.1	35.0	35.3	35.7	36.5	36.7	
Score	**Series**	**2010**	**2015**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
PISA reading score	SK score		8				21			
PISA mathematics score	SK score		34				3			
PISA science score	SK score		17				25			
PISA score gap by socio-economic background	SK score		32				11			
Academically resilient students	SK score		65				0			
Participation in early childhood education	SK score		7	0	0	0	0	0	0	
Tertiary enrolment (ages 20-24)	SK score		36	26	31	28	20	22	17	
Pupil-teacher ratio in primary education	SK score		25	13	9	10	37	36	36	
Teachers' starting salaries in primary education	SK score								0	
Early leavers from education and training	SK score	95	69	57	60	50	55	62	52	57
Students who feel they belong at school	SK score		32							
Students reporting bullying at school	SK score		25							
Vocational share of upper secondary enrolment	SK score		93	94	94	95	95	90	90	
STEM share of tertiary graduates	SK score		42	55	47	43	44	38	34	
ICT share of tertiary graduates	SK score		30	42	49	45	46	33	33	
Primary teachers aged 50 or over	SK score		46	56	45	48	56	56	63	

Table 21
Inequalities

Indicator	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
Gini coefficient	SK		23.7	22.8	20.9	21.8	21.2	21.6	21.7	23.0
(index: 0–100) *Source: Eurostat*	EU average		30.3	29.6	29.4	29.4	29.2	29.5	29.1	29.1
Income quintile share ratio (S80/S20)	SK	3.8	3.5	3.3	3.0	3.2	3.1	3.6	3.3	3.3
(ratio) *Source: Eurostat*	EU average	4.8	5.1	4.8	4.7	4.8	4.7	4.7	4.6	4.6
Top 10% wealth share	SK	32.8				32.6				
(%) *Source: OECD*	OECD average	49.9	59.3	58.7	50.0	47.7	63.3	51.9		
Health gap by income (Q5 minus Q1)	SK	8.5	8.3	7.0	13.7	8.5	6.0	5.4	3.0	6.4
(percentage points) *Source: Eurostat, own calculations*	EU average	10.9	11.3	13.5	12.7	11.7	13.8	13.3	12.7	13.2
Life expectancy gap by education (high minus low)	SK		9.8							
(years) *Source: Eurostat, own calculations*	EU average	6.0	3.8							
Life expectancy gap by education (high minus medium)	SK		3.0							
(years) *Source: Eurostat, own calculations*	EU average	2.2	2.0							
Employment gap by education (high minus low)	SK	49.4	43.3	44.5	46.2	58.5	55.6	54.4	54.2	56.0
(percentage points) *Source: Eurostat, own calculations*	EU average	31.8	32.1	30.7	31.0	31.8	31.3	30.6	30.9	31.6
Employment gap by education (high minus medium)	SK	12.1	7.2	5.0	6.4	10.0	10.0	10.5	9.8	11.4
(percentage points) *Source: Eurostat, own calculations*	EU average	13.6	13.2	11.7	12.4	12.9	12.2	12.2	12.0	12.2
Employment gap, native vs non-EU born	SK	-3.3	-2.4	-2.3	0.3	-4.9	-7.0	-5.2	8.8	-6.5
(percentage points) *Source: Eurostat, own calculations*	EU average	5.5	7.3	6.6	8.2	7.2	6.3	5.3	6.4	6.0
Homeownership gap by income	SK	10.5	8.2	13.4	11.1	20.2	14.4	10.6	9.9	13.6
(percentage points) *Source: Eurostat, own calculations*	EU average	19.4	22.4	21.3	21.8	21.2	20.7	21.3	20.9	22.3
Score	**Series**	**2010**	**2015**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Gini coefficient	SK score		100	100	100	100	100	100	100	100
Income quintile share ratio (S80/S20)	SK score	89	99	100	100	100	100	90	100	99
Top 10% wealth share	SK score	100				100				
Health gap by income (Q5 minus Q1)	SK score	71	55	70	47	60	73	83	94	77
Life expectancy gap by education (high minus low)	SK score		0							
Life expectancy gap by education (high minus medium)	SK score		32							
Employment gap by education (high minus low)	SK score	0	9	0	0	0	0	0	0	0
Employment gap by education (high minus medium)	SK score	62	94	91	82	64	65	60	63	53
Employment gap, native vs non-EU born	SK score	98	94	84	82	88	100	94	34	100
Homeownership gap by income	SK score	72	86	72	77	58	69	77	78	71

Table 22
Social inclusion

Indicator	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
At-risk-of-poverty rate	SK	12.0	12.3	11.9	11.4	12.3	13.7	14.3	14.5	12.2
(%) *Source: Eurostat*	EU average	16.0	17.1	16.4	16.3	16.3	16.4	16.2	16.1	16.0
Severe material and social deprivation	SK		16.8	11.4	9.7	9.2	10.5	14.0	12.7	11.6
(%) *Source: Eurostat*	EU average		18.9	12.8	12.3	11.2	11.7	12.0	11.3	11.0
Population at risk of poverty or social exclusion	SK		17.3	14.8	13.8	15.6	16.5	17.6	18.3	16.7
(%) *Source: Eurostat*	EU average		24.0	21.0	20.6	20.7	20.7	20.6	20.2	20.1
Very long-term unemployment rate	SK					2.5	2.8	2.7	2.5	2.3
(% of labour force) *Source: Eurostat*	EU average	1.0	1.6	0.9	0.7	1.2	1.2	1.1	1.0	1.0
NEET rate (ages 15–29)	SK	19.0	17.2	14.5	15.2	14.2	12.3	11.2	10.7	11.1
(%) *Source: Eurostat*	EU average	14.7	14.5	11.6	12.7	12.0	10.9	10.6	10.5	10.4
Population in jobless households	SK		7.0	6.3	4.3	4.9	3.8	4.6	5.0	4.0
(%) *Source: Eurostat*	EU average		9.8	7.6	7.3	7.7	7.1	6.8	6.7	6.9
In-work at-risk-of-poverty rate	SK	5.7	6.1	4.4	5.3	6.7	7.2	9.1	10.3	6.6
(%) *Source: Eurostat*	EU average	7.9	8.6	8.0	7.9	7.9	7.9	8.1	8.1	7.9
Temporary employment rate	SK	5,6	10.5	7.8	6.5	4.1	4.3	4.2	3.8	3.9
(%) *Source: Eurostat*	EU average	15,5	16.6	16.2	14.3	14.6	14.4	13.6	13.1	13.2
Involuntary part-time employment	SK	3,8	5.8	4.5	4.6	3.1	3.1	3.3	4.0	4.4
(%) *Source: Eurostat*	EU average	14,2	15.0	14.3	14.2	13.8	13.7	13.7	13.7	13.7
Low-wage earners	SK	19,0					13.4			
(%) *Source: Eurostat*	EU average	17,0					15.3			
Gender pay gap	SK	19,6	19.7	18.2	15.4	16.0	16.8	15.7	15.7	
(%) *Source: Eurostat*	EU average	14,3	14.3	12.6	11.3	10.9	11.2	10.9	10.5	
Gender employment gap	SK	9,9	9.9	7.7	7.3	8.5	8.1	7.7	8.9	8.7
(percentage points) *Source: Eurostat*	EU average	11,3	10.2	10.1	9.7	9.6	9.0	8.6	8.3	7.8
Housing cost overburden rate	SK		9.1	5.7	3.2	7.1	2.5	5.9	6.4	3.5
(%) *Source: Eurostat*	EU average		10.2	8.3	7.2	7.2	7.7	8.2	7.8	7.5
Population unable to keep home adequately warm	SK	4,4	5.8	7.8	5.7	5.8	7.1	8.1	8.3	8.1
(%) *Source: Eurostat*	EU average	12,0	11.2	8.2	7.8	7.4	8.6	9.5	8.3	7.8

Table 22
Social inclusion

Score	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
At-risk-of-poverty rate	SK score	76	80	87	87	75	72	65	59	80
Severe material and social deprivation	SK score		61	52	60	61	46	26	31	35
Population at risk of poverty or social exclusion	SK score		78	84	86	77	68	61	58	68
Very long-term unemployment rate	SK score					29	13	4	0	0
NEET rate (ages 15–29)	SK score	26	40	27	27	37	28	43	44	32
Population in jobless households	SK score		84	76	95	84	96	86	79	97
In-work at-risk-of-poverty rate	SK score	80	74	85	76	64	55	29	29	68
Temporary employment rate	SK score	86	72	80	82	92	92	92	92	92
Involuntary part-time employment	SK score	93	86	90	89	94	95	93	91	90
Low-wage earners	SK score	40					59			
Gender pay gap	SK score	23	16	16	34	21	20	21	17	
Gender employment gap	SK score	57	56	68	69	61	59	46	53	48
Housing cost overburden rate	SK score		46	75	90	64	100	74	67	88
Population unable to keep home adequately warm	SK score	87	84	68	78	75	68	68	66	61

Table 23
Social cohesion

Indicator	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
Generalised trust in others	SK					6.1	6.1	6.0	6.1	6.1
(rating: 0–10) *Source: Eurostat*	EU average					5.8	5.7	5.7	5.7	5.7
Trust in national government	SK				24.0	22.0	14.0	37.0	31.0	26.0
(%) *Source: Eurobarometer*	EU average				38.9	38.1	36.2	38.0	37.7	36.3
Trust in parliament	SK				23.0	23.0	14.0	36.0	32.0	24.0
(%) *Source: Eurobarometer*	EU average				36.9	36.7	35.8	39.0	39.2	37.0
Trust in the legal system	SK				28.0	31.0	33.0		41.0	39.0
(%) *Source: Eurobarometer*	EU average				53.0	53.6	54.7		55.0	54.7
Trust in regional and local public authorities	SK				47.0	49.0	50.0		68.0	65.0
(%) *Source: Eurobarometer*	EU average				54.1	55.8	57.1		58.8	59.9
Income inequality seen as a source of social tension	SK						82.0			
(%) *Source: Eurobarometer*	EU average						80.8			
Perceived ethnic or racial discrimination	SK		46.0	24.0				36.0		
(%) *Source: Eurobarometer*	EU average		58.7	50.3				54.3		

Table 23
Social cohesion (continued)

Indicator	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
Political polarisation	SK	-1.1	-0.6	-0.3	-0.3	-0.2	0.2	0.5	1.0	
(scale: 0–4) *Source: V-Dem Institute*	EU average	-1.1	-0.8	-0.7	-0.5	-0.2	-0.2	-0.1	0.1	
Polarisation of society	SK	0.3	-0.3	-0.8	-1.2	-1.4	-1.8	-2.6	-2.6	
(scale: 0–4) *Source: V-Dem Institute*	EU average	0.6	0.3	0.0	0.0	-0.2	-0.2	-0.2	-0.3	
Freedom of expression and alternative information	SK	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	
(index: 0–1) *Source: V-Dem Institute*	EU average	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	
Exposure to online misinformation	SK					52.2		54.1		60.2
(%) *Source: Eurostat*	EU average					49.9		51.9		59.1
Intentional homicide rate	SK	1.7	0.9	1.4	1.2	1.0	0.8	1.1	1.1	
(per 100,000 inhabitants) *Source: Eurostat*	EU average	1.7	1.5	1.1	1.1	1.0	1.0	1.0	1.0	
Serious assault rate (violent-crime proxy)	SK	45.0	34.4	28.0	23.3	20.7	23.8	23.4	21.5	
(per 100,000 inhabitants) *Source: Eurostat*	EU average	88.1	70.7	74.2	67.2	70.3	79.5	81.4	83.0	
Robbery rate	SK	22.0	9.9	7.5	6.0	5.3	5.8	6.1	5.7	
(per 100,000 inhabitants) *Source: Eurostat*	EU average	72.9	56.2	44.9	36.9	34.9	38.4	38.8	36.4	
Sexual violence rate	SK		11.9	12.8	11.3	10.8	11.0	10.8	10.8	
(per 100,000 inhabitants) *Source: Eurostat*	EU average	34.3	29.7	36.4	35.6	41.4	43.3	45.6	46.9	
Perceived safety when walking alone at night	SK	49.2	60.1	65.4	72.7	72.7	72.7	65.8	65.8	65.8
(%) *Source: OECD*	OECD average	63.7	69.1	71.6	73.5	73.5	73.5	73.0	73.0	73.0
Perceived voice in own country	SK					60.0	56.0	66.0	72.0	70.0
(%) *Source: Eurobarometer*	EU average					56.2	58.9	57.3	61.9	61.8
Hate speech by political parties	SK	-0.2	-0.8	-1.0	-1.0	-1.1	-1.4	-1.4	-1.4	
(scale: 0–4) *Source: V-Dem Institute*	EU average	1.3	1.0	0.6	0.6	0.6	0.6	0.6	0.5	
Equality before the law and individual liberty	SK	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	
(index: 0–1) *Source: V-Dem Institute*	EU average	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.9	
Perceived social support	SK	89.6	91.5	89.9	94.9	94.9	94.9	92.9	92.9	92.9
(%) *Source: OECD*	OECD average	89.9	89.8	90.3	90.3	90.3	90.3	89.8	89.8	89.8
Loneliness	SK						4.2			
(%) *Source: OECD*	OECD average			6.1	6.4	7.0	6.2	7.2	13.4	

Table 23
Social cohesion (continued)

Score	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
Generalised trust in others	SK score					52	67	57	60	60
Trust in national government	SK score				9	2	0	50	34	21
Trust in parliament	SK score				15	18	0	36	29	22
Trust in the legal system	SK score				10	12	11		23	23
Trust in regional and local public authorities	SK score				38	38	36		70	66
Income inequality seen as a source of social tension	SK score						50			
Perceived ethnic or racial discrimination	SK score		69	90				84		
Political polarisation	SK score	48	47	39	49	53	46	39	30	
Polarisation of society	SK score	64	69	65	69	81	79	94	94	
Freedom of expression and alternative information	SK score	55	66	84	87	84	81	79	30	
Exposure to online misinformation	SK score					41		40		49
Intentional homicide rate	SK score	60	88	29	41	53	79	26	48	
Serious assault rate (violent-crime proxy)	SK score	89	79	83	86	86	87	88	89	
Robbery rate	SK score	94	99	99	100	100	100	99	100	
Sexual violence rate	SK score		84	87	91	94	95	96	96	
Perceived safety when walking alone at night	SK score	15	35	41	55	55	55	36	36	36
Perceived voice in own country	SK score					54	38	59	66	62
Hate speech by political parties	SK score	81	100	82	82	88	100	98	95	
Equality before the law and individual liberty	SK score	40	30	43	46	50	38	43	7	
Perceived social support	SK score	54	58	49	81	81	81	85	85	85
Loneliness	SK score						86			

Table 24
Subjective well-being

Indicator	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
Life satisfaction	SK					7.1	7.0	7.3	7.3	7.4
(rating: 0–10) *Source: Eurostat*	EU average					7.2	7.2	7.3	7.3	7.4
Population reporting high life satisfaction	SK					24.4	22.0	24.7	24.6	26.1
(%) *Source: Eurostat*	EU average					22.6	22.0	23.4	23.4	24.2
Satisfaction with time use	SK						6.6			
(rating: 0–10) *Source: Eurostat*	EU average						6.9			
Job satisfaction	SK							7.7		
(rating: 0–10) *Source: Eurostat*	EU average							7.5		

Table 24
Subjective well-being (continued)

Indicator	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
Perceived ability to influence government decisions	SK					60.0	56.0	66.0	72.0	70.0
(%) *Source: Eurobarometer*	EU average					56.2	58.9	57.3	61.9	61.8
Satisfaction with democracy	SK				39.0	37.0	31.0	41.0	37.0	41.0
(%) *Source: Eurobarometer*	EU average				54.4	55.4	59.0	56.4	57.0	56.4
Trust in government (OECD Public Integrity)	SK									31.0
(%) *Source: OECD Public Integrity Indicators*	EU average									37.8
Corruption Perceptions Index	SK		51.0	50.0	49.0	52.0	53.0	54.0	49.0	48.0
(score: 0-100) *Source: Eurostat*	EU average		65.0	63.9	63.7	63.7	63.6	63.6	62.3	62.2
Knows someone who takes bribes (bribery-exposure proxy)	SK				18.0		19.0		16.0	
(%) *Source: Eurobarometer*	EU average				15.3		14.7		13.8	
Belief that success depends on hard work	SK						64.0			
(%) *Source: Eurobarometer*	EU average						65.4			
Income differences seen as too great	SK						81.0			
(%) *Source: Eurobarometer*	EU average						79.4			
Trust that people are treated equally by public authorities	SK								33.0	
(%) *Source: OECD*	EU average								42.8	
Satisfaction with life in the country	SK				69.0	71.0	72.0	79.0	85.0	87.0
(%) *Source: Eurobarometer*	EU average				78.2	82.5	83.0	84.3	85.7	86.0
Employees working very long hours	SK	4.5	4.7	3.8	3.5	2.5	2.5	2.2	2.5	2.2
(%) *Source: OECD, Eurostat, own calculations*	EU average	3.7	3.7	3.2	2.9	3.1	2.9	2.7	2.6	2.5
Score	**Series**	**2010**	**2015**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Life satisfaction	SK score					38	36	44	55	56
Population reporting high life satisfaction	SK score					54	38	54	58	64
Satisfaction with time use	SK score						21			
Job satisfaction	SK score							82		
Perceived ability to influence government decisions	SK score					54	38	59	66	62
Satisfaction with democracy	SK score				23	11	0	6	13	25
Trust in government (OECD Public Integrity)	SK score									16
Corruption Perceptions Index	SK score		20	16	11	22	23	25	16	16

Table 24
Subjective well-being (continued)

Score	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
Knows someone who takes bribes (bribery-exposure proxy)	SK score				45		30		45	
Belief that success depends on hard work	SK score						48			
Income differences seen as too great	SK score						50			
Trust that people are treated equally by public authorities	SK score								3	
Satisfaction with life in the country	SK score				34	32	30	45	57	44
Employees working very long hours	SK score	45	32	47	32	63	58	62	58	59

Table 25
Environmental quality

Indicator	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
Population exposed to noise pollution	SK	18.3	12.8	10.5	9.9			8.6		
(%) Source: Eurostat	EU average	18.5	16.1	15.8	16.2			17.0		
Noise exposure, below-poverty population	SK	20.2	15.3	14.7	10.4			17.6		
(%) Source: Eurostat	EU average	20.4	19.2	18.4	19.1			19.6		
Population exposed to river floods (50-year)	SK	34.8	34.6		34.4					
(%) Source: OECD	OECD average	15.9	15.8		15.8					
Built-up area exposed to river floods (100-year)	SK	18.4	18.5	18.5	18.5	18.6	18.6			
(%) Source: OECD	OECD average	7.7	7.7	7.7	7.7	7.7	7.7			
Connection to wastewater treatment	SK			68.1	68.8	69.9	70.6	71.1	71.8	
(%) Source: Eurostat	EU average	71.1	76.2	79.3	80.6	80.8	78.9	81.8	78.2	
River water quality (BOD)	SK	2.4	2.3	2.2	2.2	2.2	2.2	2.2		
(mg O2 per litre) Source: Eurostat	EU average	2.4	2.3	2.1	2.0	2.0	2.0	2.0		
Protected terrestrial areas	SK		37.4	37.4	37.4	37.5	37.5	37.4		
(% of land area) Source: Eurostat	EU average		26.0	26.6	26.7	26.7	26.8	27.2		
Municipal waste recycling rate	SK	9.1	14.9	38.5	45.3	48.9	49.5	50.3	50.7	
(%) Source: Eurostat	EU average	26.8	35.2	39.6	39.6	40.8	41.4	41.0	44.2	
Domestic material consumption per capita	SK	13.3	12.5	12.3	11.9	12.0	11.3	11.2	10.4	10.9
(tonnes per capita) Source: Eurostat	EU average	17.1	16.7	17.8	17.3	17.9	17.9	16.8	16.6	17.2
Waste intensity of GDP	SK	97.0			91.0		94.0			
(kg per 1,000 EUR of GDP) Source: Eurostat	EU average	119.7			98.7		97.6			

Table 25
Environmental quality (continued)

Indicator	Series	2010	2015	2019	2020	2021	2022	2023	2024	2025
EU consumption footprint	SK	100.0	105.0	118.0	118.0	121.0	123.0	119.0	121.0	
(index: 2010=100) *Source: Eurostat*	EU average	100.0	100.9	108.6	102.9	105.5	108.9	108.6	110.1	
Climate-related economic losses per capita	SK	9.1	0.0	6.2	4.0	7.5	16.2	0.7	21.0	
(EUR per inhabitant, constant prices) *Source: Eurostat*	EU average	58.7	27.1	38.7	23.1	84.3	60.4	226.1	49.5	
Days of strong heat stress	SK	15.1	32.6	26.9	16.6	21.2	27.0	23.8		
(days per year) *Source: OECD*	OECD average	35.3	37.9	39.7	37.8	35.6	39.4	40.6		
PM2.5 emissions per capita	SK		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
(tonnes per capita) *Source: Eurostat, own calculations*	EU average		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
NOx emissions per capita	SK		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
(tonnes per capita) *Source: Eurostat, own calculations*	EU average		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Fuel-combustion share of GHG emissions	SK	65.4	64.3	64.8	63.8	64.6	66.0	65.2	65.9	
(%) *Source: Eurostat, own calculations*	EU average	73.7	70.7	70.1	68.5	69.4	70.0	69.1	69.0	
Municipal waste landfill share	SK	77.1	68.7	52.0	45.6	40.6	39.3	38.8	38.0	
(%) *Source: Eurostat, own calculations*	EU average	53.8	40.0	33.4	32.7	30.6	30.7	28.3	25.0	
Forest share of land area	SK		39.5		39.7					39.8
(%) *Source: Eurostat, own calculations*	EU average		35.1		35.6					35.9
Score	**Series**	**2010**	**2015**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Population exposed to noise pollution	SK score	55	74	88	89			92		
Noise exposure, below-poverty population	SK score	47	60	70	84			61		
Population exposed to river floods (50-year)	SK score	0	0		0					
Built-up area exposed to river floods (100-year)	SK score	0	0	0	0	0	0			
Connection to wastewater treatment	SK score			37	31	32	40	18	37	
River water quality (BOD)	SK score	41	51	46	46	45	46	47		
Protected terrestrial areas	SK score		89	87	87	88	88	78		
Municipal waste recycling rate	SK score	9	9	49	67	62	65	67	68	
Domestic material consumption per capita	SK score	70	78	81	81	83	88	83	89	87
Waste intensity of GDP	SK score	83			46		38			
EU consumption footprint	SK score		27	13	0	0	3	18	22	
Climate-related economic losses per capita	SK score	95	100	94	94	98	88	100	91	
Days of strong heat stress	SK score	86	72	70	82	76	78	72		
PM2.5 emissions per capita	SK score		57	59	61	65	64	69	70	
NOx emissions per capita	SK score		90	84	79	77	83	83	83	
Fuel-combustion share of GHG emissions	SK score	77	78	68	70	71	66	65	64	
Municipal waste landfill share	SK score	18	18	33	45	52	53	52	47	
Forest share of land area	SK score		57		57					57