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2018 European Semester: Assessment of progress on structural reforms, prevention and correction of macroeconomic imbalances, and results of in-depth reviews under Regulation (EU) No 1176/2011

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EXECUTIVE SUMMARY

Slovakia's positive economic developments offer a chance to tackle remaining structural challenges and raise its growth potential. ([1]) Addressing long-standing weaknesses in the areas of labour market inclusion, education, healthcare, public administration and corruption could prove a transformative step in utilising Slovakia's productive potential and public funds in the best possible way. Concerted policy efforts may also shield the economy from a potential slowdown and support the diversification of the economy, allowing it to move up the value chain.

Slovakia's economic expansion continues at a swift pace. According to the latest Commission forecast, real GDP is projected to have increased by 3.4 % in 2017 due to solid household spending growth amidst a strong labour market recovery. Investment activity recovered slightly in 2017 from the low level of the previous year but failed to make a sizeable contribution to growth. Real GDP growth is expected to reach 4 % in 2018 and 4.2% in 2019. Accelerating private consumption is set to remain the strongest driver of growth for both years, buttressed by rising employment and robust wage growth. Both private and government fixed investment is likely to accelerate markedly in 2018 and 2019. External demand is also expected to act as an increasingly important source of economic growth, partly owing to expanding production and export facilities in the manufacturing sector.

The labour market witnessed further positive developments. The employment rate rose to 71.2 % (third quarter of 2017) and the unemployment rate fell to 8.1 % in 2017. Further improvements in the labour market are expected in the medium term. However, long-term unemployment and limited job opportunities for disadvantaged groups, low internal mobility and large disparities between the western region around Bratislava and the east of the country continue to hamper economic development. The tightening of the labour market is accompanied by shortages of skilled labour in some sectors of the economy. Poor educational outcomes and inequalities based on socioeconomic background are major obstacles for inclusive growth.

Developments in the wider economy are generally favourable. As economic growth is expected to remain well above the EU average, Slovakia's income convergence process is expected to resume. However, some regions have failed to attract major investment, which has exacerbated regional disparities in many economic and social areas. Although consumer price inflation is set to increase, sizeable wage increases are expected to ensure a rise in real wages and real disposable household incomes. Growth in house prices has picked up in the context of low interest rates and limited housing supply. However, there are no signs yet of the housing market being overvalued. Fiscal consolidation is set to continue, supported by a favourable economic environment. In 2018 the government deficit is projected to fall to around -1 % of GDP and the debt-to-GDP ratio is projected to decline to below 50% of GDP.

Slovakia has made some progress in addressing the 2017 country-specific recommendations. Some progress has been made in a number of policy areas, including on improving the cost-effectiveness of the healthcare system, improving activation measures for disadvantaged groups, enhancing employment opportunities for women, and adopting and implementing a comprehensive plan to lower administrative and regulatory barriers for businesses. Only limited progress has been made in improving the quality of education, increasing the participation of Roma in education, improving competition and transparency in public procurement, and in improving the effectiveness of the justice system. No progress has been achieved in stepping up the fight against corruption.

Regarding the national targets under the Europe 2020 strategy, Slovakia currently meets, or is on track towards meeting, the prospective targets for the employment rate, greenhouse gas emissions, renewable energy use, energy efficiency and reducing the number of people at risk of poverty and social exclusion. While a sufficient reduction in the early school leaving rate appears to be attainable by 2020, the indicator has deteriorated recently and continued action is needed to reach the targets. The distance to the targets for Research

([1]) This report assesses Slovakia's economy in the light of the European Commission's Annual Growth Survey published on 22 November 2017. In the survey, the Commission calls on EU Member States to implement reforms to make the European economy more productive, resilient and inclusive. In doing so, Member States should focus their efforts on the three elements of the virtuous triangle of economic policy - boosting investment, pursuing structural reforms and ensuring responsible fiscal policies.

and Development (R&D) intensity and tertiary education remains significant, but while is progressively narrowing in the latter case, sustained effort is needed to attain the R&D target again.

Slovakia faces challenges with regard to a number of indicators of the Social Scoreboard supporting the European Pillar of Social Rights. Whilst the high economic growth has translated into a significant improvement of employment outcomes, challenges in areas such as childcare, active labour market policies and social transfers are apparent. Large gender disparities in the labour market persist. Access to inclusive education and social housing is limited. On the positive side, income inequality remains very low and poverty rates are decreasing.

Key structural issues analysed in this report, which point to particular challenges for Slovakia's economy, are the following:

- **Fiscal revenues are increasing and tax compliance has improved but a large VAT gap persists.** In light of persistent issues further anti-fraud measures are planned for 2018. While fiscal incentives promoting R&D were increased, property taxation remains a weak revenue source. The medium-term budgeting framework is weakened by a largely cash-based state budget management system. Public spending reviews are nevertheless proving powerful tools for raising spending efficiency and effectiveness.

- **Long-term sustainability challenges stem from the pension and healthcare systems despite reforms.** Automatic increases in the pension age will mitigate the impact of adverse demographic trends. The cost-effectiveness of the healthcare system is improving, but from a low level. A public e-health system has been introduced after long delays but limitations in terms of basic functionalities and user-friendliness may hinder its use. A pilot project for a diagnosis-linked funding system for healthcare providers was launched in 2017. While action to rationalise hospital care continues, plans to create streamlined, integrated care centres have not advanced.

- **Structural labour market weaknesses persist**. In light of consistently high long-term unemployment and increasing skill shortages, Slovakia has started implementing the action plan for the integration of the long-term unemployed focusing on personalised services. However, the rate of participation in active labour market policies is still low and their upskilling component remains limited. Low-skilled workers, the Roma community and young people continue to face high levels of unemployment, amplified by high regional disparities. The gender employment gap remains high, with women's employment opportunities conflicting with care responsibilities. Efforts are being made to improve access to childcare through investment from EU funds, but quality and affordable care, in particular for children under the age of 3, are still lacking. Labour market improvements contributed to the decrease in the risk of poverty or social exclusion but the intensity of poverty is relatively high and not addressed sufficiently by social inclusion measures. Social housing remains underdeveloped and eligibility criteria for receiving unemployment benefits are strict.

- **Reforms are taking place in the education and training systems, but the quality and equity of educational outcomes remain of significant concern.** Despite some improvements, low pay for teachers limits the attractiveness of the profession. Student performance in basic skills is weak and shows a high level of inequality, with low achievement strongly linked to socioeconomic background. Regional disparities are large, particularly affecting the Roma community. There is also insufficient inclusion of Roma children into mainstream education in light of their over-representation in special schools, with no recent progress visible. Education continues to be relatively underfunded at all levels and adult participation in life-long learning activities is still very low.

- **The overall outlook for public and private investment is favourable but barriers to investment persist.** Rising labour shortages in some of Slovakia's key sectors represent a large obstacle to raising investment and production levels. Corruption, complex administrative procedures, fast-changing regulations and the poor quality of regulatory bodies weigh on the business environment. Concerns over the ineffectiveness of the justice system also hold back investment.

- **Slovakia's public administration shows a mix of progress and continued challenges.** Steps have been taken to improve the insolvency framework and the use of regulatory impact assessments. The new Civil Service Act is showing its first results thanks to the modernisation of public human resource management. However, corruption perceptions remain high and prosecutions for such offences have fallen further. The lack of accountability in bodies tasked with fighting corruption and only moderately effective whistle-blower protection hinder the fight against corruption. Public procurement legislation is being modernised, but anti-competitive practices remain a problem. Courts are managing to deal better with their caseload, but concerns persist over the independence of the judiciary.

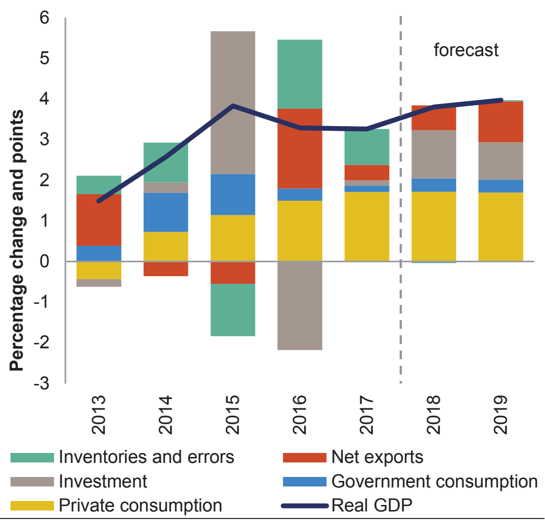
- **Boosting innovation and resource efficiency can ease the transition to a knowledge-based, greener and more diversified economy.** However, total R&D investment fell in 2016 and business R&D intensity remains very low. The governing framework for R&D policy is weak and measures to improve the cooperation between businesses and academia are advancing only slowly. The lack of skilled workers in the sizeable information and communications technology sector is being addressed via a 'digital coalition' initiative. Meanwhile, the roll-out of e-government services is proceeding slowly. The services sector is highly regulated and the framework does not appear to function effectively. Energy efficiency is low and the use of landfills is excessive. Recycling rates are very low and air quality remains relatively poor.

1. ECONOMIC SITUATION AND OUTLOOK

Growth performance

Economic growth in Slovakia has remained solid in recent years, showing substantial improvements in the labour market but a somewhat uneven pattern in investment. After picking up strongly in 2015, growth in real GDP softened modestly to 3.3 % in 2016 on the back of a sharp downturn in total investment (Graph 1.1). This cyclical investment pattern was closely linked to the transition between the programming periods of EU funds. At the same time, the high import intensity of fixed investment meant that declines in investment held back import growth in 2016. Coupled with a solid rise in exports, this resulted in net trade contributing strongly to overall growth. Continued improvements in labour market conditions strengthened private spending, with household budgets benefiting from faster nominal wage growth and subdued dynamics in consumer prices throughout 2016.

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



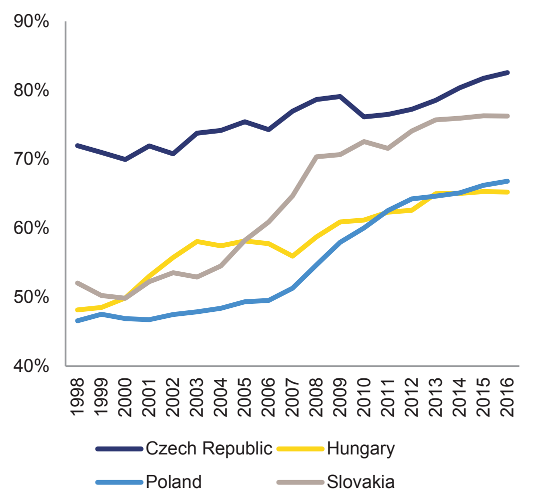
Source: European Commission

Real GDP continued to grow at a robust pace of 3.4 % in 2017 and it is expected to strengthen further, led by private consumption. Growth in household spending is projected to have increased to 3.6 % in 2017, boosted by rising employment, solid increases in real wages, low credit costs and upbeat consumer sentiment. These factors will make private consumption a major contributor to overall growth in 2017 and beyond. Economic growth is also expected to benefit from a revival in fixed investment and increasingly positive contributions from net trade, bringing real GDP growth to 4 % in 2018 and 4.2 % in 2019. Strong economic growth is likely to feed through to all segments of the economy, including the buoyant housing market. However, a shrinking supply of skilled workers, coupled with rising demand for labour, is likely to become a potential bottleneck for the Slovak economy.

Real economic convergence stalled in recent years despite robust growth. Real GDP per person based on purchasing power climbed to 77 % of the EU average in 2014, and has since remained broadly steady at this level. A similar picture emerges when looking at gross national income (GNI). Slovakia's relative GNI per person has remained broadly stable since 2013 at around 76 % of the EU-28 average, as more favourable developments in nominal GNI per capita growth were offset by faster price level convergence in Slovakia (Graph 1.2) ([2]). However, economic growth in Slovakia is expected to strengthen in the coming years and remain well above the EU average. This increases the chances of Slovakia's income convergence resuming. Equally, potential growth rates are estimated to remain high at around 3 % per year over the medium term. This is mainly supported by total factor productivity growth, capital investment, and an increasing number of employees.

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

Graph 1.2: **GNI per person in purchasing power standards (PPS) as a share of EU-28**



Source: European Commission

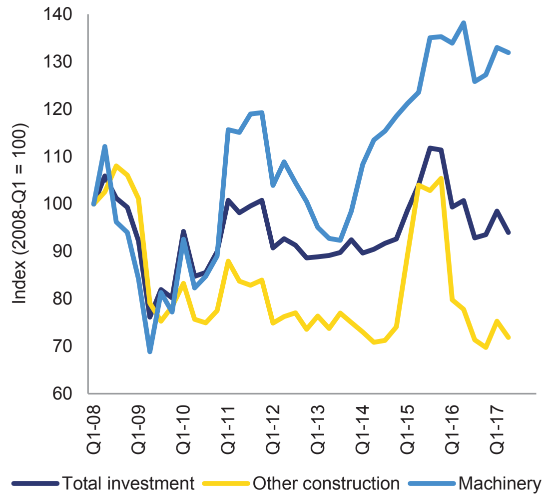
Household consumption

Private consumption is expected to remain the main driver of growth in the coming years, backed by a strong labour market and low credit costs. Continued improvements in labour market conditions, such as further job creation and a lower risk of lay-offs are set to secure household incomes. Given the progressive tightening of the labour market, nominal wage growth is expected to gradually increase over the forecast period. Although reviving consumer inflation will lower real disposable income, real wages are projected to rise by some 3 % per year, which will significantly strengthen household budgets. Historically low interest rates and a favourable economic climate are also set to boost private spending, which is projected to maintain robust annual growth of more than 3 % over the forecast period.

Investment

Investment is likely to peak in 2018 and maintain a solid pace thereafter, driven by both private and public investment spending. Fixed investment probably increased by 1 % in 2017, after contracting sharply at the beginning of the current programming period of EU funds in 2016 (Graph 1.3). The pronounced investment swings of 2015 and 2016 show that EU-funded projects are an important driving force for investment activities in Slovakia, while projects in the current funding period are in the early stages of implementation. Booming investment in the automotive industry and an expected increase in public investment spending, including major infrastructure projects such as the Bratislava ring road, invigorate the investment outlook. The completion of a new car factory is expected to result in annual investment growth peaking at around 6 % in 2018. At the same time, possible delays in large infrastructure projects due to litigation, along with a relatively slow drawdown of EU investment funds, could dampen the investment rebound in the near term.

Graph 1.3: **Investment**



Source: European Commission

While foreign direct investment (FDI) inflows remain strong, overall investment activity is spread unevenly across the country. Slovakia's economy has enjoyed steady net inflows of FDI, which have flowed especially into the automotive sector over the past 15 years. While typically such flows are somewhat volatile, gross inflows of FDI remained strong in 2016 and the first half of 2017 at above 5 % of GDP on an annual average. However, rising FDI outflows from Slovakia in recent years have reduced the country's net FDI stock to around 48 % of GDP in 2016. At the same time, some regions have failed to attract major domestic or foreign investment in recent years, which has exacerbated the already high regional disparities present in many economic and social areas.

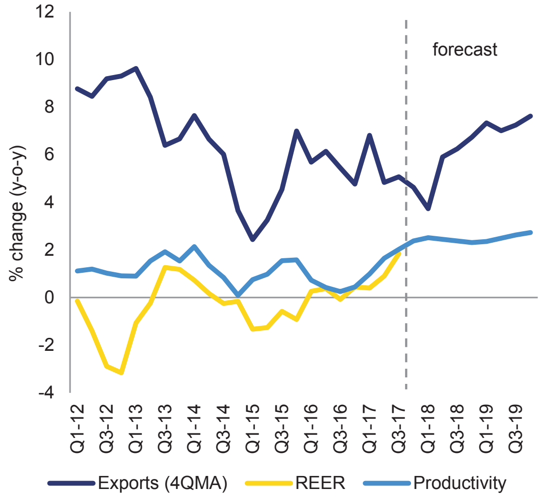
Regional economic disparities are high. Real GDP per person was more than three times higher in the Bratislava region than in the eastern region in 2015, although this may be distorted by the large share of commuters and neglect the differing price levels between regions. Transport infrastructure that is inadequate or missing represents, besides weaker human capital, one of the main reasons why the central and eastern regions are neglected by foreign investors (see also 2017 Country Report, European Commission 2017a). The unemployment rate remained high in these parts of Slovakia, while businesses face acute labour shortages in the western region.

Export performance

Slovakia's net trade is set to strengthen thanks to an increase in foreign demand and expanded production capacities in the automotive sector. Export growth is expected to rise gradually in the coming years, following a moderate slowdown in 2017. New car production facilities are about to launch production over the course of 2018, boosting Slovakia's production and export capacities. This implies there will be a boost to export performance with robust foreign demand. Imports are likely to increase markedly over the forecast period due to buoyant exports and investment, both of which are relatively import-intensive. In 2019, exports are projected to outperform imports even more strongly, as the latter are somewhat restrained by the softening in investment growth. This would make net trade the second largest contributor to overall growth. At the same time, strong specialisation in the automotive sector leaves the Slovak economy exposed to the risk of global economic fluctuations.

The boost to manufacturing technology and labour productivity is expected to more than offset the recent rise in the real effective exchange rate. The strengthening of the euro in 2017, coupled with the recovery in inflation and solid wage growth in Slovakia, slightly dampens the affordability of Slovak exports on international markets. However, strong private investment and the related upgrade of manufacturing technologies, particularly in the automotive sector, promote labour productivity, boost added value and support export performance. Slovakia's export market shares rose by 5.1 % in 2016, still buttressed by the real effective exchange rate (REER) weakening in 2015, and are projected to have moderately increased also in 2017. Benefiting from strong foreign demand, annual export growth is expected to gradually increase to around 7 % in 2019, in line with the gradual start of production in new and upgraded car factories (Graph 1.5).

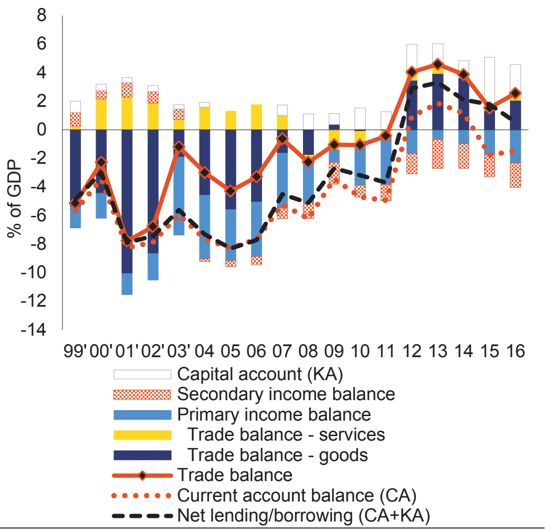
Graph 1.4: **Exports, REER and productivity**



4QMA - four quarters moving average
REER - real effective exchange rate
Source: European Commission

The current account balance is expected to remain negative in 2017, reflecting elevated imports for investment and a deteriorating income balance. The Slovak current account recorded a surplus between 2012 and 2015 but a shrinking trade surplus caused it to return to negative territory in 2015, as investment-related imports surged. The current large investments into the automotive industry are likely to keep imports high and the trade balance depressed in 2017 and 2018. The primary income balance has deteriorated since 2015, mainly on the back of elevated dividend outflows from foreign direct investment operations in Slovakia.

Graph 1.5: **Current account balance**



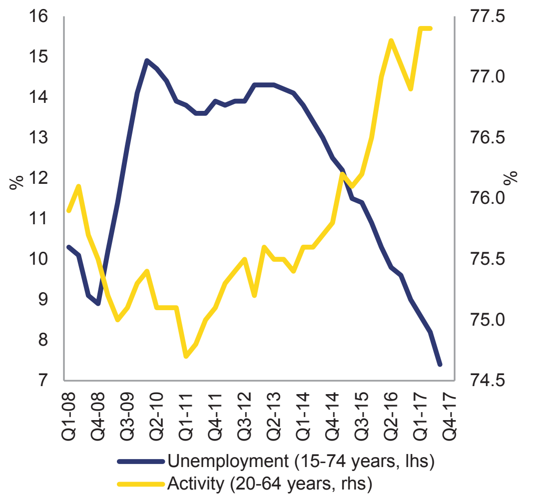
Source: European Commission

Labour market and social situation

The robust economic recovery is bolstering the labour market. Employment reached a record high of 2.5 million in Q3-2017 and is set to increase further. The unemployment rate has been declining continually since 2013. It dropped to a record low of 8.1 % in 2017 (Graph 1.6) and is expected to fall further to below 7 % in 2019. Also the activity rate is set to increase gradually as employment prospects for previously inactive people improve. The tightening of the labour market along with increasing labour shortages in some sectors and regions is bound to exert upward pressure on nominal wages, particularly in an environment of reviving consumer prices.

Nominal wage growth is projected to increase to around 5 % but remains in line with strong fundamentals. In 2017, nominal wages are forecast to have risen by 4.0 %, outpacing productivity growth and causing nominal unit labour costs to accelerate from growth of below 1 % in 2016 to 2.3 % in 2017. Overall, in 2017 there is no big gap between actual nominal wage growth and the growth rate that could be predicted based on economic fundamentals, such as developments in prices, unemployment and productivity. As of 2018 the minimum wage was increased to EUR 480. Real wage growth is set to maintain a solid pace of around 3 % throughout the forecast period, thereby supporting households' real disposable income and private spending.

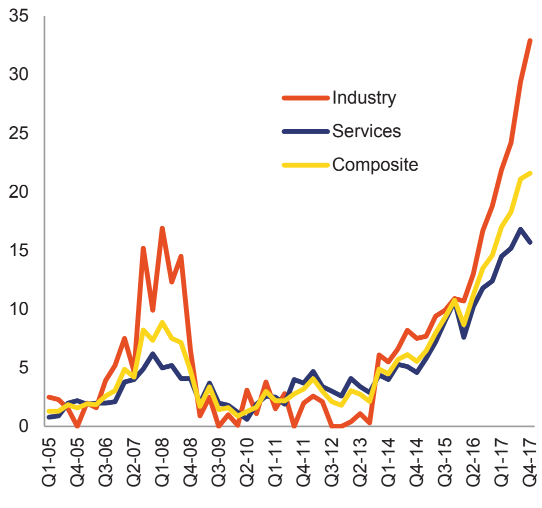
Graph 1.6: **Unemployment and activity**



Source: European Commission

Rises in the activity rate and inflow of foreign workers are unlikely to fully meet the growing demand for skilled labour. The progressive tightening of the labour market is also reflected in greater inflows of foreign workers from EU and non-EU countries. Although the overall proportion of foreign labour in total employment remains low, it has increased significantly in some regions, especially in areas that are major centres of production. This phenomenon is relatively new in Slovakia and suggests that supportive policies to accommodate the change and promote social cohesion are needed. Reported labour shortages have surged across sectors in 2017, dwarfing their rise before the financial crisis (Graph 1.7). Insufficient supply of skilled workers is seen as one of the most pressing issues for businesses in Slovakia, as it forms a major barrier to further investment and economic expansion. At the same time, still-elevated long-term unemployment, as well as low employment rates for certain groups, remain both a social challenge and an untapped resource.

Graph 1.7: **Labour shortages (% of respondents)**



Percentages show share of respondents citing labour shortage as a limiting factor on production; the composite indicator is a gross-value-added-weighted average of industry and services series.
Source: European Commission

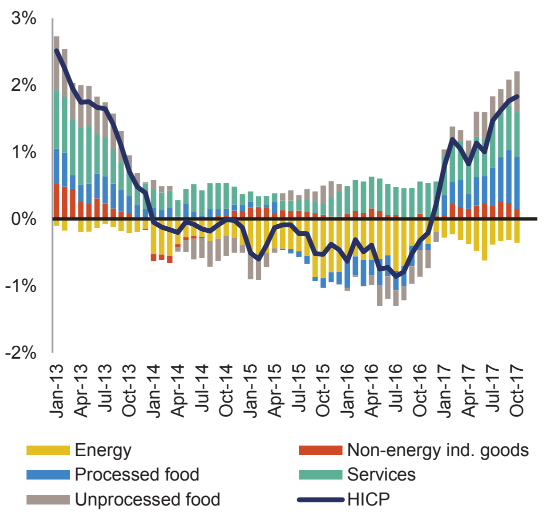
The low labour market participation of disadvantaged groups hampers social cohesion. The Roma, low-skilled people, young people, persons with disabilities, women with care responsibilities and inhabitants in Slovakia's eastern region have difficulties in finding employment. The inadequate design of active labour market policies and insufficient provision of childcare services, reflected in the low share of children under three in formal childcare, as well as low movement of workers within the country and large regional economic disparities contribute to this problem. On the positive side, improving labour market outcomes have led to the continually decreasing at-risk-of-poverty and social exclusion rate (18.1 % in 2016), where Slovakia performs better than the EU average.

Income and wealth are comparatively evenly distributed but inequality of opportunity 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. This is due to low wage dispersion, rather than the effectiveness 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 a 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 opportunity remains high, as shown by the high poverty risk faced by children of low-skilled parents (72 pps higher than that of children of high-skilled parents). Educational outcomes are strongly linked to socioeconomic status and the language spoken at home.

Inflation

Consumer price inflation is set to increase, backed by favourable demand conditions and renewed rises in energy prices. After three years of declining consumer prices, headline inflation firmly entered positive territory in 2017 at 1.4 %, with rising prices in food and services contributing most to the rebound. In contrast, energy prices continued to reduce overall inflation — and in turn bolstered household budgets — for the fifth consecutive year. Overall, consumer inflation is projected to increase to 2 % in 2019. Core inflation (excluding energy and unprocessed food) rose significantly to 1.8 % in 2017 and is projected to gradually increase, reflecting vibrant consumer spending and wage pressures.

Graph 1.8: **Inflation (y-o-y in %)**

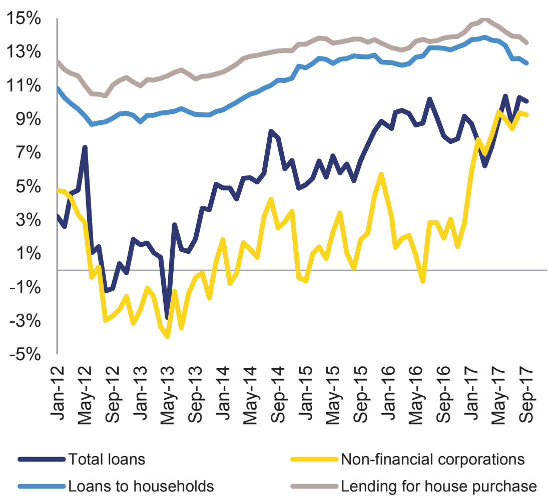


Source: European Commission

Credit growth

Credit growth remained robust in the context of record-low interest rates and upbeat economic sentiment. Lending to non-financial corporations rose in 2017 to around 8 % year-on-year from the subdued rates of around 1 % observed between 2012 and 2016. Meanwhile, annual growth in mortgage lending appears to have peaked at close to 15 % year-on-year in early 2017. However, this is still growing swiftly in the context of a buoyant housing market (Graph 1.9). Over recent years, financial leverage indicators show only a moderate rise in the debt of non-financial corporations, which stood at 54 % of GDP in 2016. By contrast, sustained and rapid credit growth to households has caused their debt to rise from 18 % of GDP in 2007 to 38 % in 2016. The financial sector's total liabilities increased only moderately in 2016, with the largely foreign-owned banking sector remaining well capitalised.

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

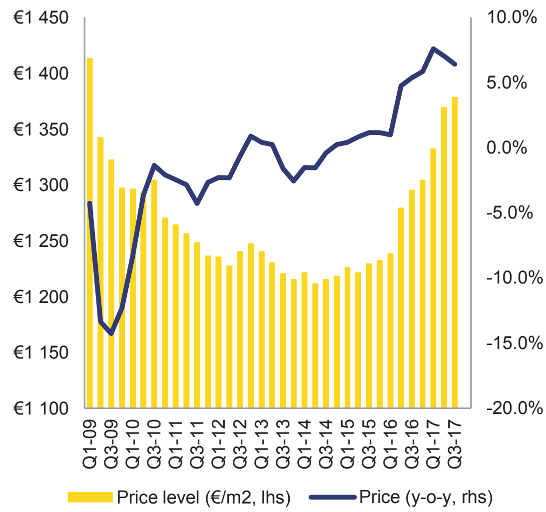


Source: ECB, European Commission

Housing market

Growth in property prices is underpinned by low interest rates, a favourable outlook for household incomes and limited housing supply. The ability of households to borrow has been boosted by a falling risk of unemployment, accelerating earnings growth and record-low interest rates. Annual growth in house prices rose to 7 % in 2017 (Graph 1.10), with the average house price reaching 90 % of its 2008 peak. The strongest recovery was in the Bratislava region, where property prices climbed to 96 % of their pre-crisis value, reflecting in part tight planning restrictions that limit new construction. High rents in more prosperous regions also restrain internal labour mobility, especially from the central and eastern part of the country, where long-term unemployment is still a challenging economic issue.

Graph 1.10: **Nominal house prices**



Source: National Bank of Slovakia

Public finances

The government deficit has been declining since 2015, partly due to the favourable economic backdrop. The deficit fell to 2.2 % of GDP in 2016 and is projected to have declined to 1.6 % in 2017, supported mainly by strong VAT and labour tax revenues due to robust private consumption and improved labour market conditions. The favourable economic environment will also support the revenue consolidation planned for 2018. Most of the expected revenue increases will be used to finance policy-induced revenue shortfalls. The government will also finance an ad hoc increase of pensions for those who retired before the 2004 pension reform (see Section 3.1) and extra spending on public wages and social benefits.

The budgetary outlook suggests a further improvement in the medium term. Overall, the government plans to further reduce the headline budget balance in 2018 and 2019. However, a part of the underlying consolidation effort comes at the expense of investment. The debt-to-GDP ratio is projected to decline to below 50 % of GDP in 2018. Buoyant GDP is the principal factor underlying this favourable development.

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

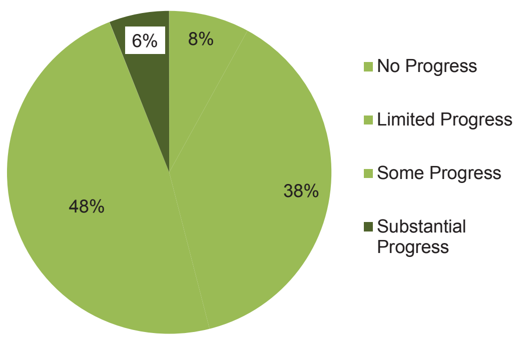
	2004-07	2008-12	2013-14	2015	2016	2017 (forecast)	2018 (forecast)	2019 (forecast)
Real GDP (y-o-y)	7,8	1,9	2,1	3,9	3,3	3,4	4,0	4,2
Potential growth (y-o-y)	5,4	3,7	2,1	2,9	2,6	2,8	3,3	3,5
Private consumption (y-o-y)	6,1	1,0	0,3	2,2	2,7	.	.	.
Public consumption (y-o-y)	3,3	2,0	3,7	5,4	1,6	.	.	.
Gross fixed capital formation (y-o-y)	9,7	-1,9	1,1	19,8	-8,3	.	.	.
Exports of goods and services (y-o-y)	17,7	4,0	5,3	6,4	6,2	.	.	.
Imports of goods and services (y-o-y)	16,4	1,6	5,2	8,4	3,7	.	.	.
Contribution to GDP growth:								
Domestic demand (y-o-y)	6,6	0,4	1,0	6,4	-0,2	.	.	.
Inventories (y-o-y)	0,6	-0,5	0,8	-1,0	1,1	.	.	.
Net exports (y-o-y)	0,6	1,9	0,3	-1,5	2,4	.	.	.
Contribution to potential GDP growth:								
Total Labour (hours) (y-o-y)	0,4	0,6	0,3	0,3	0,5	0,6	0,7	0,8
Capital accumulation (y-o-y)	1,3	0,7	0,0	0,8	0,3	0,3	0,5	0,7
Total factor productivity (y-o-y)	3,8	2,4	1,8	1,7	1,8	1,9	2,0	2,1
Output gap	2,0	0,2	-2,4	-1,2	-0,4	0,0	0,5	1,0
Unemployment rate	14,9	12,8	13,7	11,5	9,7	8,3	7,4	6,6
GDP deflator (y-o-y)	3,1	1,0	0,2	-0,2	-0,4	2,0	1,5	1,9
Harmonised index of consumer prices (HICP, y-o-y)	4,1	2,7	0,7	-0,3	-0,5	1,4	2,2	2,0
Nominal compensation per employee (y-o-y)	8,4	3,8	2,2	3,5	2,3	4,1	4,8	4,9
Labour productivity (real, person employed, y-o-y)	6,3	1,6	1,8	1,8	0,9	.	.	.
Unit labour costs (ULC, whole economy, y-o-y)	2,0	2,2	0,4	1,6	1,4	2,0	2,2	2,0
Real unit labour costs (y-o-y)	-1,0	1,2	0,2	1,7	1,8	0,0	0,7	0,2
Real effective exchange rate (ULC, y-o-y)	6,2	2,3	0,1	-0,4	0,8	1,0	0,7	0,0
Real effective exchange rate (HICP, y-o-y)	6,7	2,3	0,5	-1,7	0,5	-0,5	0,7	.
Savings rate of households (net saving as percentage of net disposable income)	0,9	1,4	0,8	3,2	3,8	.	.	.
Private credit flow, consolidated (% of GDP)	7,0	4,7	5,2	7,7	9,2	.	.	.
Private sector debt, consolidated (% of GDP)	51,9	69,9	85,3	88,1	94,7	.	.	.
of which household debt, consolidated (% of GDP)	13,1	24,7	31,1	34,8	38,0	.	.	.
of which non-financial corporate debt, consolidated (% of GDP)	38,8	45,2	54,2	53,3	56,7	.	.	.
Gross non-performing debt (% of total debt instruments and total loans and advances) (2)	1,5	3,4	3,9	3,5	3,9	.	.	.
Corporations, net lending (+) or net borrowing (-) (% of GDP)	-3,0	3,1	5,7	2,9	1,2	1,6	0,3	0,5
Corporations, gross operating surplus (% of GDP)	27,1	26,4	26,2	25,3	24,7	24,8	24,5	24,6
Households, net lending (+) or net borrowing (-) (% of GDP)	-1,5	-0,5	-0,5	0,9	1,1	0,8	1,2	1,6
Deflated house price index (y-o-y)	.	-3,6	0,6	5,5	7,0	.	.	.
Residential investment (% of GDP)	2,7	2,6	2,5	2,3	2,4	.	.	.
Current account balance (% of GDP), balance of payments	-7,2	-3,7	1,5	-1,8	-1,5	0,2	0,4	1,3
Trade balance (% of GDP), balance of payments	-2,8	-0,2	4,2	1,5	2,6	.	.	.
Terms of trade of goods and services (y-o-y)	-0,7	-1,2	-0,2	-0,2	-0,4	-0,1	0,1	0,1
Capital account balance (% of GDP)	0,2	1,3	1,2	3,5	2,0	.	.	.
Net international investment position (% of GDP)	-47,3	-62,1	-62,9	-64,6	-62,4	.	.	.
Net marketable external debt (% of GDP) (1)	0,3	-10,1	-11,8	-14,1	-15,0	.	.	.
Gross marketable external debt (% of GDP) (1)	43,5	57,7	69,8	68,2	71,5	.	.	.
Export performance vs. advanced countries (% change over 5 years)	83,9	16,9	6,3	6,1	4,4	.	.	.
Export market share, goods and services (y-o-y)	7,7	-2,1	1,6	-2,6	5,6	.	.	.
Net FDI flows (% of GDP)	-5,7	-2,0	0,4	-0,1	0,6	.	.	.
General government balance (% of GDP)	-2,7	-5,3	-2,7	-2,7	-2,2	-1,6	-1,0	-0,2
Structural budget balance (% of GDP)	.	-5,0	-1,9	-2,3	-2,0	-1,6	-1,2	-0,6
General government gross debt (% of GDP)	34,0	40,4	54,1	52,3	51,8	50,6	49,9	47,2
Tax-to-GDP ratio (%)	30,5	28,7	30,7	32,3	32,4	32,7	32,5	32,2
Tax rate for a single person earning the average wage (%)	22,0	22,3	22,8	23,1	23,2	.	.	.
Tax rate for a single person earning 50% of the average wage (%)	14,2	14,7	15,8	14,5	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.
Source: Eurostat and ECB as of 30 Jan 2018, where available; European Commission for forecast figures (Winter forecast 2018 for real GDP and HICP, Autumn forecast 2017 otherwise)

2. PROGRESS WITH COUNTRY-SPECIFIC RECOMMENDATIONS

Progress with the implementation of the country-specific recommendations (CSR's) addressed to Slovakia in 2017 (3) has to be seen in a longer-term perspective since the introduction of the European Semester in 2011. Looking at the multi-annual assessment of the implementation of the CSRs since these were first adopted, 54% of all the CSRs addressed to Slovakia have recorded at least 'some progress'. By contrast, 46% of the CSRs 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 2011-2017 CSRs to date**



(1) The overall assessment of the country-specific recommendations related to fiscal policy excludes compliance with the Stability and Growth Pact.
(2) 2011-2012: Different CSR assessment categories
(3) The multiannual CSR assessment looks at the implementation until 2018 Country Report since the CSRs were first adopted.
Source: European Commission

Slovakia ensured a timely and durable correction of its excessive deficit. In December 2009 the Council addressed a Recommendation to Slovakia with a view to bringing the excessive deficit situation to an end by 2013 at the latest. Having peaked at 8 % of GDP in 2009, the general government deficit in Slovakia was been brought down to 2.7 % of GDP in 2013, resulting in an abrogation of Slovakia's excessive deficit procedure. The underlying deficit reduction was driven by fiscal consolidation on both the revenue and the expenditure side, including one-off measures. After stagnating between 2013 and 2015, the government deficit was reduced to -1.6 % of GDP in 2017. Slovakia's progress towards its medium-term budgetary objective (MTO), defined as a structural deficit of 0.5% of GDP, has been somewhat uneven since 2013, but in recent years the structural effort has been largely in line with the requirements of the Stability and Growth Pact (SGP).

Supported by an improving labour market, labour market policies have become somewhat more focused on disadvantaged groups. Labour market challenges have persisted for many years, but the unemployment rate started to decline from 2014 onwards and has now reached historic lows. Better-targeted support for the long-term unemployed and other vulnerable groups has been on the government's agenda for a number of years. Improving the range and effectiveness of active labour market policies remains a challenge, but the policy emphasis has shifted towards providing better-targeted and individualised support for jobseekers, particularly the long-term unemployed. Very little progress has been made in tackling low Roma participation in the labour market.

Some initiatives have been launched in education and childcare in recent years but will take time to feed through into better results. Progress has made towards increasing the capacity of and access to early childhood education and care, particularly for the over threes. For children below this age the legislative framework on childcare services was put in place but places remain limited and can be expensive. Some measures have been taken in order to raise the attractiveness of the teaching profession, including through substantial annual pay rises in 2016 and 2017. The planned raising of entry requirements for teaching and better training are likely to only become visible gradually. A reform to support socially and ethnically inclusive education, including of Roma pupils, entered into force in 2016, but effectively implementing the reform will require further efforts and political commitment.

The speed of public administration reform has been uneven but reforms are beginning to pay off. Slovakia's inefficient and ineffective public administration and justice system have long been detracting from the quality of the business

(3) For the assessment of other reforms implemented in the past, see in particular section 4.1, 4.2, 4.3 and 4.5,

environment and have acted as an investment barrier. Government policies have, however, been able to ameliorate a number of challenges, including the weak human resource management and lacking analytical capacity in the civil service. There are clear signs of cumulative progress in the modernisation of public procurement, where a lack of competition and transparency remain key challenges and perceptions of corruption remain high. More generally, efforts to tackle corruption in the public sphere have been limited and are hampered by institutional limitations and an apparent lack of political will.

Slovakia has made some progress [4] **in addressing the 2017 country-specific recommendations.** Some progress has been made with respect to the fiscal-structural part of CSR 1 regarding improving the cost-effectiveness of the healthcare system. While several commitments of the "Value for Money" project have been fulfilled and appear to have generated some positive, tangible changes leading to savings, several key provisions are still in a pilot phase and may face further delays and implementation challenges in the short term.

Some progress has been made on CSR 2, including in improving activation measures for the long-term unemployed via a more individualised approach to activation. Some progress has also been made in improving early childhood education and care thanks to the construction of facilities and strengthening the legislative framework. Limited progress has been made in improving the quality of education. Progress has also been limited in implementing the Roma Action Plan and the legislation to address school desegregation legislation measures that was adopted in 2016.

Slovakia has made limited progress in addressing CSR 3, notably in improving competition and transparency in public procurement. While procedural improvements have been made and healthcare procurement is being centralised, best procurement practices are still not widely adopted. There has been no discernible progress in fighting corruption as corruption cases involving state enterprises and large public assets are not yet properly investigated and administrative resources in the special prosecutions service are being reduced. Some progress has been made in lowering administrative and regulatory barriers for businesses in light of the government's adoption of a package of measures to be implemented. Limited progress has been made in improving the effectiveness of the justice system, as case length statistics appear favourable when taken at face value but contrast with continued concerns about judicial independence.

[4] Information on the level of progress and actions taken to address the policy advice in each respective subpart of a CSR 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 2017 CSR assessment**

Slovakia	Overall assessment of progress with 2017 CSRs: Some progress
CSR 1: *Pursue its fiscal policy in line with the requirements of the preventive arm of the Stability and Growth Pact, which translates into a substantial fiscal effort for 2018. When taking policy action, consideration should be given to achieving a fiscal stance that contributes to both strengthening the ongoing recovery and ensuring the sustainability of Slovakia's public finances.* *Improve the cost effectiveness of the healthcare system, including by implementing the value for money project.*	**Some progress*** • Some progress in generating cost-savings in the healthcare sector.
CSR 2: *Improve activation measures for disadvantaged groups, including by implementing the action plan for the long-term unemployed and by providing individualised services and targeted training.* *Enhance employment opportunities for women, especially by extending affordable, quality childcare.* *Improve the quality of education and increase the participation of Roma in inclusive mainstream education.*	**Some progress** • Some progress has been made in improving activation measures for disadvantaged groups. • Some progress has also been made in improving the accessibility of childcare. • Limited progress has been made in improving the quality of education. • Limited progress has been made in increasing the participation of Roma in mainstream education.
CSR 3: *Improve competition and transparency in public procurement operations and step up the fight against corruption by stronger enforcement of existing legislation.* *Adopt and implement a comprehensive plan to lower administrative and regulatory barriers for businesses.* *Improve the effectiveness of the justice system, including a reduction in the length of civil and commercial cases.*	**Limited progress** • Limited progress has been made in improving competition and transparency in public procurement. • No progress has been made in the fight against corruption. • Some progress has been made in adopting and implementing a plan to address administrative and regulatory barriers for businesses. • Limited progress has been made towards improving the effectiveness of the justice system.

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

European Structural and Investment Funds (ESI Funds) are pivotal in addressing key challenges to inclusive growth and convergence in Slovakia, notably by investing in public administration reform, improving links between R&D and industry and strengthening the integrated approach to healthcare. ESI Funds also help reduce youth unemployment and support women's participation in the labour market by developing childcare facilities. They strengthen the link between education and the labour market and increase the inclusiveness of mainstream education for marginalised Roma communities.

Box 2.1: **Tangible results delivered through EU support to structural change in Slovakia**

Slovakia receives significant European Structural and Investment Funds (ESI Funds) support of up to EUR 15 billion until 2020. This represents around 3 % of GDP annually over the period 2014-2018 and 60% of public investment ([1]). By 31 December 2017, an estimated EUR 7.7 billion (51 % of the total) was allocated to projects on the ground. This has paved the way for 45 000 people to gain employment, the capacity of kindergartens to be extended by an additional 4 780 places in 152 pre-school facilities, the modernisation of more than ⅓ of hospitals of the core network, the creation of 77 pre-school facilities, and for various forms of support for SMEs (innovation, starting-up, and consultancy/advisory services).

ESI Funds help address structural policy challenges and implement country-specific recommendations. Actions financed cover, among others, support for public and private R&D; strategic and sustainable transport infrastructure; improving the effectiveness of the justice system; lowering unemployment; supporting women's participation in the labour market by fostering childcare facilities and flexible working arrangements; making education inclusive and relevant to the job market; promoting social inclusion of marginalised Roma communities; and improving analytical capacities and the effectiveness of public administration. The Youth Employment Initiative has provided a package of support measures to lower youth unemployment. The Prešov region volunteered to join the Catching-up Regions initiative targeting structural challenges by using ESIF investments in the region.

Various reforms were undertaken already as a precondition for ESI Funds support ([2]). The Smart Specialisation Strategy for research and innovation was developed to focus efforts on product specialisation with strong market potential. The National Transport Plan has allowed the timely preparation of key projects. Public procurement reform is making public spending more efficient. A revised Civil Service Act was introduced to strengthen the civil service. New legislation has helped improve active labour market policies and public employment services, establish a dual vocational education system and formulate a national strategy for Roma inclusion.

Slovakia is advancing the take up of the European Fund for Strategic Investments (EFSI). As of December 2017, the overall financing volume of operations approved under the EFSI amounted to EUR 475 million, which is expected to trigger total private and public investment of EUR 1.2 billion. European Investment Fund financing enabled by the EFSI amounts to EUR 25 million, which is expected to mobilise approximatively EUR 211 million in total investment. Close to 6 000 smaller companies or start-ups will benefit from this support. Transport is by far the highest ranking sector in terms of volume approved.

Funding under Horizon 2020, the Connecting Europe Facility and other directly managed EU funds is additional to the ESI Funds. By the end of 2017, Slovakia has signed agreements for EUR 704 million for projects under the Connecting Europe Facility.

https://cohesiondata.ec.europa.eu/countries/SK

([1]) Public investment is defined as gross fixed capital formation + investment grants + national expenditure on agriculture and fisheries.
([2]) Before programmes are adopted, Member States are required to comply with a number of so-called ex-ante conditionalities, which aim at improving conditions for the majority of public investments areas.

Box 2.1: **Policy Highlights: The 'Value for Money' Project**

In 2015 the groundwork was laid for a far-reaching government project entitled "The Best of All Possible Worlds – Value for Money in Slovak Public Policies" (Najlepší z možných svetov – Hodnota za peniaze v slovenskej verejnej politike). The result is a new comprehensive model for evaluating the efficiency and effectiveness of public spending.

"Value for Money" is structured around three main principles:

1. Public policy must be "the best possible option", duly justified and quantified on the basis of real-world economic and social data.

2. Institutional reform should culminate in a new division of roles in various phases of the process.

3. Several cost analysis methods must be used. In addition to spending reviews, which will be both domain-specific (education, healthcare, etc.) and cross-cutting (information technologies), cost-benefit analyses will be carried out on investment projects and draft regulations, and benchmarking (against the best foreign practices) will be applied to operational expenses.

A "Value for Money" unit was set up within the Ministry of Finance, tasked with coordinating the analytical work. The delivery of the measures is monitored and reported publicly by a designated implementation unit located with the vice-prime minister. The program was first implemented in three "problem" sectors that represent nearly 40% of government spending: healthcare, transport and information technology. Further series of thematic spending reviews followed in 2017, and first recommendations in the area of healthcare are beginning to show a positive impact on spending efficiency (see also chapter 3.1).

The Value for Money project was supported by the European Commission, the OECD and the IMF, who have sent experts to provide joint technical assistance during the initial assessments.

Member States can request from the Commission technical support to prepare, design, and implement growth-enhancing structural reforms. The Structural Reform Support Service (SRSS) provides, in cooperation with the relevant Commission services, tailor-made technical support, which does not require co-financing and is provided at a Member State's request. The support addresses priorities identified in the context of the EU economic governance process (i.e., implementation of country-specific recommendations), but the scope of the SRSS support is wider as it can also cover reforms linked to other Commission priorities, or reforms undertaken at the initiative of Member States.

Slovakia has requested technical support from the SRSS to help implement reforms in various areas such as: growth and the business environment, healthcare, public financial management and taxation. In particular, the SRSS continues to provide technical support to the Value for Money project. It has also started to provide technical support for projects to improve the quality and cost-effectiveness of health care, develop a pipeline of bankable investment projects and to set up a strategy on voluntary tax compliance, amongst others.

3. REFORM PRIORITIES

3.1. PUBLIC FINANCES AND TAXATION

Taxation

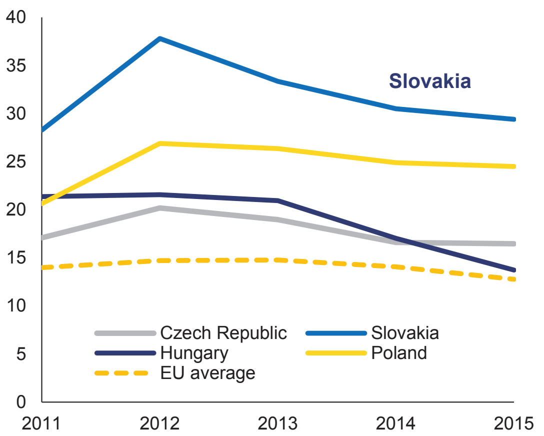
Slovakia's fiscal deficit is falling but fiscal revenues remain low in relation to GDP. The general government deficit fell from 2.7 % of GDP in 2015 to a projected 1.6 % in 2017, and government debt is projected to have been reduced by 1.7 pps between 2015 and 2017. The tax revenue share in GDP remains well below the EU average. In 2016, the tax-to-GDP ratio in Slovakia stood at 32.2 % of GDP (EU average: 38.9 %). It is projected in the Commission 2017 autumn forecast to remain relatively stable and reach 32 % in 2019. Regarding the tax structure, revenues from labour taxes remains high while those from consumption and capital taxes are below the EU average.

The overall tax burden on labour is broadly in line with the EU average. Both when measured by the implicit tax rate on labour and the tax wedge, values for Slovakia are close to the EU average across the income scale. For example, the tax wedge ([5]) for a single low-income earner at 67 % of the average wage stood at 34 % in 2016, compared to the EU average of 34.2 %. The tax wedge for second earners is only slightly higher than the EU average for all income categories. The difference in the tax wedge for families with and without children is also close to the EU average.

Revenue from recurrent property taxes and environmental taxation are among the lowest in the EU. Both tax types are in principle considered less detrimental to growth. Total revenue from recurrent taxes on immovable property stood at 0.4 % of GDP in 2015, considerably lower than the EU average of 1.7 %. Real estate taxation is also not based on the value of the taxed property but on its surface area. Revenues from environmental taxes, at 1.8 % of GDP in 2015, are also significantly below the EU average of 2.4 %.

Tax compliance has improved somewhat but remains a challenge. The value added tax (VAT) gap ([6]) continued its downward trend in 2015 (see graph 3.1.1). However, at 29.4 %, it was among the highest in the EU and still considerably higher than the EU average of 12.8 %. Various measures, including the applying of the reverse charge mechanism ([7]) in the construction sector and adjustments to the control statements, appear to have helped increase the efficiency of VAT collection. The Ministry of Finance estimates that the efficiency of collection continued to improve in 2016 (Ministry of Finance, 2018). ([8])

Graph 3.1.1: **VAT compliance gap (2011-2015)**



(1) EU average changes according to data availability. Years 2011-2013 are without HR, CY and 2014 without CY.
Source: Centre for Social & Economic Research/CASE (2017)

Further anti-fraud measures are planned for 2018. In April 2017, the government approved a third Action plan to fight tax fraud for 2017-2018 containing 21 measures, some of which are discussed below. In addition, stronger obligations in the construction sector ([9]) will be introduced and a tax guarantee required upon registration will be extended to natural persons.

Audit activities and cross-checking are cornerstones of the compliance strategy.

([5]) The tax wedge shows the difference between the employer's labour costs and the employee's net earnings.
([6]) The VAT gap is defined as the difference between the amount of VAT collected and the VAT total tax liability (the theoretical tax liability according to tax law).
([7]) The reverse charge mechanism implies that the obligation to collect and pay VAT for a transaction falls on the shoulders of the buyer instead of the seller.
([8]) This is indicated by a further decline in the VAT gap and an improvement in the VAT C-efficiency, which compares the actual VAT collection to a potential VAT collection applying a standard rate.
([9]) The construction company is obliged to inform the customer about the involvement of the tax authorities in obtaining a final building approval.

Although VAT audits still form a major part of all tax inspections, the proportion declined in 2016 and in the first half of 2017. At the same time, audits of income taxes have risen in importance. A global tax audit protocol containing transactions of taxpayers that were found to be in breach of tax rules is likely to strengthen the overall quality of audits. The introduction of an 'analytical information system of risks', which allows for taxpayers at risk of non-compliance to be identified and assessed, can ensure audits are more targeted and auditing resources are better used. Such a tool is also important given the scrapping of the minimum corporate income tax as of 2018, which previously helped to limit tax evasion. ([10])

Tax compliance monitoring will be strengthened. The criteria underpinning tax compliance index that assesses taxpayers' risk profiles is due to be published. The tax administration will also be able to make public every quarter a list of taxpayers, stating amounts of assessed corporate income tax or tax loss based on submitted tax returns. Furthermore, the tax administration will publish every quarter a list of taxpayers registered for VAT, stating the amount of recognized VAT and requested funds. The setting up of a United Analytical Centre has not yet been finalised; the plan is to ensure a more rapid exchange of information by bringing together analytical and law enforcement capacities to support the fight against tax fraud.

Improved services for taxpayers may improve voluntary tax compliance. Call centres, introduced in 2014 to deal with tax queries, proved to be an important service for taxpayers. The limits on using 'virtual cash registers' ([11]) have been removed in 2017 and their use is increasing. To deal with fraudulent electronic cash registers the authorities plan to connect these to the tax administration's online IT system. As of 2018, the electronic communication between the tax administration and legal entities and self-employed individuals will become mandatory. A more advanced strategy for voluntary compliance is planned for the first half of 2018. In 2018, fees for issuing advanced tax rulings were halved and the deadline for a taxpayer to make an appeal will be extended from 15 to 30 days.

Innovation incentives were introduced. To support R&D expenditure, the 'super-deduction' of R&D expenditure was extended from 25 % to 100 % ([12]) and a 'patent box' regime was introduced that allows income derived from certain intangible assets created in Slovakia to be partially tax-exempted. Economic evidence, however, suggests that patent boxes may be used as tax competition tools and are an inefficient way to encourage R&D (European Commission/JRC, 2015).

Fiscal framework and spending review

The medium-term budgeting framework could be further strengthened. The government regularly prepares a detailed multi-annual budgetary plan. Parliament takes note of this document and approves the cash-based budget for the following year. However, this could hinder a medium-term orientation of fiscal planning, in the context of EU fiscal rules according to (accruals-based) ESA2010 standards. Binding expenditure ceilings were planned in the constitutional law of 2011, but have not been used, making the achievement of a balanced budget more difficult. However, Slovakia's Finance Minister has announced the launch of simulated expenditure ceilings, the purpose and impact of which remain to be assessed in future.

Regular spending reviews provide relevant assessments and enrich the public discussion. The 2017-2019 multiannual budget already contained in annexes three spending reviews prepared in the context of the 'Value for Money' (VfM) project, covering the areas of healthcare, IT and transport.([13]) The 2018-2020 multiannual budget included an interim implementation report. This report provided an advanced progress assessment for the health spending review and also defined the most concrete and measurable targets

([10]) The percentage of companies with zero corporate income tax liability declined from 59 % in 2013 to 6 % in 2015.

([11]) Virtual cash registers are virtual accounting spaces administered by the Financial Directorate of the Slovak Republic, and can be used by companies as an alternative to conventional electronic cash registers.

([12]) The super-deduction may be used by a taxpayer who implements an R&D project in respect of which costs are incurred. Newly, it is possible to deduct 100% of costs incurred on R&D in the taxable period from the tax base decreased by the deduction of the tax loss caused during the implementation of the R&D project.

([13]) For further details see Box on Policy Highlights.

in this area. The latest multi-annual budget also includes three new reviews, covering education, environment and labour market and social policies. While the reviews provide important information on relevant spending areas, they have not yet been fully integrated in the budgetary process and hence have a limited impact on government priorities and spending plans. In addition to the reviews, the VfM unit at the Ministry of Finance has prepared several analyses of large infrastructure and IT projects, which may result in considerable efficiency gains if supported at the political level.

Sustainability of public finances

Risks to Slovak public finances are primarily visible in a longer-term perspective. ([14]) Calculations of the European Commission suggest that healthcare and pensions outlays are projected to remain the main drivers of Slovak long-term ageing costs (European Commission, 2018a). Both items are expected to increase by 1.2 pp of GDP by 2070 compared to 2016 (baseline scenario) despite a somewhat less unfavourable demographic outlook than in previous projections. The long-term sustainability gap indicator (S2) for Slovakia suggests that Slovakia remains at medium risk with regard to the long-term sustainability of its public finances. ([15])

Pension system

The 2012 pension reform will mitigate the impact of adverse demographic trends. The latest projections confirmed that Slovak population is set to start declining after 2030. The old-age dependency ratio, which shows the relationship between people over 65 and those between 15 and 64 years of age, is forecast to triple by 2060 from 20.6 in 2016. However, its negative impact on the pension system will be limited by an automatic pension increase that mirrors improvements in life expectancy. This will have a positive impact on the long-term sustainability gap indicator S2. The ratio between the time spent in retirement and that of contributing is expected to remain broadly stable. The effective retirement age in the country remains relatively low by EU standards. However, due to relatively low life expectancy the effective time spent in retirement is not exceptionally long.

The latest changes to the pension system have increased its distributional fairness for pensioners and ensured greater pension adequacy by indexing state pensions by a minimum nominal sum. The government decided to reduce distributional inequalities in pensions arisen after the 2004 pension reform. ([16]) In 2017, the government approved an ad hoc pension indexation of 2 %. While the pension indexation will be based on the concept of 'pensioner's inflation' as of 2018, for the period 2018-2021 individual pensions will have to increase by a minimum amount equal to 2 % of an average pension of the same type. A similar ad-hoc increase of pension indexation to 2 % was adopted in 2017 already. These changes will increase the deficit of the system during the coming two decades.

Healthcare

People's health is improving only gradually. Life expectancy at birth is significantly lower than the EU average ([17]), largely due to higher mortality rates from cardiovascular diseases. Mortality rates from coronary artery disease and strokes are among the highest in the EU, although there has been some improvement over the past decade. Slovakia does not have a national cancer plan and cancer survival rates have not improved much over the past decade, partly due to low screening rates.

The availability of pharmaceuticals has improved. Legislative changes have made companies accountable for access to medicines, helping with the problem of exporting and trade in the grey economy. As of January 2018, 147 medicines will be de-categorised and forced to pass a Health Technology Assessment. If medicines do not meet the associated standards but can nonetheless demonstrate their added value, they fall under special categories which will be

([14]) For more see European Commission (2018a), 'Debt Sustainability Monitor 2017', forthcoming.

([15]) S2 determines the upfront structural adjustment required in order for the ratio of gross public debt over GDP to stabilise in the very long term. The S2 indicator for Slovakia is estimated at 2.2 pps of GDP, with contributions for the healthcare and pensions components accounting for 0.7 and 1.0 pp respectively.

([16]) Prior to the government's action people with very similar careers may have received different pensions depending on whether they retired shortly before or after the reform.

([17]) For men it was almost five years (73.1) and for women more than three years (80.2) in 2015.

monitored and for which spending will be managed over time.

The cost-effectiveness of healthcare in Slovakia is showing some improvement. The VfM spending review showed significant scope to increase cost-effectiveness in several healthcare areas. Its implementation appears to have led to savings and positive changes in hospital and personnel management. The implementation report suggests that a considerable number of commitments have been fulfilled and some EUR 60 million was saved during the first nine months of 2017 (Implementation Unit, 2017).

Improved hospital management and procurement may limit growth of hospital debt. However, hospitals' arrears reached EUR 728 million at the end of 2017. The government approved another hospital debt relief plan comprising measures totalling EUR 585 million, which was finally agreed in November 2017. The Ministry of Health has set up a special Office for Management of Subsidiary Organisations ([18]). The Office's main tasks include the central management of hospitals, benchmarking, central negotiation of deals and, if needed, changes to hospitals' range of services.

The potential to rationalise hospital care remains significant. The number of hospital beds and patients' average length of stay have fallen over the last two decades. Nonetheless, the overall use of hospital services remains high, with hospital discharge rates above the EU average and rising in recent years, and the bed occupancy rate remains relatively low at less than 70% (OECD and European Observatory on Health Systems and Policies, 2016).

After long delays the public e-health system has been finally launched. Following a trial period in December 2017, legal provisions to ensure the regular, gradual implementation of the e-health system have come into force on January 1st 2018. Due to the previous lack of a public e-health solution, a privately developed e-health system has gained popularity in the meantime, and now covers a third of the Slovak population. It remains to be seen whether overlaps and/or compatibility issues between these two e-health systems will arise, and if the National Health-Care Information Centre (NHIC) will succeed in providing adequate technical support to outpatient doctors before the end of the law's grace period (i.e. end of 2018).

The diagnosis-related groups system was implemented as a pilot project in 2017 with reasonable success. The roll-out of the system ([19]), which allows for more transparency in care supply, pricing and funding, will continue in 2018. Budget neutrality will be gradually removed from 2019 onwards when the system will start operating in full. The first adjusted base rates were published in September 2017. However, the project is likely to face challenges when implemented due to a lack of users' preparation.

Slovakia has a general lack of General Practitioners (GPs) and staffing numbers are increasing only gradually. The lack of effective primary care is particularly severe in rural and deprived areas, especially those with a large Roma population. Care delivery across regions varies, mainly due to the uneven geographical distribution of health professionals. The very low number of new GPs raises concerns for the future GP supply given their current age composition. Moreover, the number of nurses is falling and is now one of the lowest in the EU.

The ineffective gatekeeping role of GPs points to significant opportunities for quality and efficiency gains. Despite EU and international recommendations, the role of GPs has been expanded in law only partially, with little change in day-to-day healthcare provision, while specialists remain omnipresent. Because of the low number of GPs and their limited treatment powers, 80% of GP consultations end with a referral to a specialist. The ongoing development of a network of primary-level integrated health care centres (IHCC) to transition away from the hospital-centric model currently in place does not seem to tackle this inefficiency. A stronger role for primary care and GPs could raise efficiency, as suggested by Slovakia's high rates of potentially avoidable ('ambulatory care-sensitive') hospital admissions compared to the EU average.

([18]) 'Úrad pre riadenie podriadených organizácií'

([19]) The DRG, or diagnosis-related group, is a payment system for in-patient care allocates funding according to standardised cost formulas linked to illness types.

3.2. FINANCIAL SECTOR

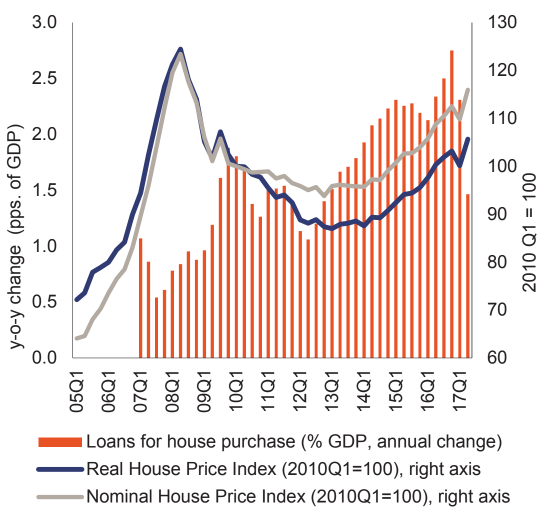
Banking sector

Slovakia's banking sector is relatively small and stable and benefits from the booming economy. The Slovakian banking sector is concentrated within the hands of three major players and most of the Slovakia's 27 banks are controlled by foreign entities. Relative to its GDP, the Slovak banking sector is one of the smallest in the EU. Slovakia's banking sector is amongst Europe's most profitable and also has one of the lowest loan-to-deposit ratios, thus shielding it from potential shocks. Capital adequacy ratios are generally high and above the regulatory minimum. Consumer and mortgage loans have been growing fast, driven by an improving labour market, accelerating wage growth, high consumer confidence levels and low interest rates.

Housing market

Slovakia's housing market is emerging from a slump that followed the global financial and economic crisis. Residential property prices rose sharply during the economically buoyant phase preceding the crisis, with real house prices rising by 72 % between Q1 2005 and Q2 2008 (Graph 3.2.1).

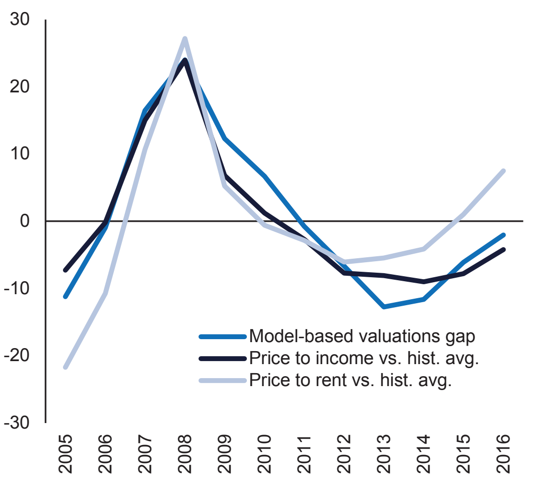
Graph 3.2.1: **House prices and mortgage lending**



Source: European Commission

The pronounced recession that followed in 2009 took a toll on both unemployment and household income prospects, and was accompanied by a significant tightening in bank lending standards. Together these precipitated a property market correction. A recovery period began in around 2014, during the course of which house price inflation gradually increased to a rate of 5.3 % year-on-year in real terms (6.6 % in nominal terms) in Q2 2017. This price recovery was associated with — and also fuelled by — increased mortgage lending flows, which peaked at over 2.5 % of GDP in 2016. Signs of a possible slowdown in mortgage lending are evident in 2017, but remain to be corroborated by future data.

Graph 3.2.2: **Housing market overvaluation gap**

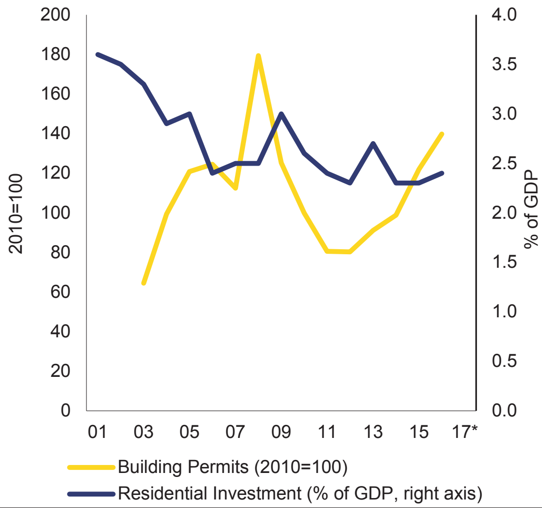


Overvaluation gap estimated as an average of the price/income, price/rent and fundamental model valuation gaps. Long-term values are computed over 1995-2016.
Source: European Commission

Housing market developments in Slovakia do not yet point to significant risks. In the context of the major price correction since 2008, house prices still appear to be slightly undervalued as suggested by two of the three benchmark indicators shown in Graph 3.2.2. In particular, the price-to-income ratio and a model-based valuation suggest that property prices are still slightly undervalued, and only the price-to-rent ratio currently points to a small overvaluation. Slovakia's thin and illiquid private rental market may also drive the rise in the price-to-rent ratio. This effectively prevents rented private accommodation from acting as a housing substitute that could bring property prices back towards equilibrium levels.

Housing investment still remains subdued, even though new building permits have been rising. Compared to the investment flurry that occurred in the early 2000s, residential investment has decreased by around 1 % of GDP in the post-crisis period, with few signs of a significant recovery in the recent period (Graph 3.2.3). Given the strength of economic growth, as well as of overall investment and house price inflation in recent years, lacklustre housing investment growth implies potential housing supply constraints; anecdotal evidence suggests this is probably true for the Bratislava region. However, the significant increase in the number of building permits somewhat weakens the notion of housing supply being constrained and/or inelastic. The time-lag between the issuing of housing permits and associated construction activity instead suggests that a pick-up in housing investment may occur in the medium term.

Graph 3.2.3: **Housing investment indicators**



Source: European Commission

3.3. LABOUR MARKET, EDUCATION AND SOCIAL POLICIES

Labour market

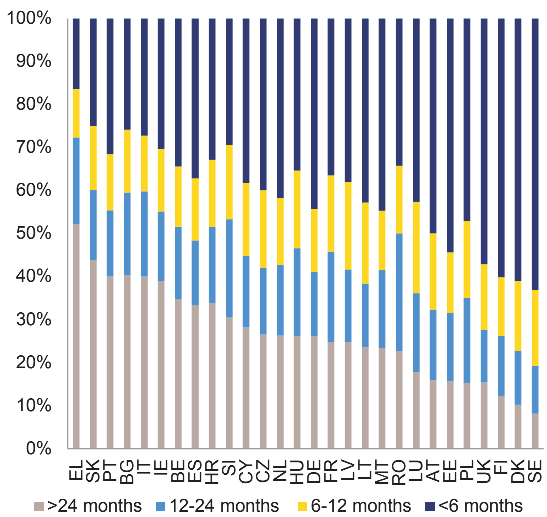
Labour market conditions have improved but structural challenges are visible in several areas. Stronger economic growth has led to decreasing unemployment, increasing wages and disposable household income. The employment rate is swiftly approaching the EU average (71.2 % vs 72.3 % (EU) in Q3-2017). Following improvements since 2013, labour market slack indicators are now all below the EU average (LMWD, 2017). The main challenges in the labour market are high long-term unemployment, coupled with high unemployment among vulnerable groups such as the low-skilled and Roma, as well as a relatively low employment rate for women. These issues are amplified by regional disparities, caused partly by an underdeveloped rental housing market that limits labour mobility.

Falling unemployment, bolstered by faster job creation, has led to increasing reports of labour shortages in some sectors. Vacancy rates have reached a historical maximum, with the highest rates found in regions with the lowest unemployment (Value for Money Unit, 2017). About 44 % of employers reported difficulties in filling jobs in 2016 (Manpower Talent Survey 2016). This trend is particularly prevalent in the IT and manufacturing sectors. Some employers are reportedly turning to foreign workers to meet staffing needs. Work permit conditions for seasonal work were eased and the number of foreign workers in Slovakia grew by 40 % year-on-year in 2017. Nevertheless, foreign workers only account for 1.7 % of total employment.

A multitude of factors seem to contribute to labour shortages. Notwithstanding an acceleration of wage growth, in 2016 the average compensation of employees per hour worked in Slovakia (EUR 9.5) was well below the EU average (EUR 22.8).[20] Higher wages abroad, better career prospects and opportunities in destination countries are the main factors contributing to the emigration of workers. Emigration is most prevalent among young people with tertiary education (IFP 2017a), recent data point to a decline in the number of workers abroad (150 000 in Q2-2017 vs. 160 000 in 2016).[21] Skill shortages among the unemployed exacerbate the lack of qualified new workers. The general level of skill mismatches has fallen since 2007 and there is a low overall level of underqualification (European Commission, 2017b).

Long-term unemployment (LTU) is falling, supported by government policies. Long-term unemployment has declined to a rate of 4.9 % in Q3-2017, but remains among the highest in the EU. In addition, in 2016 the share of very long-term unemployment (i.e. more than two years) in total unemployment was still very high, at 44 % (Graph 3.3.1). Slovakia implemented various active and passive measures to combat LTU, including an ambitious Action Plan (see below), which likely contributed to the overall decline. However, the absorption of the large pool of long-term unemployed still poses a challenge.

Graph 3.3.1: **Unemployment duration (2016)**



Unemployment by duration is expressed as a percentage of total unemployment (15-74y) in 2016
Source: European Commission

(20) Expressed in purchasing power standards (PPS) the gap in compensation of employees per hour worked between Slovakia and EU average is reduced to EUR 8.5.

(21) Official statistics might underestimate figures, as they suggest insignificant net migration flows (0.3% of total population in 2004-2016). Alternative sources, such as health insurance data point to a decrease by 5% of the total population in the past 15 years as a result of out-migration.

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

The European Pillar of Social Rights, proclaimed on 17 November 2017 by the European Parliament, the Council and the European Commission, sets out 20 principles and rights to benefit citizens in the EU. In light of the legacy of the crisis and changes in our societies driven by population ageing, digitalisation and new ways of working, the Pillar serves as a compass for a renewed process of convergence towards better working and living conditions.

SLOVAKIA		
Equal opportunities and access to the labour market	Early leavers from education and training (% of population aged 18-24)	On average
	Gender employment gap	To watch
	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)	Better than average
	Unemployment rate (% population aged 15-74)	Better than average
	GDHI per capita growth	On average
Social protection and inclusion	Impact of social transfers (other than pensions) on poverty reduction	To watch
	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 situations"). 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 2018, COM (2017) 674 final.
NEET: neither in employment nor in education or training; GDHI: gross disposable household income.

Slovakia faces challenges with regard to a number of indicators of the Social Scoreboard ([22]) supporting the European Pillar of Social Rights. The number of children under the age of three enrolled in formal childcare is very low (0.9 %). This contributes to a high impact of motherhood on women's participation in the labour market, reflected by a relatively high gender employment gap. On the positive side, income inequality and poverty remain low while both employment and unemployment rates are improving at a fast pace.

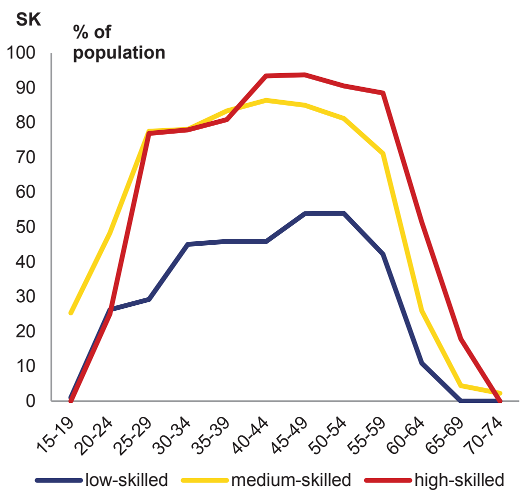
Inclusive education, particularly with regard to integrating Roma children into quality mainstream education from an early age, remains a challenge. Only about one-third of Roma children aged between 4 and the starting year of compulsory education participated in childcare. This is likely caused by a lack of financial resources coupled with a low level of information on application procedures and mistrust from the parents' side. Segregation of Roma children in schools is also of concern, with Slovakia being among the countries with the highest proportion of Roma children attending schools where all pupils are Roma. The legislative amendments made to the School Act in 2015 have a potential to increase the participation of Roma pupils in inclusive mainstream education, however, they are not being properly implemented and adequately supported by funding and additional measures.

Slovakia consistently has relatively low levels of income inequality (measured by the income quintile ratio). This is mainly due to its low degree of wage dispersion, rather than to the effectiveness of the tax and benefit system. Wealth inequality is also among the lowest in the EU, related to a high rate of home ownership, which results in a comparatively even distribution of housing assets. Likewise, the risk of poverty and social exclusion has remained well below the EU average and continues to decline further.

[22] The Social Scoreboard includes 14 headline indicators, of which 12 are currently used to compare Member States performance. The indicators "participants in active labour market policies per 100 persons wanting to work" and "compensation of employees per hour worked (in EUR)" are not used due to technical concerns by Member States. Possible alternatives will be discussed in the relevant Committees. Abbreviation: GDHI – gross disposable household income.

Employment of the low-skilled is on the rise, but challenges remain. In 2016, 30 % of the low-skilled were unemployed for more than a year, compared with 8 % and 3 % for the medium and high skilled. The gap with the EU average is high (17.7 pps in 2016), and the difference is particularly high (higher than 45 pps) for some specific age groups (Graph 3.3.2). As a result of the tightening labour market, the employment rate of the low-skilled increased substantially (from 31.6 in 2014 to 35.9 % in 2016) but remains the lowest in the EU.

Graph 3.3.2: **Employment rate by age and education level (2016)**

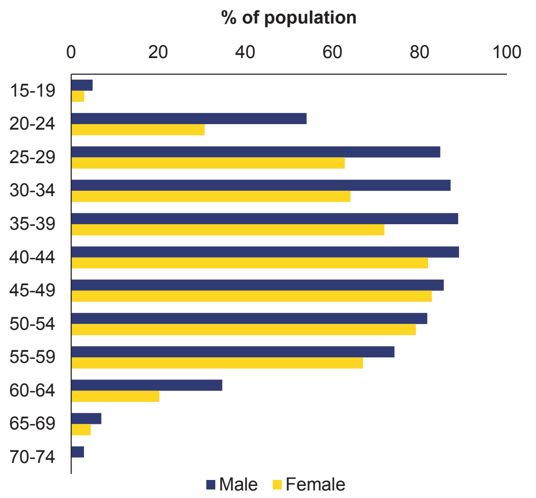


Source: Eurostat

Young people still represent a large share of the unemployed (17.2 % in 2016). Additionally, the share of young people neither in employment nor in education and training (NEET) remains slightly above the EU average (12.3 % vs EU 11.5 % in 2016, age 15-24). The unemployment rate of low-skilled youth continues to be very high (46.5 % vs EU 26.5 %; 2016). This is particularly alarming in light of an increasing early school leaving rate and shortages of qualified workers. In 2016, just under half of NEETs aged under 25 years were registered with the Youth Guarantee scheme. Nearly one in five (18.2 %) of young people registered had been so for more than 12 months.

The employment rate of women (62.3 %) remained well below that of men (76.9 %) in 2016. The gender employment gap is persistently above the EU average. This also applies to the unadjusted gender pay gap (19.6 % in 2015). The employment gap is particularly large for women under 40 years (Graph 3.3.3), which is likely explained by a high impact of motherhood and care responsibilities on women's employment (see further below).

Graph 3.3.3: **Employment rate by gender and age (2016)**



Source: European Commission

The situation of Roma in the labour market is particularly weak. The share of Roma in the population is estimated at 8 % of the total population, living predominantly in rural areas (UNDP, 2014). Almost 74 000 live in segregated settlements often with very dire living conditions. Unemployment among Roma reaches 48 %, while only around 25 % of Roma aged 20-64 are engaged in 'paid work' (FRA 2016).([23]) Moreover, Roma youth are at a much greater risk of becoming NEETs (65 % in 2016). The key obstacles for their participation in the labour market are low skills attainment and barriers in the access to education, housing, and healthcare (see education section) (IFP, 2014). The ethnic segmentation of the labour market contributes to an adverse social situation, reflected by higher poverty. 30 % of Roma felt discriminated at least once in the past 12 months in their daily life, and 22 % when searching for work (FRA, 2016).

([23]) Indicators used the 2016 FRA survey closely resemble those applied in standard European surveys (EU-SILC, EU LFS) but full comparability was not intended. For more details see FRA 2016.

Labour market policy

Rights and obligations of jobseekers registered at the public employment service (PES) have been modified. To encourage social assistance beneficiaries to take up even low-paid jobs, a higher percentage of income (50 %, previously 25 %) is now excluded from the calculation of the special allowance under the minimum income scheme. This contributed to an increase of the total income in low-income households where at least one member found employment at the level of the minimum wage while other members receive the benefit. The increase in household income was most visible for households with one or more children. Following a tightening in the conditionality system, many jobseekers were removed from PES registers (in August 2017, 11 % out of all withdrawn jobseekers).

The implementation of the European Social Fund (ESF) supported Action Plan for the Integration of the Long-Term Unemployed has started. Individual work integration agreements are being introduced and individualised counselling will follow. 21.3 % of all long-term unemployed have been supported thus far, of which 23.2 % (as of August 2017) have been successfully placed in the labour market. The client-to-specialised counsellor ratio has decreased (1:723 in 2017 compared to 1:1467 in 2016), but overloaded PES capacities remain a key obstacle to providing individualised services. Given the early stage of the implementation, the Action Plan's impact remains to be assessed, but progress is regularly reviewed at the ESF Monitoring Committee. The newly introduced profiling mechanism of the long-term unemployed remains rudimentary, as it is only based on age and the duration of registration and therefore does allow an in-depth assessment for subsequent referral. Cooperation with private employment services and NGOs is lacking, and the allocated ESF support has not yet been fully used.

Access to personal bankruptcy has been facilitated; this may encourage formal employment. 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 (IFP 2016). Following the revised Act on Bankruptcy and Restructuring, a 284 % increase in personal bankruptcies was recorded compared to 2016. However, the waiting time for assistance at any of the twelve Legal Aid Centres or consulting centres is very long (4 months).

Spending on active labour market polices (ALMPs) is still one of the lowest in the EU. In 2016, spending on ALMPs was at 0.21 % of GDP, mostly geared towards direct job creation measures. Training and education programs, on the other hand, receive significantly less (7.7 % of all expenditure in 2015), which is at odds with the increasing labour shortages. Moreover, participation in ALMPs remains low (13.6 %). A recent study found that the design of ALMPs is poor and its effectiveness low, with subsidised jobs and activation works prevailing over education and training programmes (Value for Money Unit 2017). The success rate of activation works in placement to the labour market is low (14.7 %), also due to the lack of a training component.

Table 3.3.1: **ALMP expenditure by type of actions (% of GDP, 2015)**

ALMP actions	SK	OECD
PES and administration	0.04	0.13
Training	0.01	0.13
Employment incentives	0.08	0.1
Sheltered and supported employment and rehabilitation	0.04	0.09
Direct job creation	0.02	0.07
Start-up incentives	0.01	0.01
Out-of-work income maintenance and support	0.21	0.74
Early retirement	0.13	0.04
Total	**0.53**	**1.32**

Source: OECD

In view of skills shortages, reskilling programmes have been reinforced. In 2017 17,317 jobseekers attended requalification courses. However, the relevance of training programmes for the labour market needs has been flagged as limited and participation in training depends on the initiative of the jobseeker, which can create a barrier for the low-skilled (Machlica et al. 2017). Adult participation in learning is still significantly below EU average (2.9 % vs. 10.8 % in 2016). The plans to introduce a National Qualifications Framework to validate non-formal and informal learning underpinned by quality assurance procedures, and reflected in a revised National Life-long Learning Strategy, are a step in the right direction. These initiatives are key in increasing the flexibility of the overall education and training system in a lifelong learning perspective. Likewise, the lack of second-chance education is expected to be addressed by ESF-supported national projects. These initiatives will support the implementation of the Upskilling Pathways Recommendation.

Actions for Roma inclusion are slowly taking off, but results remain to be seen. Outreach support through social fieldwork and community centres has been launched and the Action Plans for the National Roma Integration Strategy for the years 2017-2020 have been adopted. In addition, following the adoption of the law on social economy, by 2020 around 3000 disadvantaged people are expected to find employment in 150 new social enterprises.

The implementation of the Youth Guarantee has aided youth employment. Individualised services are being introduced, and training programmes under the so-called 'RE-PAS' project were extended to young people under 29. However, the provision of offers is rarely timely and their monitoring and assessment is weak. In 2016, 18.2 % of those registered had been waiting for an offer for more than 12 months.

Additional measures are being introduced to tackle high regional disparities. In 2016, 4,911 people benefited from a commuting allowance, while 816 received labour mobility support (770 more than in 2015). A revision of the Act on Employment Services has led to an increase in the amount of the commuting allowances by loosening the requirements and introduced a flat-rate to cover moving costs up to EUR 4000. The number of districts designated as 'least developed' has increased from 12 to 16 and dedicated action plans are being implemented. Training centres and regional vocational education centres are planned to provide practically-oriented training for the disadvantaged unemployed, and the education centres will address the specific needs of SMEs and people interested in self-employment.

Social dialogue

The involvement of social partners in policies and reforms is relatively well developed. Despite the general satisfaction with the consultation process, some concerns are raised by social partners over insufficient information and time allocation for commenting on reform proposals, which may results in a limited scope to contribute to discussions. The low membership may also have a negative impact on their capacity ([24]). An ESF-supported project is in place to help improve social partners' capacity-building.

Employment of women

Slovakia is among the countries with the highest (discouraging) impact of motherhood and care responsibilities on employment. This is likely due to a long parental leave, rarely taken up by men (7%), as there is no simultaneous compensation for both parents, coupled with a low take-up of flexible work arrangements and missing childcare facilities.

Measures have been put in place to improve access to childcare, but capacities are still insufficient. Only 0.9 % of children below 3 were enrolled in formal childcare in 2016, one of the lowest rates in the EU. Childcare costs in Slovakia are also among the highest in the EU, which has a negative impact on work incentives ([25]) (Browne and Neumann, 2017). On the positive side, EU-funded construction of childcare facilities, including for marginalised Roma communities, has been slowly taking up. As of January 2018, the Social Services Act has expanded 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.

The coverage rate is higher for children aged between 4 and 6 (78.4 %; 2016), but is still below the EU average (94.8 %). Furthermore, the number of rejected applications for kindergartens remains high, particularly in Bratislava (4,677 out of 12,486 in total in 2016). Following 2017 amendment of the Act on Financing of Schools financial support will be extended to all families receiving the benefit in material need with children above the age of 3 in kindergartens.

The implementation of deinstitutionalisation is slow but additional measures are planned. Long-term care in Slovakia is still largely provided

([24]) Trade union density was estimated at 11 % in 2015 (OECD), as compared to approximately 30 % employer density rate in 2013 (ICTWSS Database 2015).

([25]) The net cost for a single mother with two children and low earnings amounts to 24% of the disposable income in 2015.

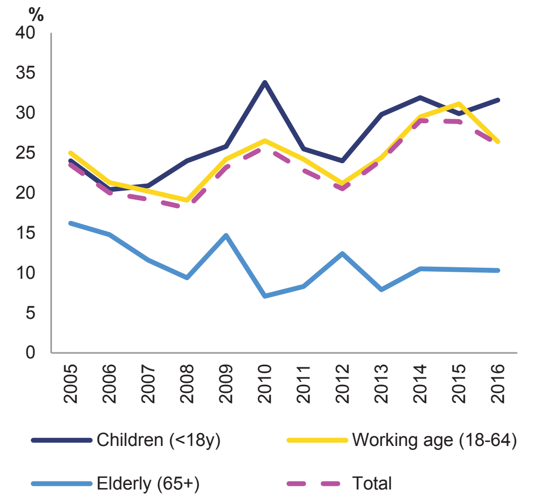
by long-term care institutions and family carers supported through the caretaker allowance which will gradually increase to the level of the net minimum wage in 2020. This increase may perpetuate high female inactivity rates due to caring responsibilities. Overall, the progress in transition from the institutional to community-based care is slow and partial, and support for independent living is still insufficient (United Nations, 2016). Newly introduced measures, such as the limitation of the number of persons in assisted living facilities to six per unit and the limitation of 40 places in specialised facilities for seniors, go in the right direction.

Social inclusion and poverty reduction

The poverty rate has further declined, but the intensity of poverty is still relatively high. In 2016, the number of people at risk of poverty or social exclusion fell to 18.1 % (significantly below the EU average of 23.5 %), and the number of people in severe material deprivation also dropped to 8.2 % (still slightly above the EU average of 7.5 %). Latest data ([26]) on poverty indicates that no significant changes are expected in the at-risk-of poverty rate for income reference year 2016. However, the poverty gap, which measures the intensity of poverty (i.e. how poor the poor are), remains relatively high at 26.1 %, particularly for children (31.6 %) (Graph 3.3.4). The poverty rate for Roma is alarmingly high, at more than six times the rate for the general population (FRA 2016). In terms of in-work risk of poverty, the incidence is significantly higher among part-time workers ([27]). Homelessness is relatively low (according to the census, in 2011 there were about 23,500 homeless people in Slovakia, i.e. around 0.4 % of the total population ([28]) and a national strategy for preventing and tackling homelessness is being prepared.

([26]) Eurostat has produced experimental flash estimates for income reference year 2016, which can be used in preliminary analysis until the final EU-SILC data becomes available.
([27]) In 2015 the difference in the incidence of income poverty between full-time and part-time workers was more than 13 percentage points.
([28]) No national data has been collected since, but according to a 2016 survey, in Bratislava 0.5 % of all inhabitants were homeless.

Graph 3.3.4: **At-risk-of-poverty gap (2016)**



Source: Eurostat

Weaknesses in social safety nets persist despite some positive initiatives. In 2016, the impact of social transfers (excluding pensions) on poverty reduction has fallen to 31 %, below the EU average of 33 %, and reached its lowest level during the last decade. The number of recipients of minimum income support (benefit in material need) has fallen to 83 000 by August 2017 (compared to 99 000 in December 2016). The minimum scheme is not sensitive to the number and age of children in a household. It lacks a connection to the national subsistence minimum and there is no obligation of annual indexation. The provision of the benefit is conditional on each adult member of a household to carry out small community work for 32 hours per month. The adequacy of the minimum income scheme is still low, around 50 % of the poverty threshold ([29]) (European Commission, 2017). The housing allowance is not accessible to those who are most in need because its receipt is conditional on proof of legal residence. This affects mostly marginalised Roma who live in undocumented dwellings and homeless people. On the positive side, an increase in benefits in material need (5 %) as well as doubling the activation allowance to EUR 132.40 to promote employment and reduce poverty is planned for 2018.

([29]) According to the benchmarking exercise in the area of minimum income schemes conducted within the Social Protection Committee, see the draft Joint Employment Report 2018.

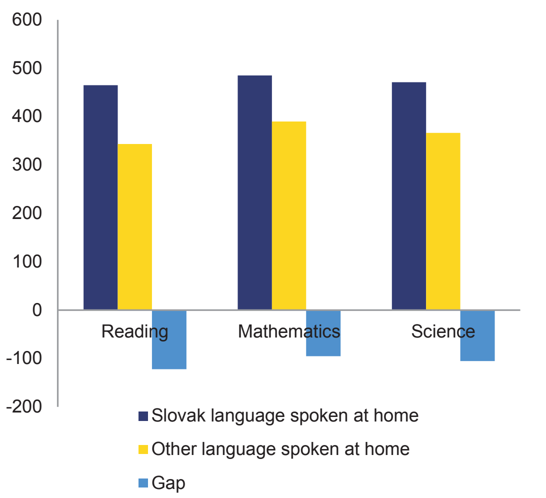
Conditions for receiving unemployment benefits are strict, and net replacements rates are among the lowest in the EU. Jobseekers are required to be insured for at least 2 years during the reference period to be eligible.(30) Legislative changes as of January 2018 have extended the reference period from 3 to 4 years and the coverage period to 6 months unifying the rules for permanent and fixed-term employees, who were previously limited to 4 months of support. Furthermore, less than 20 % of self-employed are covered by unemployment benefits.(31)

Social housing is underdeveloped, and conditions for access are restrictive. The rental housing market is thin – only 10.7 % of inhabitants live in rental dwellings, far below the EU average of 30.7 %. Moreover, the number of finished flats owned by municipalities was at 2.2 % in 2015. The overcrowding rate has increased to 40.6 % and remains particularly pronounced among poor (56.2 % in 2016 vs. an EU average of 29.6 % in 2015). Furthermore, approximately 65,000 residents live in undocumented dwellings and makeshift shanties (Ministry of Interior, 2014). State Housing Development Fund loans were provided to 90 municipalities in 2017, aiming to create 1,524 housing units. However, the requirement of proof of the household's solvency hinders access for the most deprived, while the accessibility for slightly better off households is restricted by an income threshold. The link to accompanying support services is not always available and monitoring of the use of the flats is weak. A pilot project is planned for transitional housing with social assistance for marginalized Roma communities, but a more systemic support could allow stronger development.

Education and skills

In Slovakia, half of all pupils in the bottom social quartile are low achievers. The proportion of low achievers in the PISA 2015 (OECD, 2016a) survey is significantly higher than the EU average in all areas tested (31 % in science, 32 % in reading and 28 % in mathematics). The gap in achievement between upper and lower socioeconomic quartiles is at more than 35 pps and 9 pps above the EU average of 26 pps. Slovakia also shows a very sizeable gender gap in reading, with boys lagging by 13.2 pps behind girls for low achievement (European Commission, 2016). To address declining educational outcomes, the national education strategy 'Learning Slovakia', developed through a comprehensive consultation process by experts and completed in September 2017, spells out a vision for regional and higher education reform. Progress on the reform has however been limited, as the document still needs to be translated into the official government National Education Strategy with concrete action plans announced only for 2018.

Graph 3.3.5: **PISA 2015 results by language spoken at home (in PISA score points)**



Source: OECD PISA

School dropout rates are marked by large regional disparities. The rate of early school leaving (ESL) is low at 7.4 %, well below the EU average of 10.7%, but shows sizeable regional disparities. The highest and fastest-rising levels are in eastern Slovakia, where ESL exceeds 12 %; compared to 4 % in western regions. The EU Fundamental Rights Agency (FRA) estimates that 58 % of Roma children are early school leavers. Finally, participation in early childhood education and care for children above 4 was 78.4 % in 2016, considerably below the EU average of 94.8 %.

(30) A bad performance for unemployment benefits in SK is confirmed by the results of the Benchmarking exercise in the area of unemployment benefits and active labour market policies conducted within the EMCO Committee. See the draft Joint Employment Report 2018 for details.

(31) Self-employment at 15 % was slightly above the EU average of 14 % in 2016, characterised by an uneven distribution across different sectors.

Participation of Roma children, estimated at 34 %, is particularly low (FRA, 2016).

Socioeconomic and educational exclusion of marginalised Roma communities is a key problem. The 2016 FRA survey indicates that 62 % of Roma children attend a school where all or most other children are also Roma and that the proportion of Roma pupils attending special education establishments is among the highest in the region (FRA 2016), suggesting discriminatory practices. The 2015 PISA survey shows a very wide gap between pupils who speak Slovak at home and those who do not — including Roma pupils (Graph 3.3.5). In science, this gap is equivalent to more than 3 years of schooling (OECD, 2016a). The legislative amendments made to the School Act in 2015 have a potential to increase the participation of Roma pupils in inclusive mainstream education. However, they are not delivering the expected results due to the absence of an integrated approach. There is no systematic methodological guidance to schools, which would include concrete measures leading towards inclusive mainstream education and a specification of funding available for that purpose. Systematic monitoring and evaluation of the effectiveness of measures is lacking.

Public expenditure on education has been low over the last decade. Slovakia's general government expenditure on education in 2015 was 4.2 % of GDP, below the EU average of 4.9 % but the gap has narrowed in recent years. Bearing in mind the significant rise in Slovak GDP in recent years, education spending levels have risen by 45% in real terms since 2005. Compared to the EU's best performers Slovakia shows a limited efficiency of public education spending, both in terms of educational outcomes and the degree to which young people are integrated into the education and training system (European Commission, 2017c). An additional EUR 500m in ESF support has been allocated to education, but the implementation of measures is lagging.

Teachers' salaries are being increased gradually, but the profession is still not attractive. Salaries increased annually by 6% both in 2016 and 2017 and the government plans to make annual increases of 6 % until 2020. Incentive measures being implemented in accordance with the 2017 National reform programme include: enhancing teacher training, professional development and working conditions; lowering the administrative burden and increasing funding for study materials and classrooms.

Slovakia has fast-increasing tertiary education attainment rates, but structural weaknesses in the higher education persist. In 2016, the tertiary attainment rate was 31.5 %, below the EU average of 39.1 %. Women (at 39.4 %) strongly outperformed men (at 24 %). Weak internationalisation is also an issue and the number of in-coming foreign students studying at Slovak universities is still small. Existing quality assurance and accreditation mechanisms are insufficient. Finally, Slovakia's tertiary sector lacks a professionally oriented bachelor programmes and does not meet the demands of the labour market.

Implementation of measures to address weaknesses in higher education has been delayed. The overall strategy is to introduce greater flexibility for universities in response to current societal needs, while strengthening their responsibility for the quality of education. There is a general consensus on the need to follow European guidelines on accreditation through a fully independent quality assurance agency, but there is no agreement among stakeholders on the appropriate approach. Rationalisation of the higher education network and changing funding formulas to encourage more consolidation and specialisation is also being considered (Eurydice, 2017).

Comprehensive information on the labour market outcomes of vocational education and training (VET) to increase its relevance is lacking. The proportion of upper secondary students in VET remained stable in 2015 at 69 %, well above the EU average of 47 %. The employment rate of recent VET graduates, at 77 % in 2016, was slightly higher than the EU average of 75 %. To improve the labour market relevance of education, the performance-based funding has been introduced. Highly relevant programmes ('white lists') benefit of a 10 % increase of funding per student, whereas, funding is reduced by 10 % for programmes preparing for skills not required in the labour market ('black lists'). Regional platforms have been created for stakeholders to discuss the data used to update lists of programmes required or not by the labour market and to inform on the allocation of secondary VET entrants by self-governing regions.

The overall quality and responsiveness of the dual VET system is gradually improving. The enrolment in the dual VET scheme has increased by 27 % for the school year 2017/2018. However, teachers and trainers have little access to specialised continuous professional development. To further improve the communication on the benefits of dual VET, a new information portal has been set up by the employers' council and contact points are being set up with ESF support to assist the eight self-governing regions in targeting all stakeholders involved in dual VET: employers, schools, learners and the wide public. A new Act on VET seeks to tackle financial disincentives for schools to get involved in dual VET and to create conditions for effective career guidance. Regulation of study places in VET schools better reflecting labour market needs and cooperation of schools with employers is planned. The act is set to enter into force in September 2018.

3.4. INVESTMENT

Business environment and barriers to investment

The quality of the business environment is crucial to determining investment and other economic activities. Excessive and uncertain business regulation and a low quality of public administration can have a negative impact on economic performance by discouraging private sector activities and hampering investment (European Commission, 2017d). Slovakia's business environment is losing ground in some cross-country comparisons. It dropped 6 places in the World Bank's 'Doing Business' rankings in two years, currently taking 39th place (out of 190 economies) and ranking 18th among its EU peers. While the country holds first place globally in 'trading across borders' and scores very well in 'registering property' (7th), protecting minority investors and dealing with construction permits (91st) remain key obstacles to investment.

Slovak firms identified corruption and inefficient government bureaucracy as the top obstacles to doing business (World Economic Forum, 2017).([32]) An analysis of 10 business-related laws, conducted by Slovakia's National Union of Employers, found an increase in the number of administrative obligations for companies from 1 514 in 2007 to 1 719 in 2016. Instability in the legislative environment also harms the business environment. For example, between 2007 and 2016 the Trading Act was amended 54 times and the law on income tax 53 times, while the labour code was amended on average between 2 and 3 times per year. In 2015 the Social Insurance Act was amended 9 times and the Trade Licensing Act 12 times, making it particularly difficult for businesses to comply.

National surveys suggest worsening trends in a variety of governance-related areas. The Business Environment Index, compiled each quarter by the Business Alliance of Slovakia, declined further in Q2 2017 to its weakest value since 2001. The underlying responses from business leaders suggest a notable worsening in a range of justice-related categories (equality before the law, law enforceability, functioning of the judiciary), scores for the political system and in the level of corruption. The latest index scores also confirmed the widely reported shortage of skilled labour, as this category witnessed the biggest quarterly deterioration since the survey began in 2001.

The government adopted a number of measures to improve the business environment and boost investment. The first package, agreed in June 2017, introduced 35 measures with 9 priority measures to be implemented by the end of 2017, with the remainder to be carried out by 2019. In 2018, the second package of measures based on the inputs from entrepreneurs will be unveiled. Among the priorities, some measures aim to streamline the process of getting a building permit. The measures were selected from a database of 400 proposals, which were reduced to 100 by the Ministry of Economy and then negotiated with the relevant ministries. Another set of measures to improve the business environment is also soon expected to be submitted for the government´s approval.

Regulatory impact assessments (RIAs) can improve the business environment and their use has been extended in recent years. The Centre for Better Regulation established at the Slovak Business Agency conducts both prior and subsequent assessments of the regulatory impact of a policy measure A Commission under the government office checks RIAs in two phases, and it can issue either a positive opinion, a positive one with comments or a negative opinion in its final assessment (which in any case doesn't have the power to stop the legislative process). Since 2016 the RIA procedure includes an SME test that assesses the specific impact of a regulation on SMEs. Only 12 % of the final versions of RIAs, as submitted to the government, were deemed to be of poor quality in terms of complying with the RIA official guidelines.

Business organisations recognise that RIA procedures have improved. Feedback from business associations suggests that their members value the official consultation at an early stage and with prior notice. A new strategy for better regulation - RIA 2020 - was approved by the government in January 2018. The objective is to improve public awareness of better regulation as well as the quality of ex-ante impact assessments; introduce systematic ex-post evaluations of

([32]) Followed by tax rates, tax regulations, restrictive labour regulations, an inadequately educated workforce, inadequate supply of infrastructure, and policy instability.

existing regulations and alternative approaches to regulation as well as enable greater stakeholder engagement in better regulation activities, namely engagement of the members of parliament and representatives of municipalities. A national project under the Effective Public Administration operational programme will finance the strengthening of the analytical capacities of government ministries in RIA. Finally, a national project under the Integrated Infrastructure operational programme has been planned with the aim of creating a digital platform for better regulation processes.

The government also took steps to improve the deficient insolvency framework. Slovakia has one of the longest periods in the EU for resolving an insolvency and is one of the costliest EU countries in terms of percentage of the insolvency estate. The Slovak Insolvency Register, listing companies and entrepreneurs that have been declared bankrupt or are currently going through the insolvency process, has been published online. A new legal concept of a 'company in crisis' — i.e. at risk of bankruptcy — was introduced into Slovak law to secure the claims made by unsecured creditors. A company in crisis is now required to settle claims made by ordinary creditors before meeting any new obligations to shareholders and members of statutory bodies. Furthermore, the self-employed can now choose between two options when managing insolvency: either full bankruptcy followed by debt acquittal based on a court's decision or a repayment plan mechanism allowing the debtor to retain part of his estate (European Commission, 2017e).

Access to finance has improved but alternative sources of financing are rarely used by Slovak SMEs. Access to finance dropped from being the main concern for 18 % of SMEs in Slovakia in 2013 to 5 % in 2017 (against 7 % at EU level). However, 13 % of bank loan applications from SMEs were rejected (compared to 5 % at EU level). According to a 2015 survey on the use of external forms of funding (i.e. funds obtained from outside the firm) less than a quarter (24 %) of Slovak SMEs used alternative sources of financing. While 11 % of start-up projects in Slovakia are financed through crowdfunding, venture capital financing only accounts for 2 % of funding and was used by 15 % of Slovak start-ups. However, venture capital investments in 2015 rose by 41 %, mainly due to the launch of venture capital instruments within the EU-financed JEREMIE initiative, which ended in 2016.([33])

Public administration

The public administration is still burdened by long-standing inefficiencies. The reform of Slovakia's public administration has been supported by EU funds. However, its implementation has been lagging behind. The main bottlenecks in public administration include a fairly rigid, silo-type working relationship between government ministries, a low degree of political neutrality in the civil service and non-transparent and decentralised recruitment procedures (European Commission, 2017f). The limited cooperation between ministries hampers strategic planning and risks creating inefficiencies through the duplication of work and disjointed policy design. Overall, the low quality and efficiency of Slovakia's public institutions slow the adoption of required structural reforms and act as a drag on competitiveness and the business environment (National Bank of Slovakia, 2017).

The new Civil Service Act aims to address administrative weaknesses and is showing the first signs of progress. The Act entered into force on 1 June 2017 and seeks to reduce political influence in public administration and increase staff transparency, quality and mobility. Although it remains too early to assess the law's actual impact, some steps have been taken to implement it. Five members of the new, politically independent Civil Service Council were elected in October 2017 and are mandated to begin their term in January 2018. Overall, to evaluate the degree of progress, careful monitoring to ensure the Act is correctly implemented and an assessment of the impact of both the Act and the 2015 human resource management strategy would be required. With the support of EU funds, four new analytical units have been created in four government ministries.

The regional public reform (ESO) has been progressing slowly. Its ambition is to make

([33]) Joint European resources for micro to medium enterprises (JEREMIE) is a joint initiative by the European Commission and the European Investment Group to support improved access to finance for SMEs and development of micro-credit.

regional administrations function more efficiently and ensure the quality, transparency and accessibility of public administration for the public through one-stop shops. The reform's implementation has not yet yielded concrete results, nor have analytical evaluations been carried out. The reform has also remained a low political priority, as the government did not include the issue in its programme of meetings from March 2016 to September 2017 (European Commission, 2017f).

Political influence on the leadership and functioning of regulatory agencies harms their effectiveness. A study by Transparency International (2017) confirmed there was strong political influence in the procedures for selecting chairs and vice-chairs as well as in the overall functioning of regulatory institutions. This may impede the achievement of a high-quality regulatory environment guaranteed by independent and accountable regulators. Half of all the chairs appointed to lead the eight most influential authorities had a political past. The average tenure for a chair reached only 2.5 years in the first 10 years of a regulatory body's existence and a number of chairs appeared to have been dismissed for political reasons.

EU funds administration

ESI Funds are pivotal in addressing key challenges to inclusive growth and convergence in Slovakia. Notable investment areas are public administration reform, improving links between research and industry and strengthening the integrated approach to healthcare (see Box on EU support to structural change). ESI Funds also help reduce youth unemployment and support women's participation in the labour market by developing childcare facilities. They strengthen the link between education and the labour market and increase the inclusiveness of mainstream education for marginalised Roma communities.

The 2007-2013 funding period has closed. With the closure of operational programmes of the 2007-2013 programming period nearly all associated financial resources have reached the final beneficiaries. In total, European Regional Development Fund and Cohesion Fund support amounted to EUR 10 billion between 2007 and 2013, equivalent to around 2 % of GDP and around 52 % of government capital expenditure. The ESF invested EUR 1.5 billion.

The implementation of the 2014-2020 programming period is picking up pace after a slow start. Despite operational programmes being adopted early, delays were caused by poor project caseload management during the transition between programming periods. This concerned in particular the designation of management and control systems, setting up of new territorial instruments, fulfilment of the ex-ante conditionalities and drafting of implementation documents, including evaluation and selection criteria and guidelines for beneficiaries. However, most of these new elements are now in place, and it is expected that the selection and implementation of high quality projects will be accelerated and will deliver tangible results and policy change.

The coordination role of the Office of the Deputy Prime Minister is growing but EU funds administration capacity and efficiency is still limited. Despite the entry into force of the Civil Service Act (see preceding section), staff turnover remains high — in part linked to the political cycle — and limits continuity and institutional expertise in implementing organisations. This is being addressed by strengthening the coordinating role of the Office of the Deputy Prime Minister, which supervises and monitors implementation and is designed to be a stabilising factor in the system. The Office also initiated an amendment of the ESIF Act so as to allow closer public scrutiny of how EU funds are managed and to reduce bureaucracy. Another set of measures to improve transparency and fight corruption was tabled in September 2017 in a dedicated action plan, which includes improved grouping and the electronic selection of evaluators.

Implementation of the current programming period is slowly progressing. The project selection rate has now exceeded half of the total allocation for the current programming period and payments to beneficiaries amount to 11 % of the allocation. These figures are in in line with the EU average, both regarding the selection rates and the payments requested from the Commission. Slovakia nevertheless suffered from a loss of EUR 26 million of funding for R&D in 2017 and there is a possibility of a loss of another part of the funding allocation if appropriate measures are not taken to accelerate implementation.

Entrepreneurship and SMEs

Post-crisis labour productivity growth in Slovak SMEs in the manufacturing sector fell behind that of large companies, exacerbating existing productivity gaps. In 2009-2014 the average annual rate of productivity growth among SMEs in the manufacturing sector was 4.6 %, a much lower increase than in large firms, whose productivity rose by 14.1 % in the same period (OECD,2017a).

Various measures aim to improve the ecosystem in which start-ups are founded. Slovakia enabled the founding of a new type of company, the 'simplified joint stock company', or 'one-euro company', which enables entrepreneurs to form a new company for just EUR 1 in capital. Although this form of company was introduced on 1 January 2017, interest in establishing these companies has been low so far. Following a pilot phase, the National Business Centre — conceived as a one-stop-shop support for SMEs in Bratislava — has been operational since August 2017. The setting-up of a network of regional business centres across the country has also progressed. The network, headed by the National Business Centre, should act as a single service provider for entrepreneurs, providing a range of services such as business incubation, business mentoring, consultation and training.

Fighting corruption

Corruption remains one of the main barriers to doing business in Slovakia. According to the World Economic Forum (2017), corruption is the most problematic factor for doing business. Out of 137 countries surveyed, Slovakia ranks 117th with a score of 2.5/7 on the diversion of public funds, 130th on favouritism in decision-making (1.9/7) and 79th on irregular payments and bribes (3.7 /7), placing it among the worst performers in the EU. This is reflected in business perceptions, where a 79 % of managers surveyed in 2017 agreed with the statement that favouritism and corruption hamper business competition in Slovakia, down from 87 % in 2015 (EU average: 68 % in 2017)(European Commission, 2017g).

Prosecutions for corruption-related offences have fallen considerably from a level that was already low compared to the perceived high levels of corruption. Criminal statistics show a decreasing number of bribery investigations, with the number of indicted cases falling from 163 in 2015 to 109 in 2016. The capacity of the Special Prosecutions Service seems to have been further reduced in 2017 by the transfer of new powers to the unit handling corruption-related crimes. The previous country report explained the pivotal role of the public prosecutor's office in imposing sanctions for corruption crimes, as only a minority of cases are decided by the courts. The prosecution of high-profile corruption cases remains very rare and this is reflected in public perceptions. A very large number of business representatives surveyed disagree with the statement that measures against corruption are applied impartially and without ulterior motives (up from 58 % in 2015 to 73 % in 2017; EU average: 48 %)(ibid). 74 % of respondents in a further Eurobarometer survey felt that high-level corruption cases were not pursued sufficiently (EU average 69 %)(European Commission, 2017h).

The lack of accountability for the police and public prosecutors has not been resolved. As the chief of police and the police inspection teams are appointed by and directly responsible to the interior minister, this may reduce their level of functional independence and hinder investigations of sensitive or high-level corruption cases.

The 2015 whistleblowing legislation still has to show its effects as to providing adequate safeguards for reporting corruption. In Slovakia between 2015 and 2016 the labour inspectorate granted protection to 32 cases of whistleblowers (18 reported criminal activities and 14 administrative offences)([34]). According to a 2017 Eurobarometer survey, among the possible reasons for not reporting a case of corruption the most commonly mentioned reasons were difficulties in proving (41 %), the lack of protection for those who report corruption (31 %) and a perception that reporting corruption is pointless as the perpetrators would not be sanctioned (32 %)(European Commission, 2017h). In June 2017 the government appointed a public figurehead for the anti-corruption strategy who will examine the need for

([34]) Source: Nip.sk

a further strengthening of whistle-blower protection. Meanwhile, civil society initiatives, engage young people and civil servants in the fight against corruption through training and education, focussing both on prevention and whistle-blowing.

Public Procurement

Slovakia's public procurement legislation is being modernised, but anti-competitive practices remain a challenge. Based on the opinion of company representatives who took part in public procurement recently, collusive bidding, specifications tailor-made for particular companies and unclear selection or evaluation criteria are the most widespread anti-competitive procurement practices in Slovakia. While these scores lie - with one exception - somewhat above the EU average, they show an improvement compared to 2015. More than half of the business representatives surveyed perceive corruption to be widespread in public procurement managed by national authorities (58 %, EU average: 50 %). However, perceptions improved regarding procurement at local or regional level (50 % in 2017 against 64 % in 2015, EU average: 54 % in 2017, 58 % in 2015). ([35]) Recent reforms may have contributed to these improvements. There has been a marked decrease (from 18% in 2015 to just 5 % in 2017) in the share of contracts concluded after negotiation without prior publication. The percentage of contracts awarded after a procedure with only one bid has also been consistently falling and at 19 % in 2017 was well below the EEA average (34 %).

Slovakia has taken important steps in creating a well-functioning system of public procurement. Following the transposition of the modernised public procurement and concession directives in 2016, Slovakia made the Electronic Contracting System no longer compulsory for 'below-the-threshold off-the-shelf' procurements. The authorities have also taken further steps towards implementing the European Single Procurement Document effectively, and the Office for Public Procurement produced methodological guidance on its application in 2017. Nevertheless, a satisfactory performance has not yet been achieved in the areas of internal controls, transparency, digitisation, professionalization and strategic public procurement.

([35]) European Commission (2017g)

Best practices in public procurement are beginning to be applied. The Slovak authorities are planning to provide training on using the most economically advantageous tender ('MEAT') criteria, already the subject of a series of conferences in 2017, with a particular focus on the construction and health sectors. In addition, the Ministry of Health has carried out price benchmarking for health sector buyers, aggregated certain purchases of hospital equipment and introduced quality award criteria. These efforts are not yet mirrored in the use of MEAT criteria in other sectors: the share of procedures in which the lowest price was the only criterion has remained stable in 2017 at 92 % (after increasing in the years prior; this is more than twice as high as the EEA average). Aggregated procurement also appears to remain underexploited as it is only used in 5 % of cases.

Further advances in improving public procurement hinge on more effective procedures. The Slovak authorities have been carrying out multiple, comprehensive prior verifications of all ESIF-funded public procurement projects, with a strengthened role for the Public Procurement Office. However, this is time-consuming and can lead to bottlenecks that jeopardise the absorption of EU funds. The introduction of checklists and training for officials could increase efficiency. Adopting more selective, risk-based controls would be one option to balance control and efficiency considerations. Meanwhile, the first conviction by a specialised court of high-ranking officials for irregularities in public procurement is encouraging. However, there are still only limited signs of commitment to fighting corruption, which remains an important barrier for business engaged in public procurement operations (see Box on Investment Challenges).

Electronic solutions are likely to improve the efficiency of public procurement. In preparing for the mandatory transition to fully electronic procedures by October 2018, the Slovak authorities have been testing various options for extending the functionalities of the state-owned electronic platform. While the introduction of the e-ID has shortened procedures that previously took one week to one hour, this is only available to Slovak suppliers. In November 2017 the authorities also announced first steps towards implementing the 'once only' principle in administrative processes. Public authorities will no longer be authorised to request certain certificates that are already available in public registers.

Effectiveness of the justice system

The justice system is showing signs of improvement, but challenges for its effectiveness remain. The length of judicial proceedings in Slovakia improved markedly in 2016, but it remains to be seen whether this reflects genuine efficiency gains or only methodological changes for judicial statistics (European Commission, 2018b). The long-standing negative trend for the length of proceedings in litigious civil and commercial cases appears to have ended, as administrative justice continues to perform well. Clearance rates for civil, commercial and administrative cases show that courts are coping with their caseload. This led to a decrease in pending cases in all categories, despite a rise in incoming cases in 2016.

Concerns over the independence of the judiciary persist. Slovakia remains the lowest-ranked EU Member State as regards the perceived independence of the judiciary, with no improvement compared to the previous year (Graph 3.4.1). Both citizens' and investors' trust and confidence in the judiciary may be harmed by persistently low perceptions of judicial independence, potentially holding back investment. The security screening of judges based on information from the Slovak National Security Authority still raises concerns for the judiciary's independence.

The Constitutional Court remains a locus of controversy. The pending constitutional complaints by judges and candidate judges challenging the security screening have still not been resolved. However, the long-standing constitutional conflict between the Parliament and the President, who initially refused to appoint candidates over concerns on their qualifications to three vacant posts for the Constitutional Court and which could have endangered its sound functioning by February 2019, has been resolved. Following a decision of the Constitutional Court on 6 December 2017, the President appointed candidates to the three vacant posts on 14 December 2017. The President asked the Parliament and the Government to take steps in order to improve the quality of candidates before a new round of appointments is due in February 2019 as already stipulated in the 2016 Government manifesto. The Government recently announced an initiative to strengthen the appointment process, taking into account the recommendations of the Council of Europe's Venice Commission (2017).

Slovakia continues with action to improve the efficiency and quality of its justice system. Since 2016, a number of information and communications technology (ICT) projects have been implemented that improve the quality of the justice system. The new Slovak Civil Procedural Law is starting to show positive effects on the streamlining of proceedings and giving more responsibility to parties. The introduction of an electronic payment order is raising efficiency. The same may hold true for the act on consumer arbitration and the amended act on arbitration. However, awareness of alternative dispute resolution methods and their acceptance by litigants stands in need of strengthening. In 2017, authorities started a multi-annual project aimed at improving the operations of the judiciary, but implementation will only begin in 2018.

Graph 3.4.1: **Perceived judicial independence (2016-17)**

Source: European Commission (EU Justice Scoreboard 2018, forthcoming)

Box 3.4.1: Investment challenges and reforms in Slovakia

Section 1. Macroeconomic perspective

Overall investment activity in Slovakia has been highly uneven since 2015, mainly caused by the transition between programming periods for EU structural funds. In 2015 – the final year in which drawdowns from the 2007-2013 programming period were possible – total investment rose by 19.8%, boosted by a 63.7% rise in general government investment. Much of this surge reversed in 2016, however, as public investment activity almost halved, dragging down overall investment by 8.3% to leave overall investment levels at 21.3% of GDP (EU: 19.8% of GDP). By contrast, private sector investment continued to rise throughout this period, buoyed by upbeat economic sentiment, easy credit conditions and diminishing slack in the economy. Based on the Commission 2017 autumn forecast, total investment is projected to have remained muted in 2017 but is likely to strengthen in 2018 and 2019 as drawdowns of structural funds in the new programming period normalise, while private investment (including in car manufacturing plants) is likely to accelerate.

Section 2. Assessment of barriers to investment and ongoing reforms

Public administration/ Business environment	Regulatory/ administrative burden	CSR
	Public administration	CSR
	Public procurement /PPPs	CSR
	Judicial system	CSR
	Insolvency framework	
	Competition and regulatory framework	
Labour market/ Education	EPL & framework for labour contracts	
	Wages & wage setting	
	Education	CSR

Financial Sector / Taxation	Taxation	
	Access to finance	
R&D&I	Cooperation btw academia, research and business	
	Financing of R&D&I	
Sector specific regulation	Business services / Regulated professions	
	Retail	
	Construction	
	Digital Economy / Telecom	
	Energy	
	Transport	

Legend:

	No barrier to investment identified
CSR	Investment barriers that are also subject to a CSR
	No progress
	Limited progress
	Some progress
	Substantial progress
	Fully addressed

While Slovakia shows clear success in some industrial sectors, notably the automotive industry, the overall business environment in the country is not overly conducive to investment. Some reforms have been adopted or are in the pipeline, in particular in the areas of education, public administration and the judicial system, but several barriers remain to be addressed.

Main barriers to investment and priority actions underway

1/ According to surveys by the European Commission and Manpower Group, labour shortages are an increasingly serious obstacle to production and investment. With up to half of Slovak companies now citing recruitment difficulties as a binding production constraint, the ongoing labour market recovery is likely to exacerbate labour supply pressures. While the anticipated wage increases may raise participation levels, their main impact will be on current employees' incomes, not new job creation. Particularly industries such as car manufacturing and IT services are reporting acute shortages of appropriately qualified staff. Dual education programmes may alleviate this problem over time but are still in their infancy.

2/ Challenges in the area of public administration are multi-faceted and together form a frequently changing, slow, inefficient business environment marked by high perceived levels of corruption. A frequently changing legislative environment makes it difficult and costly for companies to comply with legislation, and legislative and regulatory processes are often viewed as insufficiently business-friendly. A lack of evidence-based policy making is often noted, although the framework for regulatory impact assessments is gradually being strengthened. The lack of eGovernment services complicates business interactions with authorities. Perceptions of corruption and favouritism are prevalent, especially in public procurement.

3/ The justice system in Slovakia continues to face challenges regarding to its overall effectiveness. While efficiency has started to increase, the workload of the courts remains high. Efficiency aside, the quality of the justice system can be further improved, and persistently low levels of perceived judicial independence in Slovakia undermine the trust of citizens and business.

3.5. SECTORAL POLICIES

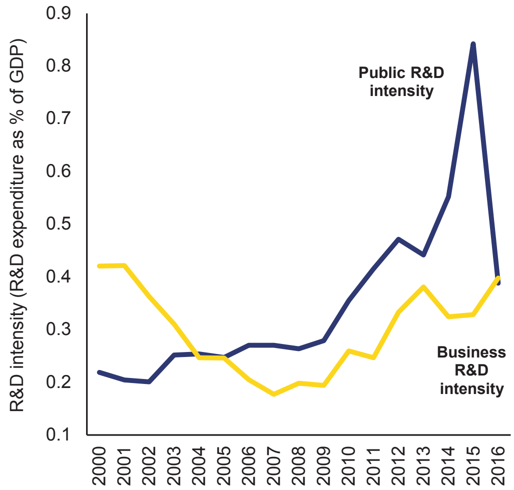
Research, development and innovation

Slovakia's capacity to innovate remains moderate. Although the country shows some notable areas of strength, such as sales of new-to-market/new-to-firms products and employment in high-growth companies, it performs below the EU average in most of the indicators. It faces numerous challenges to improve its innovation performance, which include the low efficiency of the public Research, Development and Innovation (RDI) system, the need to further support innovation in SMEs and incentivise technology transfer, and the urgent need to foster a coherent research governance system.

Slovakia has significantly increased its Research, Development and Innovation investment over the past decade, growing at more than 10 % per year between 2007 and 2015. However, growth in RDI investment is mostly due to the use of the ESIF with only a modest contribution coming from businesses. Total RDI investment fell markedly from 1.2 % in 2015 to 0.8 % in 2016 (Graph 3.5.1). This was accounted for by a fall in public RDI intensity from 0.84 % in 2015 to 0.39 % in 2016, which was largely driven by the start of the new EU funding cycle and the slow start-up time for new projects, including in the RDI area. Meanwhile, business RDI intensity increased slightly from 0.33 % in 2015 to 0.40 % in 2016, but remains among the lowest in the EU.

Low levels of business RDI are partly explained by Slovakia's economic structure. While there is a large medium/high-tech manufacturing sector in Slovakia, the dominant multinational companies have so far shown only limited interest in carrying out RDI activities. The proportion of researchers employed by business relative to total employment is low (1 % in 2014 vs an EU average of 3.6 %). The level of patenting also remains very low, especially regarding international (Patent Cooperation Treaty — PCT) patents. Data from the 2017 European Innovation Scoreboard show that the percentage of SMEs innovating in-house was much lower in Slovakia (13.9 %) than that in the EU as a whole (28.8 %) in 2016. However, new tax measures might help to alleviate financial obstacles to support investment (see Section 3.1).

Graph 3.5.1: **RDI investment by sector**



(1) Business RDI intensity: Business enterprise expenditure on R&D (BERD) as % of GDP. (2) Public R&D intensity: Government intramural expenditure on R&D (GOVERD) plus higher education.
Source: European Commission

A smart industry strategy was adopted in 2016 to underpin trends of digitisation of industry, as robotics, automation and ICT are among the economic and promising areas of specialisation of the Slovak Republic. Also the concept of smart cities was developed to promote innovative solutions in Slovak companies and support SMEs and start-ups. Traditional support schemes for innovation continue to operate, such as innovation vouchers, a scheme providing support for industrial clusters and for international cooperation for companies with RDI projects, with a state budget of EUR 1 million.

Cooperation between businesses and the public RDI sector remains difficult but a number of remedial measures have been taken. ([36]) The Law on Public Research Institutions will enter into force in 2018 and should allow for better cooperation between the Slovak Academy of Science and businesses. Calls are currently pending under the Slovak Research and Development Agency programmes aimed at supporting business RDI and cooperation between businesses and research organisations in 2016-2019. RDI programmes, which mainly focus on improving the cooperation between the business

([36]) For instance, public-private scientific co-publications represented only 1.5 % of all publications in 2014, compared to an EU average of 2.8 %.

and research sectors, have been reintroduced as of 2018 with a total budget of around EUR 270 million.

Support for R&D through EU funds faces some obstacles. A number of measures to mobilise knowledge and technology transfer, strengthen research capacities in industries and support strategic long-term research, planned in the EU-financed operational programme, are significantly delayed. This is partly due to administrative inefficiencies and a non-transparent evaluation and selection process. Some progress has been made in implementing the smart specialisation strategy, mainly on the establishment of sectoral platforms bringing together public institutions, business sector and academia to discuss future targeting of R&D investments. However, a number of policy measures have yet to be implemented. Implementing the delayed national research infrastructure roadmap would help to map existing research infrastructure and avoid duplication in financing or respective guidelines.

Returns on public R&D investment are low due to the inefficiency and ineffectiveness of Slovakia's research environment. Although public R&D intensity is above the EU average, the volume of frequently cited scientific publications ([37]) has stagnated at pre-crisis levels, placing Slovakia among the EU's lowest performers. The scientific potential is limited by the fragmented nature of the system, which comprises 34 higher education institutions, of which 23 are public, and the Slovak Academy of Science.

The overall governance of RDI policy is weak and reforms are regularly postponed. The planning and implementing of RDI policy continues to suffer from fragmentation and a lack of coordination, with responsibilities split — and poorly coordinated — among several ministries and implementing agencies. The Slovak Government Council for Science, Technology and Innovation, placed under the Office of Deputy Prime Minister, is seen as the key body for RDI coordination. Its role has also been strengthened by increased responsibility for coordinating and implementing the overarching RDI strategy

Digital economy

Slovakia's overall performance in connectivity remains below the EU average. Fixed broadband coverage and take-up did not progress significantly, while mobile broadband, 4G and 'next generation access' broadband network coverage increased by 4 and 11 pps respectively compared to 2016.

Slovakia lacks information and communication technology (ICT) specialists and digital professionals. The ICT sector accounts for 5.2 % of GDP and 2.4 % of total employment, making it one of the most productive sectors of the economy. However, the industry currently operates with around 13 000 specialist vacancies and has an estimated net recruitment need of at least 2 000 specialists each year over the next 5 to 10 years (see also Section 3.3). These staffing needs may increase if digital trends advance and spread more quickly, leading to a major expansion of the industry's reach.

The Slovak 'digital coalition' aims to address the lack of digital skills and ICT specialists. The digital coalition, launched in September 2017, aims to improve students' digital skills and boost the digital literacy of employees, the unemployed and entrepreneurs. The main challenge will be to ensure good coordination and cooperation between the different partners who signed the associated memorandum, which contains 14 commitments and an action plan with 23 specific measures. The coalition's members will also carry out an impact assessment focusing on Industry 4.0 and global digitalisation. A number of measures will be implemented through the IT Academy project, which receives EU funding of EUR 21 million. It should establish an education and youth training model to address the lack of digital skills. More than 300 elementary schools, 200 secondary schools and five universities are due to participate in the project.

Digital skills training for employees may reduce the risks of losing a job and can complement similar existing training for the unemployed. Evaluation methods (e.g. similar to the 'IT fitness' testing developed by the IT association)

([37]) Scientific publications in the top 10 % most cited scientific publications worldwide as a percentage of total scientific publications (2014): 5.3 % (EU average: 10.5 %); Slovakia ranks 22nd among EU Member States.

identifying employees' lack of digital skills would be a first step in this direction. In addition, IT training sessions can provide jobseekers with a competitive advantage when searching for a new job. Establishing a competitive training market by allowing jobseekers to choose the training provider may boost the quality of the training.

Businesses still do not fully understand nor embrace the digital single market (DSM). Only big corporations take advantage of the DSM, and SMEs face barriers to scaling up in the market. ([38]) A survey by the Slovak IT association shows that the majority of businesses have heard about the DSM. However, less than 50 % had a more detailed insight, with only few respondents being aware of what DSM represents and promotes.

The roll-out of e-government services is proceeding very slowly. Slovakia is working towards developing an e-government system. However, its implementation is significantly delayed, contributing to continued administrative inefficiencies in the business environment. Developing e-services can help fight against corruption and promote transparency, while the quality of the services can be improved to match a wider range of requirements (e.g. usability check against people with disabilities). The Deputy Prime Minister's Office announced the 'better services' initiative, which may help to spearhead a renewed push towards introducing e-government services.

Services sector

A competitive services sector is key to boosting value added and stimulating innovation. A variety of studies underline that a well-functioning services sector is important for the economy. A study based on firm-level data from a country with a similar structure — the Czech Republic — finds a significant positive relationship between services sector reform and manufacturing industries that rely on services as intermediate inputs (Arnold et al., 2011). Münich *et al.* (2014) also find that cross-border investment in the services sector is relatively effective in stimulating innovation. They find that cross-border investment in manufacturing predominantly generates jobs for low-skilled workers and makes only a limited contribution to technological progress.

The Slovak services sector appears to be highly regulated. There is a relatively high level of restrictions in the services sector compared to the EU weighted average for architects, civil engineers, accountants, lawyers, patent agents, real estate agents and tourist guides. In its Communication on reform recommendations for regulation in professional services, the European Commission (2017i) identified possibilities for improving the regulatory environment in these sectors. However, Slovakia has so far reported no progress in tackling restrictions.

Energy

The Slovak economy is energy-intensive and highly dependent on energy imports. Slovakia's import dependency lies above the EU average for fossil fuels in general as well as for gas and petroleum individually. The electricity mix is dominated by low-carbon sources with its minimum level of demand (i.e. its baseload) largely met by nuclear and hydroelectric power. Although the share of renewable energy has increased, the government has yet to develop its vision for the future of renewable technologies. This is complicated by electricity-generating installations above 10 kW being unable to connect to the distribution network (the 'stop-status'), partly to solve issues of system balancing at the transmission and distribution levels. This situation has existed since 2013 and adds to the uncertainty about the future role of renewables, deterring investment in the sector.

Slovakia's current energy policies are not yet fully aligned with the energy and climate change targets. While the electricity price includes a levy to support production of electricity from renewable resources, it also contains a surcharge that supports environmentally harmful electricity production from domestic lignite. Electricity generation from lignite is currently not economically viable without subsidies. Moreover, substantial new investment to modernise the Nováky plant will be needed after 2021 to ensure it operates in compliance with new emission standards that apply from 2021 onwards.

([38]) The digital single market is the European Commission's strategy to complete a single market in e-commerce and online trade, by streamlining national regulations and moving from 28 national markets to a single market.

The regulatory framework for energy still has deficiencies. Electricity and gas prices for households, small businesses and customers under the ‘supplier of last resort’ regime are regulated, including the commodity component, although it does not constitute a natural monopoly that needs regulating. All household consumers and SMEs are considered as vulnerable consumers and therefore are supplied electricity and gas at regulated prices, which hampers market development. Alternatively, better-targeted measures for protecting vulnerable customers and less well-off households could be achieved through social policy means rather than energy policy measures.

Energy efficiency is still low and poses environmental and competitiveness issues. The energy intensity of the economy still ranks among the highest in the EU, partly due to the high share of industry, but is gradually improving. ([39]) In 2015 both primary and final energy consumption slightly increased compared to the previous year, thus reversing the improvement trend. Slovakia has already met its Europe 2020 target regarding primary energy consumption. ([40]) However, the 2016 national targets regarding energy savings in final energy consumption and energy savings in public buildings were undershot by 32 % and 56 % respectively. ([41])

Waste management and air quality

The use of landfills is excessive and recycling rates are very low. The country still landfills around 66 % (2016) of municipal waste, which is one of the highest rates in the EU-28. The recycling rate (including composting) remains low (23.2%, 2016) in comparison to the EU-28 average (46.3%, 2016) and Slovakia is at risk of missing its 2020 waste diversions targets.

Tax and fee-based tools to improve waste management are underutilised. Although a new Waste Act from January 2016 aims to introduce a new waste management system, its implementation has been difficult (Act amended in March and October 2017). A mandatory fee for consumers for single-use plastic bags is in force as of January 2018. Discussions on how to increase Slovakia’s comparatively low landfill fees resumed again in 2017 but there is still no incineration tax and illegal waste dumping remains a considerable problem in addition to long-standing environmental burdens, such as the former hazardous site of Vrakuňa. ([42])

Air quality continues to give cause for concern. Concentrations of air pollutants continue to exceed EU standards, especially for particulate matter (PM). ([43]) There are still delays in launching much-needed action to address domestic heating and road transport. Poor air quality still poses serious human health concerns. ([44]) Slovakia failed to ensure an appropriate number and type of sampling points for air quality monitoring and to provide sufficient valid data. ([45])

Slovakia's forests are under threat due to inadequate forest management and excessive logging. ([46]) Conflicts between nature conservation and forest management persist. Forest logging is rising and negatively impacts the stability of Slovakia’s ecosystems. ([47]) This situation has led to public protests and the petition “We are forest” collected exceptionally high number of signatures. ([48])

([39]) Energy intensity can be used as a proxy for energy efficiency. Energy intensity is defined as the amount of energy needed to produce one unit of GDP. With 214.7 kgoe/EUR 1 000 the energy intensity of the Slovak economy was the 7th highest in the EU in 2015, and almost 80 % higher than the EU average.

([40]) Primary energy consumption was 15.4 Mtoe in 2015, compared to the Europe 2020 target of 16.4 Mtoe. Final energy consumption was of 10.1 Mtoe compared to the target of 9.0 Mtoe.

([41]) European Commission (2017i)

([42]) The former landfill site of Vrakuňa causes high risks to waters with associated health problems. The estimated costs for cleaning and securing Vrakuňa are around EUR 30 million, but no measures have been taken yet.

([43]) European Environmental Agency (2017a)

([44]) Premature deaths in 2014: 5 160 from particulates (PM 2.5), 100 from nitrogen dioxide (NO_2), 160 from ozone (O_3); European Environment Agency (2017b)

([46]) http://europa.eu/rapid/press-release_MEMO-17-3494_en.htmhttp://europa.eu/rapid/press-release_MEMO-17-3494_en.htm

([47]) The Institute for Environmental Policy included forest management among the three biggest environmental challenges.https://www.minzp.sk/files/iep/01_2017_tri-vyzvy_zivotneho_prostredia.pdf

([47]) Slovak Environmental Agency: https://www.enviroportal.sk/indicator/detail?id=781

([48]) https://www.mysmeles.sk/

ANNEX A: OVERVIEW TABLE

Commitments	Summary assessment ([1])
2017 Country-specific recommendations (CSRs)	
CSR 1:	Slovakia has made **some progress** in addressing CSR 1
Pursue a substantial fiscal effort in 2018 in line with the requirements of the preventive arm of the Stability and Growth Pact, taking into account the need to strengthen the ongoing recovery and to ensure the sustainability of Slovakia's public finances.	This overall assessment of CSR 1 does not include an assessment of compliance with the Stability and Growth Pact.
Improve the cost-effectiveness of the healthcare system, including by implementing the value-for-money project.	**Some Progress** has been made in improving the cost-effectiveness of the healthcare system. Several commitments of the "Value-for-Money" project have been fulfilled and appear to have generated some positive, tangible changes leading to savings. Several key provisions aimed at significantly enhancing the cost-effectiveness of the system (e.g. introduction of a DRG payment system, strengthening the primary care sector and promoting integration of healthcare providers) are still in their pilot phase and are likely to face further delays and implementation challenges in the near future.
CSR 2:	Slovakia has made **some progress** in addressing CSR 2
Improve activation measures for disadvantaged groups, including by implementing the action plan for the long-term unemployed and by providing individualised services and targeted training.	**Some Progress;** Individual work integration agreements are being introduced and individualised counselling will follow. The client-to-specialised counsellor ratio in public employment services has improved but remains high. A basic profiling mechanism for the long-term unemployed has been introduced, but is only based on age and the duration of registration and therefore does not allow an in-depth assessment for subsequent referral. In addition, partnerships with NGOs are still missing. Some progress has been achieved towards increasing the provision of training of jobseekers (e.g. through the RE-PAS project).
Enhance employment opportunities for women, especially by extending affordable, quality childcare.	**Some Progress;** The legislative framework for childcare was extended, but capacities remain limited. Participation in pre-school education is stagnating, with differences in attendance persisting across the board. According to Eurostat, participation in early childhood education and care (ECEC) was 78.4 % in 2016, well below the EU average of 94.8 % (a 16.4 pp.

	difference). There are big regional disparities.
Improve the quality of education.	**Limited Progress;** To address declining educational outcomes, the national education strategy 'Learning Slovakia', developed through a comprehensive consultation process by experts and completed in September 2017, spells out a vision for regional and higher education reform. Progress on the reform has however been limited, as the document still needs to be translated into the official government National Education Strategy, with concrete action plans announced only for 2018.
Increase the participation of Roma in inclusive mainstream education.	**Limited Progress;** The country's socioeconomic and educational exclusion of its Roma communities is a key problem. The legislative amendments made to the School Act in 2015 have a potential to increase the participation of Roma pupils in inclusive mainstream education. However, they are not delivering the expected results due to the absence of an integrated approach. There is no systematic methodological guidance to schools, which would include concrete measures leading towards inclusive mainstream education and a specification of funding available for that purpose. Systematic monitoring and evaluation of the effectiveness of measures is lacking.
CSR 3:	Slovakia has made **limited progress** in addressing CSR 3
Improve competition and transparency in public procurement operations.	**Limited Progress** has been made in the implementation of a number of efficiency measures, including the European Single Procurement Document, e-ID and the 'once only' principle. The Slovak authorities have undertaken a feasibility study of options for further development of the electronic platform for procurement and are on track to transition to fully electronic procedures by October 2018, as required by the new Public Procurement Directive. Implementation of MEAT criteria in the construction and health sectors is starting, as well as a price mapping exercise and aggregated purchases of certain hospital equipment.
Step up the fight against corruption by stronger enforcement of existing legislation.	**No Progress;** There has been no increase in conviction statistics, and corruption cases involving PEPs / large public assets are not yet properly investigated. There is a decrease in the available human resources devoted to corruption cases at prosecutorial level, namely in the special prosecutions service.

Adopt and implement a comprehensive plan to lower administrative and regulatory barriers for businesses.	**Some Progress;** The Government adopted a package of measures to be implemented by 2019 to improve the business environment and boost investment
Improve the effectiveness of the justice system, including a reduction in the length of civil and commercial cases.	**Limited Progress;** Limited progress has been made towards improving the effectiveness of the justice system.
Europe 2020 (national targets and progress)	
Employment rate target: **72 %.**	The Slovak labour market has been on a continuous path of recovery, bolstered by rapid job creation. The employment rate grew to 69.8% in 2016, but remains below the EU average and the national target to be reached by 2020.
R&D target set in the NRP: **1.2 % of GDP** (where the private sector is to provide 2/3 of total expenditure)	0.79 % (2016) After meeting this target in 2015 (1.2%), RDI investment dropped significantly in 2016 (0.8%). Sustained effort is needed to attain the target again. This was accounted for by a fall in public RDI intensity from 0.84% in 2015 to 0.39% in 2016, which was to a large extent driven by the start of the new EU funding cycle and the slow start-up time for new projects, including in the RDI area. Meanwhile, business RDI intensity increased slightly from 0.33% in 2015 to 0.40% in 2016, but remains one of the lowest in the EU.
Greenhouse gas emissions, national target for non-ETS sectors: **max. 13%** increase by 2020 compared to 2005	Emissions are expected to be 12 % lower in 2020 than in 2005, according to national projections taking into account existing measures. This means that Slovakia is expected to overachieve its target by 25 percentage points. In 2016 emissions were 14 % lower than in 2005 (based on preliminary data), again overachieving the intermediate target for 2016 of a max. 9% rise.
2020 renewable energy target: **14%**	Slovakia had a 12.9% share of renewable energy in gross final consumption in 2015 (Eurostat). This was above the indicative goal for 2015/2016 of 10 % needed to stay on track towards its 2020 target.
Energy efficiency, 2020 energy consumption targets: **16.4 Mtoe** expressed in primary energy consumption (**9.0 Mtoe** expressed in final	Primary and final energy consumption continued to decrease in 2014 for both types of consumption. Primary energy consumption stood at 15.3 compared to the (now slightly lowered) EU 2020 target of 16.4 Mtoe and final energy consumption stood at 10.1 compared

energy consumption)	to the EU 2020 target of 9.0 Mtoe. Although Slovakia is on track to meet its target for 2020, additional efforts are warranted to keep primary energy consumption in check.
Early school leaving (ESL) target: **6 %.**	School dropout has risen and there are large regional disparities. The rate of early school leaving (ESL) is well below the EU average of 10.7%, at 7.4 % in 2016, but has deteriorated 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 12 %; compared to 4 % in western regions (see Figure 3 below). 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 was 12.3 % in 2016, close to the EU average of 11.5 %.
Tertiary education target: **40 %.**	The tertiary attainment rate rose by close to 8 pp. since 2012 to 31.5 % in 2016. While below the EU average of 39.1 %. Women (at 39.4 %) strongly outperformed men (at 24 %). Outgoing learning mobility remains low at only 4.5 % for ISCED 5-8 levels in 2015, e.g. compared to 8.2 % in the Czech Republic.
Reduce to a rate of **17.2%** the number of people living in poverty or social exclusion (compared to 20.6% in 2008; reduction of 170 000 persons between 2008 and 2020)	The number of people at risk of poverty or social exclusion has further fallen to 18.1%, and is significantly below EU average. As of 2016 there has been a cumulative decrease of 161 000 persons since 2008 (Eurostat).

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

No progress: The Member State has not credibly announced nor adopted any measures to address the CSR. Below a number of non-exhaustive typical situations that could be covered under this, to be interpreted on a case by case basis taking into account country-specific conditions:

no legal, administrative, or budgetary measures have been announced in the National Reform Programme or in other official communication to the national Parliament / relevant parliamentary committees, the European Commission, or announced in public (e.g. in a press statement, information on government's website);

no non-legislative acts have been presented by the governing or legislator 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 that would need to be taken (unless the CSR explicitly asks for orientations or exploratory actions), while clearly-specified measure(s) to address the CSR has not been proposed.

Limited progress: The Member State has:

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

and/or

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

presented non-legislative acts, yet with no further follow-up in terms of implementation which is needed to address the CSR.

Some progress: The Member State has adopted measures that partly address the CSR

and/or

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

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

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

ANNEX B: MACROECONOMIC IMBALANCE PROCEDURE SCOREBOARD

Table B.1: **MIP Scoreboard (AMR 2018)**

			Thresholds	2011	2012	2013	2014	2015	2016
External imbalances and competitiveness	Current account balance, % of GDP	3 year average	-4%/6%	-4.4	-2.9	-0.7	1.3	0.4	-0.7
	Net international investment position	% of GDP	-35%	-64.4	-61.4	-62.3	-63.6	-64.6	-62.4
	Real effective exchange rate - 42 trading partners, HICP deflator	3 year % change	±5% (EA) ±11% (Non-EA)	3.4	-3.2	2.1	1.2	-1.1	-1.6
	Export market share - % of world exports	5 year % change	-6%	-2.6	-9.9	-3.7	2.3	4.5	7.3
	Nominal unit labour cost index (2010=100)	3 year % change	9% (EA) 12% (Non-EA)	6.1	0.8	2.2	1.8	2.4	3.5
Internal imbalances	House price index (2015=100), deflated	1 year % change	6%	-5.2	-6.0	-0.4	1.5	5.5	7.0
	Private sector credit flow, consolidated	% of GDP	14%	3.0	3.4	5.2	5.1	7.7	9.2
	Private sector debt, consolidated	% of GDP	133%	70.2	77.9	82.9	87.8	88.1	94.7
	General government gross debt	% of GDP	60%	43.7	52.2	54.7	53.5	52.3	51.8
	Unemployment rate	3 year average	10%	13.4i	14.1i	14.0i	13.8	13.0	11.5
	Total financial sector liabilities, non-consolidated	1 year % change	16.5%	0.3	0.7	1.7	8.7	10.8	8.5
Employment indicators	Activity rate - % of total population aged 15-64	3 year change in pp	-0.2 pp	-0.1b	1.0	1.2	1.6b	1.5	2.0
	Long-term unemployment rate - % of active population aged 15-74	3 year change in pp	0.5 pp	2.6b	2.9	0.8	0.1	-1.8	-4.2
	Youth unemployment rate - % of active population aged 15-24	3 year change in pp	2 pp	14.4i	6.4	-0.2	-4.0	-7.5	-11.5

Flags:b:Break in series.
1) This table provides data as published under the Alert Mechanism Report 2018, which reports data as of 24 Oct 2017. Please note that figures reported in this table may therefore differ from more recent data elsewhere in this document.
2) Unemployment rate: i = Eurostat back-calculation to include 2011 Population Census results.
3) Youth unemployment rate: i = Eurostat back-calculation to include 2011 Population Census results.
4) Figures highlighted are those falling outside the threshold established in the European Commission's Alert Mechanism Report.
Source: European Commission 2017, Statistical Annex to the Alert Mechanism Report 2018, SWD (2017) 661.

ANNEX C: STANDARD TABLES

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

	2012	2013	2014	2015	2016	2017
Total assets of the banking sector (% of GDP)(1)	82.1	82.3	84.4	87.6	90.1	89.8
Share of assets of the five largest banks (% of total assets)	70.7	70.3	70.7	72.3	72.7	-
Foreign ownership of banking system (% of total assets)(2)	88.4	88.1	84.3	85.1	83.6	83.9
Financial soundness indicators:2)						
- non-performing loans (% of total loans)(3)	3.8	3.8	4.1	3.5	3.9	3.6
- capital adequacy ratio (%)	15.9	17.5	17.3	17.7	18.0	18.6
- return on equity (%)(4)	9.0	10.0	9.2	9.7	9.9	5.3
Bank loans to the private sector (year-on-year % change)(1)	3.8	6.4	7.4	10.4	10.0	11.7
Lending for house purchase (year-on-year % change)(1)	11.1	11.9	13.6	13.8	14.4	13.6
Loan to deposit ratio(1)	87.2	87.9	91.2	91.5	95.1	99.5
Central Bank liquidity as % of liabilities	-	-	1.1	1.2	1.3	1.7
Private debt (% of GDP)	77.9	82.9	87.8	88.1	94.7	-
Gross external debt (% of GDP)(2) - public	24.2	32.9	37.9	33.6	32.8	31.3
- private	28.2	32.1	30.6	31.2	33.0	34.1
Long-term interest rate spread versus Bund (basis points)*	305.8	161.8	90.8	38.9	45.3	62.0
Credit default swap spreads for sovereign securities (5-year)*	191.5	83.7	53.3	44.9	39.2	38.8

1) Latest data Q3 2017. Includes not only banks but all monetary financial institutions excluding central banks.
2) Latest data Q2 2017.
3) As per ECB definition of gross non-performing debt instruments
4) Quarterly values are not annualised
* Measured in basis points.
Sources:
European Commission (long-term interest rates); World Bank (gross external debt); Eurostat (private debt); ECB (all other indicators).

Sources: Sources:
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**

	2012	2013	2014	2015	2016	2017 [5]
Equal opportunities and access to the labour market						
Early leavers from education and training (% of population aged 18-24)	5.3	6.4	6.7	6.9	7.4	:
Gender employment gap (pps)	15.5	14.4	14.6	14.7	14.2	12.7
Income inequality, measured as quintile share ratio (S80/S20)	3.7	3.6	3.9	3.5	3.6	:
At-risk-of-poverty or social exclusion rate[1] (AROPE)	20.5	19.8	18.4	18.4	18.1	:
Young people neither in employment nor in education and training (% of population aged 15-24)	13.8	13.7	12.8	13.7	12.3	:
Dynamic labour markets and fair working conditions†						
Employment rate (20-64 years)	65.1	65.0	65.9	67.7	69.8	71.0
Unemployment rate[2] (15-74 years)	14.0	14.2	13.2	11.5	9.7	8.1
Gross disposable income of households in real terms per capita[3] (Index 2008=100)	:	:	101.8	106.0	109.2	:
Public support / Social protection and inclusion						
Impact of social transfers (excluding pensions) on poverty reduction[4]	34.0	36.3	35.7	35.3	31.0	:
Children aged less than 3 years in formal childcare	5.0	4.0	6.5	1.1	0.5	:
Self-reported unmet need for medical care	2.2	1.9	2.1	2.1	2.3	:
Individuals who have basic or above basic overall digital skills (% of population aged 16-74)	:	:	:	53.0	55.0	59.0

† The Social Scoreboard includes 14 headline indicators, of which 12 are currently used to compare Member States performance. The indicators "participants in active labour market policies per 100 persons wanting to work" and "compensation of employees per hour worked (in EUR)" are not used due to technical concerns by Member States. Possible alternatives will be discussed in the relevant Committees.
(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) Gross disposable household income is defined in unadjusted terms, according to the draft Joint Employment Report 2018.
(4) 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).
(5) Average of first three quarters of 2017 for the employment rate and gender employment gap.
Source: Eurostat

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

Labour market indicators	**2012**	**2013**	**2014**	**2015**	**2016**	**2017 [5]**
Activity rate (15-64)	69.4	69.9	70.3	70.9	71.9	:
Employment in current job by duration						
From 0 to 11 months	8.1	8.0	9.6	11.7	12.0	:
From 12 to 23 months	7.7	7.1	7.3	8.2	8.6	:
From 24 to 59 months	18.7	17.9	17.8	16.3	16.9	:
60 months or over	65.5	66.9	65.3	63.8	62.5	:
Employment growth* (% change from previous year)	0.1	-0.8	1.4	2.0	2.4	2.2
Employment rate of women (% of female population aged 20-64)	57.3	57.8	58.6	60.3	62.7	64.6
Employment rate of men (% of male population aged 20-64)	72.8	72.2	73.2	75.0	76.9	77.3
Employment rate of older workers* (% of population aged 55-64)	43.1	44.0	44.8	47.0	49.0	52.6
Part-time employment* (% of total employment, aged 15-64)	4.0	4.5	5.1	5.8	5.8	5.8
Fixed-term employment* (% of employees with a fixed term contract, aged 15-64)	6.7	6.8	8.8	10.5	9.9	9.4
Transition rate from temporary to permanent employment (3-year average)	40.9	41.2	39.4	35.7	:	:
Long-term unemployment rate[1] (% of labour force)	9.4	10.0	9.3	7.6	5.8	5.1
Youth unemployment rate (% active population aged 15-24)	34.0	33.7	29.7	26.5	22.2	18.6
Gender gap in part-time employment	2.7	2.9	3.1	4.0	3.8	4.0
Gender pay gap[2] (in undadjusted form)	20.8	18.8	19.7	19.6	:	:
Education and training indicators	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Adult participation in learning (% of people aged 25-64 participating in education and training)	3.2	3.1	3.1	3.1	2.9	:
Underachievement in education[3]	27.5	:	:	27.7	:	:
Tertiary educational attainment (% of population aged 30-34 having successfully completed tertiary education)	23.7	26.9	26.9	28.4	31.5	:
Variation in performance explained by students' socio-economic status[4]	24.6	:	:	16.0	:	:

* Non-scoreboard indicator
(1) Long-term unemployed are people who have been unemployed for at least 12 months.
(2) 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.
(3) PISA (OECD) results for low achievement in mathematics for 15 year-olds.
(4) Impact of socio-economic and cultural status on PISA (OECD) scores. Values for 2012 and 2015 refer respectively to mathematics and science.
(5) Average of first three quarters of 2017, unless for the youth unemployment rate (annual figure).
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	:	:
Disability	1.6	1.6	1.6	1.6	:	:
Old age and survivors	7.7	7.9	8.2	8.1	:	:
Family/children	1.7	1.7	1.7	1.6	:	:
Unemployment	0.7	0.6	0.5	0.5	:	:
Housing	0.0	0.0	0.0	0.0	:	:
Social exclusion n.e.c.	0.4	0.4	0.4	0.3	:	:
Total	17.5	17.8	18.0	17.7	:	:
of which: means-tested benefits	0.9	0.9	0.9	0.8	:	:
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	:	:
Children at risk of poverty or social exclusion (% of people aged 0-17)*	26.6	25.5	23.6	24.9	24.4	:
At-risk-of-poverty rate[1] (% of total population)	13.2	12.8	12.6	12.3	12.7	:
In-work at-risk-of-poverty rate (% of persons employed)	6.2	5.7	5.7	6.0	6.5	:
Severe material deprivation rate[2] (% of total population)	10.5	10.2	9.9	9.0	8.2	:
Severe housing deprivation rate[3], by tenure status						
Owner, with mortgage or loan	2.9	3.9	1.6	3.2	:	:
Tenant, rent at market price	12.3	9.1	9.4	7.6	6.7	:
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	:
Poverty thresholds, expressed in national currency at constant prices*	3710	3478	3465	3530	3553	:
Healthy life years (at the age of 65)						
Females	3.1	3.7	3.6	3.8	:	:
Males	3.5	4.2	4.3	4.1	:	:
Aggregate replacement ratio for pensions[5] (at the age of 65)	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	:
GINI coefficient after taxes and transfers*	25.3	24.2	26.1	23.7	24.3	:

* 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	2010	2011	2012	2013	2014	2015	2016
Labour productivity (real, per person employed, year-on-year % change)							
Labour productivity in Industry	17.86	1.20	1.42	0.65	11.00	5.37	5.98
Labour productivity in Construction	-4.93	10.40	9.84	-7.81	3.07	3.45	-3.32
Labour productivity in Market Services	2.27	-1.20	1.41	1.13	2.71	1.55	-1.91
Unit labour costs (ULC) (whole economy, year-on-year % change)							
ULC in Industry	-14.76	3.26	4.51	3.41	-7.34	-1.82	-2.01
ULC in Construction	9.36	-6.64	-8.08	10.80	-3.59	1.71	4.93
ULC in Market Services	1.09	5.94	-0.07	1.26	0.70	3.36	4.57
Business Environment	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
Time needed to enforce contracts(1) (days)	565.0	565.0	545.0	545.0	705.0	705.0	705.0
Time needed to start a business(1) (days)	17.5	17.5	13.5	18.5	11.5	11.5	11.5
Outcome of applications by SMEs for bank loans(2)	na	0.92	na	1.07	0.83	0.65	0.61
Research and innovation	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
R&D intensity	0.62	0.66	0.80	0.82	0.88	1.18	0.79
General government expenditure on education as % of GDP	4.20	4.10	4.10	4.00	4.10	4.20	na
Persons with tertiary education and/or employed in science and technology as % of total employment	39	38	37	37	37	37	38
Population having completed tertiary education(3)	15	16	17	18	18	19	20
Young people with upper secondary level education(4)	93	93	93	91	91	91	90
Trade balance of high technology products as % of GDP	-3.17	-4.93	-5.55	-5.32	-5.07	-5.92	na
Product and service markets and competition					**2003**	**2008**	**2013**
OECD product market regulation (PMR)(5), overall					2.18	1.62	1.29
OECD PMR5, retail					1.14	1.04	1.75
OECD PMR5, professional services					na	na	2.90
OECD PMR5, network industries(6)					3.33	2.28	1.88

(1) The methodologies, including the assumptions, for this indicator are shown in detail here: http://www.doingbusiness.org/methodology.
(2) 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 most of it, two if only received a limited part of it, three if refused or rejected and treated as missing values if the application is still pending or don't know.
(3) Percentage population aged 15-64 having completed tertiary education.
(4) Percentage population aged 20-24 having attained at least upper secondary education.
(5) 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
(6) 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		2011	2012	2013	2014	2015	2016
Macroeconomic							
Energy intensity	kgoe / €	0.25	0.24	0.24	0.22	0.21	0.21
Carbon intensity	kg / €	0.65	0.61	0.60	0.55	0.54	-
Resource intensity (reciprocal of resource productivity)	kg / €	1.07	0.91	0.86	0.92	0.90	0.85
Waste intensity	kg / €	-	0.12	-	0.12	-	-
Energy balance of trade	% GDP	-6.4	-5.9	-5.9	-4.3	-3.5	-2.7
Weighting of energy in HICP	%	15.40	18.91	16.48	16.18	15.54	14.87
Difference between energy price change and inflation	%	4.7	1.8	-1.9	-2.0	-2.0	-2.4
Real unit of energy cost	% of value added	30.9	30.2	28.9	25.5	-	-
Ratio of environmental taxes to labour taxes	ratio	0.12	0.11	0.11	0.11	0.11	-
Environmental taxes	% GDP	1.8	1.7	1.7	1.8	1.8	1.8
Sectoral							
Industry energy intensity	kgoe / €	0.25	0.26	0.26	0.24	0.22	0.20
Real unit energy cost for manufacturing industry excl. refining	% of value added	26.2	25.4	23.6	22.8	-	-
Share of energy-intensive industries in the economy	% GDP	14.17	14.38	13.40	15.11	16.89	18.95
Electricity prices for medium-sized industrial users	€ / kWh	0.13	0.13	0.13	0.12	0.11	0.11
Gas prices for medium-sized industrial users	€ / kWh	0.04	0.04	0.04	0.04	0.03	0.03
Public R&D for energy	% GDP	0.01	0.00	0.00	0.01	0.01	0.01
Public R&D for environmental protection	% GDP	0.01	0.01	0.01	0.01	0.01	0.01
Municipal waste recycling rate	%	10.3	13.3	10.8	10.3	14.9	23.0
Share of GHG emissions covered by ETS*	%	51.1	50.7	50.9	51.5	51.2	51.9
Transport energy intensity	kgoe / €	0.71	0.62	0.63	0.46	0.40	0.53
Transport carbon intensity	kg / €	1.89	1.81	1.81	1.34	1.23	-
Security of energy supply							
Energy import dependency	%	64.3	60.2	59.2	60.9	58.7	59.0
Aggregated supplier concentration index	HHI	71.9	66.1	68.9	70.4	68.5	-
Diversification of energy mix	HHI	0.22	0.22	0.22	0.21	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 (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 consumption 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 consumption of transport activity (kgoe) divided by transport industry gross value added (in 2010 EUR)
Transport carbon intensity: GHG emissions in transport activity divided by gross value added of the transport sector
Energy import dependency: net energy imports divided by gross inland energy consumption incl. consumption of international bunker fuels
Aggregated supplier concentration index: covers oil, gas and coal. Smaller values indicate larger diversification and hence lower risk.
Diversification of the energy mix: Herfindahl index covering natural gas, total petrol products, nuclear heat, renewable energies and solid fuels
* 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 and GDP); Eurostat (all other indicators)

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