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EXECUTIVE SUMMARY

Slovakia's impressive economic development since EU accession has laid the foundations for stronger future growth. ([1]) Efforts to strengthen the public finances have helped to create stability and have paved the way for policies to help Slovakia modernise and innovate. However, persistent weaknesses in certain aspects of the labour market, in education, infrastructure, public administration and corruption still limit productive potential. A combination of well-designed reform policies and strategic investment could alleviate these barriers to growth, shield the economy from a potential slowdown and allow the Slovak economy to move up the value chain.

Economic growth has accelerated further due to a synergy of supporting factors. According to the latest Commission forecast, real Gross Domestic Product (GDP) is projected to have increased by 4.2 % in 2018 due to solid growth in household spending amidst a strong labour market recovery and large average pay increases. Investment, especially in the private sector has been picking up. Real GDP growth is expected to remain buoyant at 4.1 % in 2019 before easing slightly to 3.5 % in 2020. A combination of strong domestic demand and increasingly strong growth in net exports underpins this favourable outlook. While private sector investment growth is likely to normalise in the medium term, external demand will act as an important source of economic growth, partly owing to expanding production facilities in the export-heavy manufacturing sector. The government deficit is projected to move further towards a balanced budget position in 2019 and the ratio of government debt to GDP ratio is projected to decline to under 47 % of GDP.

The labour market situation improved due to strong economic growth. The employment rate (of people aged 20-64) rose to 72.5 % in the third quarter of 2018 and the unemployment rate fell to an all-time low of 6.1 % in the fourth quarter (seasonally adjusted). It is unlikely that the recent pace of job creation can be sustained in view of widespread labour shortages, an already high activity rate and high long-term unemployment reflecting mismatches between companies' needs and the available workforce. Job opportunities for disadvantaged groups remain scarce, while relatively few workers move within Slovakia for better work opportunities and large regional disparities continue to make it difficult for the economically weaker regions in eastern Slovakia to catch up. Poor educational outcomes and inequality based on socioeconomic background are obstacles to inclusive growth.

Economic convergence may potentially resume and could help reduce existing inequalities. As economic growth is expected to remain well above the EU average, Slovakia's income per capita is likely to begin to catch up again with the EU average. The current expansion in the manufacturing sector is concentrated in the west of the country and its benefits will not necessarily spill over to weaker regions. Improvements in the quality of public institutions and targeted investment may help reduce long-standing regional and socioeconomic inequalities.

Growth in house prices appears to have peaked, as macroprudential policy measures help to contain credit growth. Low interest rates and limited housing supply still support house prices, but a range of indicators suggest no signs of significant housing market overvaluation. Budgetary consolidation is set to continue, supported by a favourable economic environment.

Addressing the various investment needs in Slovakia — including those in education, innovation, infrastructure and energy technology — will help secure future growth and prosperity. Strategic investments in education and training and in research and development can help to bring out the best in young and future workers and researchers. Making the economy more knowledge-based will require investments in digital connectivity and the digital transformation of enterprises. Inadequate road and rail transport networks hinder smooth and efficient transport and transit. Sustainable and green investment can improve the energy efficiency of industries and buildings and support climate change adaptation, waste and water management, biodiversity and improved air quality. Shortages of skilled labour and future economic and social trends will require

([1]) This report assesses Slovakia's economy in light of the European Commission's Annual Growth Survey published on 21 November 2018. In the survey, the Commission calls on EU Member States to implement reforms to make the European economy more productive, resilient and inclusive. In so doing, Member States should focus their efforts on the three elements of the virtuous triangle of economic policy — delivering high-quality investment, focusing reforms efforts on productivity growth, inclusiveness and institutional quality and ensuring macroeconomic stability and sound public finance.

investment in improving people's skills and in social infrastructure. This includes more accessible social housing, better healthcare, long-term care and childcare, with appropriate attention being paid to regional disparities. Annex D identifies key priorities for support by the European Regional Development Fund, the European Social Fund Plus and the Cohesion Fund over 2021-2027, building on the analysis of investment needs and challenges outlined in this report.

Slovakia has made some progress in addressing the 2018 country-specific recommendations.

There has been some progress in:

- Increasing the cost-effectiveness of the healthcare sector and addressing staffing shortages;
- Reinforcing activation and upskilling measures, in particular by delivering on the Action Plan for the Long-Term Unemployed;
- Fostering employment opportunities for women by extending childcare capacities; and
- Increasing the use of quality-related and lifecycle cost criteria in public procurement operations.

There has been limited progress in:

- Improving the quality and inclusiveness of education;
- Tackling corruption;
- Improving the effectiveness of the justice system; and
- Reducing the fragmentation of the public research system and stimulating business innovation.

Regarding progress towards its national targets under the Europe 2020 strategy, Slovakia currently meets, or is on track towards meeting, the targets in relation to the employment rate, greenhouse gas emissions, energy efficiency and reducing the number of people at risk of poverty and social exclusion. The target for renewable energy use is currently not met but could potentially be met through dedicated policy efforts. The distance to the targets for R&D intensity and tertiary education remains significant, and although it is progressively narrowing in the latter case, a sustained effort would be needed to attain the R&D target. Meeting the target for early school leaving will be challenging as the situation has continuously deteriorated over the past years.

Slovakia faces challenges with regard to a number of indicators of the Social Scoreboard supporting the European Pillar of Social Rights. While both employment and unemployment rates are improving at a fast pace, the long-term unemployment rate remains high despite recent decreases. Early school leaving is becoming more prevalent, enrolment rates of young children in childcare remain very low and availability of childcare facilities continues to be underdeveloped. On the positive side, income and employment inequalities remain low and so do the poverty levels, even though the impact of social transfers on reducing poverty has deteriorated. Access to public services, including healthcare, is difficult in particular in some regions. Key structural issues analysed in this report, which highlight particular challenges for Slovakia's economy, are the following:

- **Buoyant revenues are helping to lower the budget deficit while efforts to boost tax compliance continue.** While progress has been made in reducing non-payment of value-added tax, the effectiveness of tax compliance measures in reducing the high value-added tax gap remains to be seen. Property and environmental taxation remain a weak revenue source, but thematic public spending reviews are increasingly shaping public services and resource allocation for the better.

- **Healthcare and pension systems are the source of long-term sustainability challenges.** Slovakia's projected rise in age-related costs is attributable to pension and healthcare spending in broadly equal amounts. The implementation of reforms to improve the cost-effectiveness of the health system continues, but public hospitals are still making large losses and were again granted debt relief in 2018. Staffing shortages in the healthcare sector represent a growing challenge, particularly in rural areas. The main features of the eHealth system, launched in 2017, are operational, and the implementation of diagnosis-related groups for monitoring

purposes is gradually progressing. Public health promotion and disease prevention continue to offer chances to increase healthy life years and reduce healthcare costs.

- **Slovakia's financial sector is financially sound but rising private indebtedness poses vulnerabilities.** Regulatory measures to tame debt accumulation by households have helped to slow loan growth, but demand and supply conditions for mortgage credit make further debt growth likely in the medium term. Although house prices continue to rise appreciably and affordability is stretched, there are no signs of a significant overvaluation yet.

- **The labour market is tightening further, exposing a number of structural challenges.** Demographic trends and changing production methods will require workers to adapt by investing in skills. The number of unfilled vacancies is rising and requires effective implementation of active labour market policies and raising intra-country mobility. Long-term unemployment remains stubbornly high even though it is declining due to the implementation of the Action Plan for the Integration of the Long-Term Unemployed, adopted in November 2016. The low labour market participation of the Roma remains of concern.

- **A stronger labour market is reducing poverty levels but some regions lag behind significantly.** The situation is particularly critical in the south-eastern parts of the country, where high poverty and social exclusion levels are acute in the marginalised Roma communities. The effectiveness of policies to improve the social inclusion of disadvantaged groups is hampered by insufficient social housing, inefficient governance structures and the low attractiveness of social work.

- **Education and training are being reformed but their low quality and inclusiveness represents a weakness.** Spending on education has been falling in recent years relative to GDP and educational outcomes have worsened. Despite pay rises for teachers, salary levels are still not sufficiently attractive to attract enough well-qualified prospective staff. Inclusion of Roma in education remains problematic. New measures have been taken to encourage children's participation in early childhood education and care, but a shortage of childcare facilities continues to hinder female labour market participation. Reforms aimed at improving higher education quality could provide a boost to Slovakia's human capital. Vocational education and training reforms are helping to align the supply and demand for skills.

- **Productivity gains have driven past convergence and can enhance Slovakia's future economic potential.** Cohesion policy remains an important driver of productivity-enhancing reforms, but insufficient administrative capacity to manage funding limits its transformative potential. Promoting research and innovation is a prime avenue for unlocking productivity gains but this is still hampered by a fragmented public research system. Boosting private and public R&D investment, consolidating the public research system to make it attractive for top researchers, and supporting smart specialisation and digitalisation are key policy priorities. Promoting the circular economy and resource efficiency, including by protecting environmental assets such as clean air, water and forests, is critical in order to make Slovakia's productivity growth sustainable.

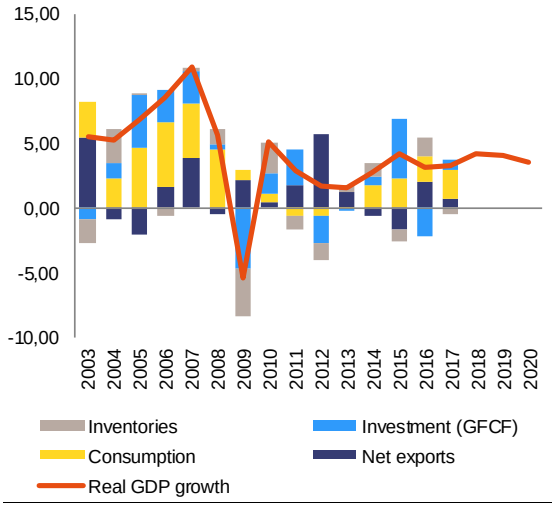
- **The public administration and the wider business environment remain weak.** Despite the efforts carried out within the Better Regulation Strategy (RIA2020), insufficient cooperation between administrative levels and frequent legislative, regulatory and tax changes make government less effective. Efforts have been made to improve quality and competition in public procurement. Corruption continues to pose a challenge, and organisational and procedural weaknesses at the police and prosecutor's level, as well as weak whistleblower protection, hinder the fight against corruption. Improving the effectiveness of the justice system remains a challenge. While the overall efficiency has been improving, concerns over the perceived independence of the judiciary persist.

1. ECONOMIC SITUATION AND OUTLOOK

Growth performance

Slovakia is enjoying very good economic times. After expanding by 3.2 % in 2017, economic growth (real GDP) is projected to have picked up to 4.2 % in 2018 (Graph 1.1). Continued and substantial improvements in the labour market have led to higher private consumption which supported the economic expansion. While public investment activity has followed a somewhat uneven pattern since 2015, reflecting the transition between the programming periods for EU funds, private investment has also played a significant role in accelerating GDP growth, especially in 2018.

Graph 1.1: **Real GDP growth and its components**

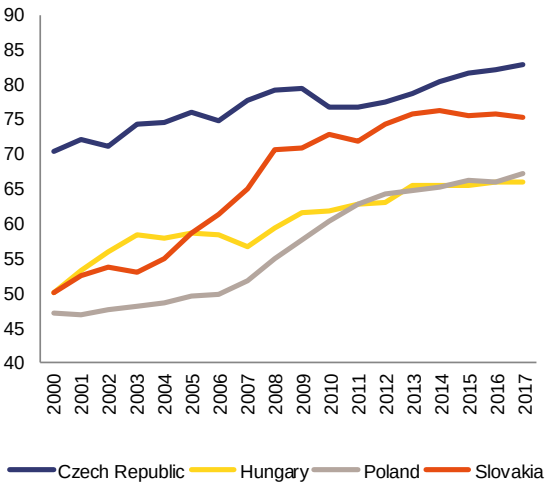


Source: European Commission

The economic expansion is likely to ease slightly in 2019 when exports are forecast to boost the economy. Economic growth is expected to reach 4.1 % in 2019 and to ease to 3.5 % in 2020. Private consumption is set to remain the key driver of economic expansion for the coming years. A newly built car factory will increase exports significantly in 2019, despite an expected slowing in foreign demand. Investment activity is likely to ease after the strong performance in 2018. Growth in households' real disposable income is expected to slow down in the medium term due to higher inflation and slower employment growth. This will be an important factor slowing the economic expansion beyond 2020. The expected deceleration in foreign demand is another factor likely to limit economic growth in the medium term, as are rising labour shortages.

In spite of the swift economic expansion, convergence has yet to re-ignite. Real GDP per person based on purchasing power standards has stood at round 77 % of the EU average since 2014, and gross national income per person also remained broadly stable since 2013 at around 76 % of the EU average (Graph 1.2)([2]). By contrast, real GDP per person growth between 2014 and 2017 outpaced EU average growth by more than 5 pps cumulatively, relative price level developments offset these gains. These divergent trends are explained by different data trajectories in the underlying price adjustment. However, Slovakia's relatively fast economic growth trend, combined with less divergent price level developments, may revive nominal convergence of Slovakia over the medium term.

Graph 1.2: **GNI per person in purchasing power standards**



Source: European Commission

Potential growth

The economic expansion features both cyclical and structural components. While recent investment activity has stimulated potential growth in parallel with actual GDP, the predominantly

([2]) In economies such as Slovakia, which have high stocks of foreign investment and significant dividend outflows, Gross National Income is arguably a more appropriate measure of domestic income available for consumption and investment.

consumption-led economic expansion in 2018 has driven GDP growth to rates above potential. As a result, overall economic growth is accompanied by a widening positive output gap reflecting the progressive tightening in the labour market and historically low cost of credit.

Potential growth is projected to sustain a solid pace exceeding 3 % over the next few years. However, the demographic outlook, with a projected decline in the working-age population([3]), indicates that labour is likely to drag on potential growth in the years to come. Moreover, despite Slovakia having higher gross fixed capital formation as a share of GDP than the EU, economic convergence has stalled in recent years. Deepening the capital stock and investing in intangible capital and high value-added technologies can help diversify the economy and sustain economic growth and convergence.

Household consumption

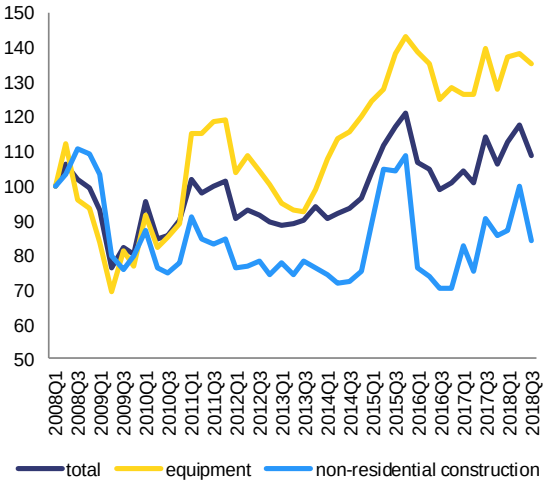
Significant gains in the labour market have boosted private consumption. Solid growth in the real disposable income of households, a favourable macroeconomic climate together with low credit costs have set favourable conditions for private spending. Private consumption is expected to remain the main driver of growth in the coming years. The progressive tightening of the labour market and the resulting rapid wage growth is expected to feed into consumer price inflation in the coming years. Nevertheless, growth of household consumption in real terms is projected to remain around 3 %, which leaves the household saving rate broadly stable at close to 7.5 %.

Investment

Total investment has only recently reached the pre-crisis level. After a period of muted investment activity, EU funds drawdown and stronger private investment activity helped to reverse the declining trend in potential growth. A surge in investment activity in 2018 directed mainly at the construction of a new car factory significantly contributed to overall economic growth (Graph 1.3). The high growth of investment in 2018 is unlikely to be matched in 2019, making it a less important contributor to growth. Public investment is expected to assume a more prominent role thanks to some major public investment projects. Given the past experience with EU investment funds, the approaching end of the programming period of EU funding is also likely to spur public investment.

Slovakia's large stock of inward foreign direct investment dominates the country's negative net international investment position. Although foreign direct investment outflows have gained importance since early 2016, its net (inward) stock as a share in GDP returned to above 50 % in 2017. However, overall flows of foreign direct investment are spread unevenly across the country, not least because foreign firms typically locate their headquarters in major cities. Some regions have not attracted major domestic or foreign investment in recent years, exacerbating the already high regional disparities present in many economic and social areas.

Graph 1.3: **Gross fixed capital formation**



Source: European Commission

Export performance and competitiveness

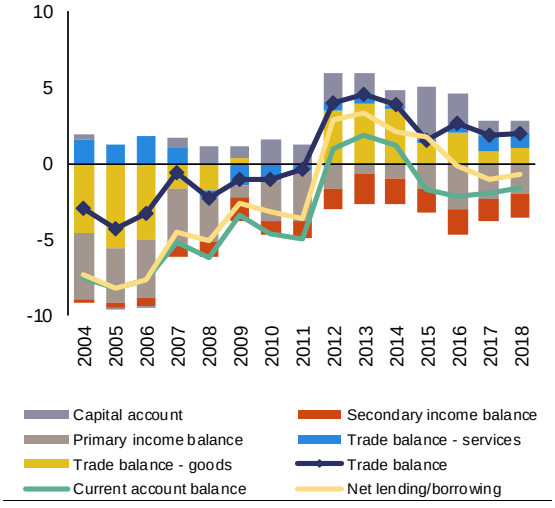
Foreign trade is likely to accelerate Slovakia's economic growth in 2019. After a rather muted contribution to economic expansion in 2018, the positive effect of new investment on Slovakia's export capacities and trade performance is expected to be built over 2019-2020. This should result in substantial export market share gains. Imports are expected to lag behind exports as high

([3]) The working-age population is expected to shrink by 4.7 % by 2025.

import-intensive investment is projected to slow. This should further support the net trade effect on economic growth.

A solid foreign trade performance has been accompanied by slight erosion of price competitiveness of Slovak exports. The unit labour cost-based real effective exchange rate weakened mainly due to rising labour costs. As a result of labour market tightening, average nominal wages increased by 6.1 % from EUR 935 in Q3-2017 to EUR 992 in Q3-2018. Labour costs are set to grow further in the next years, outpacing the expected productivity gains. Strong investment into manufacturing — the economy's dominant export sector — between 2014 and 2017 has strengthened labour productivity in the sector cumulatively by almost 12 %, thus mitigating negative costs developments. The expected slowdown in investment activity is likely to slow productivity gains, thus leading to faster rise in unit labour cost.

Graph 1.4: **Current and capital account balance**



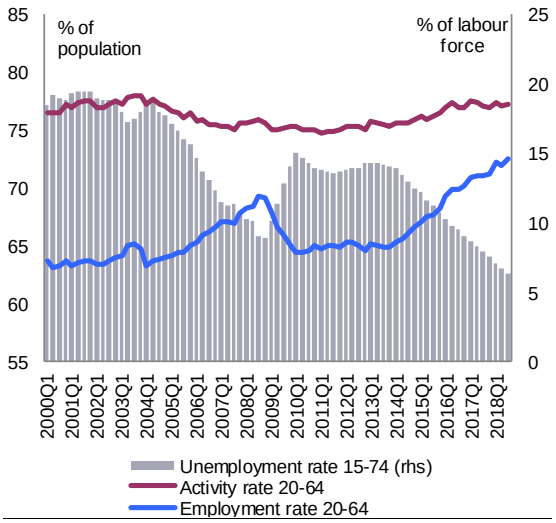
Source: European Commission

The current account balance is expected to remain in a deficit. Acceleration in exports due to new production facilities in 2019 is expected to mitigate the negative contribution of the income balance to the current account (Graph 1.4). The income balance is expected to remain negative over 2019-2020 on the back of dividend outflows. Mostly negative past net financing flows have built up a considerable negative net international investment position (-65.6 % of GDP in 2017). Foreign direct investment, which represents a safer and more stable form investment instruments, forms the bulk of the liabilities. However, the share of riskier instruments, such as short-term and long-term debt, has increased significantly since 2009 and stood at -15.1 % of GDP in 2017.

Labour market and social situation

Labour market conditions are improving amid strong employment growth. Total employment is above 2.5 million and the employment rate (20-64) increased to 72.5 % in Q3-2018 (+1.4 pps yearly, seasonally adjusted), with a particularly strong job creation in the manufacturing sector. The unemployment rate has declined continuously since 2013 and in Q4-2018 reached an all-time low of 6.1 %. The activity rate (15-64) inched up to 72.4 % in Q3-2018 while labour shortages are on the rise. Labour market slack shrank by Q3-2018 (year-on-year) due to the strong fall in both the underemployed (from 59 000 to 49 000) and the number of discouraged workers ([4]) (from 46 000 to 40 000).

Graph 1.5: **Activity, employment and unemployment rates**



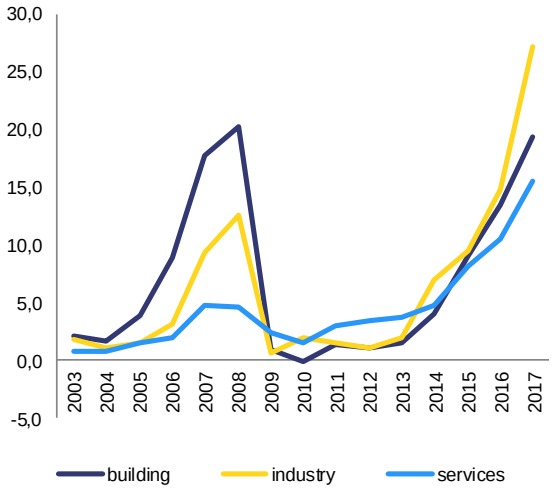
Source: European Commission

The tightening of the labour market increases labour shortages and fuels wage growth. The European Commission's quarterly labour shortages indicator, which measures the proportion of companies reporting a lack of qualified labour as a

([4]) Defined as being willing and able to work but not actively searching for jobs.

production constraint, rose by 7 pps in 2017 and stood at 19.3 % in 2017. This is the highest level recorded since EU accession in 2004 (European Commission, 2018). Reported labour shortages were particularly high in industry, followed by the construction sector and services (Graph 1.6). Half of the companies that tried to recruit Information and Communications Technology specialists reported problems in filling these vacancies. Increasing labour shortages are helping to bid up wages at a faster rate and to increase net earnings, which are still at relatively low levels in comparison to other EU countries.

Graph 1.6: **Labour shortage index**



Source: EMPL calculations on the business and consumer survey. Annual data obtained from raw quarterly/monthly seasonally adjusted data.

The number of unfilled vacancies is rising in the public sector. Low salaries in public services are among the contributing factors, especially in more expensive regions and some professions such as nurses, teachers and social services workers. In the medium-term perspective, these sectors are also to be further affected by the age structure of their staff and difficulties in replacing retiring staff. In the education sector, close to 40 % of employees are above the age of 50 and the situation is only slightly better in healthcare and social work (Lubyová, M., Miroslav, S. et al., 2016).

The low labour market participation of women and disadvantaged groups and regional disparities hamper social cohesion. The employment rate of the low-skilled rose in 2017 to 37.3 % but it is still only half the equivalent rate for the medium and highly educated. The rate of young people not in employment, education or training, remains relatively high and the Roma population faces persistent challenges in entering employment. The gender employment gap is decreasing but women with young children tend to stay outside the labour market longer than in most EU countries, partly due to the lack of available childcare facilities.

Poverty rates remain low but social exclusion remains a serious challenge in some regions. In 2017, the at-risk-of poverty or social exclusion rate decreased further and reached 16.3 %, significantly below the EU average of 22.4 % ([5]), reflecting also low income inequality. However, close to 200 000 Roma people live in marginalised communities often without access to basic infrastructure and public services.

Income and wealth are comparatively evenly distributed but inequality of opportunities remains high. For Slovakia, the S80/S20 indicator, which measures the ratio of incomes of the richest 20 % of households compared to the poorest, is among the lowest in the EU (3.5 compared to the EU average of 5.1 in 2017). This is due to low wage dispersion, rather than the redistributive effect of the tax and benefit system. Gross disposable household income per person grew at only around half the rate of GDP per person between 2010 and 2017, indicating that increases in income have reached households only to some extent, i.e. low inclusiveness of growth. Wealth inequality is also among the lowest in the EU, partly due to a high rate of home ownership. Inequality of opportunities remains high, as shown by the high poverty risk faced by children of low-skilled parents.

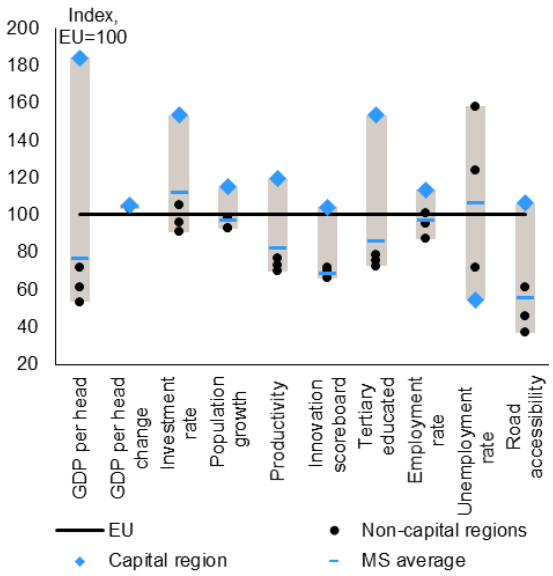
Regional disparities

Despite almost unrivalled economic growth compared to most EU countries, regional disparities remain large. In 2016, GDP per head (in power purchasing standards) ranged between 184 % of the EU average in the capital region and 53 % in the less developed NUTS 2 region of

([5]) Income data from the European Union Statistics on Income and Living Conditions refer to the previous year for all Member States except from Ireland and the United Kingdom.

Východné Slovensko (Graph 1.7). The capital region also outperforms the remaining regions in a wider range of economic indicators such as the level of investment, labour productivity and salaries.

Graph 1.7: **Regional disparities**



Source: European Commission

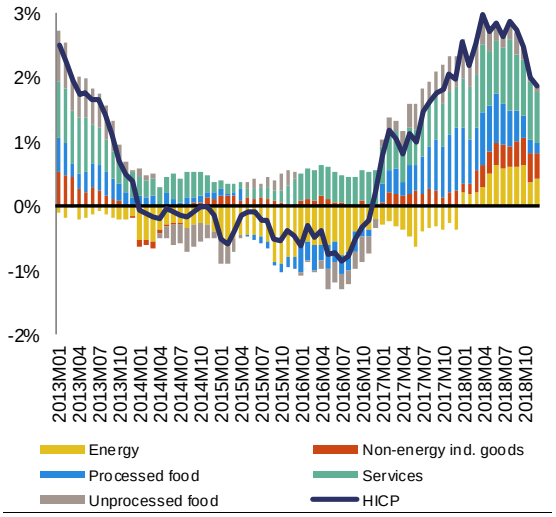
Labour market and social indicators show more acute challenges in Eastern and South-Eastern Slovakia. Territorial disparities in terms of labour market and social inclusion indicators remain significant. The regional dispersion in employment rates is substantial and persistent. The continuous outflow of medium- and highly skilled graduates, most notably from Eastern Slovakia to the West or other EU countries, may further intensify the regional differences (European Commission, 2018g). With the exception of the capital region, all regions in Slovakia had population growth below the EU average in the period 2010-2016. The health status of the population and the access to healthcare services in these regions is also affected by the regional differences.

The current shape of regional disparities is a result of several factors. These include weaker infrastructure, an underdeveloped business environment, a low rate of innovation and an unfavourable educational structure in some of the regions. Lagging regions are not uniform and display idiosyncratic development needs. Examples include the transition of Horná Nitra from coal mining, the catching-up of the least developed districts and targeted measures to empower the marginalised Roma communities (see Section 3.4.3).

Inflation

Annual consumer price inflation settled at 2.5 % in 2018 and is set to remain elevated. The services sector has become the key driver of price dynamics, closely followed by processed food. After years of negative contributions, energy prices have begun to add to overall inflationary pressures. By contrast, non-industrial energy goods contributed only mildly to the overall price increase in 2018. Food prices are expected to ease somewhat while the prices of some energy items that are regulated by a state agency are expected to rise in 2019. Importantly, the swift growth of wages is set to spill over into services prices in the coming years. Overall, consumer price growth is expected to remain around 2.5 %.

Graph 1.8: **Consumer inflation (y-o-y, %)**



Source: European Commission

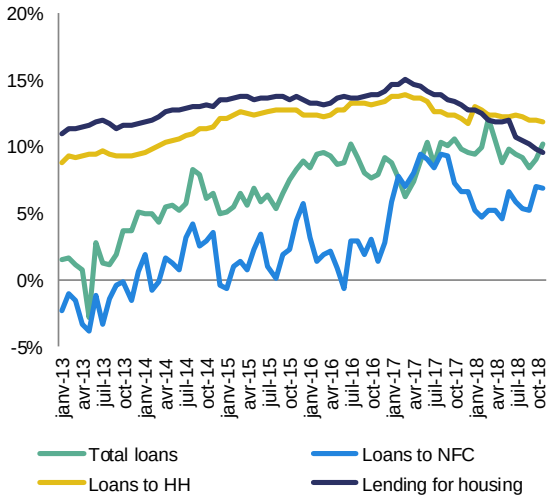
Credit growth

The buoyant economy is set to support credit growth for both households and non-financial corporations. Record-low interest rates and favourable labour market outcomes have and will continue to stimulate credit growth to households, even if it may have peaked in the first half of 2017. Since then its annual growth has eased, but it remains above 10 %. Slower mortgage lending

growth appears to be the major factor underpinning the slowdown in total credit to households. Furthermore, macro-prudential policy measures effective from July 2018 (NBS, May 2018) are likely to relax demand pressures in the housing market by restricting credit supply. Credit flows to non-financial corporations remain strong. Loans for investment purposes kept growing solidly at a rate of 8 % year-on year, while growth in loans to small and medium-sized enterprises slowed to below 5 %.

Private debt levels entail certain vulnerabilities. Sustained growth in household and corporate sector indebtedness may pose a risk to the stability of the economy in the event of a negative economic shock. Household debt reached 40.6 % of GDP in 2017 and continues to rise. Similarly, the indebtedness of non-financial corporations has risen significantly and increased by 10 pps of GDP between 2013 and 2017 to 55.5 % of GDP.

Graph 1.9: **Loans to sectors (y-o-y, %)**

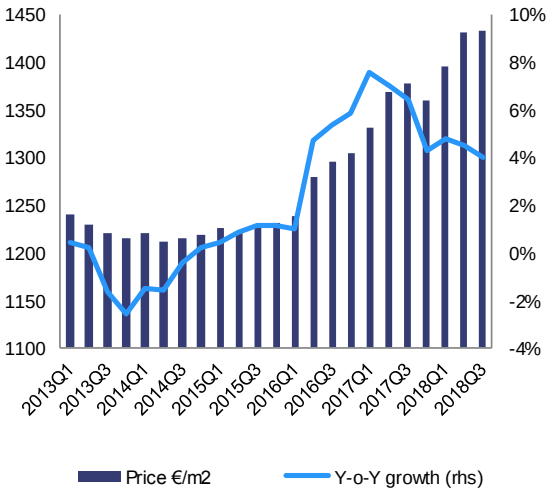


Source: ECB, European Commission

Housing market

Despite fast price rises, the housing market does not show major signs of overvaluation yet. Although property prices keep increasing, developments so far have been broadly in line with the strong economic and financial fundamentals. Property price growth reached a peak at the turn of 2017 and has eased since. Strong demand that pulled property prices out of their post-crisis slump reflects favourable affordability backed by record-low credit costs (NBS 2017) and gains in real disposable income by households. The increase in building permits and residential investment have also mitigated demand pressures on prices. Envisaged slower employment growth and the tightening of credit standards by the National Bank of Slovakia are likely to restrain demand and shield the housing market from overheating.

Graph 1.10: **House prices**



Source: National Bank of Slovakia

Public finances

The general government deficit has been declining since 2015 mainly due to the favourable economic climate. The deficit reached 0.8 % of GDP in 2017 and is expected to have declined to 0.6 % in 2018. The booming labour market significantly strengthened the revenue side in recent years as labour income tax and social security contributions soared. Similarly, value added tax collection continues to improve above the pace of private consumption growth. Corporate income tax revenue also recovered in 2017.

The budgetary outlook appears favourable in the medium term. The government intends to achieve a balanced budget for the first time in 2019. A new insurance premium tax was brought in and further measures to improve tax collection, such as online cash registers and special fuel markers, are also envisaged. Most of the revenue increases will be used to cross-finance expenditure measures in net terms, notably a substantial increase in public wages in 2019 (European

Commission, 2018i). The debt-to-GDP ratio is expected to have declined to just below 49 % in 2018, with further declines expected from 2019 onwards.

Table 1.1: **Key economic and financial indicators — Slovakia**

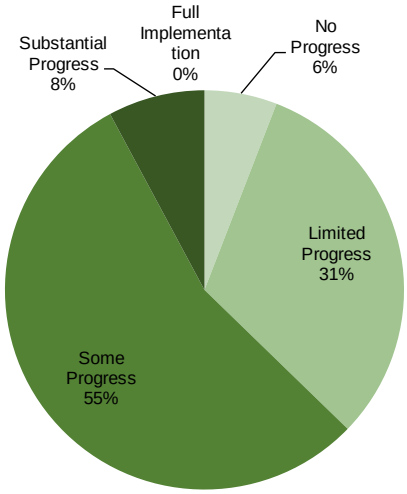
						forecast		
	2004-07	2008-12	2013-15	2016	2017	2018	2019	2020
Real GDP (y-o-y)	7,8	1,9	2,8	3,1	3,2	4,2	4,1	3,5
Potential growth (y-o-y)	5,5	3,7	2,3	2,3	2,7	3,4	3,6	3,6
Private consumption (y-o-y)	6,1	1,0	0,9	2,9	3,5	.	.	.
Public consumption (y-o-y)	3,3	2,0	4,2	1,6	1,7	.	.	.
Gross fixed capital formation (y-o-y)	9,7	-1,9	7,6	-9,4	3,4	.	.	.
Exports of goods and services (y-o-y)	17,7	4,0	5,5	5,5	5,9	.	.	.
Imports of goods and services (y-o-y)	16,4	1,6	6,1	3,4	5,3	.	.	.
Contribution to GDP growth:								
Domestic demand (y-o-y)	6,6	0,4	2,9	-0,4	3,0	.	.	.
Inventories (y-o-y)	0,6	-0,5	0,2	1,5	-0,5	.	.	.
Net exports (y-o-y)	0,6	1,9	-0,4	2,0	0,7	.	.	.
Contribution to potential GDP growth:								
Total Labour (hours) (y-o-y)	0,4	0,7	0,2	0,2	0,3	0,4	0,5	0,5
Capital accumulation (y-o-y)	1,3	0,7	0,3	0,3	0,4	1,0	0,9	0,9
Total factor productivity (y-o-y)	3,8	2,4	1,8	1,8	1,9	2,0	2,1	2,2
Output gap	2,0	0,0	-2,1	-0,3	0,2	0,7	1,3	1,2
Unemployment rate	14,9	12,8	13,0	9,7	8,1	6,9	6,3	6,0
GDP deflator (y-o-y)	3,1	1,0	0,1	-0,5	1,2	2,6	2,7	2,6
Harmonised index of consumer prices (HICP, y-o-y)	4,1	2,7	0,3	-0,5	1,4	2,5	2,5	2,4
Nominal compensation per employee (y-o-y)	8,4	3,8	2,6	2,1	5,2	5,0	6,4	6,2
Labour productivity (real, person employed, y-o-y)	6,3	1,6	1,9	0,7	1,0	.	.	.
Unit labour costs (ULC, whole economy, y-o-y)	2,0	2,2	0,7	1,3	4,2	2,7	3,2	3,3
Real unit labour costs (y-o-y)	-1,0	1,2	0,6	1,8	2,9	0,1	0,5	0,7
Real effective exchange rate (ULC, y-o-y)	6,2	2,4	-0,2	0,8	3,3	1,3	0,9	1,0
Real effective exchange rate (HICP, y-o-y)	6,7	2,3	-0,4	0,6	-0,2	2,1	0,1	0,2
Savings rate of households (net saving as percentage of net disposable income)	0,9	1,4	1,6	3,0	2,4	.	.	.
Private credit flow, consolidated (% of GDP)	7,0	4,6	6,3	9,5	5,9	.	.	.
Private sector debt, consolidated (% of GDP)	51,9	68,7	80,9	90,5	96,1	.	.	.
of which household debt, consolidated (% of GDP)	13,1	24,7	32,3	38,0	40,6	.	.	.
of which non-financial corporate debt, consolidated (% of GDP)	38,8	44,0	48,6	52,5	55,5	.	.	.
Gross non-performing debt (% of total debt instruments and total loans and advances) (2)	1,5	3,4	3,8	3,9	3,3	.	.	.
Corporations, net lending (+) or net borrowing (-) (% of GDP)	-3,0	3,1	4,3	0,2	-0,4	0,6	1,5	2,2
Corporations, gross operating surplus (% of GDP)	27,1	26,4	25,9	24,8	24,1	24,6	25,4	25,9
Households, net lending (+) or net borrowing (-) (% of GDP)	-1,5	-0,5	0,0	0,7	0,3	0,2	0,4	0,5
Deflated house price index (y-o-y)	.	-3,6	2,2	7,0	4,4	.	.	.
Residential investment (% of GDP)	2,7	2,6	2,4	2,8	2,7	.	.	.
Current account balance (% of GDP), balance of payments	-7,2	-3,7	0,4	-2,2	-2,0	0,0	1,2	2,1
Trade balance (% of GDP), balance of payments	-2,8	-0,2	3,3	2,6	1,9	.	.	.
Terms of trade of goods and services (y-o-y)	-0,7	-1,2	-0,2	-0,4	-0,6	-0,2	-0,3	-0,1
Capital account balance (% of GDP)	0,2	1,3	2,0	2,0	0,9	.	.	.
Net international investment position (% of GDP)	-47,3	-62,1	-63,4	-66,6	-65,6	.	.	.
NIIP excluding non-defaultable instruments (% of GDP) (1)	0,3	-10,1	-12,5	-14,8	-15,1	.	.	.
IIP liabilities excluding non-defaultable instruments (% of GDP) (1)	43,5	57,7	69,2	71,6	87,8	.	.	.
Export performance vs. advanced countries (% change over 5 years)	83,9	16,9	5,6	4,4	1,9	.	.	.
Export market share, goods and services (y-o-y)	.	.	0,2	6,7	-0,7	.	.	.
Net FDI flows (% of GDP)	-5,7	-2,0	0,2	-0,8	-2,0	.	.	.
General government balance (% of GDP)	-2,7	-5,3	-2,7	-2,2	-0,8	-0,6	-0,3	-0,1
Structural budget balance (% of GDP)	.	.	-2,0	-2,1	-0,9	-0,8	-0,8	-0,6
General government gross debt (% of GDP)	34,0	40,4	53,5	51,8	50,9	48,8	46,4	44,2
Tax-to-GDP ratio (%) (3)	30,5	28,7	31,2	32,4	33,2	33,2	33,2	32,9
Tax rate for a single person earning the average wage (%)	22,0	22,3	22,9	23,2	.	.	.	.
Tax rate for a single person earning 50% of the average wage (%)	14,2	14,7	15,4	15,0	.	.	.	.

(1) NIIP excluding direct investment and portfolio equity shares
(2) Domestic banking groups and stand-alone banks, EU and non-EU foreign-controlled subsidiaries and EU and non-EU foreign-controlled branches.
(3) The tax-to-GDP indicator includes imputed social contributions and hence differs from the tax-to-GDP indicator used in the section on taxation.
Source: Eurostat and ECB as of 31-1-2019, where available; European Commission for forecast figures (Winter forecast 2019 for real GDP and HICP, Autumn forecast 2018 otherwise)

2. PROGRESS WITH COUNTRY-SPECIFIC RECOMMENDATIONS

Since the start of the European Semester in 2011, 63% of all country-specific recommendations addressed to Slovakia have recorded at least 'some progress'. ([6]) By contrast, 37% have recorded 'limited' or 'no progress' (see Graph 2.1). For instance, some progress has been achieved in the area of taxation and tax compliance, in reforming the pension system, increasing labour market participation and in reducing poverty.

Graph 2.1: **Overall multiannual implementation of 2011-2018 country-specific recommendations (CSR) to date**



* The overall assessment of the country-specific recommendations related to fiscal policy excludes compliance with the Stability and Growth Pact.
** 2011-2-12: Different CSR assessment categories
*** The multiannual CSR assessment looks at the implementation from the first year of adoption up until the 2019 Country Report.
Source: European Commission

Slovakia has seen a gradual improvement in its fiscal position, but long-term challenges persist. Following the timely correction of Slovakia's excessive deficit situation by 2013, the general government deficit was reduced further until 2017, when the deficit reached -0.8 % of GDP. The fiscal consolidation was driven by buoyant revenue growth as well as adjustments on the expenditure side. Tax revenues growth was supported by swift and tax-rich economic growth, but was also facilitated by policy efforts to improve tax collection and reduce tax fraud, particularly in value-added tax. Ensuring gong-term fiscal sustainability remains a challenge in light of considerable spending pressures from population ageing, which are projected to push up pension and healthcare spending levels over the coming decades. Improving the cost-effectiveness of the healthcare system has been a long-standing challenge the Slovak government has paid considerable policy attention to, with efficiency savings and strategic reorganisation plans beginning to materialise.

Labour market policies have helped to underpin a significant improvement in the jobs market, with a much-needed focus on disadvantaged groups. The previously high unemployment rate has witnessed a remarkable decline from 2014 onwards and has now reached historic lows of close to 6%. Improving support for the long-term unemployed and other vulnerable groups has been high on the government's agenda for a number of years. Improving the range and effectiveness of active labour market policies remains a challenge and is make more acute by growing labour shortages. Some advances have been made in providing better-targeted and individualised support for jobseekers, particularly the long-term unemployed, but support services are still relatively thin. Very little progress has been made in tackling low Roma participation in the labour market.

Education and childcare reforms have been undertaken but they may take further time and effort to produce better outcomes. Progress has been made towards increasing the capacity of and access to early childhood education and care, particularly for the over threes, but the lack of childcare supply continues to be an issue. Mediocre education results at secondary level and a lack of job-market relevance and international attractiveness of universities have made education reforms and better funding a key policy priority, however tangible reform results can only be observed in the area of vocational education and training. Recent pay rises for teachers came as natural response to the tightening labour market, but as such are insufficient in raising the attractiveness of the profession. Supporting socially inclusive education, including of Roma pupils, deserves continued efforts and political commitment.

([6]) For the assessment of other reforms implemented in the past see in particular section 3.

Reforming public services and the public administration has proven to be a slow process, but with notable progress in some areas. The Slovak government has committed itself to greater efficiency and effectiveness in public spending and administration, an ambition underpinning the strategic spending reviews under the Value for Money initiative. Progress here is all the more important given persistent weaknesses in public administration and justice system, which still affect the business environment and deter entrepreneurship and investment. Human resource management and lacking analytical capacity in the civil service has been improved. There are clear signs of progress in modernising public procurement, where lack of competition and transparency have been long-standing challenges. Perceptions of corruption remain stubbornly high and have been met with only limited determination to prosecute high-level corruption cases.

Slovakia has made some progress in addressing the 2018 country-specific recommendations. ([7]) Some progress has been made with respect to the fiscal-structural part of the first country-specific recommendation, where relevant advances in improving the cost-effectiveness of the healthcare system are to be noted. Some progress is also visible in the second country-specific recommendation, as various activation and job-matching measures and programmes have been introduced. The implementation of the Action Plan for the long-term unemployed is progressing and a planned 1,800 new childcare places have been created in 2018. A new national reform programme for the development of education and upbringing (2018-2027) adopted in 2018 aims at improving the quality of education, increasing children's participation in early childhood education and care, and primary education, including measures dedicated to Roma children, however, the progress has been limited so far. Only limited progress has been made in addressing the third recommendation. The Public Procurement Office has helped to speed up public procurement procedures and increase the absorption of EU funds. By contrast, no discernible progress has been made in combatting the problem of corruption. Only limited progress has been made towards improving the effectiveness of the justice system as concerns over the independence of the judiciary persist. Limited progress has been made in stimulating business innovation, and measures to consolidate the public research system and make it more efficient have not yet been adopted.

([7]) Information on the level of progress and actions taken to address the policy advice in each respective subpart of a country-specific recommendation is presented in the Overview Table in the Annex. This overall assessment does not include an assessment of compliance with the Stability and growth Pact.

Table 2.1: **Summary table on 2018 CSR assessment**

Slovakia	**Overall assessment of progress with the 2018 CSRs: Some progress**
CSR 1: *Ensure that the nominal growth rate of net primary government expenditure does not exceed 4.1 % in 2019, corresponding to an annual structural adjustment of 0.5 % of GDP.* *Implement measures to increase the cost effectiveness of the healthcare system and develop a more effective healthcare workforce strategy.*	**Some progress*** • Some progress in increasing the cost-effectiveness of the healthcare sector and addressing staffing shortages.
CSR 2: *Reinforce activation and upskilling measures, including quality targeted training and individualised services for disadvantaged groups, in particular by delivering on the action plan for the long-term unemployed.* *Foster women's employment, especially by extending affordable, quality childcare.* *Improve the quality and inclusiveness of education, including by increasing the participation of Roma children in mainstream education from early childhood onwards.*	**Some progress** • Some progress has been made in improving activation and upskilling measures for disadvantaged groups. • Some progress has also been made in boosting the employment of women. • Limited progress has been made in improving the quality and inclusiveness of education.
CSR 3: *Increase the use of quality-related and lifecycle cost criteria in public procurement operations.* *Tackle corruption, including by ensuring enforcement of existing legislation and by increasing accountability at the level of police and prosecution.* *Improve the effectiveness of the justice system, in particular by safeguarding independence in judicial appointment procedures.* *Reduce the fragmentation of the public research system and stimulate business innovation, including for small and medium-sized enterprises.*	**Limited progress** • Some progress has been made in modernising public procurement operations. • Limited progress has been made in the fight against corruption. • Limited progress has been in improving the effectiveness of the justice system. • Limited progress has been made in creating a better-integrated public research system and stimulating business innovation.

* This overall assessment of CSR1 does not include an assessment of compliance with the Stability and Growth Pact
Source: European Commission

Box 2.1: EU funds and programmes contribute to addressing structural challenges and to fostering growth and competitiveness in in Slovakia

Slovakia is one of the largest beneficiaries of EU solidarity. In the current Multiannual Financial Framework, Slovakia receives more than EUR 15 billion in support to address development challenges. This is equivalent to around 2.5 % of GDP annually. This significant budget is to be invested in various areas, from creating **jobs** and **growth** to supporting **sustainable transport** as well as protecting **the environment** and investing in **research** and **innovation.** At the end of 2018, around 70 % of the total available funds equalling some EUR 10.7 billion had already been allocated to specific projects in various sectors.

EU funds have helped to address policy challenges identified in the 2018 country-specific recommendations. Slovakia progressed with the implementation of the Action plan for the Integration of the Long-Term Unemployed, driven by the European Social Fund, supporting disadvantaged groups with training and individualised services. European Structural and Investment Funds will also help to build or modernise up to 500 childcare facilities, out of which 300 will target the municipalities with high share of marginalised Roma communities. The European Social Fund further contributes to the reform of vocational education and training, in particular in dual education. By 2018, investments mainly driven by European Structural and Investment Funds have led to the construction or modernisation of 110 km of motorways and expressways to bring regions closer together and to unlock their economic potential. EU Funds also supported the digitisation of state administration and public services.

In addition, the Commission can provide tailor-made technical support at the Member State's request via the Structural Reform Support Programme to help Member States implement growth-sustaining reforms to address challenges identified in the European Semester process or other national reforms. Slovakia, for example, received support to improve its public finance performance, including through national capacity building to run expenditure review processes and achieve smarter expenditure allocation as well as through the design of a strategy to foster voluntary tax compliance. The Commission is also assisting the authorities in their efforts to improve the efficiency of the health system, in particular by providing options for optimising the hospital network in order to deliver effective healthcare and strengthen the role of general practitioners.

EU funds help to mobilise private investment. European Structural and Investment Funds mobilise additional private capital by allocating nearly EUR 900 million in the form of loans, guarantees and equity. This investment is expected to leverage additional private investment with a multiplier of approximately 14 for guarantees, 2.2 for loans and 1.7 for equity investments. In addition, the European Fund for Strategic Investments has allocated a total of EUR 537 million to projects in Slovakia, triggering EUR 1 billion in additional private and public investments. 11 531 small and medium-sized enterprises and mid-cap companies are expected to benefit from better access to finance.

EU funds and programmes under direct management complemented the European Structural and Investment Funds. Under the Connecting Europe Facility, EUR 710 million were allocated mostly to railway projects on strategic transport networks in Slovakia. Horizon2020 provided almost EUR 90 million to 285 Slovak research institutions, innovative firms and individual researchers.

EU actions strengthen national, regional and local authorities and the civil society. More than EUR 300 million have been allocated to strengthening capacity of public administration at different levels by prompting close cooperation with stakeholders. As regards multi-layer cooperation, the Prešov region was a pioneer of the Catching up Regions Initiative which will help to unlock the potential of Eastern Slovakia, with the World Bank being a key partner. The second active initiative in Slovakia, the Coal Regions in Transition Initiative, will help with the socio-economic and technological transformation of the Horna Nitra region for a future after the phasing-out of coal mining.

More information at: https://cohesiondata.ec.europa.eu/countries/SK

3. REFORM PRIORITIES

3.1. PUBLIC FINANCES AND TAXATION

Taxation and tax compliance

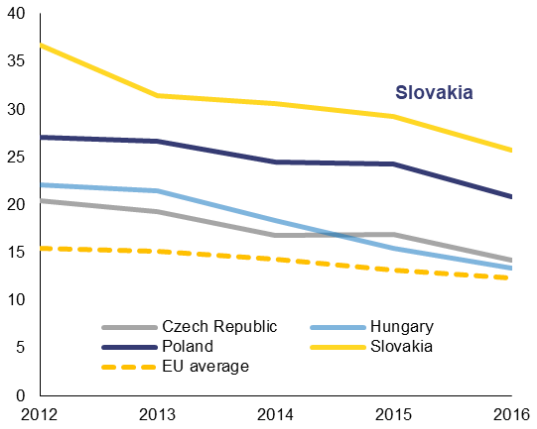
Slovakia's fiscal deficit is falling and fiscal revenues in relation to GDP are increasing from low levels. The general government deficit fell from 2.6 % of GDP in 2015 to 0.8 % in 2017, and government debt was reduced to 50.9% of GDP over the same period. In 2017, the tax-to-GDP ratio stood at 33.0 % of GDP (EU average: 39.0) and is projected to remain around that level in both 2018 and 2019 (Commission 2018 autumn forecast).

Revenues from labour taxes are the biggest source of tax revenue. ([8]) Labour taxes and social security contributions are particularly important in the current tax mix (53.9 % of total taxation; 49.7 % in EU in 2016). By contrast, the shares of revenues from consumption and capital taxes on total taxation are below the EU average. Taxes on production and imports are some of the lowest in the EU. The preponderance of employment-related revenues exposes public finances to cyclical and structural changes in labour market, including from greater automation and the move to industry 4.0 (see section 3.3).

Revenue from recurrent property taxes and environmental taxation are both among the lowest in the EU. While these tax types are considered less detrimental to growth, total revenue from recurrent taxes on immovable property stood at 0.4 % of GDP in 2017 (European Commission, 2019b), which is considerably lower than the EU average of 1.6 %. Revenue from environmental taxes, at 1.8 % of GDP in 2017, is also somewhat below the EU average of 2.4 %. The implicit tax rate on energy was among the lowest in the EU in 2016, at 115.2% (EU: 246.8 %)([9]). This is an indication that Slovakia may be underutilising property and environmental taxation as revenues. Well-designed policies could potentially shift the tax-burden away from labour, shield vulnerable groups such as low-income families from undue tax rises, and reduce distortions from direct taxation.

The tax wedge ([10]) on labour is higher than the EU average across the income scale. The highest difference in the tax wedge was for a single low-income earner (at 67 % of the average wage) with two children, which stood at 28.5 % in 2017, compared to an EU average of 17.9 %. Also, the tax wedge for first earners with two children and income at 67 % of average wage was 3.2 pps higher than the EU average in 2017. When the secondary earner enters the labour market, the primary earner loses the dependent spouse allowance. This represents a financial disincentive to female labour market participation and may partly explain Slovakia's low female employment rate of 64.7% in 2017. Nevertheless, Slovakia's relatively low inactivity trap suggests the disincentive is not especially pronounced.

Graph 3.1.1: **Value-added tax compliance gap (2012-2016)**



Source: Centre for Social & Economic Research/CASE (2018)

Tax compliance has improved. Between 2015 and 2016, compliance in paying value-added taxes improved, with the value-added tax gap decreasing by 3.6 pps. However, the level of corresponding revenues lost in 2016 was estimated at 25.7 % of theoretical value-added tax liability, considerably above the EU average of 12.3 %. The rise in value-added tax compliance suggests that policy

([8]) These consist of personal income taxes and social security contributions. Social contributions as % of total taxation were, at 43.8 %, the highest in the EU (25.2 %) in 2016.

([9]) The implicit tax rate on energy is expressed in euro per tonne of oil equivalent (TOE).

([10]) The tax wedge shows the % difference between the costs of a worker to the employer and the employee's net earnings.

measures taken in recent years (such as the 'control statement') have started to show effect, even if it is still too early for a comprehensive evaluation. However, measures like the reduction of fees for the issuance of tax rulings only had limited effects. Voluntary tax compliance may potentially improve if guided by appropriate policy efforts, while call centres and pre-filled tax returns continue to provide useful and practical support to taxpayers.

Anti-fraud measures should improve control efficiency and increase value-added tax collection. Notably, a unified analytical centre is planned to be set up. Moreover, entrepreneurs will be obliged to use online cash registers ('eKasa'), which is likely to improve value-added tax collection and tackle fraud at the retailers' level. Similar improvements are anticipated from the introduction of fuel additives ('nano-markers'), which should help reduce the high tax gap in the excise duties on mineral oils due to smuggling and counterfeiting of fuels. ([11]) The true impact of these measures is likely to become visible by the end of 2019.

In 2018, specific anti-avoidance measures were introduced. Greater use of fair value instead of the historical prices should strengthen the tax regime for mergers and acquisitions. Anti-avoidance measures introduced in 2018 include an exit tax and rules on hybrid mismatches. Controlled foreign corporation rules for legal entities apply as of 1 January 2019. Taken together, these measures are expected to increase the amount of the tax levied. Specific base erosion and profit shifting challenges were addressed by strengthening various legal definitions (e.g. beneficiary; owner of income; permanent establishment of foreign companies operating through digital platforms; and income from sources in Slovakia). In addition, the definition of tax residence for individuals was broadened by including non-residents with strong ties to living in the country.

The taxation system imposes considerable compliance costs on businesses. Slovakia shows a relatively high cost of tax compliance for businesses — which captures both the effect of the tax rules themselves as well as the costs of interacting with tax authorities — compared to other EU Member States, particularly for direct taxes. Entrepreneurs call for greater stability and predictability of the tax environment. ([12])

Audit activities and cross-checking remain cornerstones of the compliance strategy. The frequency of value-added tax audits declined in 2017 amidst a shift towards income tax audits. Voluntary compliance is likely to be encouraged through the introduction of a tax reliability index ([13]) adopted in December 2018 that assesses a taxpayer's risk profile on the basis of publicly known criteria. Top-ranked tax-payers will be entitled to enhanced services. ([14])

Fiscal framework and spending review

Regular spending reviews supported the public discussion on the quality of public finances. Since 2016, spending reviews prepared in the context of the 'Value for Money' project have covered numerous areas such as healthcare, information technology, transport, education, environment, labour market and social policies, agriculture, marginalised Roma communities and the public wage bill. ([15]) Selected studies were made also in the area of defence. Reviews are followed by interim implementation reports prepared by the Implementation Unit at the Office of the Prime Minister.

Spending review assessments are to be integrated in the budgetary process. So far spending reviews have had a limited impact on government priorities and spending plans. The amendment of the Act on Budgetary Rules, approved by the government, will oblige subsequent governments to carry out spending reviews covering an amount equivalent to at least half of the expenditure volume in the general government budget over a four-year period. Reviewing the implementation of these spending reviews recommendations would be a mandatory part of the budgetary documentation.

([11]) The Ministry of Finance estimated the tax gap in excise taxes from mineral fuels at between 13.7 and 16.8 % in 2017. See Daňový report SR 2018, MFSR, 2018, p.49.

([12]) E.g. Act No. 595/2003 Coll. Income Tax Act was amended at least 76 times during last 15 years.

([13]) The formula and calculation will be confidential.

([14]) The tax authority shall send the taxable entity a notice of special tax regimes (benefits). List these regimes will be published on website of the financial administration.

([15]) See European Commission (2017, Country Report)

The budgeting framework still shows certain gaps in terms of coverage, time horizon and reliance on cash accounting. The State Budget Act determines budgetary aggregates only for a part of the public administration and one year ahead. However, the ceilings do not cover the local government sector, social security and other general government entities. To address these shortcomings, binding expenditure ceilings were planned in the constitutional law of 2011 but have not been introduced. Yet, based on a recently published discussion paper by the Ministry of Finance, the government plans to launch simulated expenditure ceilings in 2019 (Ministry of Finance 2018e).([16]) The purpose and impact of this initiative remains to be assessed in future.

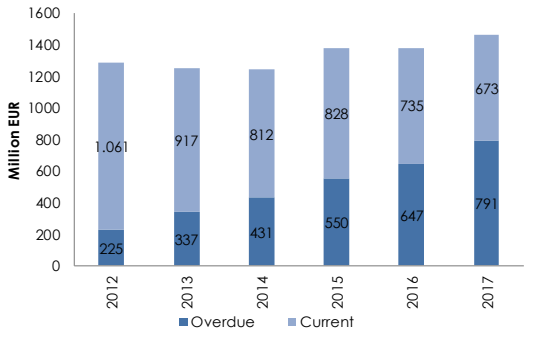
Debt sustainability analysis and fiscal risks

Public finance faces primarily long-term risks. ([17]) The fiscal sustainability gap indicator S2 shows that, relative to the baseline no-policy-change scenario, a cumulated improvement of 2.5 pps of GDP in the structural primary balance would be required to stabilise the debt-to-GDP ratio over the long term. This result is due to the projected increase of ageing costs (contribution of 2.4 pps of GDP), and a slightly unfavourable initial budgetary position (contribution of 0.1 pps of GDP). Pensions and healthcare outlays are projected to remain the main drivers of Slovakia's long-term ageing costs (European Commission 2019). Taken jointly, these two items are expected to contribute by 1.8 pps of GDP (European Commission, 2019a; European Commission, 2017c) As a result, the S2 indicator implies that long-term fiscal sustainability risks are medium for Slovakia. ([18]) This assessment excludes the adverse potential impact from capping the retirement age in the constitution, which is currently under discussion in Parliament.

Healthcare

Despite regular debt relief from the public budget, the healthcare sector continues to accumulate debt. At the end of 2017, the sector's total debt amounted to EUR 1.46 billion ([19]) (Graph 3.1.2). More than half of this amount represented overdue liabilities, mostly to providers of medical supplies, followed by the Social Insurance Agency. In 2018, the government carried out the first step of a three-step debt settlement plan for hospitals. This round for EUR 187 million ([20]) should help reduce the growth rate of future arrears. To be eligible to participate in the final two steps of the programme, health providers are required to negotiate a restructuring plan with the Ministry. However, the pattern of regular debt relief by the government does not appear to tackle the root causes leading to the steady accumulation of arrears in hospitals. Despite the savings associated with the implementation of measures from the Value for Money spending review, revenues from health insurers fail to cover the operating costs of all hospitals, pointing to possible under-budgeting and inadequate monitoring and management practices.

Graph 3.1.2: **Liabilities of health sector units included in general government (2012-2017)**



Source: Ministry of Health of the Slovak Republic

The implementation of reforms to improve the cost-effectiveness of the health system continues. ([21]) Measures implemented in the context of the first spending review have reduced

([16]) https://www.finance.gov.sk/sk/financie/institut-financnej-politiky/publikacie-ifp/diskusne-studie/3-skrutkovac-hodnotu-za-peniaze-oktober-2018.html

([17]) For an overview of fiscal sustainability, see European Commission (2019a) and Annex B.

([18]) S2 determines the upfront structural adjustment required to stabilise the ratio of gross public debt/GDP in the long run.

([19]) This is the amount of total liabilities in 2017. The amount consists of liabilities reported by health insurance companies (EUR 399 million), healthcare facilities set up by the ministries EUR 873 million), non-profit organisations and health facilities established by municipalities and regions (EUR 131 million) and joint stock companies (EUR 60 million).

([20]) A maximum of EUR 585 million from state assets will be used to settle hospitals' debts.

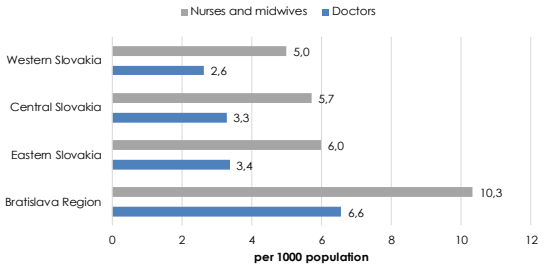
([21]) Kuenzel and Solanic 2018: Improving the Cost-Effectiveness of Slovakia's Healthcare System, EC, 041/2018.

wasteful spending on health by about EUR 108 million per year in 2017 and 2018 vis-à-vis a target of EUR 190 million. The interim implementation report on the second healthcare spending review showed that only limited savings were generated in the first half of 2018. These were achieved mainly in public health insurance, while spending in hospitals has continued to grow. The greatest savings were attained through the review of medical aids and limiting the over-consumption of pharmaceuticals and cost-control improvements at the National Insurance Company. The main features of the eHealth system, launched in 2017, are operational, and the piloting of the diagnosis-related group system — so far only for monitoring purposes — is gradually progressing. An ambitious reform of the hospital network to streamline the use of inpatient resources by concentrating hospital capacity both regionally as well as functionally was recently developed, with a project timeline to 2030.

Health workforce shortages are a challenge that disproportionately affects citizens in rural and disadvantaged areas. The number of nurses per capita is lower than the EU average (5.7 compared to 8.4 per 1000 population in 2016) and has decreased sharply in the past years due to the increasing number of nurses leaving to work abroad. Recent estimates by the Ministry of Health show that hospitals face a shortage of over a thousand nurses, and that only 44 % of domestic nursing graduates actually take up nursing jobs (Ministry of Health, 2018). To improve recruitment and retention rates, the government plans to increase salaries for nurses, midwives and health care assistants by between 10-16 % in 2019, and to set up incentives for nursing graduates to start their career in Slovakia. While the number of doctors in Slovakia is in line with the EU average, recruiting doctors in certain regions is a challenge. The difference in the doctors-to-population ratio between the capital region and the rest of the country (Graph 3.1.3) is one of the highest in the EU, posing barriers for citizens' ability to access care in a timely and equitable manner.

The lack of general practitioners and excessive avoidable hospitalisations indicate a need to strengthen primary care. Slovakia has one of the lowest shares of general practitioners in the EU, and only 9 % of medics decide to specialise in general practice (Giorno, C. and K. Londáková, 2017c). Shortages of general practitioners may lead to above-average rates for avoidable hospital admissions negatively affecting efficiency and quality of care. Significant differences in the geographical distribution of general practitioners are observable as well, implying accessibility challenges and corresponding investment needs.

Graph 3.1.3: **Medical personnel by NUTS 2**



Source: Eurostat, 2016 for medical doctors, 2014 for nurses

Public health is gradually improving but sizeable socio-economic health disparities exist. Over the last five years, the gap with the EU average life expectancy at birth has narrowed by almost five months. However, in 2016 life expectancy for Slovak men and women remained lower than the EU average by 4.4 and 2.9 years, respectively. Differences based on socio-economic status are significant: the life expectancy gap between citizens with tertiary education and those with less than lower secondary education was 10.4 years in 2016.

Quality of care is improving, albeit from a relatively low level. Despite some reduction achieved over the last five years, the rate of premature deaths ([22]) remains high almost double the EU average. Deaths due to cardiovascular diseases and cancer remain the main causes of mortality, accounting for 45 % and 26 % of all deaths in 2015. While quality of acute care for cardiovascular diseases has registered some developments over the past years, cancer survival and screening rates have improved only marginally and remain below the EU average. ([23])

Disease prevention and public health show some weaknesses. Estimates show that 37% of the total burden of disease in Slovakia in 2017 was

([22]) Amenable mortality is defined as premature deaths (under age 75) that could be avoided with effective healthcare.

([23]) In an effort to lower the cancer incidence and mortality, the government approved a national cancer plan in 2018.

attributable to lifestyle-related risk factors (IHME, 2017). The lack of effective coordination between care sectors, as well as a significant decrease in prevention spending in the past years, negatively affected the impact of existing health promotion programmes.

3.2. FINANCIAL SECTOR

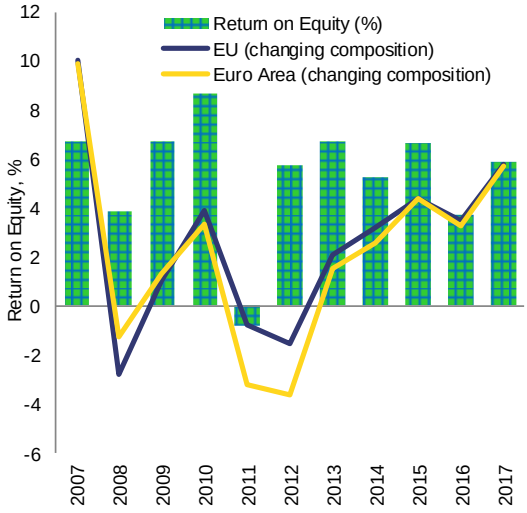
Banking sector

Slovakia's small banking sector performs well but fast-growing private indebtedness may threaten future prospects. There are 25 banks operating in the country and together they control close to 70 % of the total financial assets. Half of these are controlled by 3 major players. Retail loans (consumer and housing) continue to dominate the credit market, and have been growing faster than corporate loans in the first half of 2018 (11.2 % year-on-year vs 5.4 % year-on-year). In the same period, Slovakia recorded one of the fastest credit growth rates in the non-financial private sector in the EU. The rapid growth of household indebtedness in particular was also identified by the National Bank of Slovakia as a potential risk to the stability of the financial sector.

Financial indicators remain sound while bank profitability has dropped to around EU average levels. The overall banking sector's return on equity stood at 5.9 % in 2017. Having historically stood above EU and euro area averages, it has trended downwards in the recent period towards these levels (of 5.8 % and 5.7 %, respectively). Rising wages in the banking sector, low interest rates and the special bank levy have resulted in higher operational costs and reduced revenues. This translated into a cost-to-income ratio very close to EU and euro area averages. Interest rates play a particularly important role in shaping profits. According to data produced by the National Bank of Slovakia, a drop of 0.1 % in net interest margin implies a decline of around 10 % in banks' net profits. Profits are also squeezed through Slovakia's maturing and increasingly saturated credit market, as lending expansion and rate-cutting are no longer viable options. Banks may therefore have to find new ways to maintain margins, e.g. by investing in new technologies.

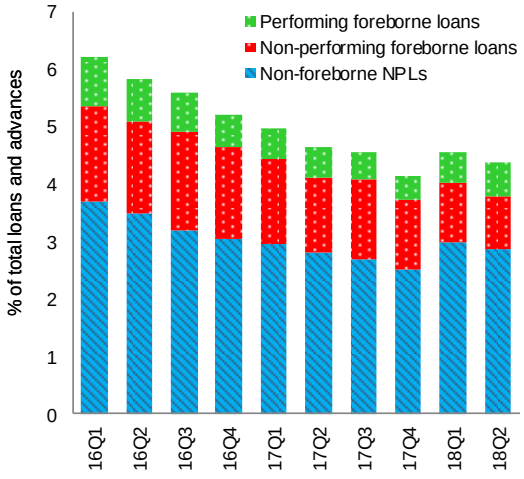
Aggregate credit quality appears to be good as the non-performing loans ratio has been steadily declining. Amidst a low credit cost environment, supported by a well-performing labour market, the ratio of non-performing loans fell to 3.8 % in Q2 2018, one of the lowest in the EU (3.6 % in EU). The ratio of performing to non-performing forborne loans improved slightly in the recent period, which could be an indication that banks are offering more accommodating conditions when renegotiating terms. Looking ahead, the swift expansion of banks' balance sheets increases the absolute level of financial risk, even in the absence of deterioration in credit quality. This could pose a particular challenge for the banks which saw a reduction of their highest-quality (equity) components in their capital structures.

Graph 3.2.1: **SK Banks return on equity**



Source: Eurostat, ECFIN calculations

Graph 3.2.2: **NPL and performing forborne loans**



Source: Eurostat, ECFIN calculations

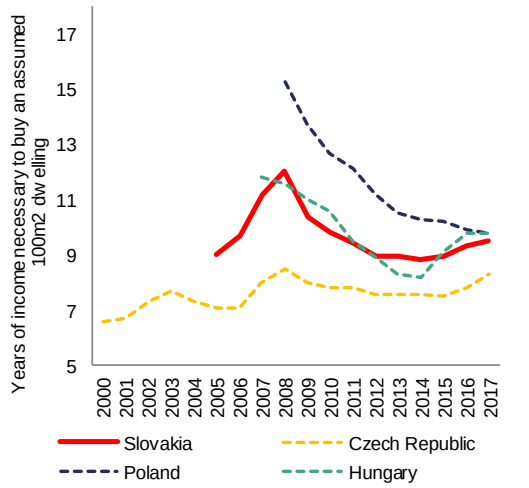
The National Bank of Slovakia took steps to slow the growth in the debt of household and non-financial corporations. Starting in July 2018, an amendment to the National Bank of Slovakia decree 10/2016 entered into force, limiting the new

mortgage loans loan-to-value ratio to 90 %, down from 100 % previously. Further restrictions were also introduced to limit the proportion of new loans with a ratio> 80 % to under 30 % of total new loans (down from 40 % and > 90 % previously) as well as to the maximum indicative debt-to-income levels. These thresholds will be further tightened in 2019 and are likely to have contributed to the moderation in house price growth in the second half of 2018. Additional measures were taken by the National Bank of Slovakia in relation to the minimum mandatory capital buffers for the five largest banks operating in Slovakia, effective from January 2018. As Slovakia's banks are well-capitalised, fulfilling the minimum requirements for own funds (capital) and eligible liabilities is generally considered unproblematic in current, liquid market conditions.

Housing market

Similar to other Central and East European countries, housing prices continue to rise. In Q3 2018, residential property prices (on average EUR 1433/ m2) surpassed their previous peak of Q2 2008. In 2018 house price inflation moderated from 4.8 % year-on-year in Q1 to just 4.0 % in Q3, a virtually unchanged level from the previous quarter. Prices are heavily skewed towards the Bratislava area where the average price / m2 is EUR 2000, almost double compared to the next most expensive regions, Trnava and Košice.

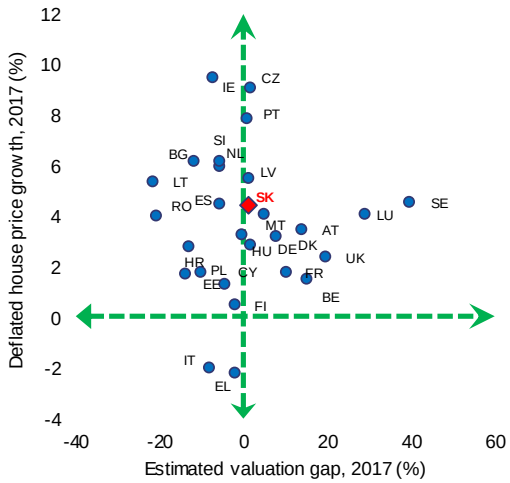
Graph 3.2.3: **House price to income ratio**



Source: Eurostat, ECFIN calculations

The estimated valuation gap for housing prices in Slovakia is close to zero. According to Commission calculations, the alternative valuation metrics suggest no significant overvaluation imbalances and the growth rates recorded in the past years appear sustainable. In particular, price-to-income measures do not point to an overheating housing market. Affordability remained stretched in 2017, with an average of 9.5 years of income needed for the acquisition of 100 m2, which is broadly in line with the long-term average.

Graph 3.2.4: **Valuation Gap**



Source: Eurostat, ECFIN calculations

Demand for housing is fuelled by a positive economic climate, but also a lack of alternative housing options. Slovakia ranks very high in EU in the share of young people (aged 25-34) still living with their parents (57 % v the EU average of 28 %; Eurostat, 2019) and in the high number of persons sharing rooms. Slovaks also leave their parents' house at the age of 31 on average, putting them among the latest in the EU. The thin rental market means that young people often struggle to move to rented accommodation as an intermediate step towards home ownership (see chapter 3.3). Less than 9 % of the population rents at market prices, usually in Bratislava and a few other cities. The lack of property for rent keeps the cost of renting high (in some cases even higher than the cost of ownership), while also limiting labour mobility. Lower income groups are particularly hard-hit, being priced out of the rental and ownership market, while also suffering from a shortage of social housing in major cities. Housing

infrastructure available for social housing is a prerequisite for effective roll-out of social policies.

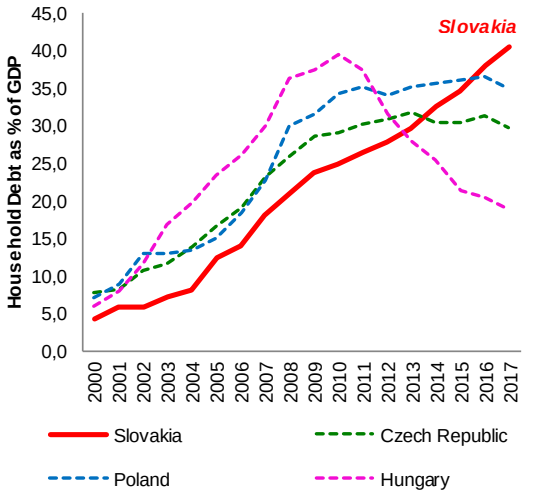
Household debt

Household debt continues to rise and poses a potential risk to the stability of the banking sector. A favourable economic outlook, historically low interest rates, high employment and rising wages have encouraged households to take on increasing amounts of debt. However, households' disposable income did not rise as fast as GDP or wages over the past 10 years (2008-2017 average GDP growth 2.5 %, wages 3.1 %, disposable income 1.6 %). Slovakia recorded the highest growth in terms of household debt to GDP in 2017 and the first half of 2018 in the EU. This debt mostly consists of mortgage loans, associated with a culture of home ownership. Slovakia ranks very high in the EU in terms of people living in owned dwellings (90.1 % versus 70 % and 66 % and euro area averages). All these were major contributing factors to the accumulation of debt.

Intermediaries such as mortgage brokers play a major part in keeping the flow of new mortgages high. Around 60 % of new mortgages are arranged via brokers, whose earnings consist of commissions earned upon the signing of a new borrowing agreement. While brokerage activities have helped to create more liquid mortgage markets, they have also contributed to households regularly re-financing their mortgages at lower rates while leaving debt service costs typically unchanged. This in turn has eroded financial buffers for households in the event of interest rate increases, and the reliance of banks on brokers has driven down banks' lending margins.

Higher household savings can create financial buffers to cope with rising debt service costs. Looking ahead, potential rising interest rates will pose a double risk to households. First, the debt service effort will increase and squeeze household finances. Second, some households may no longer qualify for mortgage loans on the basis of the macro-prudential rules in force, which may cause them to substitute mortgage financing with more expensive consumer loans. The impact of rising interest rates is enhanced by the generally long terms of existing mortgage and consumer loans (more than 26 years on average for housing and seven years for consumer loans). Households appear to have responded to rising house prices by extending mortgage maturities, as during 2017 63 % of mortgages were issued at 30-year maturities (the permitted maximum), up from 54 % in 2016.

Graph 3.2.5: **Debt / GDP, Households**



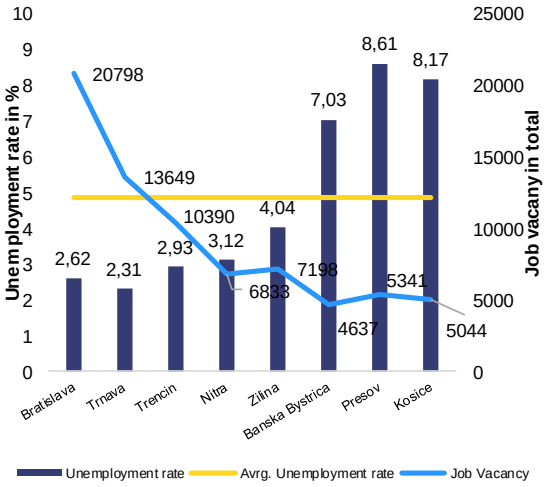
Source: Eurostat / ECFIN calculations

3.3. LABOUR MARKET, EDUCATION AND SOCIAL POLICIES

Labour market

Strong economic growth has led to significant labour market improvements but structural challenges persist. The unemployment rate reached a new historical low of 6.1 % in Q4-2018 (seasonally adjusted). Supported by the creation of around 50 000 new jobs compared to Q3-2017, the employment rate (20-64) increased to 72.5 % in Q3-2018 and wages continued to grow at a fast pace. Despite these improvements, important regional and gender disparities in terms of employment levels and job vacancies persist. The unemployment rate remains relatively higher in three regions of southern and eastern Slovakia.

Graph 3.3.1: **Unemployment rate by regions December 2018**



Source: Central Office of Labour, Social Affairs and Family

Demographic trends and new production processes will have an important impact on the labour market. While the population is set to decline across the country in the long term (2035), it is forecasted to decrease the most in the regions that are already facing labour shortages (except for Bratislava). It is also estimated that 33 % of all jobs in Slovakia are highly automatable and another 31 % are at risk of a substantial change in how they are carried out (OECD, 2018a). Cumulatively, these estimates indicate that close to two thirds of jobs are at risk, the highest rate among Organisation for Economic Co-operation and Development countries. Automation can also contribute to the creation of new jobs. This requires sizeable investment in adapting to new labour market demands requiring new and more advanced types of skills and competences (European Commission, 2018g). Currently, only 33% of Slovaks have above basic digital skills.

The number of vacancies is increasing. Employers report increasing difficulties in finding workers with the required qualifications. Vacancies registered at the public employment services confirm this increasing trend. Over the past two years the number of vacancies doubled and reached 84 000 in September 2018. In 2017, the bulk of vacancies are concentrated in the public administration (22.6 %), manufacturing (16.3 %), trade (8.9 %) and transports (8.7 %). Job vacancy ratios differ significantly among regions, with a clear negative correlation with the unemployment rate (Graph 3.3.1). The ratio ranged from 1.25 in Bratislava to only 0.13, on average, in the regions of Banská Bystrica, Prešov and Košice in December 2017.

Growing labour demand attracted significant numbers of migrant workers. In September 2018, there were 65 000 foreigners working in Slovakia, a 40 % increase from 2017. Since 2016, immigration has been dominated by non-EU nationals, notably from Serbia and Ukraine, who now constitute approximately half of all foreign workers (Ministry of Finance, 2018g). As of May 2018, Slovakia has relaxed requirements for employing migrants from third countries, introducing a simplified procedure for filling designated scarce jobs in districts with unemployment levels below 5% (up to a maximum of 30 % of employees per enterprise). The inflow of foreign workers is unlikely to fully meet the growing demand for labour, which signifies the importance of addressing domestic barriers to higher labour market participation.

Box 3.3.1: Monitoring performance in light of the European Pillar of Social Rights

The European Pillar of Social Rights is designed as a compass for a renewed process of upward convergence towards better working and living conditions in the European Union.[1] It sets out twenty essential principles and rights in the areas of equal opportunities and access to the labour market; fair working conditions; and social protection and inclusion.

Slovakia faces some challenges on the indicators of the Social Scoreboard supporting the European Pillar of Social Rights. The long-term unemployment rate remains high despite improvements. The impact of social transfers on poverty reduction deteriorated and the early school leaving is on the rise. On the positive side, income inequality and the share of people at risk of poverty or social exclusion remain low, while both employment and unemployment rates are improving at a fast pace. Access to public services, including healthcare, is difficult in particular in some regions, thereby negatively affecting social inclusion of disadvantaged groups.

SOCIAL SCOREBOARD FOR SLOVAKIA		
Equal opportunities and access to the labour market	Early leavers from education and training (% of population aged 18-24)	To watch
	Gender employment gap	Better than average
	Income quintile ratio (S80/S20)	Best performers
	At risk of poverty or social exclusion (in %)	Better than average
	Youth NEET (% of total population aged 15-24)	On average
Dynamic labour markets and fair working conditions	Employment rate (% population aged 20-64)	On average
	Unemployment rate (% population aged 15-74)	On average
	Long-term unemployment (% population aged 15-74)	To watch
	GDHI per capita growth	On average
	Net earnings of a full-time single worker earning AW	Critical situation
Social protection and inclusion	Impact of social transfers (other than pensions) on poverty reduction	On average
	Children aged less than 3 years in formal childcare	Critical situation
	Self-reported unmet need for medical care	On average
	Individuals' level of digital skills	On average

Members States are classified according to a statistical methodology agreed with the EMCO and SPC Committees. The methodology looks jointly at levels and changes of the indicators in comparison with the respective EU averages and classifies Member States in seven categories (from "best performers" to "critical situation"). For instance, a country can be flagged as "better than average" if the level of the indicator is close to EU average, but it is improving fast. For methodological details, please consult the draft Joint Employment Report 2019, COM (2018)761 final. Data update of 29 January 2019.
NEET: neither in employment nor in education and training; GDHI: gross disposable household income.

The enrolment in early childhood education and care remains very low. Less than 2 % of children under the age of 3 are in formal childcare, compared to the EU average of 33 % as highlighted by the Social Scoreboard. This is mostly driven by generous maternity leave conditions and also the insufficient availability of childcare services. In the school year 2017/2018, there was a significant surplus in demand for places in kindergartens, with 7.7 rejected applications per 100 enrolments. The situation was particularly critical in the two biggest cities Bratislava and Košice, where the refusal rate was 27 % and 12 % respectively (IFP 2018).

A dual vocational education and training scheme was introduced in 2015. It aimed at making vocational education and training more relevant to the needs of companies and more attractive to learners. However, while the scheme attracted a significant attention of employers, the interest of young learners remained moderate. An additional 2018 amendment lifted remuneration ceiling for learners' productive work, while recognising only remuneration up to 100 % of minimum wage as tax deductible. It abolished the disincentives for schools to enter dual vocational education and training by ensuring full per capita funding for participating institutions. Finally, it harmonised curricula for dual learners and non-dual learners receiving the same qualification. These changes have led to a quadruple increase in new enrolments of apprentices, from 422 in the school year 2015/2016 to 1 615 in the school year 2018/2019.

[1] The European Pillar of Social Rights was proclaimed on 17 November 2017 by the European Parliament, the Council and the European Commission: https://ec.europa.eu/commission/priorities/deeper-and-fairer-economic-and-monetary-union/european-pillar-social-rights/european-pillar-social-rights-20-principles_en

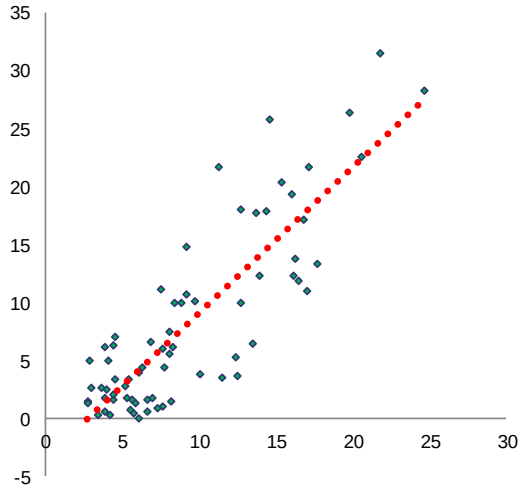
Long-term unemployment remains a serious challenge. The long-term unemployment rate (as a share of the active population) decreased by 1 pp (y-o-y) to 4.0 % (109 000 people) in Q3-2018, well above the EU average of 2.9%. The average duration of unemployment was among the highest in the EU. A 60 % share of long-term unemployed among all unemployed signals structural challenges related in particular to educational attainment, low intra-country mobility and regional differences in job opportunities. In 2017, 23.1 % of the low-skilled were without a job for more than a year, compared to 4.6 % of the medium-skilled and 1.7 % of the high-skilled. Almost 60 % of the low-

skilled long-term unemployed are under 29 years of age, reflecting increasing school drop-out rates. Three quarters of the long-term unemployed are concentrated in three regions: Prešov, Košice and Banská Bystrica.

The share of young people neither in employment nor in education and training is decreasing albeit from a high level. In 2017, the rate (age group 15-29) was 16 %, above the EU average of 13.4%. The rate for the age group 15-24 decreased to 11 % in Q2-2018, slightly above the EU average of 10.5 %. Youth unemployment (age 15-24) decreased at a faster pace (by 4 pps year-on-year) and was 14.2 % in Q4-2018, now below the EU average. The Youth Employment Initiative contributed to the positive trend. By end of October 2018, it provided activities for more than 48 000 young people, with two thirds thereof then continuing in other educational, training or employment activities. Therefore, continued investment in this area remains important.

The situation of Roma people in the labour market is particularly weak. The Roma, living predominantly in rural areas, are estimated to make up close to 8 % of the total population (UNDP, 2014), with about half living in marginalised Roma communities. There is a correlation at a district level between the share of Roma in the total population and the unemployment rate (Graph 3.3.2). In 2016, the unemployment rate among Roma was estimated at 48 %, with only around 25 % of Roma aged 20-64 being engaged in 'paid work' (FRA, 2016). The situation is more challenging among the inhabitants of marginalised Roma communities, for whom the employment rate was 20.7 % (16 % for women and 26 % for men). Employment levels are volatile, with a dominance of temporary contracts and seasonal works (Ministry of Finance, 2018b). An insufficiently inclusive education system and discrimination in the labour market (FRA, 2016) contribute to the ethnic segmentation of the labour market and the adverse employment outcomes of the Roma population.

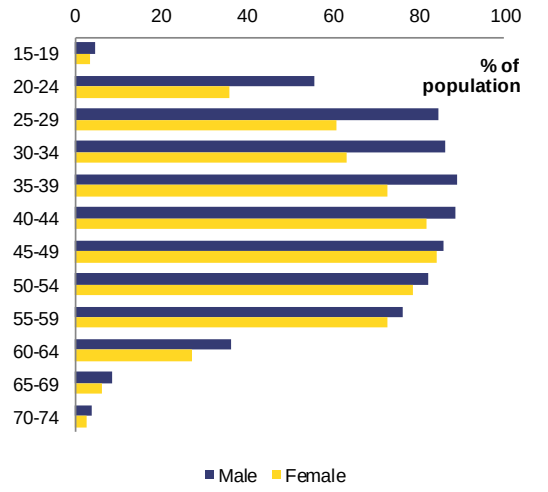
Graph 3.3.2: **Link between unemployment rate (% x axis, Q1-2017) and share of Roma population (%, y axis)**



Source: Institute for Economic and Social reforms based on data by the Central Office of Labour, Social Affairs and Family, and the Atlas of Roma Communities 2013 and the

The gender employment gap is decreasing but the employment rate of women of childbearing age is not improving. The gender employment gap decreased by 1.4 pps. to 12.8 % in 2017, above the EU average of 11.5 %. This improvement was mainly driven by the higher employment rate of women aged 45+. By contrast, the employment rate of women aged 25-34 years decreased, contributing to widening the gap for this age group which is above 20 pps (Graph 3.3.3). The overall gender pay gap of 19 % is above the EU average (16.2 %). The very low enrolment rate of young children in childcare, the low uptake of flexible working arrangements and limited measures supporting female entrepreneurs are contributing factors.

Graph 3.3.3: **Employment rates by age group and sex, 2017**



Source: Eurostat

New measures have been adopted to support female labour market participation. A new legislative framework for childcare entered into force in January 2018. It has extended access to childcare to unemployed parents, on the condition that their child does not take the place of a child whose parents are employed or in education. Slovakia has committed to use EU funds in 2014-2020 to build or renovate 500 childcare facilities, with a focus on access to childcare for the marginalised Roma.([24]) The construction of these facilities is on-going but more investment is necessary to address the unmet demand.

Labour market policy

Spending on active labour market policies is among the lowest in the EU. Public expenditure on active labour market policies stood at 0.2 % of GDP in 2017. Their implementation reflects existing regional disparities, with 62% of the budget and 66% of all corresponding job placements targeted at the three regions with the highest unemployment rate. Employment incentives, mostly through job subsidies, were the dominant active labour market policy measure (84% of the budget). A quarter of the budget targeted people with disabilities. In addition, significant financial resources were spent on activation works (public work schemes), which do not include an upskilling component. By contrast, training and learning measures remain marginally used, requiring further investment.

The targeting of active labour market policies to the disadvantaged groups remains a challenge. Research, such as the Value for Money analysis of the public employment system in 2016 or the ex-post evaluation (KPMG, 2018), point out several weaknesses. These include the lack of a targeted approach to the low-skilled, in particular the marginalised Roma communities, who are instead typically included in public works schemes with low transition rates to the primary labour market. There is also a lack of early intervention systems and profiling remains basic. Few non-governmental providers are involved in active labour market policy provision.

The implementation of the Action Plan for the Integration of the Long-Term Unemployed is progressing. Single points of contact were strengthened at all Labour Offices. Job integration agreements were introduced, covering, among others, professional reorientation, education activities and social counselling. By September 2018, 61 500 long-term unemployed had signed the agreement. The Action Plan was adopted in November 2016 for a period of two years, but investment in this group remains a priority.

Adult learning is below the EU average. In 2017, only 3.4 % of adults received formal or non-formal education and training, one of the lowest rates in the EU (EU average of 10.9 %). ([25]) Adult learning was mainly supported within the framework of active labour market policies and relied heavily on EU funding (70 % of its total funding in 2015).

The social economy sector remains underdeveloped but measures have been taken to stimulate its growth. In 2017, only 2.1 % of the working population was employed in the social economy sector, well below the EU average of 6.8 %. Important persisting barriers include: a) lack of financial capital and of entrepreneurial skills in the population; b) weak coordination of the policy with the public employment service; c)

([24]) Based on indicators outlined in the Human resources operational programme and the Integrated regional operational programme.

([25]) As confirmed by the results of the benchmarking exercise in the area of adult learning and skills conducted within the Employment Committee, see the draft Joint Employment Report 2019.

insufficient inclusion of social aspects in public procurement procedures; and d) limited access to decent housing. In the disadvantaged regions, social enterprises also struggle with the low purchasing power of the local population (Škobla, D. et al.2018). The March 2018 Social Economy and Social Entrepreneurship Act laid down a new legal framework, which should allow for more investment in this sector.

Facilitated access to personal bankruptcy is bringing positive results. The risk of earnings becoming subject to seizure proceedings deters those in debt from the labour market, consequently further marginalising the homeless, long-term unemployed and Roma. The revision of the Act on Bankruptcy and Restructuring implemented in the course of 2017 and 2018 facilitated personal bankruptcy proceedings. During the first eight months of 2018, there were 71 % more debt relief actions than during the whole of 2017. Applicants are assisted by the Centres for legal assistance, under the Ministry of Justice. Addressing indebtedness is also relevant for tackling undeclared work, which is estimated to be higher than the EU average: 13.4 % of total labour input is in the undeclared economy. The responsibility for addressing undeclared work is fragmented, spread across several Ministries (Platform for undeclared work 2018). The minimum wage has been increased to EUR 520 (up from EUR 480) as of January 2019 which may stimulate the transition towards declared work.

Social dialogue

Tripartite social dialogue performs relatively well, but the limited capacity of social partners is of concern. Social partners continue to be relatively well involved in the design of labour market measures and policies. However, the membership of Slovak social partners' organisations continues to be among the lowest in the EU (OECD; J. Visser, 2016). Analytical capacity may be limited and capacity building is not a formal government commitment. Instead, it depends entirely on project-based support from the European Social Fund. There were also some structural changes concerning social partners' organisations. In August 2018, the Association of Industrial Unions became a new member of the tripartite Economic and Social Council. A new Joint Slovak Trade Union was established in October 2018, representing employees from among others, the healthcare, education and police sectors.

Social inclusion and poverty reduction

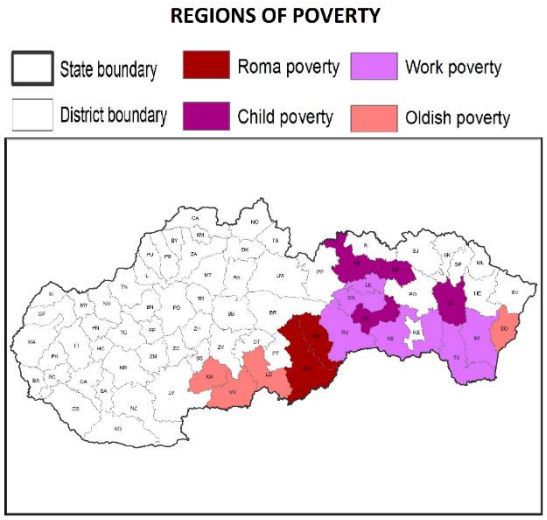
On the back of strong economic growth, poverty has further declined but strong regional disparities persist. In 2017, the share of people at risk of poverty or social exclusion fell further to 16.3 % (856 200 inhabitants), significantly below the EU average of 22.4 %. A relatively higher rate is reported for children aged below 16 years (22.2 %). Despite the strong economic growth, the in-work poverty rate remains unchanged (at 6.3% of the total working population compared to 6.2% in 2012). Poverty is considerably higher in a number of districts in Southern and Eastern Slovakia, most notably those with a large number of people living in marginalised Roma communities, with a high proportion of small municipalities with prevailingly elderly population, with a high proportion of poor youth or with high levels of in-work poverty (see Graph 3.3.4). This suggests the need for dedicated investment, including in food and basic material assistance. In addition, the poverty risk of those who live in quasi-jobless households continued to increase, reaching 79.9 %, in 2017, significantly above the EU average.

Weaknesses in social safety nets and social protection persist. The adequacy of the minimum income benefits is below the EU average. ([26]) The overall improvement of the labour market has also contributed to a decline in the number of minimum income support recipients. In 2017, the number of recipients of minimum income support further decreased to a monthly average of 87 727 (by 16.9 % compared to 2016) of which 57 725 were registered with the Labour Office, receiving an average monthly benefit of EUR 134.62. Around 70 % of people at risk of poverty did not have access to the minimum income benefit in 2017 (Ministry of Finance et al. 2018f). Housing support benefit is particularly low (EUR 89 for two or more family members), and covers only marginal part of real housing costs in the tight Slovak

([26]) According to the benchmarking exercise in the area of minimum income schemes conducted within the Social Protection Committee, see the draft Joint Employment Report 2019.

housing market.. In addition, the eligibility criteria for receiving unemployment benefits remain strict, despite some loosening in 2018. ([27]) This translates into relatively low coverage of the short-term unemployed by unemployment benefits.

Graph 3.3.4: **Regions of poverty**



Source: Michálek, Madajová, Veselovská 2016

In spite of the increase, the remuneration of social workers remains low, reducing the attractiveness of the profession. The average monthly gross wage of social workers requiring a master's degree in Q2-2018 amounted to EUR 920, 14 % more than in 2016 (Trexima, 2018). By contrast, a graduate with a master's degree earned in Q4-2017 on average EUR 1800 in the private sector and EUR 1194 in the public sector (Trexima, 2017). Earnings of field social and health workers, who often serve as front-line officers, are even lower. Their average wage was EUR 726 in Q2-2018, below the average of EUR 1001 for high school graduates (Q4-2017). In addition, social work has low societal recognition and attractiveness. These factors negatively impact on willingness to apply for vacancies in this sector and result in high shortage of social workers (Škobla et al., 2015).

([27]) A bad performance for unemployment benefits in Slovakia is confirmed by the results of the Benchmarking exercise in the area of unemployment benefits and active labour market policies conducted within the Employment Committee. See the draft Joint Employment Report 2019 for details.

In EU terms, the elderly face a low risk of poverty or social exclusion. The at-risk-of-poverty and social exclusion rate for persons aged 65+ was 12.1 % in 2017, significantly lower than the EU average of 18.2 %. However, older people tend to spend a larger part of their income on heating bills and are more often in homes with inadequate heating (European Commission, 2018). A minimum pension was introduced in 2015 but only for those with at least 30 qualified years of insurance. More than 70 % of those self-employed pay old-age contributions from the so-called minimum assessment base. This can have a negative impact on the adequacy of their pensions.

While demand for long-term care is growing, service provision remains limited. Public expenditure on long-term care in 2016 was 0.9 % of GDP, considerably lower than the EU average of 1.6 %. Responsibility is fragmented between the social and healthcare systems, leading to different organisations and sources of funding, which pose a barrier to effective coordination. Waiting lists for places in institutions are long and the quality of services is seen as low, while costs of private facilities are generally very high (Giorno, C. and K. Londáková, 2017c). Transition from institutional to community-based care and independent living is slow. As the very old-age dependency ratio is projected to increase significantly between now and 2070 (21.7 pps vs. the 13.6 pps EU average increase), significant investment will be needed to meet the rising demand for quality long-term care.

Progress in moving from institutional care to community-based support for persons with disabilities is limited. The implementation of the Convention on Rights of Persons with Disabilities is hampered by the unclear division of responsibilities and lack of cooperation between national, regional and local administration levels. It lacks a national strategic approach, resulting in limited guidance at national level and lack of exchanges of good practice, low public awareness and insufficient buy-in by the employees of existing institutions (FRA, 2018). The use of EU funds, essential for steering an efficient transformation of the existing institutions, is currently insufficiently coordinated (Cangár, M. and M. Machajdíková, 2018). In July 2018, a number of experts and non-governmental organisations addressed an open letter to the Prime

Minister, pointing out the lack of progress in the implementation of the Convention.

Deinstitutionalisation of substitute care for children shows some weaknesses and is being reformed. At the end of 2017, there were around 14 000 children in substitute care, 37 % thereof placed in institutional care with an average length of stay in a children's home slightly above 4 years. The most common reason for intervention is the lack of housing security. Existing institutional care remains under-resourced in terms of sufficiently trained and remunerated staff. This is a barrier to the efficient provision of an individual approach to children and their families (Fico, 2017). The amendment of the Act on Social and Legal Protection of Children and Social Curatorship, in force as of April 2018, is an important reform step to improve prevention measures to avoid placing children in substitute care. However, there is still a lack of a monitoring and evaluation system to assess the efficiency of interventions. The prevention of long-term placement of children with disabilities in institutional care will require dedicated follow-up investment.

Social housing remains underdeveloped. The low availability of rental/social housing negatively affects the effectiveness of social policies aimed at socially disadvantaged or excluded persons and persons with disabilities, and will require significant investment. For certain groups, the provision of social housing support would bring economies to public budgets. This is in particular the case of families or single mothers with children in institutional care, where re-unification of the family by providing adequate social housing would be less costly than keeping children in care (G. Csomor, 2017). In addition to the lack of infrastructure, there is no strategy at the government level to reduce and prevent homelessness, and the responsibilities stay mostly with the municipalities. The lack of a coordinated approach even leads to cases of facilities allowing 24-hour stay being turned into night shelters, just because the latter have more stable access to finance through the Ministry of Labour. The concepts of homelessness or inadequate housing situation are also very vaguely defined in the legislation.

The living conditions in marginalised Roma communities are often hampered by the lack of access to services. There remains a need for investment and support for Roma marginalised communities([28]) to ensure access to essential services, including water, sanitation, energy, transport and other facilities. The Atlas of Roma Communities (UNDP, 2014) is under revision, mapping the existing infrastructure and facilities and developing a statistical survey of living conditions, with data expected in 2019. Large-scale systematic progress is hampered by the lack of social housing. While some improvement is expected in response to the non-governmental sector projects based on micro-credits and self-construction, and to a newly launched EU-funded call, further investment in non-segregated social housing is crucial.

The health status of marginalised Roma communities is worse than that of the majority population. This reflects the lower accessibility of healthcare services (UNDP, 2014). The life expectancy for Roma is 70, six years lower than the majority population. The infant mortality rate is almost three times higher for Roma than in the majority population (12.3 compared to 4.2 per 1000 infants, Ministry of Finance, 2018a). While positive spillovers have been observed under the EU-funded 'Healthy regions' initiative, introducing health mediators, often recruited from Roma communities, continuous investment is necessary to ensure lasting improvements.

Experiencing an increasing inflow of immigrants since 2011, Slovakia faces challenges to integrate them well. Foreigners concentrate mostly in the regions with the highest level of labour shortages. Approximately three-fourth of immigrants reside in Slovakia for more than three years (Ministry of Finance 2018c), accentuating the need for effective investment in long-term integration measures. Challenges persist regarding effective access to social and healthcare services, discrimination in the housing market, availability of affordable Slovak language classes

([28]) This includes territorially segregated settlements that often lack connections to public utilities with an estimated population of 74 000 (18.4 % of all Roma in Slovakia) as well as semi-segregated settlements in the outskirts of a municipality (95 000 inhabitants, corresponding to 23.6 % of the Roma population) and or within a municipality (around 46 000 of inhabitants and 11.5 % of the Roma population) (UNDP, 2014).

and lack of coordination among central and local levels (Plavnická, J. and D. Šlosár, 2017).

Education and skills

Educational outcomes are weak and worsening and reveal significant regional and socio-economic disparities. According to the Programme for International Student Assessment (PISA) survey, the proportion of underachievers is significantly higher than the EU average in all tested sectors – reading, mathematics and science (OECD, 2016). National tests in primary schools indicated large differences in outcomes within the country; the worst results were recorded in the regions of Košice, Prešov and Banská Bystrica, while students from Bratislava scored the highest (NUCEM, 2017). The scores of students from disadvantaged groups were half as high compared to their peers (Ministry of Education, 2018).

Spending on education remains low and is reflected in low teachers' salaries and poor learning equipment — including for digital skills. As a share of GDP, spending on education decreased from 4.1% in 2014 to 3.8% in 2016 because public expenditure failed to keep pace with brisk growth in the wider economy. Spending on education measured against the total public budget amounted to 9.3 % compared to the EU average of 10.2 % in 2016.

A new 'national reform programme for education and upbringing' was adopted. The much-awaited reform programme and related action plan for 2018-2019, adopted in June 2018, proposed changes related to the inclusion of disadvantaged students and strengthening educational outcomes. The strategy is based on a policy framework with an estimated EUR 15 billion budget until 2027, whereby EU funds are expected to play an important role. For the next two years priority is to be given to teachers' salaries, in particular for young teachers, and increasing kindergarten places. Measures are planned to increase the number of professional staff in schools, reduce the administrative burden and promote the use of digital technologies. It remains to be seen and closely monitored if the planned measures produce the expected results, however additional further reform measures are still needed, including teacher training and continuing professional development.

The teaching profession faces increasing shortages as prestige, salaries and opportunities for professional development remain low. Despite gradual salary increases, the teaching profession remains unattractive. Average teachers' salaries lag far behind the average wages for a full-time tertiary-educated worker in Slovakia. Upper secondary teachers working in public institutions earn only 64% of the average salary of a full-time full-wage worker with tertiary education (OECD, 2018b). The government has decided to increase teacher salaries by 10 % as of January 2019 and another 10 % in 2020. Initial teacher education is not sufficiently focused on preparing for practical teaching, and continuing professional development is not sufficiently relevant to teachers' needs. Improvements in career paths and continuing professional development are under discussion. Investment in teachers' training and better equipment for schools remains important.

There are still many gaps in the provision of early childhood education and care. Slovakia ranks amongst the lowest performing Member States in this area. In 2016, the corresponding participation rate for children aged 4 to 6 was 76.5 %, well below the EU average of 95.3%, and it had decreased compared to 2013, contrary to the increasing trend in the EU. National enrolment data also reveal a gap between the west and the east of Slovakia, with the lowest enrolment rates in districts with the highest share of socially disadvantaged people. The participation of Roma aged 3 to 5 is estimated at only 32% compared to 81% for the remainder of this age group (Ministry of Finance et al. 2018f). The 2016 government manifesto outlined a target of 95 % enrolment for children above the age of 4 by 2020.

Early childhood education and care is being reformed to increase enrolment in particular of children from less well-off families. The number of free kindergarten places increased to cover all children from socio-economically deprived families from September 2018. The government has announced it will lower the age of compulsory education to five years-olds as of September 2020. This is likely to have a positive impact on disadvantaged children. Ensuring the necessary investment and actual attendance and genuinely inclusive early childhood education and care would maximise the outcomes.

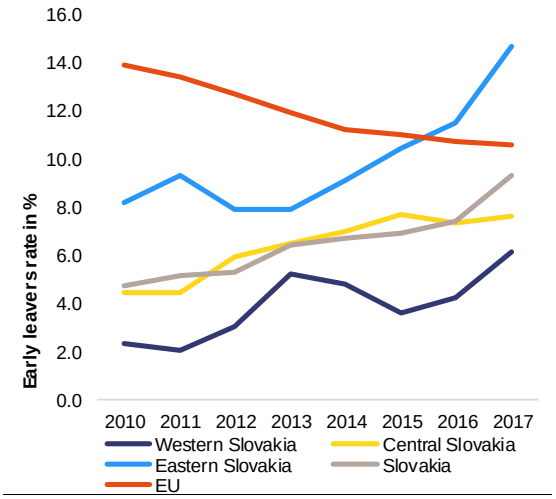
Current measures to foster equity and inclusion have so far fallen short of expectations. It is estimated that 62 % of Roma children attend a school where all or most other children are also Roma (FRA, 2016) and no real progress on the desegregation was observed over the recent past (Amnesty International, 2016). In addition, 22.6% of Roma children are in special elementary school for pupils with special needs (Slovak National Centre for Human Rights, 2017), which is a major overrepresentation; 94% of them are in a class where all or most children are Roma (FRA, 2016). In spite of an amendment prohibiting placing children in special schools for problems such as dyslexia or coming from a socially disadvantaged background, the decrease of children in such schools has been small. ([29]) There are ongoing projects supporting inclusive education, including extra-curricular activities and competences of staff in kindergartens and primary schools (Eurydice, 2018). Implementation will be key and these projects need to be thoroughly evaluated to guide further actions as investment gaps concerning inclusive education persist.

The increasing rate of early school leaving is a major concern. Contrary to most EU countries, the early school leaving rate is increasing: it was 9.1 % in 2017 versus 4.7 % in 2010. Regional disparities are high, ranging from 4.7 % in western Slovakia to 14.7 % in eastern Slovakia. It is estimated that 58 % of Roma leave school early (FRA, 2016). Low education attainment has a critical impact on employment and contributes to group differences in employment.

Skills mismatches are a barrier to growth and education and training are not well aligned with labour market needs. In 2016, up to 60 % of secondary and tertiary graduates were, five years after graduation, working in jobs not fully in line with their fields of study. By contrast, only 20 % of secondary and 25 % of tertiary graduates were working in jobs fully compatible with their fields of study (Trexima, 2017).

([29]) From 28 331 in September 2015 to 26 931 in September 2017.

Graph 3.3.5: **Early Leavers (age 18-24) from education and training by NUTS 2 regions**



Source: European Commission

Tertiary educational attainment is improving, but its quality and efficiency show room for improvement. In 2017, the tertiary graduation rate was 34.3 % compared to an EU average of 39.3%; this gap has narrowed by 10 percentage points since 2007. However, teaching quality is limited and universities display limited internationalisation and job market orientation. In addition, the share of graduates in sciences, technology, engineering and mathematics at 21 % is below the EU average of 26 %. The development of professionally-oriented bachelor degrees has been advocated by the business community, but such courses remain scarce.[30] High outward migration among secondary school graduates and tertiary students and graduates, in particular in the medical and technical fields, where 22 % of graduates leave the country, poses a challenge to growth. The corresponding sunk investment is estimated at EUR 45 million (OECD, 2017b; Ministry of Finance, 2017).

New legislation aims to improve quality in higher education. A new law on quality assurance in higher education introduces a new independent accreditation system and aims at rationalising the number of universities and university degrees. It creates a new 'interdisciplinary studies' bachelor's programme. Students will also have an option to extend their fee-free study period by one year if

([30]) A public call was announced in December 2018 that aims to support the creation of such programs.

they take part in an internship abroad or in the Erasmus+ programme (Eurydice, 2018). Measures may contribute to improving quality and the internationalisation of higher education if supported by better accreditation and quality assurance measures, an increased focus on strategic planning, and better governance of Slovak higher education. To improve studying conditions, the government announced new investments in student housing (EUR 50 million over two years) in May 2018.

Despite improvements in vocational education and training, challenges remain. The attractiveness of vocational education and training is increasing (see Box 3.3.1) but there is scope for improving the quality of teaching, in the guidance of counsellors and in a higher level of internationalisation. Teaching institutions could engage more with local businesses, form innovation partnerships, and support the diffusion of state-of-the-art technologies to boost relevant skill levels. Promoting career options within smart specialisation areas requires employers to invest in the training of young people and in up-skilling and re-skilling the existing workforce. Targeted support for reforming vocational education and training in the catching-up region of Prešov was launched in January 2018.

Investment needs

More investment in skills, education, training and social inclusion can improve Slovakia's productivity and generate inclusive growth. Shortages of skilled labour and changing industrial production patterns require investment in human capital development and adapting the labour force to new job opportunities, including through fostering digital and entrepreneurial skills and activating the unemployed, particularly the long-term unemployed. Investment can raise the performance of the education and training system, and improve competitiveness and social cohesion. Using the full labour potential requires investment in social inclusion policies and social infrastructures, in particular accessible social housing, healthcare, long-term care and childcare, with due attention to regional disparities. Investment is also necessary to ensure universal access to public utilities and services, notably for segregated Roma communities.

3.4. COMPETITIVENESS AND INVESTMENT

3.4.1 Productivity and investment

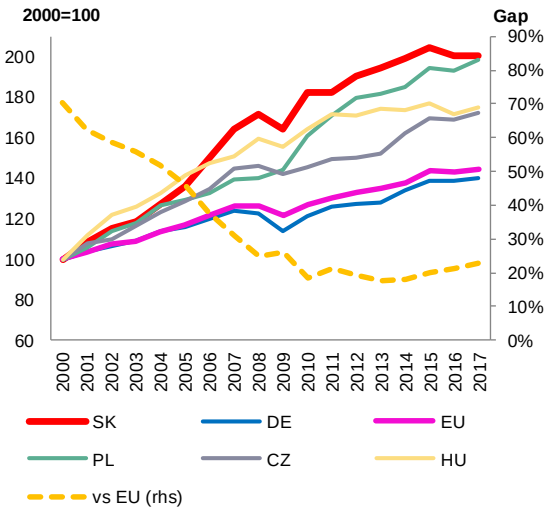
Slovakia's successful growth model faces new challenges. Slovakia has been one of the most successful Member States in achieving economic convergence in the past two decades, with real GDP per person (in power purchasing standards) having risen from 50% of the EU average to 77% in 2014, though with no progress since. The success of the growth model underpinning its economic development relied on industrial specialisation financed in part through foreign direct investment and facilitated by low labour costs and proximity to key supply chain partners (Haylat et al., 2018). In light of growing labour shortages, upward pressure on unit labour costs and potentially more muted growth prospects for traditional (automotive) manufacturing, re-igniting convergence will depend crucially on the country's success in raising competitiveness and productivity.

Productivity gains have been at the heart of Slovakia's convergence success. Chart 3.4.1 shows a doubling in labour productivity levels between 2000 and 2017. This was largely driven by capital deepening and technological catch-up. It helped to substantially narrow the gap with the EU. Inter-sectoral labour reallocation, with an annualised growth rate of 1.95% between 1995-2015, was an important channel of productivity growth (DG ECFIN, 2018c). Allocative efficiency gains — an increase in aggregate productivity achieved through a more efficient allocation of productive resources across economic activities — in Slovakia were among the strongest in the euro area between 2000-2014, leaving their corresponding level above the euro area average (DG ECFIN, 2018b).

Slovakia has one of the highest dispersion rates of firm productivity, indicating potential to improve market integration. While it has decreased between 2009-2015, high dispersion can signal insufficient diffusion of technological advances. Large differences between (export-oriented) foreign-owned firms and domestic firms may explain the dispersion observed. Relative to GDP per head, exporters' productivity premiums are by far the largest of all EU Member States on average for 2007-2014 (DG ECFIN, 2018a). A large productivity differential also exists between small and medium-sized enterprises and large firms, with the former being much less productive in terms of value added per person employed.

To increase Slovakia's productivity and maintain the convergence process, sustained investment efforts are needed in R&D, digital and transport infrastructure, and energy efficiency. Public investment – supported by EU Funds - has been a stable and important source for addressing investment needs since EU accession. Well-targeted public investment should tackle the various investment needs identified in this report. The remainder of this chapter examines key investment gaps, including the need to boost R&D spending, which can help transform the heavily manufacturing-based economy into one of increasingly home-made innovation and technology. Upgrading the digital infrastructure can prepare citizens and businesses for new methods of communicating, working and producing. Investing into energy efficiency and environmental technology can be a source of green growth and will help preserve scare environmental resources. Improving Slovakia's transport infrastructure – both road and rail – can improve mobility and growth potential, and expand sustainable forms of transport.

Graph 3.4.1: **Evolution of labour productivity and gaps (GVA per worker in PPS)**



Source: AMECO, European Commission

Use of financial instruments in Slovakia is increasing. While access to credit and financing is generally good, further potential lies in areas such as support to small and medium-sized enterprises,

innovations and start-ups, social entrepreneurship, student mobility, housing, redevelopment of brownfield sites, energy efficiency, broadband networks and waste management. However, the allocation under the European Structural and Investment Funds for financial instruments after the selection of intermediaries is only gradually being distributed to relevant beneficiaries.

Strategic investment plans are being devised by the Slovak authorities. In April 2018, the new Regional Investment Act came into force, aimed at balancing regional disparities by supporting private investment and employment in least developed regions. In June 2018, the Government adopted the Economic Policy Strategy 2030, focusing on raising productivity by supporting human resource development, R&D, a less energy intensive economy, the business environment, and agriculture. In September 2018, the Government approved a pilot version of the National Investment Plan for 2018-2030, focusing primarily on transport, energy, electronic communication, education, research and innovation, healthcare, environment, agriculture, social inclusion, employment and regional development. Although the Plan is at present still based on existing sectoral strategies, a new version will be devised on the basis of Slovakia's Vision and Development Strategy expected in April 2019.. The government plans to establish an integrated framework for coordination and integration of sectoral policies and regional development as part of the implementation process of the Agenda 2030 for Sustainable Development. Its success will depend on the extent of future implementation, and whether the Plan can genuinely transform from a sectoral wish-list of projects to a forward-looking, unified investment strategy.

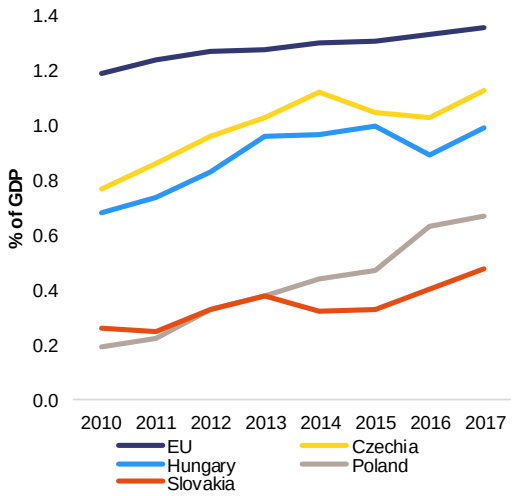
Research and innovation

Slovakia is highly dependent on EU funding for research and development (R&D) as private investment is weak. 39 % of national R&D investment relies on foreign funding sources, notably EU Funds, which represent 89 % of all these funds (both among the highest in the EU). Although overall R&D investment has risen from 0.45 % of GDP since 2007 to peak at 1.2 % in 2015, it dropped again to 0.88 % in 2017. While public R&D investment rose from 0.27 % in 2007 to 0.4 % in 2017, business R&D intensity remains among the lowest in the EU at 0.48 % of GDP. The sharp decline in public R&D funding in 2016 due to the transition between EU funding periods illustrated the over-reliance of the Slovak research system on the European Structural and Investment Funds and raises questions about the sustainability and adequacy of national R&D funding.

Business expenditure in R&D appears too low to substantially boost innovation performance. Overall, business R&D remains one of the lowest in the EU and has centred around medium-high-tech manufacturing([31]), areas dominated by multinational firms. A lack of R&D strategy and targeted measures, the limited engagement of research institutions and limited research capacity contribute to low private R&D expenditure. In addition, at 0.14 % of GDP in 2016, business expenditure in R&D by small and medium-sized enterprises remains significantly below the EU average. As a result, innovation progress is low, and Slovakia remains a moderate innovator according to the European Innovation Scoreboard. Various measures are underway to improve the small and medium-sized enterprises ecosystem, mostly financed by the European Structural and Investment Funds. The National Business Centre in Bratislava, offering full assistance to small and medium-sized enterprises as a one-stop shop, is now fully operational and is being rolled out to regions.

([31]) While the medium-high-tech business expenditure in R&D in 2015 was EUR 113 million, the high-tech areas attracted only EUR 7.5 million.

Graph 3.4.2: **Business expenditures on R&D in % of GDP**



Source: JRC

A fragmented research system harms the effectiveness of public R&D investment and scientific research quality. The share of high-quality scientific publications among all Slovak science publications remains low([32]), and only been one Slovak award grantee has been supported by the European Research Council since 2007. This indicates persistent weaknesses in translating rising funding into high-quality scientific output and international collaboration. Research, development and innovation policy suffers from ineffective coordination between ministries and implementing agencies, and major reforms have been regularly postponed. Domestic technological development is low, as shown by weak patenting activity ([33]), and although the number of public-private scientific co-publications shows some encouraging results([34]), science-business linkages are low, hindering broader knowledge diffusion.

To stimulate private investment, the government extended the rate of the R&D tax allowance to 100% of qualifying expenditure. This strengthens the hybrid R&D tax allowance ([35]) introduced in 2015, which accounted for 11% of total government support for business expenditure in R&D. The Regional Investment Assistance Act introduces a preference for tax relief over direct cash subsidies for investors, encouraging them to invest in higher value-added technologies (see section 3.1).

The use of critical EU funding for research and innovation remains inefficient. The support from EU funds to research infrastructure resulted in the completion of physical infrastructure, but without sufficient accompanying funding for maintenance and staffing. The cancellation of various calls and administrative inefficiencies again resulted in the de-commitment ([36]) of EUR 81 million funds from the Operational Programme Research and Innovation. This was despite efforts to enhance the transparency of the project evaluation process by engaging foreign experts, improving selection criteria and enhancing alignment with the Smart Specialisation Strategy. However, various essential R&I-related projects to increase research and innovation capacities, promote transfer of knowledge and technologies, enhance cooperation of research institutions and business, mobilise private investment and support long-term strategic research have been gradually launched only as of end of 2018.

The Smart Specialisation Strategy is still in its infancy. While Slovakia´s Strategy dates back to 2013, the areas of specialisations — the five priority domains ([37]) — were only agreed in 2017 based on a dialogue with entrepreneurs to fine tune areas of specialisation. Although steps were taken to enhance the efficiency of its governance, limited progress has been made in implementing the 2017 Smart Specialisation Strategy Implementation Plan, which comprises essential measures such as: i) update of the national infrastructure roadmap to avoid duplication in further investment; ii) preparation of the State research, development and innovation strategy; iii)

([32]) Scientific publications of the country within the top 10 % most cited scientific publications worldwide as percentage of total scientific publications of the country. The latest governmental review of spending on education admits low quality of scientific output and recommends increasing the amount of competitive grants in public R&D expenditures in order to support excellence in research (Slovak Government 2017).

([33]) Patent counts per million inhabitant in 2014 (9.3).

([34]) The 2.9 % share of public-private scientific co-publications within the total number of publications ranked Slovakia 11th in the EU for the year 2017.

([35]) At a rate of 50 % to labour costs and at a rate of 25 % to other qualifying expenditures.

([36]) If a sum committed to a programme has not been claimed by the end of the third year following the programme's adoption, any unpaid money ceases to be available to that programme, i.e. it is 'de-committed'.

([37]) i) Vehicles for the 21th century, ii) Industry for the 21th century, iii) Health, food and environment, iv) Digital Slovakia and creative industry, v) Medical technology.

reform of research, development and innovation financing or iv) transforming the Slovak Academy of Science to public institution.. Only recently the government announced its intention to undertake an international research, development and innovation audit and revise the Strategy before 2020. Maintaining an ongoing dialogue with entrepreneurs (entrepreneurial discovery process) to fine-tune areas of specialisation will be essential for well targeted use of EU funds.

Digital transformation

Moving to a digital economy requires companies to adapt to new business models and global trends. According to the Slovak Investment and Trade Development Agency, the Information and Communications Technology sector contributes 4.6% to GDP, and due to its role as a modern manufacturing hub, Slovakia has the 15th highest robot density in the world. In 2018, the Government adopted the Action Plan for Smart Industry (Slovak Government 2018). Its intended implementation date is 2020, and it aims to increase the competitiveness of Slovak businesses, create favourable conditions for automation trends in manufacturing, improve the start-up environment, support innovation, facilitate investment in digital solutions and ensure the availability of a sufficiently skilled workforce (see section 3.3.).

The adoption of digital business practices is progressing, but from a low level. The share of small and medium-sized enterprises selling online has decreased to 13%, which remains somewhat below the EU average of 17.2%, according to the Digital Economy and Society Index 2018. Only 21% of companies used cloud services and 31% of businesses shared information between different parts of their operations via resource planning software. The take-up of these and other digital trends could be aided by setting up Digital Innovation Hubs. These centres of excellence will help to stimulate the uptake of and the needed investments in Artificial Intelligence, High Performance Computing and Cybersecurity by all industry and public sector organisations.

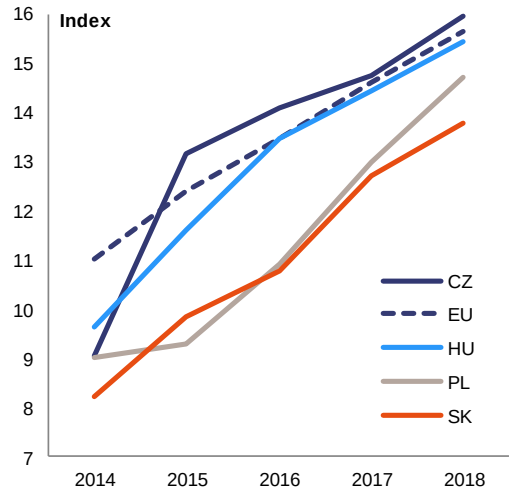
Slovak businesses lack information communication technology specialists and digital professionals. The majority of companies (60 %) reported problems in filling vacancies for information communication technology specialists. The Slovak Information Technology Association estimates that an additional 10 000 experts are needed. Targeted efforts in education and (re)training and improved labour mobility could help mitigate this shortage, thereby increasing allocative efficiency and thus the productivity of the wider economy. The sector plays a critical role in managing the global trend of increasing digitisation and automation — and maintaining or further improving competitiveness, especially that of small and medium-sized enterprises. To address this, a 'digital coalition' was launched in 2017 to gradually implement the Action Plan with 23 specific measures, including the EU-funded 'IT Academy'.

More households and companies can use fast and ultra-fast broadband but the standard fixed coverage remains one of the lowest in the EU. 11% of households do not have access to standard fixed broadband (EU average 3% in 2017) and the overall connectivity stays below other countries in the region (Graph 3.4.3). Slovak authorities have identified 207 "white spots" areas lacking connectivity of at least 30 Mbit/s and telecom operators announced their intention to cover these areas by 2020 (European Commission, 2018h). However, there is a need to reinforce the accuracy of the mapping and to monitor the effective implementation of private investment forecasts. Beyond the 2020 objective, further coordination between public and private stakeholders will be necessary regarding the roll-out of very high capacity networks to reach the EU 2025 broadband objectives. 5G networks will also increase the quality of overall connectivity but will require a high capacity backhaul and a sufficient amount of harmonised spectrum. The regulator plans to auction relevant spectrum frequencies in late 2019.

Kosice IT Valley can serve as a good example of a cluster driving the growth of a regional information communication technology hub. Besides Bratislava and Žilina, it is one of the main centres of the information communication technology industry. It connects public administration, education institutions, research and businesses to create new partnerships that stimulate growth and create high value-added jobs. Its objectives are to increase the sustainability and competitiveness of local businesses, support a

wider offer of technology-related education programmes and motivate young people to take up careers in information communication technology and robotics.

Graph 3.4.3: **Digital Connectivity Index ([38])**



Source: Digital Economy and Society Index, European Commission

Following the national eGovernment strategy, Slovakia is introducing new digital public services but the take-up by citizens has not yet reached the average EU level. The use of the Central Portal of eGovernment Services is growing and the country has introduced new measures to simplify authorisation of electronic documents and facilitate electronic communication between the government and businesses. However, the share of individuals who submitted forms to public authorities over the internet (54%) stays below the EU average (64%).

Energy and climate change

Reaching the energy-related Europe 2020 targets requires additional investment, which could boost competitiveness. While Slovakia is on track to achieve its target for greenhouse gas emissions, the picture for energy indicators is mixed. Final energy consumption increased in 2016 to 10.4 Mtoe, moving away from the 9 Mtoe target for 2020. Despite improvement, energy intensity, a measure of efficiency remains above the EU average (at 176 %, European Commission, 2018f), partially due to the structure of the economy. Improving energy intensity further will require substantial investment, but the currently low financing costs represent a window of opportunity for funding this. In its National Energy and Climate Plan, to be adopted by 31 December 2019 in line with the Regulation on the Governance of the Energy Union and Climate Action([39]), Slovakia will provide an overview of its investment needs until 2030 for the different dimensions of the Energy Union, including renewable energy, energy efficiency, security of supply, and climate mitigation and adaptation. The information provided, including in the draft plan submitted on 21 December 2018, will further contribute to the identification and assessment of energy and climate-related investment needs for Slovakia.

Improving energy efficiency in buildings in line with the National Energy Efficiency Plans can deliver economic and environmental benefits. The aim is to insulate the majority of all buildings by 2030, thereby cutting energy waste and its harmful environmental consequences. From May 2019, a contribution of up to EUR 8000 will be granted not only for the insulation of family houses, but now also for houses with nearly zero energy needs. The government is also promoting the use of Energy Performance Contracting. EU funds are financing the renovation of public buildings and blocks of flats, as well as the modernisation of heating and power systems, with a combined total value of EUR 780 million.

Meeting renewable energy production targets will require additional efforts. In 2017 the share of renewable energy sources fell to 11.49 % of gross final energy consumption, leaving some distance to the Europe 2020 target of 14 % by

([38]) Digital Economy and Society Index (DESI) Connectivity Dimension is calculated as the weighted average of the five sub-dimensions: Fixed Broadband (20%), Mobile Broadband (30%), Fast broadband (20%), Ultrafast broadband (20%) and Broadband price index (10%).

([39]) Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) No 663/2009 and (EC) No 715/2009 of the European Parliament and of the Council, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European Parliament and of the Council, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) No 525/2013 of the European Parliament and of the Council (Text with EEA relevance).

2020. Electricity production is already low-carbon, with nuclear energy and hydropower as leading sources. Electricity grid will require additional investments to further enhance their flexibility in relation to engagement of variable renewable sources as concerns of grid stability and security of supply were given as the main reason for the connection moratorium (2013) which prevented and still prevents the installation of the new renewable energy plants and has resulted in stagnation of capacity for the past years. This need was also the rational for the EU support for the smart grid project ACON with the aim to strengthening the distribution systems in Czechia and Slovak Republic. The financial burden of renewable energy sources subsidies from the past led to a revised legal Act that moves from a feed-in tariff to auctions, but the timing and scope of these auctions are still unclear. In 2014-2020, the purchase of small-scale renewable energy sources equipment for households was successfully supported by voucher schemes. In the future, extending their coverage to encourage the participation of low-income households could alleviate energy poverty.

Slovakia plans to phase out its environmentally harmful subsidies of high-emissions electricity generation from lignite([40]). In November 2018, the Slovak Government decided to advance the phasing-out of domestic coal for electricity generation from 2030 to 2023. The EU Platform for Coal Regions in Transition provides financial support to make the transition socially equitable (European Commission, 2017; JRC 2018). Slovakia is also supported in its preparation of an Action Plan to transition away from coal in the Horna Nitra region.

The low-carbon transformation of the transport sector is making tentative progress. While overall car fleet emissions are increasing and fuel taxes do not reflect CO2 intensities, subsidy schemes helped to put vehicles using alternative fuel sources into circulation, with the total increasing to 4,300 by mid-2018 (Ministry of Economy, 2018). The number of charging points for electric vehicles has increased considerably. In November 2018 the Ministry of Economy proposed an Electromobility Action Plan for 2019-2020 including, among other things, the provision of financial support for purchasing an electric car or plug-in hybrids and constructing an additional 1,500 charging stations by 2025. Initiatives such as the newly-founded Slovak Battery Alliance build on the economy's automotive cluster and offer a new field for research and innovation.

Slovakia is increasingly vulnerable to climate risks. These include floods, erosion, droughts and storms, which can cause major harm and disruption to human life and economic activity. Adaptation measures represent a cost-effective way to prevent damage to national and international supply chains, which rely on well-functioning transport and energy infrastructure. Slovakia updated its National Adaptation Strategy in October 2018 and adopted an Action Plan on drought and water scarcity in 2018. It has identified water, energy, forestry, and soil as priority sectors.

Environment

Air pollution, waste and water management and forest protection are the country's key environmental challenges (EEA, 2018a). Investment in these sectors is predominantly financed by European Structural and Investment Funds ([41]). The new Slovak Envirostrategy 2030, currently under preparation, aims to provide integrated policy responses and can inform investment priorities for Slovakia in the next funding period 2021-2027 (Ministry of Environment, 2018).

Air quality has worsened in several regions. According to preliminary data for 2017, five out of 10 air quality zones exceeded the daily limit value for particulate matter (PM10), up from one in 2016. The main sources are emissions from the burning of solid fuel (including biomass in households), and emissions from agriculture, transport and industry. Moreover, the lack of robust air quality monitoring and air pollution data complicates policy efforts (European Commission,

([40]) The current cost of subsidy for electricity production in the lignite power plant in Novaky via feed in tariffs is around EUR 116 million. The plant is the second largest source of GHG emissions in Slovakia.

([41]) Absolute Operational Programmes allocations for direct environmental investments in 2007-2013 was EUR 1.8 billion (European Commission 2017b), in 2014-2020 it will be EUR 3.1 billion for Operation Programme Quality of Environment.

2018d). The harm caused by poor air quality burdens the healthcare system, which already struggles with low cost-effectiveness and high debt (see section 3.1). It has been estimated that the health-related external costs from air pollution in Slovakia exceed EUR 3 billion per year (income adjusted, 2010; EEA 2018a). In 2015, an estimated 5,200 annual premature deaths in Slovakia were attributable to fine particulate matter concentrations (EEA, 2018b).

Good waste management is a cornerstone of the circular economy, but progress is slow. Aside from environmental concerns, moving to a circular economy saves spending on resource inputs. In addition, a growing sector itself offers business opportunities to innovative small and medium-sized enterprises. This concerns especially municipal waste recycling and water treatment. The recycling rate of municipal waste (including composting) remains low at 23 %, close to half the EU average (45 %) and well below Slovakia's target of 50 % by 2020 (European Commission, 2018b). The new legislative framework put in place in 2016 has not yet led to an appreciable increase in recycling. Dumpsites and contaminated industrial sites also present a problem. The government recently increased the fee for landfilling. Some regions are lagging behind in waste water treatment and collection as well as drinking water supply infrastructure, highlighting potential investment needs in the water management sector. The state of water bodies is not improving sufficiently and implementation of measures to address the pressures will require further investments ([42]) (EEA, 2018c). Only 7% of agglomerations below 2000 inhabitants are connected to the public wastewater system, often in protected natural areas including Natura2000 sites.

Forests are under severe pressure from use of wood-derived biomass and poor management in some regions ([43]). Almost 50% of Slovak forest overlaps with Natura 2000 network and requires investments due to their unfavourable status. High quality wood is frequently logged and burnt for energy purposes ([44]). The adverse impact this has on carbon emissions and forest ecosystems underscores the importance of safeguarding environmental sustainability when investing in renewable energies for heating and cooling.

3.4.2 Single Market integration and the services sector

A heavily regulated business environment in professional services and network industries can reduce competition. This leads to higher consumer prices and limits innovation. The Slovak professional services sector is highly regulated. The level of restrictiveness of regulation is higher than the weighted EU average for lawyers, patent agents, civil engineers, architects, accountants, tourist guides and real estate agents (European Commission, 2017a; OECD, no date).

Notwithstanding a steady improvement since 2008, Slovakia still shows a limited integration into the Single Market. In 2017, the number of single market directives not yet transposed has decreased from 7 to 5 since 2016, but the average transposition delay for overdue directives is above the EU average (at 9.8 months). Following years of marked underperformance in Single Market access of small and medium-sized enterprises, latest data show an improvement in 2017 in relation to traditional goods trade as well as online exports (European Commission 2018c).

Slovakia contributes to building the European Digital Single Market. Slovakia works to increase the range of digital public services and their interoperability with the rest of the EU. In 2018, Slovakia signed European declarations to strengthen cross-border cooperation in Europe in the fields of artificial intelligence, block chain and innovation radar. These technologies and trends can potentially offer new growth opportunities.

The energy market liberalisation process continues. Retail energy markets are heavily regulated, with all households and small and medium-sized enterprises being supplied with

([42]) The main pressures are hydromorphological alterations, diffuse sources of pollution from agriculture, as well as discharges not connected to sewage network or waste disposal sites.

([43]) In October 2018, the Slovak Ministry of Environment presented new proposals for a Nature Protection Act, to strengthen the management of nationally protected areas.

([44]) Subsidies should cease according to the legislative change adopted in December 2018. However, this does not include woody biomass coming from calamity and sanitary logging on NATURA sites. The lacking impact assessment can adversely affect the integrity of the sites.

electricity and gas at regulated prices. The current regulatory system, expected to apply until 2021, hampers market development and innovation. Although energy prices are in general lower than the EU average, electricity prices for companies are the highest in the region, putting Slovak companies at a competitive disadvantage.

New market rules for wholesale markets continue to be implemented. These rules are supposed to improve — among other things — the transparency of gas transmission tariff setting. Market concentration is still high in both the electricity and gas markets. Parts of the Slovak electricity system are being modernised through investments to improve its reliability e.g. in Bystričany nodal area, where the planned EU co-funded infrastructure investment should be finalised by 2021. Following some success in electricity market coupling, Slovakia still has an active role to play in creating a pan-European electricity market by actively participating in the market coupling project 4MMC (Czech Republic, Slovakia, Hungary, Romania). This can help to strengthen security of supply and competition in the wholesale electricity market.

3.4.3 Regional disparities

Regional disparities remain large and convergence between regions is slow. Divergences in economic and social outcomes (see section 1) mainly stem from challenges in the labour market and in education (see section 3.3), infrastructure gaps and a lack of targeted investment. These disparities point to an untapped growth potential that has not yet materialised or could be exploited further (Bachtler et al., 2017; European Investment Bank 2018b). Aggregate productivity tends to grow more in countries where there is convergence across regions over time than in countries with divergence.

The Bratislava region is a growth pole and a 'strong' innovator according to the European Innovation Scoreboard. Heavy foreign investment in this region, good transport connections and easy access to ancillary services contribute to its high productivity levels, which are considerably above the EU average. Notwithstanding Bratislava's swift economic growth, there is still unused potential for developing cross-sectoral collaboration in research, development and innovation through clusters and networking, fostering knowledge transfer between academia and businesses. Shortcomings also exist in public transport, social services, waste management, air quality and a variety of associated investment needs are evident in these areas.

Within less developed regions, large intra-regional differences with heterogeneous socio-economic challenges persist. The most structurally disadvantaged districts, often depopulating, are concentrated in the South-East, North-East and the South-Central part of Slovakia. The most vulnerable groups of Slovak society are particularly affected, such as the Roma, of whom one quarter lives in marginalised communities (see section 3.3). Out of Slovakia's 14 most deprived districts in 2001, 12 remained so 10 years later.

Low administrative capacity hinders the successful deployment of regional development strategies. Lessons learnt from the implementation of European Structural and Investment Funds in the funding period 2014-2020 show that support to local administration through tailor-made actions, such as the pilot phase of the Catching-up Regions initiative, improves the quality of projects and empowers local and regional authorities.

Transport and infrastructure

Strengthening urban-rural linkages can create positive spillover effects. Existing integrated territorial strategies offer good frameworks for supporting such linkages. In order to allow less developed regions to catch up and become more knowledge-based, competitive and productive economies, it remains important to fill basic infrastructure gaps and improving transport networks through strategic investment. While regional capitals suffer from poor air quality and a lack of sustainable, quality public transport, smaller municipalities in rural areas still lack environmental infrastructure, broadband connectivity and accessible public services (see section 3.4.1 on digitalisation).

While the coverage and quality of transport infrastructure has improved, progress is uneven and some regions lag behind. Weaknesses in the transport network could be tackled by enhancing the interconnectivity, multimodality and inter-

operability of the existing public and urban transport network, and by promoting sustainable modes of transport. Slovakia ranks slightly above the average in the 2016 EU Transport scoreboard, with low scores on road and air transport infrastructure and road safety. It scores poorly as regards the completion of both the Trans-European Transport Network core road and railway network, such as in the Rhine-Danube corridor (European Commission, 2016). When complete, the projects could connect the less developed regions of Prešov, as well as Banská Bystrica and Košice, to growth centres in other parts of the country. Better connections and easier access to social housing could also improve the low internal mobility of workers and narrow the wage differential, while reducing labour shortages in prosperous regions and reducing unemployment in less developed ones (see section 3.3).

3.4.4. Institutional quality and governance

Business environment and institutional quality

The Slovak business environment is slowly losing ground. In both the Global Competitiveness Report 2018 and the Doing Business indicator, Slovakia's ranking is falling (GCR 2018, World Bank 2018), making it harder for the Government to meet its goal to make Slovakia one of the 15 most competitive economies by 2020. European investors point to a lack of qualified workforce, corruption, unfair practices in public procurement and in the use of the EU funds, low legal certainty and insufficient support of research and development as main concerns (AHK et al. 2018). The lack of predictability and quality of legislation are also a concern for businesses (European Commission 2018c).

The administrative burden is not being reduced enough and frequent changes to legislation make for an uncertain business environment. Reforms to cut red tape for small and medium-sized enterprises have not been completed, thus potentially stifling growth and investments. To improve business environment, since June 2017 the government has adopted three packages of measures, which are being gradually implemented ([45]). Removing certain regulatory barriers could improve economic convergence; for example, Slovakia is among the EU Member States with the longest time needed for firms to resolve insolvency (four years), which may depress economic activity (European Commission 2018d).

Frequent amendments of tax legislation have made tax compliance for enterprises more burdensome and less predictable. Over 60% of the respondents consider the complexity of tax laws as very burdensome. Indeed, the tax legislation in Slovakia is subject to continuous change. 60% of enterprises find corporate income tax compliance rather or very irritating. Despite this, many of them handle their tax compliance in-house and 35.3% of the respondents never outsource it (European Commission, 2018e).

A whole-of-government approach to regulatory policy making was established in the Better Regulation Strategy (RIA 2020). This strategy has helped to strengthen the methodological basis for assessing the economic impact of regulation. However, the RIA 2020 framework and other impact assessment tools have not yielded the expected results. Impact assessments only apply to measures initiated by the government. Major amendments proposed by the Parliament, as well as local legislation, are not subject to any form of impact assessment. However, methodologies for these assessments are included in the action plan of the RIA 2020 Strategy. The number of small and medium-sized enterprises tests is still insufficient but is expected to rise once the Better Regulation Center becomes fully established.

The overall performance of the public sector is weak. In comparison to other EU Member States, Slovakia is particularly lagging behind in terms of government's strategic planning capacity, inter-ministerial coordination, rule of law, control of corruption, transparency of government and low impartiality and professionalism of the civil service (J. Nemec, 2018). Education and experience-based compensation rules in the public sector hinder talent attraction. As a result, employees are typically less skilled than in the private sector and those tertiary educated and working in expensive regions make less. University educated public employees make on average 16% less than their private sector counterparts. Compensation schemes are undergoing review by the Value for Money and

([45]) The third package was adopted on 6 February 2019.

government announced wage audits in public institutions. In light of labour shortages, upcoming retirements and regional pay gaps, the provision of public services could worsen (Ministry of Finance 2018d). The wage increases of 10 % agreed for 2019 and 2020 are steps to mitigate this challenge. Progress has been made in improving public access to information (European Commission, 2018) and in preparing the spending review dealing with human resources in public administration.

Political influence on some regulatory agencies compromises their ability to ensure a level playing field. This concerns in particular procedures for selecting chairs and vice-chairs as well as the overall functioning of regulatory institutions (Transparency International, 2018). Independent and accountable regulators could ensure a high-quality regulatory environment and ultimately ensure more efficient resource allocation and a more competitive economy. More generally, a lack of trust in institutions is among the main weaknesses of the business environment.

The lack of capacities and strategic planning and administrative inefficiencies hamper the use of EU funds. After a slow start to the 2014-2020 funding period, implementation is now gradually picking up. However, distribution of funds to final beneficiaries remains low. As a result, Slovakia lost EUR 120 million of funding for R&I and regional development.

Within public administration, there is insufficient cooperation between government ministries and between national, regional and local levels. The fragmentation of government at municipal level – 70% of municipalities have less than 1 000 inhabitants – creates high overheads and harms the effectiveness of local government. Thus, the financing capacities of municipalities are often restricted to providing basic public services and infrastructure, thereby diverting resources from social services, education, land planning and construction permits.

Public procurement

The Slovak authorities have been making an effort to simplify and increase the efficiency of public purchases. Following amendments to the Slovak Public Procurement Act, new guidelines on control procedures have been prepared alongside the full deployment of electronic procedures.

Significant steps have been taken in the area of professionalisation of public procurement. Measures taken have included the establishment by the Public Procurement Office of an institute dedicated to offering methodological support to contracting authorities. In addition, the Office has detailed a legislative plan to create a chamber of public procurement experts who would act as guarantors of the quality and legality of public procurement procedures. The Office has also announced plans for regional representations across the country to support public sector buyers. Meanwhile, the Government Office continued its public procurement training of EU fund administrators, launching an e-learning module to complement existing in-person training.

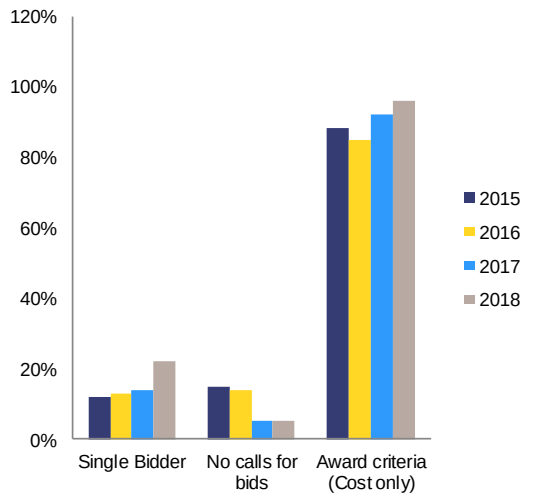
Professionalisation initiatives need more time to translate into widespread improvement in practices. 2018 already saw early signs of strategic use of public procurement. For example, the Ministry of the Environment started using environmental criteria in its own purchases of paper, information technology and vehicles, while conducting analytical studies of these product categories with a view to future mandatory use of green criteria by other public bodies.

The Ministry of Health has continued to overhaul its approach to public procurement. Proactive engagement with suppliers through preliminary market consultations has yielded knowledge that can help to better define purchasing needs and reduce questionable practices in suppliers' direct marketing to individual hospital staff. Another innovation, trialled in the purchase of Computed Tomography scanners, was the introduction of minimum standards into the technical specifications.

Transparency and competition in public procurement has seen mixed results and long-term IT contracts are inflexible. The share of negotiated procedures without publication remained at 5% in 2018 and the use of quality criteria in awarding the contracts dropped from 8% to 4%, while the number of procedures where only one tender was submitted increased from 14% in 2017 to 22% in 2018. The average length of procedures increased to 200 days in 2018,

compared to 108 in 2017. Problems remain with high-value, long-term IT contracts which allocate essential proprietary rights to large private suppliers. This hinders the ability of public bodies to achieve best value for money through regular updates and through splitting of contracts to enable small and medium-sized enterprises to bid directly rather than work under large operators.

Graph 3.4.4: **Public procurement**



Source: European Commission

Corruption

Slovakia remains among the worst-performing EU Member States on corruption indicators, making new policy measures crucial. In the 2018 Global Competitiveness Index rankings for ethics and corruption, as well as for diversion of public funds, Slovakia scores very poorly relative to other EU Member States. It also ranks as one of the worst on favouritism in decision-making. Transparency International's Corruption Perceptions Index and the World Bank's Control of Corruption Indicator show equally poor results for Slovakia. In late 2018 the government set out a new Anti-corruption Action Plan for 2019-2023. The Action Plan focuses on risk management and risk analysis, and introduces a network of integrity officials in the central government.

Whistleblower protection legislation has been effective in only a limited number of cases and the government is planning its review. Since the law on whistle-blowers entered into force in 2015, 38 cases have been recorded ([46]). There are concerns regarding the large amount of discretion arising from the requirement to report in good faith, not all categories of officials receive the same amount of protection, and there are no simultaneous internal and external channels for reporting misconduct (OECD, 2017). In addition, the procedure to prevent retaliation is excessively complex.

Conflicts of interests in the public administration are not adequately supervised. When overhauling the anti-corruption framework, the Organisation for Economic Co-operation and Development recommended revising the current system of monitoring conflicts of interests (OECD, 2017). Declarations of conflicts of interest by mayors are submitted to the commission of a municipal council, while the deputies of a town council and chairmen of a higher territorial unit submit their declarations to commissions or assemblies consisting of peers. Thus, there is no independent system in place, which may create disincentives for the reviewers to flag genuine concerns. There is no designated body to provide guidance or monitoring either. Furthermore, Slovakia still has no legislation on lobbying.

The functional independence of police remains limited. 45% of the Slovak population think that the giving and taking of bribes and the abuse of power for personal gain are widespread among the police.([47]) Revolving doors practices in the recruitment of police officials as special advisors in the Ministry of Interior may create incentives to bow to political influence and reduce the level of functional police independence. It could also hinder investigations of sensitive or high-level corruption cases. The government proposed a revision of the rules of appointments and dismissals in August 2018. However, a substantial revision of the rules of appointment and dismissal in the police was adopted in December 2018, which should improve the accountability of police chiefs.

The number of high-level corruption cases under investigation has risen slightly but

([46]) The Act 307 (2014) on Certain Measures Related to Reporting of Antisocial Activities and on amendment to certain other laws - Data communicated by the Prime Minister's Office to the European Commission.

([47]) Special Eurobarometer 470: Corruption. Q7

remains very low. The overall number of charges (2016: 109; 2017: 117; 2018: 124 (Jan-Nov)), indictments (55; 54; 47) and sentences (71; 98; 83) for corruption-related offences has fluctuated since 2016, after a sharp drop from 2015 (USP GP SR Pezinok, 2018). The new rules on whistleblower protection have not led to a significant increase in reporting corruption. Further efforts to improve detection and the analytical capacity of law enforcement agencies would potentially increase the number of successfully prosecuted allegations of corruption. Following the adoption of the 2016 Act on the responsibility of legal persons, the Slovak judicial authorities have started applying and/or proposing measures against legal persons.

Justice system

Improving the effectiveness of the justice system remains a challenge. Issues regarding the efficiency, the independence and the quality of the justice system persist. Despite a number of reforms that led to improvements in certain areas, long-standing concerns regarding the independence of the judiciary remain largely unchanged and do not appear to have been addressed.

The time needed to resolve civil and commercial cases rose again in 2017, while courts largely manage to deal with their caseload. The administrative justice system continues to perform well and overall clearance rates show that, by and large, courts are managing to deal with their caseload, although authorities reported some challenges concerning cases pending for more than two years. Disposition time for litigious civil and commercial cases at first instance increased again in 2017, after having fallen in previous years (171 days compared to 130 days in 2016).

Efforts to improve the efficiency and quality of the justice system have started to bear fruit, but some challenges persist. In 2017, the European Commission for the Efficiency of Justice of the Council of Europe conducted a functional review of the Slovak justice system (CEPEJ 2017), which identified a number of areas in which Slovakia could improve the functioning of its justice system. The authorities are in the process of following up on these recommendations, and it remains to be seen which reforms will be implemented.

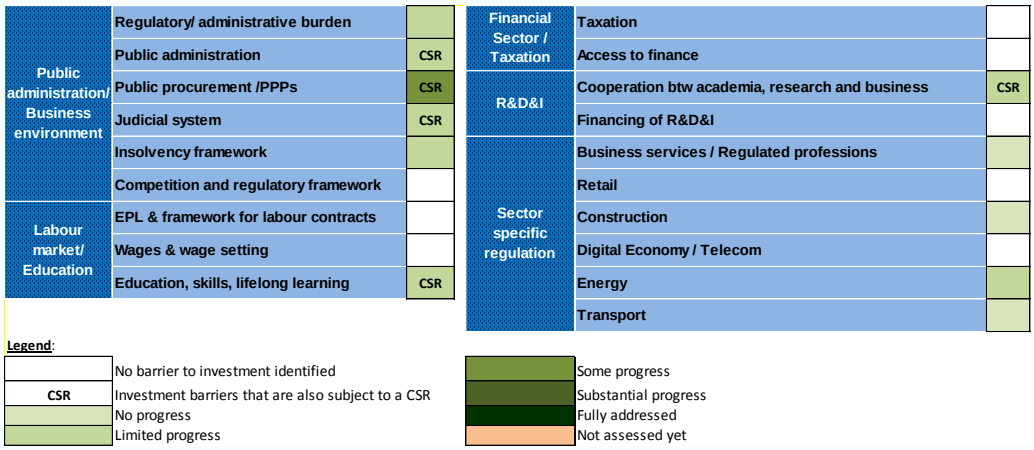
Slovakia remains among the lowest-ranked EU Member States as regards the perceived independence of the judiciary. Some concerns over the independence of the judiciary persist and have not been addressed satisfactorily and the low perception of judicial independence has not improved (2019 EU Justice Scoreboard, forthcoming), thus remaining a concern for citizens, as well as for businesses and investors. As a positive development, on 30 January 2019 the Constitutional Court ruled that the screening of the suitability of judges on the basis of information from the National Security Authority, which had raised serious concerns about the independence of the judiciary, is unconstitutional. The selection process for judges of the Constitutional Court, despite some improvements towards more transparency, continues to create controversy and any delay in the appointment of constitutional judges, due in February 2019, or failure to do so could impair the functioning of the Constitutional Court.

Box 3.4.1: Investment challenges and reforms in Slovakia

Section 1. Macroeconomic perspective

After a period of muted investment activity, EU funds drawdown in 2015 and private investment reignited investment activity and helped to reverse the declining trend in potential growth. In 2018, total investment activity in Slovakia is expected to have increased by around 12% year-on-year according to the Commission's 2018 autumn forecast, with the main drivers being the non-residential construction and traditional investments in machinery and equipment, notably the construction of a new car factory. For 2019 and 2020 investment growth is expected to remain in positive territory but the pace will considerably slow down to 2-3% year-on-year.

Section 2. Assessment of barriers to investment and ongoing reforms



While Slovakia shows clear success in some industrial sectors, notably the automotive industry, the overall business environment is not overly conducive to investment. Some reforms have been adopted or are in the pipeline, e.g. in education, public administration and the judicial system, but several barriers remain to be addressed. In addition, skilled labour shortages and infrastructure gaps hold back productivity growth.

Main barriers to investment

1/ The regulatory and administrative apparatus and public administration in general continue to hold back the business environment from expanding at full potential (EIB, 2018a). Frequent changes to the legislative and regulatory framework are perceived as chronic obstacles to investment growth. The absorption of EU structural funds could benefit from an improvement to the efficiency of public administration, notably in relation to favouritism, high staff turnover, weak human resource management and analytical capacities. An insufficient degree of competition in public procurement also affects investment.

2/ There a disconnect between educational institutions and labour market needs, as well as weak access to lifelong learning, resulting in shortages of skilled labour (EIB, 2018a). This concerns in particular sectors that could increase overall productivity, such as information and communication technology, and more generally the high-growth, innovative regions, such as Bratislava. Improving labour mobility, including by addressing challenges in the housing market, could also help alleviate regional disparities and misallocation.

3/ Infrastructure, including sustainable transport, broadband access, waste management and energy efficiency, remains underdeveloped and is unequally distributed within the country. Factors that hamper investment include a lack of proper planning, low capacity in administering EU funds, inefficient and non-transparent public procurement procedures and complex land-use and construction permit processes.

In Slovakia, Slovenská záručná a rozvojová banka, a.s. (SZRB) is a specialised financial institution owned by the Ministry of Finance with the mission to support and develop small and medium-sized businesses. SZRB does not operate as a competitor in the lending segment for small and medium-sized enterprises; its activities can support the needs of those companies especially when the commercial banks are reluctant to finance their projects due to short business history or insufficient collateral.

ANNEX A: OVERVIEW TABLE

Commitments	**Summary assessment** ([1])
2018 country-specific recommendations (CSRs)	
CSR 1: Ensure that the nominal growth rate of net primary government expenditure does not exceed 4,1 % in 2019, corresponding to an annual structural adjustment of 0,5% of GDP. Implement measures to increase the cost effectiveness of the healthcare system and develop a more effective healthcare workforce strategy.	Slovakia has made **Some Progress** in addressing CSR 1 *The compliance assessment with the Stability and Growth Pact will be included in Spring when final data for 2018 will be available.* **Some Progress** Inefficiencies in healthcare spending are being tackled, including through better procurement. Healthcare staffing is receiving the policy attention it deserves although tangible results are slow to emerge. Public hospitals and the overall care system are seeing less progress, including in the financial performance of the former.
CSR 2: Reinforce activation and upskilling measures, including quality targeted training and individualised services for disadvantaged groups, in particular by delivering on the action plan for the long-term unemployed. Foster women's employment, especially by extending affordable, quality childcare. Improve the quality and inclusiveness of education, including by increasing the participation of Roma children in mainstream education from early childhood onwards.	Slovakia has made **Some Progress** in addressing CSR 2 **Some Progress** Implementation of the Action Plan is well on track. Progress on upskilling measures is less encouraging, with a very low participation of adults in learning and insufficient funding for skills training. **Some Progress** Some progress has been made in increasing the capacity of and access to early childhood education and care, particularly for the over threes. But employment rates do not yet reflect these improvements. **Limited Progress** A new national reform programme and other measures were adopted in 2018 to facilitate participation in early childhood education and care, and primary education. Corresponding investments are planned from 2019 to 2027. The Action plan includes lowering the age of obligatory schooling to 5 as of 2020, and enhancing the capacity of kindergartens, and measures to assist the integration of children from disadvantaged backgrounds, with special focus on the marginalised Roma communities.
CSR 3: Increase the use of quality-related and lifecycle	Slovakia has made **Limited Progress** in addressing CSR 3 **Some Progress** With the latest amendment of

cost criteria in public procurement operations.	the Public Procurement Act, the Public Procurement office introduced measures to speed up Public Procurement to increase the absorption of the European Structural and Investment Funds. Measures include updating the system of management for European Structural and Investment Funds simplification and shortening of public procurement procedures, (re-)drafting of guidance and documentation for tenderers and improving the professionalisation of public procurement. Progress is being made as regards efficiency and administrative capacity.
Tackle corruption, including by ensuring enforcement of existing legislation and by increasing accountability at the level of police and prosecution.	**Limited Progress** Tackling corruption requires, among other things, increasing accountability at the level of police and prosecution, which has seen little change yet. However, a substantial revision of the rules of appointments and dismissals in the Police was adopted in December 2018, which should improve accountability of the police chiefs.
Improve the effectiveness of the justice system, in particular by safeguarding independence in judicial appointment procedures.	**Limited Progress** Only limited progress has been made towards improving the effectiveness of the justice system. Despite a number of past reforms that have led to improvements in certain areas, long-standing concerns regarding the independence of the judiciary remain unaddressed.
Reduce the fragmentation of the public research system and stimulate business innovation, including for small and medium-sized enterprises.	**Limited Progress** Limited progress has been made in improving stimulation for business innovation with the extended rate of the R&D tax allowance and other upcoming support schemes for the small and medium-sized enterprises ecosystem, mostly financed from the European Structural and Investment Funds. However, measures to improve efficiency and consolidate the public research system are still not adopted, notably the transformation of the Slovak Academy of Sciences or a broader assessment of the research and innovation system.
Europe 2020 (national targets and progress)	

Employment rate target set in the NRP: 72 %.	The labour market situation improved on the back of strong economic growth. The employment rate rose to 71.9 % in the second quarter of 2018, close to the national target to be reached by 2020.
R&D target set in the NRP: 1.2 % of GDP	Although the share of R&D funding has risen in the last ten years to peak at 1.2 % of GDP in 2015, it significantly dropped the year after. The share recovered to 0.88% of GDP in 2017, but further increases are needed to reach the goal set for 2020. In 2017, R&D intensity in Slovakia was composed of 54% private investment (0.48% of GDP) and 45% public investment (0.40% of GDP).
National greenhouse gas (GHG) emissions target: + 13 % in 2020 compared with 2005 (in sectors not included in the EU emissions trading scheme)	Slovakia is set to overachieve its 2020 greenhouse gas target in sectors outside the emission trading system.
2020 renewable energy target: 14 %	Slovakia had a 12 % share of renewable energy in gross final consumption in 2016 (Eurostat). This was above the indicative goal for 2017/2018 of 11.4 % needed to stay on track towards its 2020 target, however 2016 shares for Slovakia are lower than those of 2015, pointing to the risk of a decreasing trend.
Energy efficiency, 2020 energy consumption targets: Slovakia's 2020 energy efficiency target is to have a maximum consumption of 16.4 Mtoe (primary energy) and of 9.0 Mtoe (final energy)	Both primary and final energy consumption increased in 2017, consolidating the upward trend started in 2015. The primary energy consumption was of 16.1 Mtoe in 2017, still below the EU 2020 target, but considerably higher than in 2016. Final energy consumption stood at 11.1 Mtoe, exhibiting a trend that makes reaching the 2020 target very unlikely. Enhanced efforts need to be put into and additional measures considered for keeping primary energy consumption in check and considerably reducing final energy consumption.
Early school/training leaving target: 6 %.	School dropout has risen and there are large regional disparities. The rate of early school leaving is still below the EU average of 10.6%, at 9.3 % in 2017, and has been deteriorating from 5.3 % in 2012. Eurostat data show a sizeable regional variation. The highest and fastest-rising levels are in eastern Slovakia, where ESL exceeds 14 %; compared to 4.7 % in western

	regions. FRA estimates that 58 % of Roma children are early school leavers. The rate of young people aged 15-24 not in employment, education or training rose to 21.4 % in 2017 from 12.3% in 2016, which is well above the EU average of 17.2 %.
Tertiary education target: 40 % of population aged 30-34.	The tertiary educational attainment rate rose by close to 8 pps. since 2012 to 34.3 % in 2017 while below the EU average of 39.9 %. The gap between Slovakia and the EU-28 average has been narrowing over time, from 15.3 pps in 2007 to only 5.6 pps a decade later. Women (at 42.4 %), for whom the national target was met, strongly outperformed men (at 26.7 %).
Target rate of the number of people living in poverty or social exclusion: 17.2%; expressed as an absolute number: decrease of 170 000 people (compared to 2008: rate of 20.6%, i.e. 1 111 000 people living in poverty or social exclusion).	The number of people at risk of poverty or social exclusion has further fallen to 16.3 %, and is significantly below the EU average. As of 2017 there has been a cumulative decrease of 255 000 persons since 2008, well above the target (Eurostat).

([1]) The following categories are used to assess progress in implementing the country-specific recommendations (CSRs):

No progress: The Member State has not credibly announced nor adopted any measures to address the CSR. This category covers a number of typical situations to be interpreted on a case by case basis taking into account country-specific conditions. They include the following:

no legal, administrative, or budgetary measures have been announced

in the national reform programme,

in any other official communication to the national Parliament/relevant parliamentary committees or the European Commission,

publicly (e.g. in a press statement or on the government's website);

no non-legislative acts have been presented by the governing or legislative body;

the Member State has taken initial steps in addressing the CSR, such as commissioning a study or setting up a study group to analyse possible measures to be taken (unless the CSR explicitly asks for orientations or exploratory actions). However, it has not proposed any clearly-specified measure(s) to address the CSR.

Limited progress: The Member State has:

announced certain measures but these address the CSR only to a limited extent; and/or

presented legislative acts in the governing or legislative body but these have not been adopted yet and substantial further, non-legislative work is needed before the CSR is implemented;

presented non-legislative acts, but has not followed these up with the implementation needed to address the CSR.

Some progress: The Member State has adopted measures

that partly address the CSR; and/or

that address the CSR, but a fair amount of work is still needed to fully address the CSR fully as only a few of the measures have been implemented. For instance, a measure or measures have been adopted by the national Parliament or by ministerial decision but no implementing decisions are in place.

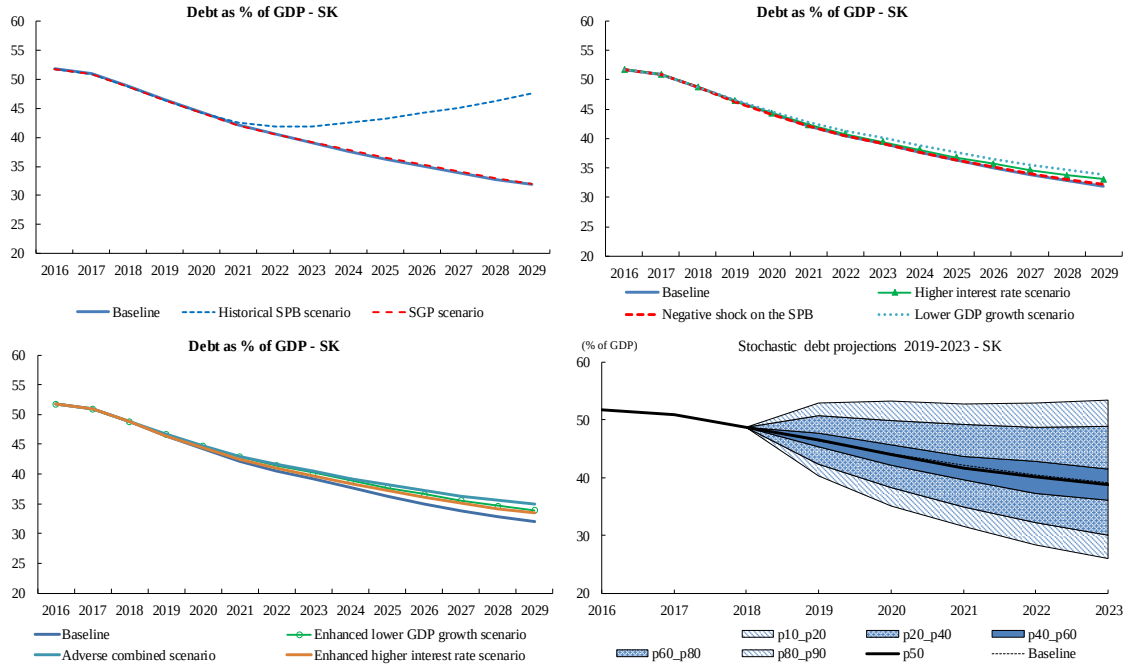
Substantial progress: The Member State has adopted measures that go a long way towards addressing the CSR and most of them have been implemented.

Full implementation: The Member State has implemented all measures needed to address the CSR appropriately.

ANNEX B: COMMISSION DEBT SUSTAINABILITY ANALYSIS AND FISCAL RISKS

General Government debt projections under baseline, alternative scenarios and sensitivity tests

SK - Debt projections baseline scenario	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Gross debt ratio	**50.9**	**48.8**	**46.4**	**44.2**	**42.2**	**40.5**	**39.1**	**37.7**	**36.3**	**35.0**	**33.9**	**32.8**	**31.9**
Changes in the ratio (-1+2+3)	*-0.8*	*-2.2*	*-2.4*	*-2.2*	*-2.0*	*-1.6*	*-1.4*	*-1.5*	*-1.4*	*-1.3*	*-1.2*	*-1.0*	*-0.9*
of which													
(1) Primary balance (1.1+1.2+1.3)	**0.6**	**0.7**	**0.8**	**0.9**	**0.8**	**0.7**	**0.6**	**0.6**	**0.5**	**0.5**	**0.4**	**0.4**	**0.3**
(1.1) Structural primary balance *(1.1.1-1.1.2+1.1.3)*	***0.5***	***0.4***	***0.3***	***0.5***	***0.5***	***0.5***	***0.6***	***0.6***	***0.5***	***0.5***	***0.4***	***0.4***	***0.3***
(1.1.1) Structural primary balance (bef. CoA)	*0.5*	*0.4*	*0.3*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*	*0.5*
(1.1.2) Cost of ageing					*0.0*	*-0.1*	*-0.1*	*-0.1*	*-0.1*	*0.0*	*0.1*	*0.1*	*0.2*
(1.1.3) Others (taxes and property incomes)					*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*
(1.2) Cyclical component	***0.1***	***0.3***	***0.5***	***0.5***	***0.3***	***0.2***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***
(1.3) One-off and other temporary measures	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***	***0.0***
(2) Snowball effect (2.1+2.2+2.3)	**-0.8**	**-1.9**	**-2.0**	**-1.6**	**-1.2**	**-0.9**	**-0.8**	**-0.9**	**-0.8**	**-0.8**	**-0.7**	**-0.7**	**-0.6**
(2.1) Interest expenditure	*1.4*	*1.3*	*1.2*	*1.1*	*1.0*	*1.0*	*1.0*	*1.0*	*0.9*	*0.9*	*1.0*	*1.0*	*1.0*
(2.2) Growth effect	*-1.6*	*-1.9*	*-1.9*	*-1.5*	*-1.2*	*-1.0*	*-1.0*	*-1.1*	*-1.0*	*-1.0*	*-1.0*	*-1.0*	*-0.9*
(2.3) Inflation effect	*-0.6*	*-1.3*	*-1.3*	*-1.2*	*-1.0*	*-0.9*	*-0.8*	*-0.8*	*-0.7*	*-0.7*	*-0.7*	*-0.7*	*-0.6*
(3) Stock-flow adjustments	**0.6**	**0.4**	**0.4**	**0.4**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**



Short term	Medium term	S1	Debt sustainability analysis (detail)						DSA	S2	Long term
				Baseline	Historical SPB	Lower GDP growth	Higher interest rate	Negative shock on SPB	Stochastic projections			
			Risk category	LOW	LOW	LOW	LOW	LOW	LOW			
			Debt level (2029)	31.9	47.5	33.9	33.0	32.2				
			Debt peak year	2018	2018	2018	2018	2018				
			Percentile rank	50.0%	75.0%							
			Probability debt higher						20.2%			
			Dif. between percentiles						27.4			
LOW (S0 = 0.3)	LOW	LOW (S1 = -2.9)								LOW	MEDIUM (S2 = 2.5)	MEDIUM

Note: For further information, see the European Commission Fiscal Sustainability Report (FSR) 2018.

[1] The first table presents the baseline no-fiscal policy change scenario projections. It shows the projected government debt dynamics and its decomposition between the primary balance, snowball effects and stock-flow adjustments. Snowball effects measure the net impact of the counteracting effects of interest rates, inflation, real GDP growth (and exchange rates in some countries). Stock-flow adjustments include differences in cash and accrual accounting, net accumulation of assets, as well as valuation and other residual effects.

[2] The charts present a series of sensitivity tests around the baseline scenario, as well as alternative policy scenarios, in particular: the historical structural primary balance (SPB) scenario (where the SPB is set at its historical average), the Stability and Growth Pact (SGP) scenario (where fiscal policy is assumed to evolve in line with the main provisions of the SGP), a higher interest rate scenario (+1 pp. compared to the baseline), a lower GDP growth scenario (-0.5 pp. compared to the baseline) and a negative shock on the SPB (calibrated on the basis of the forecasted change). An adverse combined scenario and enhanced sensitivity tests (on the interest rate and growth) are also included, as well as stochastic projections. Detailed information on the design of these projections can be found in the FSR 2018.

[3] The second table presents the overall fiscal risk classification over the short, medium and long-term.

a. For the short-term, the risk category (low/high) is based on the S0 indicator. S0 is an early-detection indicator of fiscal stress in the upcoming year, based on 25 fiscal and financial-competitiveness variables that have proven in the past to be leading indicators of fiscal stress. The critical threshold beyond which fiscal distress is signalled is 0.46.

b. For the medium-term, the risk category (low/medium/high) is based on the joint use of the S1 indicator and of the DSA results. The S1 indicator measures the fiscal adjustment required (cumulated over the 5 years following the forecast horizon and sustained thereafter) to bring the debt-to-GDP ratio to 60 % by 2033. The critical values used are 0 and 2.5 pps. of GDP. The DSA classification is based on the results of 5 deterministic scenarios (baseline, historical SPB, higher interest rate, lower GDP growth and negative shock on the SPB scenarios) and the stochastic projections. Different criteria are used such as the projected debt level, the debt path, the realism of fiscal assumptions, the probability of debt stabilisation, and the size of uncertainties.

c. For the long-term, the risk category (low/medium/high) is based on the joint use of the S2 indicator and the DSA results. The S2 indicator measures the upfront and permanent fiscal adjustment required to stabilise the debt-to-GDP ratio over the infinite horizon, including the costs of ageing. The critical values used are 2 and 6 pps. of GDP. The DSA results are used to further qualify the long-term risk classification, in particular in cases when debt vulnerabilities are identified (a medium / high DSA risk category).

ANNEX C: STANDARD TABLES

Table C.1: **Financial market indicators**

	2013	2014	2015	2016	2017	2018
Total assets of the banking sector (% of GDP)[1)]	82.3	84.4	87.3	90.1	91.5	88.8
Share of assets of the five largest banks (% of total assets)	70.3	70.7	72.3	72.7	74.5	-
Foreign ownership of banking system (% of total assets)[2)]	88.1	84.3	85.1	83.6	84.4	84.7
Financial soundness indicators:[2)]						
- non-performing loans (% of total loans)	-	5.2	4.4	4.6	3.7	3.8
- capital adequacy ratio (%)	17.5	17.3	17.7	18.0	18.6	17.8
- return on equity (%)[3)]	10.0	9.2	9.7	9.9	9.3	10.5
Bank loans to the private sector (year-on-year % change)[1)]	6.4	7.4	10.4	10.0	10.3	9.8
Lending for house purchase (year-on-year % change)[1)]	11.9	13.6	13.8	14.4	12.8	11.5
Loan to deposit ratio[2)]	-	92.7	90.3	90.5	96.2	98.2
Central Bank liquidity as % of liabilities[1)]	-	1.1	1.2	1.3	1.7	1.6
Private debt (% of GDP)	76.9	82.5	83.3	90.5	96.1	-
Gross external debt (% of GDP)[2)] - public	32.9	37.9	33.5	32.8	32.3	31.5
- private	32.1	30.6	31.1	33.0	38.1	38.2
Long-term interest rate spread versus Bund (basis points)*	161.8	90.8	38.9	45.3	59.9	46.5
Credit default swap spreads for sovereign securities (5-year)*	83.7	53.3	44.9	39.2	38.8	40.9

(1) Latest data Q3 2018. Includes not only banks but all monetary financial institutions excluding central banks.
(2) Latest data Q2 2018.
(3) As per ECB definition of gross non-performing debt instruments
(4) Quarterly values are not annualised
* Measured in basis points.
Source: European Commission (long-term interest rates); World Bank (gross external debt); Eurostat (private debt); ECB (all other indicators).

Table C.2: **Headline Social Scoreboard indicators**

	2013	2014	2015	2016	2017	2018 [6]
Equal opportunities and access to the labour market						
Early leavers from education and training (% of population aged 18-24)	6,4	6,7	6,9	7,4	9,3	:
Gender employment gap (pps)	14,4	14,6	14,7	14,2	12,8	13,8
Income inequality, measured as quintile share ratio (S80/S20)	3,6	3,9	3,5	3,6	3,5	:
At-risk-of-poverty or social exclusion rate[1] (AROPE)	19,8	18,4	18,4	18,1	16,3	:
Young people neither in employment nor in education and training (% of population aged 15-24)	13,7	12,8	13,7	12,3	12,1	:
Dynamic labour markets and fair working conditions[†]						
Employment rate (20-64 years)	65,0	65,9	67,7	69,8	71,1	72,2
Unemployment rate[2] (15-74 years)	14,2	13,2	11,5	9,7	8,1	6,6
Long-term unemployment rate[3] (as % of active population)	10,0	9,3	7,6	5,8	5,1	4,2
Gross disposable income of households in real terms per capita[4] (Index 2008=100)	99,3	101,8	105,8	108,6	111,4	:
Annual net earnings of a full-time single worker without children earning an average wage (levels in PPS, three-year average)	11308	11698	12106	12446	:	:
Annual net earnings of a full-time single worker without children earning an average wage (percentage change, real terms, three-year average)	-1,2	1,1	2,4	3,1	:	:
Public support / Social protection and inclusion						
Impact of social transfers (excluding pensions) on poverty reduction[5]	36,3	35,7	35,3	31,0	29,1	:
Children aged less than 3 years in formal childcare	3,0	6,5	1,1	0,5	0,6	:
Self-reported unmet need for medical care	1,9	2,1	2,1	2,3	2,4	:
Individuals who have basic or above basic overall digital skills (% of population aged 16-74)	:	:	53,0	55,0	59,0	:

(1) People at risk of poverty or social exclusion (AROPE): individuals who are at risk of poverty (AROP) and/or suffering from severe material deprivation (SMD) and/or living in households with zero or very low work intensity (LWI).
(2) Unemployed persons are all those who were not employed but had actively sought work and were ready to begin working immediately or within two weeks.
(3) Long-term unemployed are people who have been unemployed for at least 12 months.
(4) Gross disposable household income is defined in unadjusted terms, according to the draft Joint Employment Report 2019.
(5) Reduction in percentage of the risk of poverty rate, due to social transfers (calculated comparing at-risk-of poverty rates before social transfers with those after transfers; pensions are not considered as social transfers in the calculation).
(6) Average of first three quarters of 2018 for the employment rate, unemployment rate and gender employment gap. Data for unemployment rate is annual.
Source: Eurostat

Table C.3: **Labour market and education indicators**

Labour market indicators	**2013**	**2014**	**2015**	**2016**	**2017**	**2018** [4]
Activity rate (15-64)	69,9	70,3	70,9	71,9	72,1	72,3
Employment in current job by duration						
From 0 to 11 months	8,0	9,6	11,7	12,0	12,3	:
From 12 to 23 months	7,1	7,3	8,2	8,6	9,0	:
From 24 to 59 months	17,9	17,8	16,3	16,9	16,7	:
60 months or over	66,9	65,3	63,8	62,5	62,0	:
Employment growth* (% change from previous year)	-0,8	1,4	2,0	2,4	2,2	2,1
Employment rate of women (% of female population aged 20-64)	57,8	58,6	60,3	62,7	64,7	65,3
Employment rate of men (% of male population aged 20-64)	72,2	73,2	75,0	76,9	77,5	79,0
Employment rate of older workers* (% of population aged 55-64)	44,0	44,8	47,0	49,0	53,0	53,9
Part-time employment* (% of total employment, aged 15-64)	4,5	5,1	5,8	5,8	5,8	5,1
Fixed-term employment* (% of employees with a fixed term contract, aged 15-64)	6,8	8,8	10,5	9,9	9,4	8,4
Participation in activation labour market policies (per 100 persons wanting to work)	13,5	14,5	13,6	19,8	:	:
Transition rate from temporary to permanent employment (3-year average)	41,2	39,4	35,7	36,0	:	:
Youth unemployment rate (% active population aged 15-24)	33,7	29,7	26,5	22,2	18,9	15,4
Gender gap in part-time employment (aged 20-64)	2,8	3,0	4,1	3,8	4,1	4,0
Gender pay gap[1] (in undadjusted form)	18,8	19,7	19,6	19,0	19,8	:
Education and training indicators	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Adult participation in learning (% of people aged 25-64 participating in education and training)	3,1	3,1	3,1	2,9	3,4	:
Underachievement in education[2]	:	:	27,7	:	:	:
Tertiary educational attainment (% of population aged 30-34 having successfully completed tertiary education)	26,9	26,9	28,4	31,5	34,3	:
Variation in performance explained by students' socio-economic status[3]	:	:	16,0	:	:	:

* Non-scoreboard indicator

(1) Difference between the average gross hourly earnings of male paid employees and of female paid employees as a percentage of average gross hourly earnings of male paid employees. It is defined as "unadjusted", as it does not correct for the distribution of individual characteristics (and thus gives an overall picture of gender inequalities in terms of pay). All employees working in firms with ten or more employees, without restrictions for age and hours worked, are included.

(2) PISA (OECD) results for low achievement in mathematics for 15 year-olds.

(3) Impact of socio-economic and cultural status on PISA (OECD) scores. Values for 2012 and 2015 refer respectively to mathematics and science.

(4) Average of first three quarters of 2018. Data for youth unemployment rate annual.

Source: Eurostat, OECD

Table C.4: **Social inclusion and health indicators**

	2012	2013	2014	2015	2016	2017
Expenditure on social protection benefits* (% of GDP)						
Sickness/healthcare	5,3	5,5	5,6	5,5	5,8	:
Disability	1,6	1,6	1,6	1,6	1,6	:
Old age and survivors	7,7	7,9	8,2	8,1	8,0	:
Family/children	1,7	1,7	1,7	1,6	1,6	:
Unemployment	0,7	0,6	0,5	0,5	0,5	:
Housing	0,0	0,0	0,0	0,0	0,0	:
Social exclusion n.e.c.	0,4	0,4	0,4	0,3	0,3	:
Total	17,5	17,8	18,0	17,7	17,9	:
of which: means-tested benefits	0,9	0,9	0,9	0,8	0,7	:
General government expenditure by function (% of GDP, COFOG)						
Social protection	15,0	15,3	15,1	15,1	15,1	:
Health	6,8	6,8	7,0	7,1	7,4	:
Education	4,1	4,0	4,1	4,2	3,8	:
Out-of-pocket expenditure on healthcare (% of total health expenditure)	23,2	23,3	18,0	18,4	17,9	:
Children at risk of poverty or social exclusion (% of people aged 0-17)*	26,6	25,5	23,6	24,9	24,4	22,5
At-risk-of-poverty rate[1] (% of total population)	13,2	12,8	12,6	12,3	12,7	12,4
In-work at-risk-of-poverty rate (% of persons employed)	6,2	5,7	5,7	6,0	6,5	6,3
Severe material deprivation rate[2] (% of total population)	10,5	10,2	9,9	9,0	8,2	7,0
Severe housing deprivation rate[3], by tenure status						
Owner, with mortgage or loan	2,9	3,9	1,6	3,2	2,0	1,5
Tenant, rent at market price	12,3	9,1	9,4	7,6	6,0	11,1
Proportion of people living in low work intensity households[4] (% of people aged 0-59)	7,2	7,6	7,1	7,1	6,5	5,4
Poverty thresholds, expressed in national currency at constant prices*	3710	3478	3465	3530	3553	3689
Healthy life years (at the age of 65)						
Females	3,1	3,7	3,6	3,8	4,2	:
Males	3,5	4,2	4,3	4,1	4,5	:
Aggregate replacement ratio for pensions[5] (at the age of 65)	0,6	0,6	0,6	0,6	0,6	0,6
Connectivity dimension of the Digital Economy and Society Inedex (DESI)[6]	:	:	38,5	44,9	48,9	54,1
GINI coefficient before taxes and transfers*	41,9	41,3	43,2	39,8	40,5	40,3
GINI coefficient after taxes and transfers*	25,3	24,2	26,1	23,7	24,3	23,2

* Non-scoreboard indicator
(1) At-risk-of-poverty rate (AROP): proportion of people with an equivalised disposable income below 60 % of the national equivalised median income.
(2) Proportion of people who experience at least four of the following forms of deprivation: not being able to afford to i) pay their rent or utility bills, ii) keep their home adequately warm, iii) face unexpected expenses, iv) eat meat, fish or a protein equivalent every second day, v) enjoy a week of holiday away from home once a year, vi) have a car, vii) have a washing machine, viii) have a colour TV, or ix) have a telephone.
(3) Percentage of total population living in overcrowded dwellings and exhibiting housing deprivation.
(4) People living in households with very low work intensity: proportion of people aged 0-59 living in households where the adults (excluding dependent children) worked less than 20 % of their total work-time potential in the previous 12 months.
(5) Ratio of the median individual gross pensions of people aged 65-74 relative to the median individual gross earnings of people aged 50-59.
(6) Fixed broadband take up (33%), mobile broadband take up (22%), speed (33%) and affordability (11%), from the Digital Scoreboard.
Source: Eurostat, OECD

Table C.5: **Product market performance and policy indicators**

Performance indicators	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Labour productivity per person[1] growth (t/t-1) in %						
Labour productivity growth in industry	1,07	-0,05	11,31	7,12	2,28	0,93
Labour productivity growth in construction	9,54	-9,42	4,25	3,52	-3,25	4,59
Labour productivity growth in market services	1,53	4,51	-4,44	0,42	-0,80	0,60
Unit Labour Cost (ULC) index[2] growth (t/t-1) in %						
ULC growth in industry	4,61	3,46	-7,08	-3,29	0,40	5,13
ULC growth in construction	-7,76	11,41	-3,52	1,68	5,34	-1,85
ULC growth in market services	-0,44	-2,87	6,97	3,68	1,90	5,67
Business environment	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Time needed to enforce contracts[3] (days)	545	615	775	775	775	775
Time needed to start a business[3] (days)	28,5	33,5	26,5	26,5	26,5	26,5
Outcome of applications by SMEs for bank loans[4]	:	1,07	0,83	0,65	0,61	0,74
Research and innovation	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
R&D intensity	0,80	0,82	0,88	1,17	0,79	0,88
General government expenditure on education as % of GDP	4,10	4,00	4,10	4,20	3,80	:
Employed people with tertiary education and/or people employed in science and technology as % of total employment	37	37	37	37	38	38
Population having completed tertiary education[5]	17	18	18	19	20	21
Young people with upper secondary education[6]	93	91	91	91	90	89
Trade balance of high technology products as % of GDP	-5,55	-5,32	-5,07	-5,77	-6,02	-4,19
Product and service markets and competition				**2003**	**2008**	**2013**
OECD product market regulation (PMR)[7], overall				2,18	1,62	1,29
OECD PMR[7], retail				1,14	1,04	1,75
OECD PMR[7], professional services				:	:	2,90
OECD PMR[7], network industries[8]				3,33	2,28	1,88

(1) Value added in constant prices divided by the number of persons employed.
(2) Compensation of employees in current prices divided by value added in constant prices.
(3) The methodologies, including the assumptions, for this indicator are shown in detail here: http://www.doingbusiness.org/methodology.
(4) Average of the answer to question Q7B_a. "[Bank loan]: If you applied and tried to negotiate for this type of financing over the past six months, what was the outcome?". Answers were codified as follows: zero if received everything, one if received 75% and above, two if received below 75%, three if refused or rejected and treated as missing values if the application is still pending or don't know.
(5) Percentage population aged 15-64 having completed tertiary education.
(6) Percentage population aged 20-24 having attained at least upper secondary education.
(7) Index: 0 = not regulated; 6 = most regulated. The methodologies of the OECD product market regulation indicators are shown in detail here: http://www.oecd.org/competition/reform/indicatorsofproductmarketregulationhomepage.htm
(8) Aggregate OECD indicators of regulation in energy, transport and communications (ETCR).
Source: European Commission; World Bank — Doing Business (for enforcing contracts and time to start a business); OECD (for the product market regulation indicators); SAFE (for outcome of SMEs' applications for bank loans).

Table C.6: **Green growth**

Green growth performance		2012	2013	2014	2015	2016	2017
Macroeconomic							
Energy intensity	kgoe / €	0,23	0,23	0,21	0,21	0,21	0,21
Carbon intensity	kg / €	0,61	0,59	0,55	0,53	0,52	-
Resource intensity (reciprocal of resource productivity)	kg / €	0,91	0,86	0,92	0,89	0,92	0,88
Waste intensity	kg / €	0,12	-	0,12	-	0,13	-
Energy balance of trade	% GDP	-5,9	-5,9	-4,3	-3,5	-2,7	-3,5
Weighting of energy in HICP	%	18,9	16,5	16,2	15,5	14,9	14,4
Difference between energy price change and inflation	%	1,8	-1,9	-2,0	-2,0	-2,4	-5,7
Real unit of energy cost	% of value added	30,9	29,5	25,4	24,6	23,9	-
Ratio of environmental taxes to labour taxes	ratio	0,11	0,11	0,11	0,11	0,11	-
Environmental taxes	% GDP	1,7	1,7	1,8	1,8	1,8	1,8
Sectoral							
Industry energy intensity	kgoe / €	0,14	0,14	0,13	0,13	0,12	0,12
Real unit energy cost for manufacturing industry excl. refining	% of value added	24,4	22,0	21,1	20,7	20,2	-
Share of energy-intensive industries in the economy	% GDP	13,1	12,3	13,9	15,6	17,4	17,7
Electricity prices for medium-sized industrial users	€ / kWh	0,13	0,13	0,12	0,11	0,11	0,11
Gas prices for medium-sized industrial users	€ / kWh	0,04	0,04	0,04	0,03	0,03	0,03
Public R&D for energy	% GDP	0,00	0,00	0,01	0,01	0,00	0,00
Public R&D for environmental protection	% GDP	0,01	0,01	0,01	0,01	0,01	0,01
Municipal waste recycling rate	%	13,3	10,8	10,3	14,9	23,0	29,8
Share of GHG emissions covered by ETS*	%	50,7	50,9	51,5	51,2	51,8	-
Transport energy intensity	kgoe / €	0,62	0,63	0,46	0,41	0,54	0,55
Transport carbon intensity	kg / €	1,84	1,84	1,37	1,27	1,47	-
Security of energy supply							
Energy import dependency	%	61,6	60,8	62,1	60,1	60,6	64,8
Aggregated supplier concentration index	HHI	66,1	68,9	70,4	68,5	66,1	-
Diversification of energy mix	HHI	0,22	0,22	0,21	0,20	0,20	0,20

All macro intensity indicators are expressed as a ratio of a physical quantity to GDP (in 2010 prices)
Energy intensity: gross inland energy consumption (Europe 2020-2030)(in kgoe) divided by GDP (in EUR)
Carbon intensity: greenhouse gas emissions (in kg CO2 equivalents) divided by GDP (in EUR)
Resource intensity: domestic material consumption (in kg) divided by GDP (in EUR)
Waste intensity: waste (in kg) divided by GDP (in EUR)
Energy balance of trade: the balance of energy exports and imports, expressed as % of GDP
Weighting of energy in HICP: the proportion of 'energy' items in the consumption basket used for the construction of the HICP
Difference between energy price change and inflation: energy component of HICP, and total HICP inflation (annual % change)
Real unit energy cost: real energy costs as % of total value added for the economy
Industry energy intensity: final energy use of industry (in kgoe) divided by gross value added of industry (in 2010 EUR)
Real unit energy costs for manufacturing industry excluding refining : real costs as % of value added for manufacturing sectors
Share of energy-intensive industries in the economy: share of gross value added of the energy-intensive industries in GDP
Electricity and gas prices for medium-sized industrial users: consumption band 500–20 00MWh and 10 000–100 000 GJ; figures excl. VAT.
Recycling rate of municipal waste: ratio of recycled and composted municipal waste to total municipal waste
Public R&D for energy or for the environment: government spending on R&D for these categories as % of GDP
Proportion of GHG emissions covered by EU emissions trading system (ETS) (excluding aviation): based on GHG emissions (excl land use, land use change and forestry) as reported by Member States to the European Environment Agency.
Transport energy intensity: final energy use in transport sector including aviation, (in kgoe) divided by transport industry gross value added (in 2010 EUR)
Transport carbon intensity: GHG emissions in transport sector divided by gross value added of the transport activities
Energy import dependency: net energy imports divided by gross inland energy consumption plus consumption of international maritime bunkers
Aggregated supplier concentration index: Herfindahl-Hirschman index for net imports of crude oil and NGL, natural gas and hard coal. Smaller values indicate larger diversification and hence lower risk.
Diversification of the energy mix: Herfindahl-Hirschman index of the main energy products in the gross inland consumption of energy
* European Commission and European Environment Agency

Source: European Commission and European Environment Agency (Share of GHG emissions covered by ETS); European Commission (Environmental taxes over labour taxes); Eurostat (all other indicators)

ANNEX D: INVESTMENT GUIDANCE ON COHESION POLICY FUNDING 2021-2027 FOR SLOVAKIA

Building on the Commission proposal for the next Multi-Annual Financial Framework for the period 2021-2027 of 2 May 2018 (COM (2018) 321), this Annex D presents the preliminary Commission services views on priority investment areas and framework conditions for effective delivery for the 2021-2027 Cohesion Policy ([48]). These priority investment areas are derived from the broader context of investment bottlenecks, investment needs and regional disparities assessed in the report. This Annex provides the basis for a dialogue between Slovakia and the Commission services in view of the programming of the cohesion policy funds (European Regional Development Fund, Cohesion Fund and European Social Fund Plus).

Policy Objective 1: A Smarter Europe – Innovative and smart industrial transformation

Slovakia has shown limited progress in improving research and innovation performance with targets for research and development spending below the EU average. High priority investments([49]) have been identified to **enhance research and innovation capacities and the uptake of advanced technologies**, and in particular to strengthen innovation performance and foster productivity growth by identifying smart specialisation areas on the basis of national and regional needs and potential to:

- increase attractiveness, efficiency and competitiveness of the research and innovation system, supporting consolidation and sustainability of the whole research system, notably stabilisation of infrastructure and creating incentives for attracting and retaining qualified researchers in the smart specialisation areas;
- capacity building to enhance cooperation between the business and academia, mobilising knowledge and technology transfer and strengthening research capacities in industries;
- support a transnationally and/or macro regionally co-ordinated research and innovation funding;
- support small and medium sized enterprises internationalisation to grasp new business opportunities related to the digital, carbon-neutrality, resource efficiency and circular economy transitions;
- foster business investment in research and innovation and enhance networking, cooperation and exchange of experience between academic researchers and companies.

In digitalisation, there is still a significant gap between Slovakia and the EU average. Investment needs are identified to **reaping the benefits of digitisation for citizens, companies and governments**, and in particular to:

- increase the information and communications technology uptake in small and medium sized enterprises, including supporting infrastructures and services;
- increase the quality and effectiveness of e-service provision taking into account regional differences and prioritising regions lagging behind;
- cooperate with neighbouring countries in developing mutually recognisable e-services.

Small and medium-sized enterprises are not the moving force of the Slovak economy and smart specialisation is still at its beginning. High priority investment needs are identified to **enhance growth**

([48]) This Annex is to be considered in conjunction with the Proposal for a Regulation of the European Parliament and of the Council on the European Regional Development Fund and on the Cohesion Fund COM(2018) 372 and the Proposal for a Regulation of the European Parliament and of the Council on the European Social Fund Plus COM(2018) 382, in particular as regards the requirements for thematic concentration and urban earmarking outlined in these proposals.

([49]) The intensity of needs is classified in three categories in a descending order – high priority needs, priority needs, needs.

and competitiveness of small and medium-sized enterprises, in particular to:

- support companies to move up in global value chains, increase productivity, facilitating participation in industry led and research driven international clusters;
- enhance the research and innovation capacities of small and medium sized enterprises by supporting development and implementation of new business models, adoption of new and emerging technologies and provision of advanced business services to small and medium-sized enterprises.

Labour shortages lead to growing skills mismatch. High priority investment needs are identified to **develop skills for smart specialisation, industrial transition and entrepreneurship**, in particular to:

- provide enterprises and research institutions with tools to adapt and develop skills for smart specialisation, industrial transition and entrepreneurship;
- training and reskilling for smart specialisation areas at all levels within small and medium sized enterprises and building the necessary administrative capacity with a special attention to digital skills;
- improve the practise-based approach in vocational education and training, higher education system, supporting the linkages between schools and enterprises also taking into account the lessons learnt from the Catching-up Regions Initiative in Prešov region.

Policy Objective 2: A low carbon and greener Europe – Clean and fair energy transition, green and blue investment, circular economy, climate adaptation and risk prevention

Slovakia faces numerous challenges in its transition to resource-efficient, low carbon economy with significantly reduced air pollution, being one of the highest energy intense economies in the EU. High priority investment needs are identified to **promote energy efficiency measures and renewable energy**, as well as to **develop smart energy systems, grids and storage at local level**, in particular to:

- improve energy efficiency in public and residential buildings and small and medium sized enterprises;
- support deployment of decentralised small-scale renewable electricity capacities and support transition to renewables in heating and cooling, in line with sustainability criteria;
- decrease greenhouse gas emissions and air pollution by replacing fossil-fuelled boilers with low carbon intensive installations accompanied by energy efficiency renovation of buildings, particularly in structurally affected regions and for low-income households with appropriate measures;
- deploy solutions for smart electricity distribution grids and storage – linked to demand and supply planning on local level.

Slovakia continues to suffer from draughts, floods and flood-induced damages for the economy and the infrastructures. High priority investment needs are identified to **promote climate change adaptation, risk prevention and disaster resilience**, in particular to:

- address risks as identified in the national risks assessment, as well as by the cooperation with the neighbouring countries with the focus on prevention measures and nature-close solutions.

Water quality and waste water treatment standards continue to be a challenge. Priority investment needs are identified to **promote sustainable water management,** in particular to**:** • improve access to drinking water supply following the water hierarchy including water access for marginalised groups and remote localities; • waste water treatment (with focus on stringent treatment); • measures improving the status of water bodies.
Slovakia is at risk of not meeting waste management targets. High priority investment needs are identified to **transition to circular economy,** in particular to: • support measures leading to the transition to circular economy and shifting towards more prevention, reuse, and recycling of waste.
More than half of habitats and species are in unfavourable status. Priority investment needs are identified to **enhance biodiversity, green infrastructure in the urban environment, and reducing pollution**, in particular to: • de-contamination and rehabilitation of industrial sites; • tackling the landscape fragmentation and urban sprawl; • support measures leading to improved air quality and its monitoring.
Policy Objective 3: A more connected Europe – Mobility and regional Information and Communications Technology connectivity
Connectivity gaps remain regarding the completion and modernisation of road and rail transport infrastructure as well as the levels of road safety. High priority investment needs are identified to **develop a sustainable, intermodal Trans-European Transport Network**, and in particular to: • complete the core and comprehensive Trans-European Transport Network railway and road network (including cross-border sections) and remove regional disparities in road Trans-European Transport Network accessibility; • modernise the Trans-European Transport Network railway network and complete the Trans-European Transport Network multi-modal corridors; • reduce environmental impact and improve safety of transport.
Priority investment needs are identified **to develop sustainable, intermodal national, regional and local mobility,** as well as to **promote sustainable multimodal urban mobility,** in particular to: • investment into regional and local mobility addressing negative externalities from transport, for instance supporting multimodality in the transport sector, making the whole sector more environmentally friendly, safer, and cost-effective; • promotion of sustainable and efficient urban transport systems (as part of the relevant integrated territorial development strategies, or based on sustainable urban mobility plans), particularly in

cities.

Investment needs are identified to **enhance digital connectivity,** in particular to**:**

- development of a reliable national broadband strategy and increasing capacity of authorities involved in this sector as well as measures for investment mappings on which basis very high capacity broadband networks can be deployed.

Policy Objective 4: A more social Europe – Implementing the European Pillar of Social Rights

Shortages are recorded in some occupations, yet unemployment remains high in some areas, and there is a need to cope with new economic developments. High priority investment needs are therefore identified **to improve access to quality employment of all jobseekers, enhance the effectiveness of labour market institutions and services, promote women's participation and support adaptation of enterprises and workers to change**, **including through social innovation and infrastructure,** and in particular to:

- support the labour market integration of long-term and non-registered unemployed and inactive persons, including the young people who are neither in education, employment or in training;
- support the assessment and anticipation of skills needs and ensure timely and tailor-made support to labour market matching, transition and mobility;
- provide tailor made upskilling and reskilling, including validation of prior learning, and incentivise investment in training by enterprises;
- promote establishment of social enterprises;
- enhance gender equality in the labour market, notably by accessible childcare for children under 3;
- promote equal opportunities and active participation of migrant workers in society.

The outcomes of the education and training system are low and reveal significant regional and socio-economic disparities. High priority investment needs are therefore identified **to promote equal access to quality and inclusive education, training and life-long learning, and to improve their effectiveness and labour market relevance, including through infrastructure**, and in particular to:

- increase the participation of children in early childhood education and care;
- promote equal access to and support completion of quality and inclusive education and training, in particular for disadvantaged groups, such as Roma;
- enhance work-based learning, excellence and internationalisation in vocational education and training, as well as in higher education;
- increase the attractiveness of teaching professions by improving working conditions and investing in training.

Poverty and material deprivation continue to be high in a number of localities and the overall performance of social services and healthcare system are suboptimal. High priority investment needs are identified to **enhance equal and timely access to quality, sustainable and affordable social and**

healthcare services, **including through infrastructure,** and in particular to:

- ensure access to healthcare systems across the country, particularly for vulnerable groups, notably in prevention and primary care, with a view to reducing health inequalities;
- improve accessibility of long-term care services for the elderly and promote active and healthy ageing;
- address shortages in the number of medical occupations, taking regional disparities into account;
- support integrated active inclusion measures, including through outreach and personalised services, to disadvantaged people, including providing food and basic material assistance to the most deprived;
- support the transition from institutional care to community- or family-based services for persons with disabilities, as well as for children in state institutional care;
- prevent and reduce homelessness and housing exclusion, including through social housing;
- ensure the necessary support to and attractiveness of social worker professions.

Poverty, social exclusion and limited provision of essential services are particularly prominent in south-eastern Slovakia, strongly affecting the marginalised Roma communities. Priority investment needs are identified to **promote socio-economic integration, including through infrastructure,** in particular to:

- increase the access to mainstream public utilities and inclusive social housing;
- address the barriers in access to education, employability, health and housing, with a view of inclusion of marginalised citizens.

Policy Objective 5 – A Europe closer to citizens by fostering the sustainable and integrated development of urban, rural and coastal areas and local initiatives

Given the inter-regional as well as sub-regional disparities within the regions in Slovakia, place based strategies and instruments remain highly relevant in addressing the bottlenecks to growth and cultivate the unique potential of regions concerned. Investment needs are identified to **fostering the integrated social, economic and environmental development, cultural heritage and security in urban areas** and **in rural areas**, in particular to:

- investments in selected functional areas based on their integrated territorial development strategies, addressing their specific challenges in a sustainable and smart way while reinforcing the role of regional capitals beyond their functional area – university towns, places of science, research and innovation;
- strengthen the partnership principle intra and inter-regionally and investing in capacity building and empowerment for local authorities and grass-root organisations;
- invest in rural areas lagging behind by addressing their infrastructure gap and other identified development needs, consider the depopulation of certain less developed areas (such as ‘hunger valleys’ in south and east of the country) and provide opportunities to population to be able to boost local growth benefitting from the linkages with the surrounding urban areas;

• build up on the specific territorial expertise acquired during the Catching-up Regions Initiative and Coal regions in Transition Initiative.
Factors for effective delivery of cohesion policy
• improved and more efficient measures to prevent and address conflict of interest, fraud and corruption; • strengthened administrative capacity based on development and implementation of roadmap on administrative capacity building necessary for the effective administration and implementation of cohesion policy Funds and to foster effective cooperation across government sectors, and among local, regional and national levels; • simplified processes and enhanced transparency in the management of cohesion policy funds and reduced administrative burden for beneficiaries; • strengthened capacity of beneficiaries to prepare and implement quality projects and to participate in the implementation of the funds in line with the partnership principle; • improved public procurement performance, in particular in the areas of internal controls, transparency, digitisation, professionalisation, single bidding and strategic public procurement; • broader use of financial instruments and/or contributions to a Slovakia's compartment under InvestEU for revenue-generating and cost-saving activities.

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