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Main findings and recommendations

Positive shifts in the recent years

In 2016–2018, Slovenia was narrowing its development gap with the EU average, the development in the period of economic growth was generally inclusive and the efficiency of energy and resource consumption increased slightly. Since 2016, the gap with the average gross GDP per capita in the EU, which widened in 2009–2012, has been rapidly narrowing amid strong economic growth, but Slovenia is still quite far from the Slovenian Development Strategy (SDS) target for 2030. With the adoption of comprehensive measures to stabilise public finances and the recovery of economic activity, the public finance situation has also improved significantly since 2013. With the recovery of all statistical regions, regional disparities have remained stable. Disparities between the cohesion regions have increased somewhat, but remain below the highest level from 2007. The economic upturn was reflected in an increase in employment and income and accelerated robotisation and automation of production. Since 2015, the number of researchers has also been growing rapidly, especially in the business sector, which may underpin development momentum. The indicators of social exclusion and income inequality have improved after a deterioration in 2009–2013 and are close to the SDS 2030 targets. With forests covering a large part of the country, a large proportion of protected areas and moderate agricultural intensity, the natural environment in Slovenia remains, on average, well preserved. During the latest period of economic upturn (2014–2019), resource and energy consumption started to increase again and with it greenhouse gas emissions. The efficiency of resource and energy consumption has otherwise improved, but it still lags behind the EU average and thus behind the SDS 2030 target.

Development risks

In some areas, developments have deviated from the strategic orientations of the SDS 2030, the slow response to technological, demographic and climate change being particularly problematic. Growth in investment and, in particular, productivity, which is a key long-term factor of economic development and the well-being of the population, has remained modest since the economic and financial crisis. Slovenia's gap with the EU average in the field of innovation, the most important long-term productivity factor, had widened by 2016 (the latest available data). In 2013–2017, R&D investment was decreasing and the introduction of the most sophisticated technological solutions for digital transformation was too slow. In recent years the problem of the shortage of appropriate knowledge and skills has been exacerbated by demographic change and labour market mismatch. The labour market segmentation of young people also remains high. In the health dimension, the shortening of waiting times is a major challenge, as well as reducing health risk behaviours (alcohol and drug abuse, smoking, being overweight), especially among the most vulnerable groups. Moreover, social protection systems are insufficiently adapted to demographic change. Slovenia has so far managed to keep age-related expenditure below the EU average, but long-term expenditure projections show a strong negative impact on the long-term sustainability of public finances if current policies remain unchanged and people continue to retire relatively early. The dedicated resources (social contributions) are already insufficient to cover all expenditure necessary to retain adequate pensions and easily accessible public health services. Unresolved funding issues are also among the main obstacles to establishing a new systemic regulation of long-term care. From the aspect of the environmental dimension, sustainable development is negatively affected particularly by a further increase in GHG emissions from transport, several-year stagnation in the use of renewable energy sources and insufficiently sustainable land use.

Recommendations for development policy

In view of the rapid spread of COVID-19 in the world and Slovenia, the short-term economic policy priorities are related to preventing the spread and mitigating its socio-economic consequences; at the same time, it is also reasonable that measures to revive the economy would address the development weaknesses identified in the Development Report. In March 2020 Slovenia declared a coronavirus epidemic, which, with its enormous negative socio-economic impact, will significantly change the baselines for the realisation of the SDS 2030. In the short term, an absolute priority is measures to support the functioning of the health system and, in the economic area,

measures to alleviate the consequences of the epidemic, which will help businesses and the population bridge liquidity problems due to loss of income and ensure, as much as possible, the preservation of jobs and social potential. For an effective exit from the crisis, the period of the epidemic should also be used to the greatest possible extent for addressing developmental changes (for example for training, education, research and development, acceleration of digitisation, etc.). The current situation has shown that in areas where Slovenia has not taken appropriate action in the past or where progress has been too slow, it is even more vulnerable in the time of the epidemic (e.g. a high share of precarious jobs, no systemic regulation of long-term care, waiting times in health care, lack of digital skills among the population, administrative barriers and length of certain procedures). Measures to normalise the economic and social situation should therefore be designed in such a way that they are also geared, as much as possible, towards solving Slovenia's main development challenges. Among these, we have highlighted the following areas:

- **Accelerating productivity growth** by increasing investment in (i) R&D and innovation, (ii) digital transformation and Industry 4.0, (iii) knowledge or the provision of appropriately qualified human resources, in particular the so-called skills and competences of the future, and (iv) infrastructure for digital connectivity and sustainable development;
- **Adapting to demographic change** by (i) reforming social protection systems in such a way as to ensure high-quality health and long-term care services and adequate income, (ii) ensuring a sufficient workforce, (iii) strengthening lifelong learning and adapting workplaces to allow older people to remain active longer and to better integrate into society, and (iv) promoting healthy lifestyles;
- **Transitioning to a low-carbon circular economy** by (i) accelerating the introduction of sustainable mobility solutions, (ii) introducing low-carbon and circular business models, including the more efficient dealing with waste disposal problems, and (iii) significantly increasing the capacity for greater use of renewable energy sources, particularly by more efficiently siting new development projects.
- **Strengthening the developmental role of the government and its institutions** by (i) improving the strategic governance of public institutions for early identification and the coordinated and effective dealing with developmental challenges, (ii) improving the legislative and business environment, and (iii) restructuring general government revenue and expenditure in line with development challenges.

Summary of the findings according to the strategic orientations of the Slovenian Development Strategy 2030 (SDS 2030)

A highly productive economy, which creates value added for all

Slovenia's gap with the EU average in economic development has been rapidly narrowing in recent years, but productivity growth remains modest. In 2014–2019, the Slovenian economy was in a phase of expansion, but in 2018 and 2019 its growth was moderating under the impact of international developments. Since the economic and financial crisis, the economic situation has improved in all statistical regions. Disparities between them have been stable, while disparities between the cohesion regions have increased somewhat, although still remaining below the highest level in 2007. Public finance indicators have also improved with the favourable economic situation, but the risks to their long-term sustainability remain, as the social protection systems are not adapted to demographic change. The gap with the EU average in GDP per capita has also narrowed rapidly since 2016, but mainly under the impact of strong growth in employment. However, amid low investment, productivity growth has remained modest in the latest period of economic upturn. Owing to demographic constraints, the long-term stability of economic development for Slovenia to catch up with the EU average and thus move closer to the SDS 2030 target could only be achieved by much faster productivity growth. This needs to be supported by stronger investment focused primarily on R&D and innovation where Slovenia lags far behind, and on digital transformation with an emphasis on accelerated human resource development (for the jobs of the future), the introduction of smart factories and digitalisation of small and medium-sized enterprises. To achieve sustainable development goals, productivity growth will also have to derive from increased investment in a low-carbon and circular economy, including investment in infrastructure. The challenge is not only to ensure sufficient financial resources and appropriate knowledge and skills, but also to effectively reduce the administrative barriers that businesses are increasingly calling attention to.

Lifelong learning

Despite its relatively well-educated population and a high level of skills and knowledge among young people, Slovenia has faced increasing difficulty ensuring appropriate knowledge and skills in recent years. Among EU countries, it boasts an above-average and rising share of the population with higher education and good performance of young people in science, mathematics and reading. The increasing internationalisation of education is also positive. The enrolment structure has also been changing for several years now, moving towards meeting the needs of the labour market. Slovenia has nevertheless faced a shortage of appropriately qualified workers in the period of high demand for labour that has been present in the last years, which can have a long-term negative impact on economic development and the well-being of the population. The shortage of workers is, however, also a consequence of the smaller cohorts of young people entering the labour market (demographic change) and hence a shrinking labour supply. Against the background of demographic change, the full exploitation of potential is also hampered by imbalances between the supply of knowledge and skills and the needs of the labour market. These are however also very rapidly changing with fast technological progress and the changing age structure of the population, and they will change even faster in the future in light of the fourth industrial revolution. All of this requires very fast and much more radical action to ensure appropriately qualified human resources and the necessary knowledge and skills. The priority tasks are (i) the establishment of a system for identifying and anticipating skill needs, (ii) a more efficient adaptation of education programmes, in particular to the medium- and long-term needs of society and the economy, (iii) the creation of a supportive environment to attract and retain workers with appropriate knowledge and skills, and (iv) a significant strengthening of lifelong learning, especially for workers whose jobs are the most exposed to automation. The latter would also improve the possibilities of people to remain active longer and contribute to the better integration of older people into society and a higher quality of their life, thus significantly mitigating the consequences of demographic change.

An inclusive, healthy, safe and responsible society

Slovenia's development after 2014 has generally been inclusive, but in terms of quality of life a major challenge remains in adapting the social protection system to demographic and other changes in a broader economic and social environment and further improving the health status of the population. Strong economic growth has facilitated growth in employment and disposable income and the indicators of social exclusion and income inequalities have largely returned to their relatively favourable pre-2008 levels after worsening

during the economic and financial crisis. Long-term unemployment has also decreased. Development towards an inclusive society is also indicated by the relatively high participation of the population in social life and relatively low gender inequalities in most areas of life. The at-risk-of-poverty rate was still somewhat higher in 2018 than before 2008, being especially high among older women. From the perspective of inclusive development, the persisting labour market segmentation remains a problem. It is high particularly for young people. In the health dimension, a sharp decline in mortality that can be avoided through health care (2011–2016) is positive in particular. However, many more deaths could still be avoided by better preventive measures to reduce health risk behaviour (alcohol and drug abuse, smoking, being overweight) and public health measures. Life expectancy has also ceased to rise in recent years and health inequalities have increased again. In addition to health-related measures, the key challenge to maintaining quality of life in old age is to establish a unified system of long-term care. Here, the needs are rising even faster than in health care, but, given the inadequately regulated long-term care system, a significant share of them already remain unmet. To be able to make changes in this area, the issue of financing the new system must be resolved as soon as possible. Dedicated resources (social contributions) are already insufficient to cover all pension expenditures and to maintain adequate pensions and good access to public health services. New sources of funding (public and private) will therefore also have to be considered in these areas, but to preserve the highest possible level of dedicated resources, it will be crucial to remain in employment as long as possible.

A well-preserved, healthy natural environment

The natural environment in Slovenia is on average still well preserved, but the transition to a low-carbon circular economy is too slow. With a large proportion of protected areas, forests covering a large area and moderate agricultural intensity, the natural environment is not excessively polluted on average. Two problems that nevertheless stand out are increasingly poor air quality due to particle pollution and unsustainable land use related to poorly utilized or abandoned areas. Greenhouse gas emissions and energy and resource consumption, which fell considerably in the years of the economic and financial crisis, have risen again during the economic boom. The ecological footprint has thus increased, but as growth in emissions and energy and resource consumption has been lower than growth in GDP, the productivity and the efficiency of energy and resource consumption have been rising. However, given the significant lag behind the EU average, the shifts have been relatively slow. To achieve the sustainable development goals, it is essential to strengthen cross-sectoral coordination of economic development policies and reduce environmental pressures. Priority tasks in this area include (i) accelerating the introduction of sustainable mobility solutions, as transport emissions are high and not decreasing, (ii) introducing low-carbon and circular business models, including more efficiently dealing with waste management problems, and (iii) significantly increasing the use of renewable energy sources, which has been unchanged for a number of years, in particular through the more efficient siting of new development projects.

A high level of cooperation, competence and governance efficiency

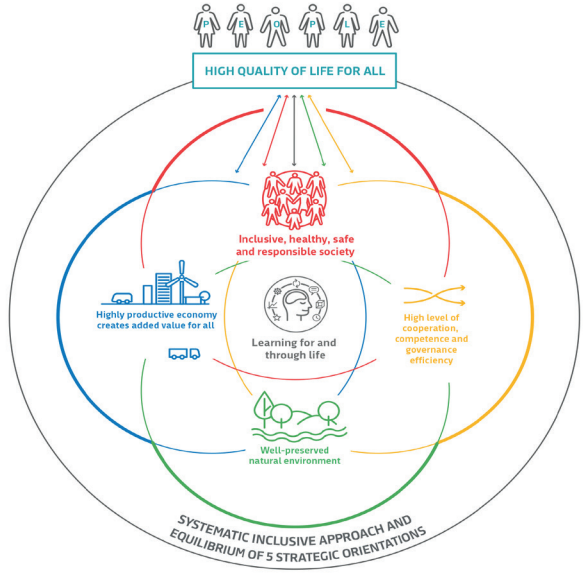
The efficiency of the government in supporting the business sector and promoting development has improved in a number of areas; the main challenges remain reducing administrative burdens and further improving the governance of public institutions. Slovenia has made significant progress in introducing quality standards in public administration in recent years. It has also taken measures to reduce administrative barriers and corruption and made progress in the digital transformation of the public sector, although digital public services for businesses remain a problem. The efficiency of the judiciary has also improved, its quality being comparable with that in other EU countries. Trust in public institutions, politicians and the rule of law is still low, as is the degree of representative democracy, while the level of perceived corruption remains high. Managers have emphasised excessive bureaucracy and an insufficiently supportive business environment as the main obstacles to doing business in recent years, in particular the length of some procedures and the high tax burden on labour (although this does not exceed the EU average as a share of GDP). All of this points to a number of challenges related to the strategic management of public institutions, which is particularly important for the timely identification of development challenges and the coordinated and effective dealing with them. In the medium term, it is also vital to improve cooperation between the public and the key actors involved in the adoption of measures. It is also necessary to strengthen analyses and assessments of the potential impact of proposed regulations on public finances, the economy, the environment and society as a whole.

Introductory remarks

The Development Report is a document monitoring the implementation of the Slovenian Development Strategy. The basic structure of the report (the main chapters) follows the five strategic orientations that the SDS identified as crucial for achieving its primary goal to ensure a high quality of life for all: (i) a highly productive economy that creates added value for all, (ii) lifelong learning, (iii) an inclusive, healthy, safe and responsible society, (iv) a well-preserved natural environment, and (v) a high level of cooperation, competence and governance efficiency. The SDS also set 12 development goals in interconnected and interdependent areas identified as essential for the implementation of the strategic orientations. The report tracks the implementation of each development goal (sub-chapters of the report) within the strategic orientation with which it is most strongly linked, although each individual goal can contribute to the realisation of several strategic orientations (see Slovenian Development Strategy 2030, Figure 6). As at the time the report was prepared, data for most indicators were only available for 2018 and only for some also for 2019,* the report analyses developments in a very early period after the adoption of the strategy, which means that the actual implementation of the SDS could not yet be fully analysed. At the same time, however, this also means that data for the period after the outbreak of the COVID-19 epidemic were not yet available at the time of the preparation of the report. The report therefore does not analyse this period, but it does touch on changes related to the spread of the disease in the Main Findings and Recommendations chapter.

The appendix to the report presents indicators for monitoring the implementation of the SDS in more detail. The 30 performance indicators for which the SDS set target values for 2030 are complemented by indicators that provide a detailed overview of progress in individual areas. These represent the main analytical basis of the report, which is complemented by an overview of other data, studies and research reports, particularly for those areas where no appropriate indicators for comparisons between countries or over time are available. In comparisons of developments in Slovenia with the EU average, the EU-28 average is used, as we analyse the period before 2020, i.e. before the UK's withdrawal from the EU. The EU-13 refers to the average of the Member States that joined the EU in 2004, and the EU-23 to the average of those that are also members of the OECD (this comparison is used in the case of OECD data sources, which do not generally include all EU Member States).

Figure 1: Primary objective and strategic orientations of the Slovenian Development Strategy 2030



Source: Slovenian Development Strategy 2030, 2017.

* The report uses statistical data released by 31 March 2020.

1 A highly productive economy that generates value added for all

In 2014–2019, the Slovenian economy experienced a period of economic growth, though in 2018 and in 2019, the economic growth slowed down due to international economic developments. Due to the relatively high economic growth, the gap in GDP per capita with the EU average has been narrowing since 2016 and material conditions for well-being have improved. Since 2014, economic conditions have improved in all statistical regions, with stable differences between them, though there has been a slight increase in differences between the two cohesion regions. Due to the favourable economic conditions, the indicators measuring public finances have improved, but risks to their long-term sustainability remain, these arising from a lack of adjustment of systems of social protection to demographic trends. Productivity growth remained modest even in the period of economic growth 2014–2019 but it helped restore competitiveness in the post-crisis period. In the medium-term, a more radical shift in productivity growth will be needed to bridge the development gap due to the expected labour shortage owing to demographic trends. Strengthened investment for higher productivity growth will need to be directed mainly to R&D and innovation activity, where Slovenia considerably lags behind, and to the digital transformation by way of an accelerated development of human resources (of the future), the introduction of smart factories and the digitalisation of SMEs. In order to achieve the sustainable development goals, productivity growth will need to arise mainly from investment in the low-carbon and circular economy.

1.1 Economic stability

Economic stability (Development Goal 5)

The aim is to secure economic stability, which is a key precondition for bridging the gap with more developed countries and improving the quality of life for all. The basis of economic stability is a well-performing economy which maintains key macroeconomic balances. The achievement and preservation thereof require appropriate economic policy action throughout the economic cycle, long-term sustainability of public finances, a stable and competitive financial sector, and balanced regional development. With regard to economic stability, SDS 2030 highlights competitiveness and innovation along with sustainable and inclusive aspects of economic development. These are dealt with in depth in other SDS development goals, namely Goals 6 (competitiveness and innovation), 3 and 7 (inclusive development), and 8 and 9 (sustainable development).

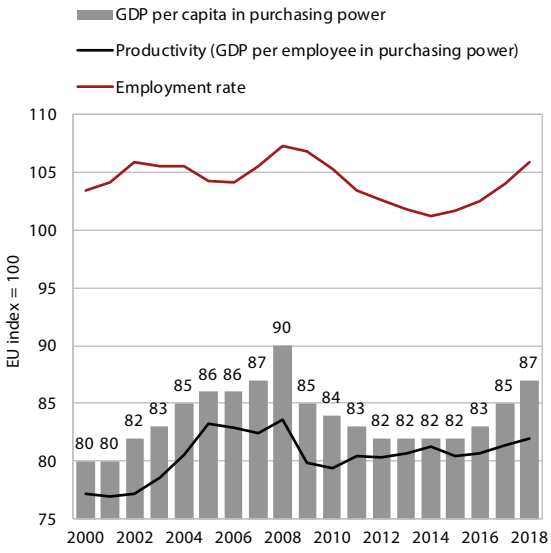
SDS 2030 performance indicators for Development Goal 5:

	Latest data		Target value for 2030
	Slovenia	EU average	
GDP per capita (in PPS), index EU-28 = 100	87 (2018)	100 (2018)	100
General government debt, in % GDP	66.1 (2019)	80.4 (2018)	60

Since 2016, Slovenia has rapidly narrowed the development gap with the EU average and with this, material well-being has also increased. In 2018, GDP per capita (in purchasing power standards) stood at 87% of the EU average, which is five percentage points higher than the lowest value after the onset of the crisis in 2008. The bridging of the gap with the EU average has been mainly boosted by the rising employment rate and, to a minor extent, by the productivity growth (see Figure 2). Due to the rising employment rate and productivity growth, the income of the population increased, while the income inequality rate improved and fell to the pre-crisis level of 2008, remaining one of the lowest in the EU (see Section 3). In favourable economic conditions, the consumption of energy and material and greenhouse gas emissions increased, but not more than the GDP. This might point to a gradual decoupling between growth in resource consumption and GDP, but it is still relatively slow in the context of sustainable development goals (see Section 4).

An acceleration of productivity growth in an environmentally and socially sustainable manner will be necessary in order to further narrow the gap with more developed economies and to promote the well-being of the population. Despite its increase, productivity[1] remained substantially lower than the EU average (by 18% in 2018). Considering the already relatively high employment rate (6% above the EU average in 2018; see Indicator 1.1) and the decline of labour force supply due to demographic changes, economic growth will need to be based almost entirely on productivity growth in the future. This indicates that, in order to further narrow the gap in economic development relative to the EU average and reach the SDS goal, productivity growth will need to be substantially accelerated.[2] An accelerated productivity growth would benefit the well-

Figure 2: Breakdown of per capita GDP into employment rate and labour productivity, Slovenia



Source: Eurostat Portal Page – Economy and Finance, 2020; calculations by IMAD

[1] Measured in GDP per employee in purchasing power standards.

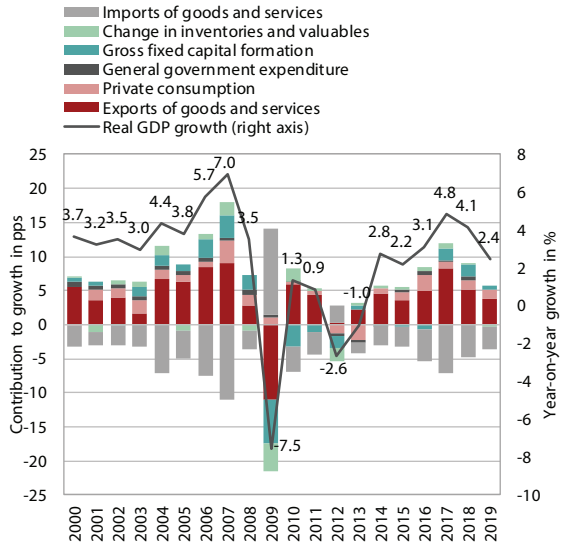
[2] For example, assuming that the employment rate does not increase, productivity growth would need to increase to about 3% annually, after standing at 1.2% during the period of favourable economic conditions in 2014–2019, in order for about 3% economic growth to be achieved, which is what would be needed to further bridge the gap in GDP per capita with the EU average and reach the SDS goal. Reaching zero employment growth would require positive migration flows and an increased participation rate of the working age population due to the diminishing size of the population aged 20–64 (owing to demographic trends).

being of the population, since it would increase income growth and would also mitigate the financing pressures on systems of social protection. In order to improve the well-being of the population, productivity growth will need to be accelerated in an environmentally and socially sustainable manner without increasing income inequality and by mitigating environmental pressures (especially by way of introducing low-carbon and circular business models).

From the beginning of the economic recovery in 2014 to 2017, economic growth was increasing, but in 2018, and especially in 2019, it slowed down, though still remaining higher than the EU average. Besides measures for the stabilisation of the economy[3] after the crisis, the rebound of GDP growth was driven mainly by increasing exports resulting from the recovery of demand in trade partners and by the improved competitiveness of Slovenian exporters (see Section 1.2). Besides the increasing exports, domestic consumption was also gradually boosted by favourable economic conditions in the international environment. Domestic consumption became an increasingly important factor of economic growth in 2014–2018, but in 2018, it began to slow under the influence of slower growth in foreign demand and the increasing uncertainty in the international environment. In 2018, this was reflected mainly in the slower growth of exports and of value added in manufacturing. After a period of stagnation in 2013–2016, investment[4] considerably increased in 2017 and in 2018, but its share in GDP remained substantially lower than before the crisis. In 2019, the growth of business investment and consequently of total investment considerably slowed, though it was supported by increased growth in housing investments, which had more than halved after the crisis (see Box 1). In 2019, GDP growth was further supported by robust growth in private consumption, which has been increasing since 2014 due to further employment growth, strengthened wage growth and favourable financing conditions. The level of consumer prices did not increase substantially in the period of economic recovery. Inflation remained moderate even in 2018 and 2019, when wage growth (in the context of labour shortage, easing of wage restraint measures adopted during the crisis in the public sector and growth of public sector wages) slightly increased.

In 2019, the economy was at the mature stage of the economic cycle, with economic growth slowing in 2018–2019 mainly due to international economic developments. Potential GDP growth, low for several years after the crisis, has been increasing in recent years, but still remained lower than before the crisis (2009–2013).[5] In 2013–2017, the accelerated growth was mainly attributed to the increasing total factor productivity, since 2017 to the contribution of labour due to rapid employment growth. The contribution of capital, minimal for several years after the crisis, began increasing only in 2017, due to the boost in investment activity. Output gap, defined as the percentage difference between actual and potential GDP, indicates the mature stage of the economic cycle. Other indicators point to this as well, particularly the historically low unemployment rate and the related labour shortage, the still high capacity utilisation and several years of rapidly rising real estate prices. All three indicators eased off in 2019, mainly due to the economic slowdown in the main trade partners and the consequent lower growth rate of foreign demand. Some financial indicators, where positive trends began later, increased at a significantly slower pace. Despite very low interest rates, inflation stood at between 1% and 2% and the growth of bank loans in the private sector remained moderate. The strengthening of wage growth was more notable and in 2019, it surpassed productivity growth after several years of lagging behind. The surplus on the current account of the balance of payments, which has been increasing since 2012, remained high. Recently, the indicators of a high surplus from previous years, namely favourable international economic conditions, the improving competitiveness of Slovenian exporters and moderate growth of domestic consumption, have been weaker, which was also reflected in a slowdown of growth and occasionally in the reduced level of the surplus.

Figure 3: Structure of GDP growth, Slovenia



Source: SI-STAT Data Portal – National Accounts, 2020.

[3] The stabilisation of economic conditions was crucially underpinned by economic policy measures, particularly the restructuring of the banking system and the gradual fulfilment of fiscal commitments, which improved Slovenia's standing on financial markets.

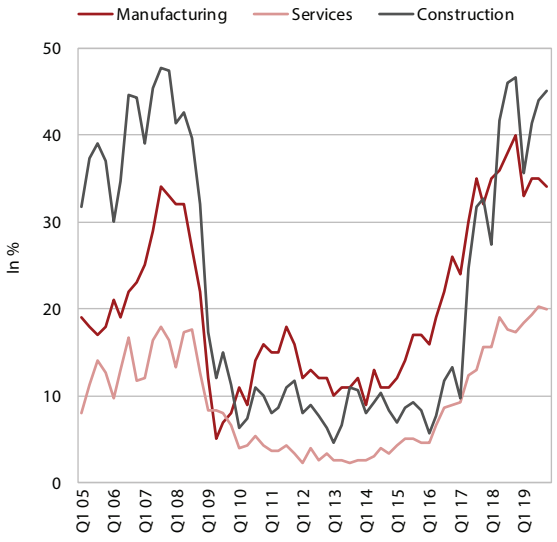
[4] From 2013 to 2016, the average annual growth rate of total investment was -0.4%, though by subcomponents and by years the changes were much more intense. In 2013 and in 2014, the investment in machinery and equipment was considerably influenced by increased investment in the energy sector. However, state investment significantly fluctuated due to the transition to a new financial perspective.

[5] For an in-depth overview of the output gap and potential GDP growth, see Autumn Forecast of Economic Trends, 2019.

Boosted by favourable economic trends, employment recovered fast after the crisis and in 2019 reached its highest level so far; however, considering the overall demography of Slovenia, a considerably lower contribution of labour to economic growth is to be expected in the future. In the period of favourable economic conditions, strong employment growth, which started in 2014, was driven by an improvement in the labour force participation of previously unemployed persons and but also partially of those not actively searching for a job or those not able to get a job and by the employment of foreigners.[6] The latter is mainly associated with the decline of available workforce in the domestic market due to demographic trends and the consequent labour shortage,[7] especially in certain sectors, but partly also with labour market mismatches (see Section 3.3). In 2019, about half of companies reported difficulties in recruiting new staff; these conditions limited production for many companies, especially in manufacturing and construction.[8] In the next medium-term period, these trends will limit the possibilities for economic expansion without the appropriate measures for promoting productivity, namely investment in Industry 4.0, additional re-activation of unemployed persons and migration (see also Section 3).

In the 2015–2019 period, the fiscal position notably improved. The improvement of the economic situation and measures for the stabilisation of public finances enabled a continuous improvement of the general government balance, which was balanced in 2017 and in surplus in 2018–2019. The general government debt also substantially declined, from its highest at 82.6% of GDP in 2015 to 66.1% of GDP in 2019, which is by about 20 percentage points lower than the average in the euro area. The decline of the general government debt changed the calculation of the medium-term budgetary objective (MTO) from the required surplus of +0.25% to a deficit of -0.25%. The improvement of the fiscal position in 2018–2019 could have been even more substantial, but even the continuous improvement experienced since 2015 created more fiscal space for adopting emergency measures. Economic policy measures in previous years contributed to an improved financial situation of the population and of certain lower socioeconomic status groups (high growth of expenditures for social transfers and benefits, increased wages in the public sector, tax relief for annual leave allowance), and the restraint of overall expenditure was mainly implemented by way of limiting flexible expenditures such as investment. Nonetheless, investment increased again more substantially in the last two years, partly as a result of increased European cohesion policy funds. However, since it is likely that, in the event of another deterioration of economic conditions, this part of expenditure will again be the most affected, a system of strategic investment priorities is needed. The procyclicality of fiscal policies and the restraint of investment expenditure for the purpose of achieving fiscal objectives is not desirable in terms of the quality of public finances, though it is characteristic of many other EU countries as well.[9] This is why this year, based on such analysis conclusions and even before the coronavirus outbreak, the European Commission strengthened its activities and consultations with other institutions (the European Fiscal Council and national fiscal councils) on the adjustment (and simplification) of fiscal rules that would exclude to an even greater extent certain investment expenditures from fiscal restraint, which is already the case in the expenditure rule for investment funded by EU sources.[10]

Figure 4: Share of companies reporting labour shortage, Slovenia



Source: SURS; recalculation by IMAD.

With the deterioration of the economic situation, a short-term departure from the achieved results is to be expected within the fiscal surveillance framework of the Union. In the context of several EU countries declaring an epidemic due to the spread of the coronavirus, the general escape clause of the Stability and Growth Pact has been activated, which will enable the EU member countries to adopt measures for the efficient mitigation of the consequences of the crisis and to by-

[6] In 2019, the employment of foreigners already contributed to more than 70% of employment growth.

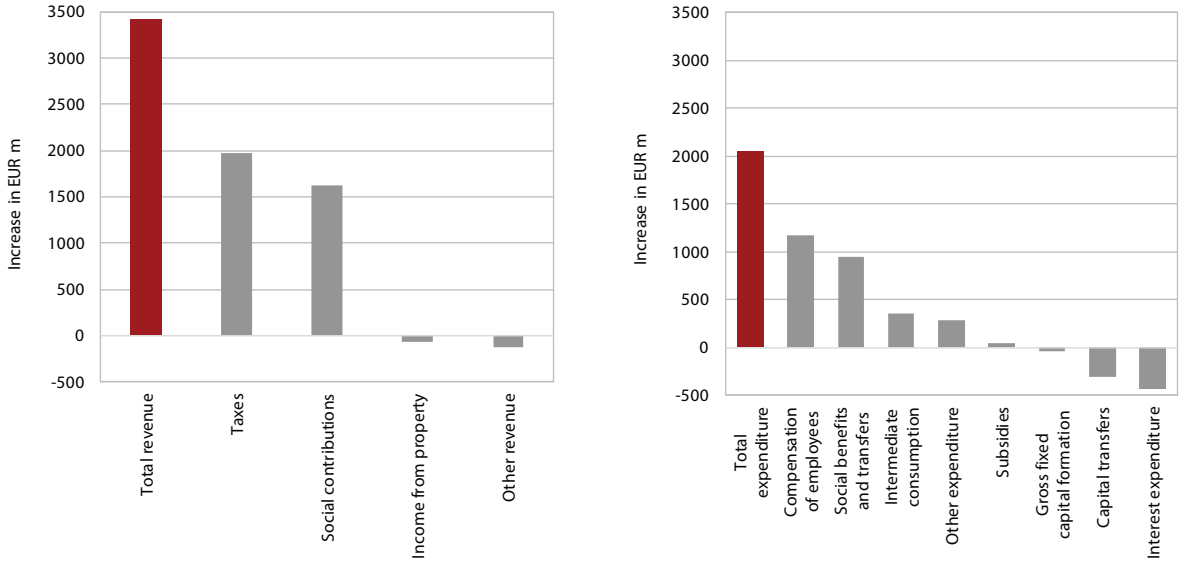
[7] For a more detailed overview of tackling the labour shortage issue, see Economic Issues, 2019.

[8] The companies affected by labour shortage are also dealing with longer selection procedures for suitable candidates, unfilled vacancies, increased workload for employees and having to turn down contracts (Employment Service of Slovenia, 2019).

[9] These are the conclusions of analyses, published in 2019 and in 2020, by the European Commission (Economic Governance Review, February 2020) and the European Fiscal Council (Assessment of Fiscal Rules, August 2019).

[10] Upon publishing its overview of compliance with fiscal rules, the European Commission launched consultations with various stakeholders that are expected to last until the end of 2020.

Figure 5: Changes in general government revenue (left) and expenditure (right) in 2015–2019, Slovenia, in EUR m



Source: SI-STAT Data Portal – Economy – National Accounts – General government accounts – Main aggregates of the general government, March 2020.

pass budget demands usually applicable in the fiscal surveillance framework of the Union. These measures, which were already adopted in Slovenia as well and which could be upgraded if necessary, will considerably increase the general government deficit at least in the short term; however, countries can also take advantage of other resources and mechanisms of the EC and the ECB to mitigate the consequences of the epidemic.

Slovenia has a wide gap in financial system development with the EU average and this is not narrowing. A large share of the Slovenian financial system is bank-based, but since the last financial crisis, banks have been focusing on the financing of households, which is more profitable.[11] Banks' total assets (as a % of GDP) in Slovenia are at less than a third of the EU average, with the gap slightly widening in recent years. The gap is narrowest in insurance, in general the segment least affected by the financial crisis compared to other parts of the financial sector. Here, non-life insurance, less responsive to economic trends, is dominating, while life insurance is still relatively poorly developed. Slovenia significantly lags behind in the development of the capital market, which consequently does not contribute significantly to the financing of the Slovenian economy. After the completed deleveraging process, companies[12] are increasingly taking advantage of other financing sources (profits, more favourable borrowing with associated companies, etc.). The process of the privatisation of the banking system, which was one of the commitments of the rehabilitation plan at the end of 2013, is mostly completed. In the middle of 2019, the second phase of the privatisation of the largest bank was completed, after which the state still owns a quarter stake plus one share, and in the third largest Slovenian bank, the state's 100% stake was also privatised.

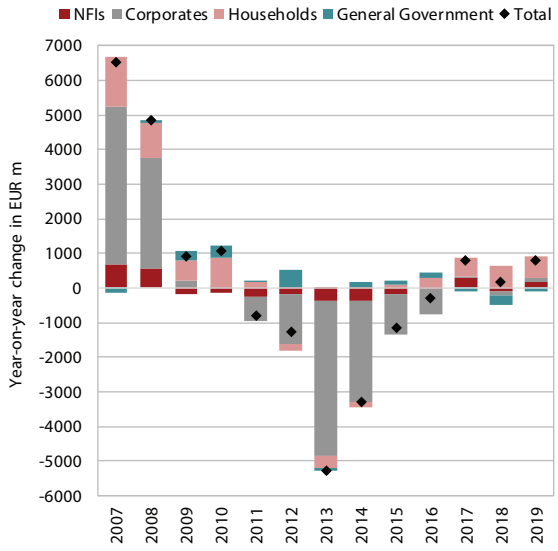
The situation in the banking system has been stable in recent years. At first, the rehabilitation of the banking system in 2013 contributed to the improvement of the banks' capital adequacy ratio and decreased the share of non-performing assets, though these still remained above the EU average. Lending activity started to pick up later and has been growing only since 2017; it strengthened in 2019 but remained moderate. The growth of loans to households is predominant, with stable growth in housing loans and an almost 9% growth in consumer loans in 2019. Growth of business loans remained modest. At the end of last year, the Bank of Slovenia adopted a committing macroprudential tool in order to limit the growth of consumer loans and the risks in the banking system.[13] Following the adoption of the measure, the annual growth of consumer loans did decline, but in turn, the interim growth of housing loans slightly increased, which indicates that a part of consumer lending was redirected to housing lending. In

[11] The interest rates on consumer loans were at 5.3% in 2019, which is 3.7 percentage points higher than for other loan operations.

[12] Indebtedness, measured as the debt (loans and debt securities) to equity ratio, has almost halved compared to the 2010–2012 period and is slightly lower than the EU average.

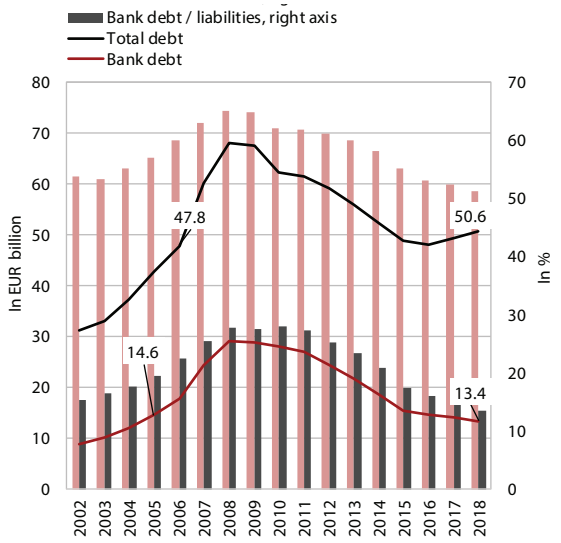
[13] Part of the recommendations adopted in the past for the purpose of limiting risks in household lending have been transformed into a binding tool. Limits pertain to the ratio between the annual cost of loan servicing and the annual net income of the borrower, where after the payment of loan servicing costs, the borrower must be left with at least the amount of the minimum net wage or even more if the borrower has dependants. The maturity of consumer loans must not be more than seven years.

Figure 6: Annual growth of loans to domestic non-banking sectors, Slovenia



Source: BS; calculations by IMAD.

Figure 7: Indebtedness of the corporate sector, Slovenia



Source: AJPES; calculations by IMAD.

the context of solid growth of deposits in the segment of non-bank deposits, since 2018, the ratio of loans and deposits has remained below 0.80 and has been one of the lowest in the EU. Despite the subdued growth of banks' lending activity, the business results of the banking system were favourable. In recent years, this was mainly due to the release of provisions and impairments amid a rapid improvement in the quality of banks' assets. In order to maintain the viability of banks in the future, banks will need to generate revenue from their own business operations, especially from their primary activity, which would strengthen the low growth of net interest revenue.

In 2018, corporate debt continued to decline and already reached the pre-crisis levels. Companies' ability to repay debt has[14] further improved despite the first signs of increasing corporate indebtedness and was the highest in the observed period. The over-indebtedness of companies was also at its lowest level in the observed period. The concentration of financial debt of over-indebted companies, however, remained high. In 2018, about 33% of financial debt was incurred by the 10 most over-indebted companies and 51% of financial debt was incurred by the 50 most over-indebted companies, which were mostly micro, small and medium-sized enterprises. By activity, more than 20% of total indebtedness was concentrated in holding and leasing companies and more than 10% was in professional and technical services, real estate activities, trade and manufacturing activities.[15]

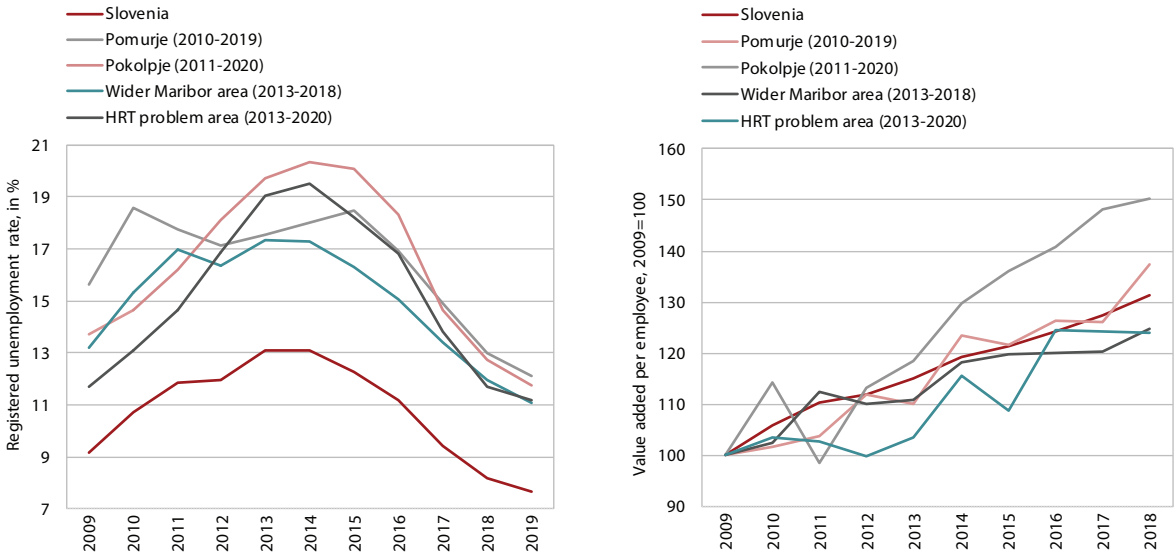
After a notable increase from 2000 to 2009, regional differences have been declining during the crisis, and in the last three years (until 2019), they were stable at the level of statistical regions, while at the level of the two cohesion regions, the differences slightly increased. In the 2008–2013 period, the average annual decline in GDP per capita was lower in eastern Slovenia due to the slower population growth, but after 2014, GDP per capita increased faster in western Slovenia. Due to their economic structure, the western regions were more exposed to domestic and international shocks at the beginning of the crisis, but after 2014, they recovered faster and have been improving more significantly compared to the rest of Slovenia (see Indicator 1.7). For the second consecutive year, the cohesion region Zahodna Slovenija exceeded the EU average, mostly due to the growth in the Osrednjeslovenska region, which contributes 37% of the total GDP of Slovenia.[16] The cohesion region Vzhodna Slovenija remains among less developed regions of the EU. Despite the increase in the last three years, the differences between the two cohesion regions are still lower than the highest level in 2007, but they could again reach this level in 2023 if the trend is not reversed. Among the statistical regions, the conditions improved the most in the Obalno-kraška region, which is the only one to exceed the Slovenian average in GDP per capita besides the Osrednjeslovenska region. The less developed Zasavska region was the only region with a slightly slower growth (see Indicator 1.7). Since 2000, the differences between the regions in

[14] In 2017 and 2018, total debt was already rising. In 2018, financial debt and over-indebtedness also increased slightly, while bank debt declined further.

[15] U. Lušina, 2019.

[16] The importance of capital regions is typical for other EU and OECD countries as well (OECD Regions and Cities at a Glance 2018, 2018). This impacts the differences between the two regions with the highest and lowest value of GDP per capita and the differences between the statistical regions within the cohesion regions, which are about twice as notable in western than in eastern Slovenia.

Figure 8: Unemployment and productivity rate in areas covered by development support measures



Sources: SURS, ZRSZ, AJPES; calculations by IMAD. Note: HRT – Hrastnik, Radeče Trbovlje.

eastern Slovenia have increased, which could be a result of high economic growth in the successful regions (for example the Jugovzhodna Slovenija region) on the one hand and the relative lagging behind of the Zasavska region on the other.

In most regions, the sub-indicators of the development risk index (DRI)[17] have improved in the last five years, but according to the DRI, regional differences have not decreased. The development risk of regions is measured by the development risk index, which encompasses various factors affecting development that influence the quality of life.[18] The Osrednjeslovenska region has the best value of the index, while the Pomurska region ranks last. Unlike the Zasavska region, which is mostly lagging behind in economic indicators, the Pomurska region has the lowest values of all regions for most DRI indicators. Much more than Zasavska, Pomurska is facing issues in the labour market, ageing of the population and low population density. Compared to 2014, in 2019 the DRI had improved in most regions, but more significantly in the developed regions, resulting in widening of the gap between the regions according to this composite indicator (see Indicator 1.8).

During the crisis, temporary endogenous policy measures were adopted in the areas with high unemployment rate[19] in order to reduce the unemployment rate and increase productivity. The programmes for Maribor and its wider surroundings and for Pomurje are already completed. In the context of favourable economic trends and the adoption of the measures, the registered unemployment rate decreased more in areas covered by the temporary measures compared to the Slovenian average, but only the Pomurska region narrowed the gap with the Slovenian average. In all areas, value added per employee increased in both companies and sole proprietors, with the biggest increase notable in the Pokolpje region, where the narrowing of the productivity gap with the Slovenian average was also the most significant. Other areas also bridged the gap with the Slovenian average, with the exception of Maribor and its surroundings, where the productivity compared to the Slovenian average remained at a similar level as before the adoption of the measures.

[17] The DRI is a composite indicator for monitoring regional development. It encompasses the following indicators: (1) GDP per capita, (2) gross value added per employee, (3) disposable income per capita, (4) the employment rate (20–64 years), (5) investments in fixed assets as a share of GDP, (6) the registered unemployment rate for young people (15–29 years), (7) the proportion of the population with tertiary education (25–64 years), (8) gross domestic expenditure on R&D as a share of GDP, (9) the proportion of wastewater treated with secondary and tertiary treatment, (10) the proportion of protected areas in the region, (11) estimated damage caused by natural disasters as a share of GDP, (12) the registered unemployment rate, (13) population ageing index, and (14) population density. On the basis of the DRI, the regions are ranked according to level of development in the programming period 2014–2020 (Rules, 2014).

[18] Described in more detail in: Pečar, 2018.

[19] To combat the high unemployment rate, an intervention development aid act for Pomurje was adopted first, followed by the introduction of temporary development support measures for Pokolpje, Maribor and its surroundings, and the municipalities of Hrastnik, Radeče and Trbovlje (HRT). (Programme for Promoting Competitiveness..., 2016; Amendments in the Programme for Promoting..., 2016; Amended Programme for Promoting..., 2016).

1.2 A competitive and socially responsible entrepreneurial and research sector

A competitive and socially responsible entrepreneurial and research sector (Development Goal 6)

The aim is to raise competitiveness by creating products and services with high value added and to strengthen the social responsibility of companies and research organisations. The creation of high value added will be supported by innovation, basic and applied research, promotion of creativity, and the exploitation of digital potentials and every opportunity afforded by the fourth industrial revolution. Other factors listed in SDS 2030 as relevant in efforts to increase value added include internationalisation of companies and research institutions and the provision of a supportive and predictable environment for business and investments that accommodates the needs of small enterprises. Achievement of the goal will also be contingent on suitable human resources, which the SDS deals with in Development Goal 2.

SDS 2030 performance indicators for Development Goal 6:

	Latest data		Target value for 2030
	Slovenia	EU average	
Labour productivity, index EU=100	82 (2018)	100 (2018)	95
European innovation index, index EU 2011 = 100	88 (2018)	109 (2018)	>120 i.e. ranking among leading innovators
Digital Economy and Society Index, ranking among EU member states	16th place (overall in 2019) 14th–21th place (across five components)	-	ranking in top third of EU countries according to all five main components of the index

1.2.1 Competitiveness of the corporate sector

In the period of economic growth after the economic and financial crisis, productivity growth was modest, and in 2018, it further slowed mainly due to cyclical factors. Slovenia's productivity gap with the EU average remains wide (see Indicator 1.9). The acceleration of productivity growth would not only enable the bridging of the economic development gap at a faster pace,[20] but would also open up the possibility of a more radical income growth of the population and facilitate ensuring the stability of public finances in the context of expected pressures on expenditures of systems of social protection (see also Section 1.1). However, only modest progress has been made in recent years. In the long-term period (1996–2008) before the economic and financial crisis, the average annual productivity growth[21] stood at 3.5%, while in the period 2009–2018, it slowed down to 0.5% and to 1.2% in the period of economic growth 2014–2019. Due to cyclical factors, i.e. the slowdown of growth in demand (especially foreign), after two years of slightly increased growth, in 2018, productivity growth slowed again, first in manufacturing and in 2019, in most of the corporate sector (see Indicator 1.9).

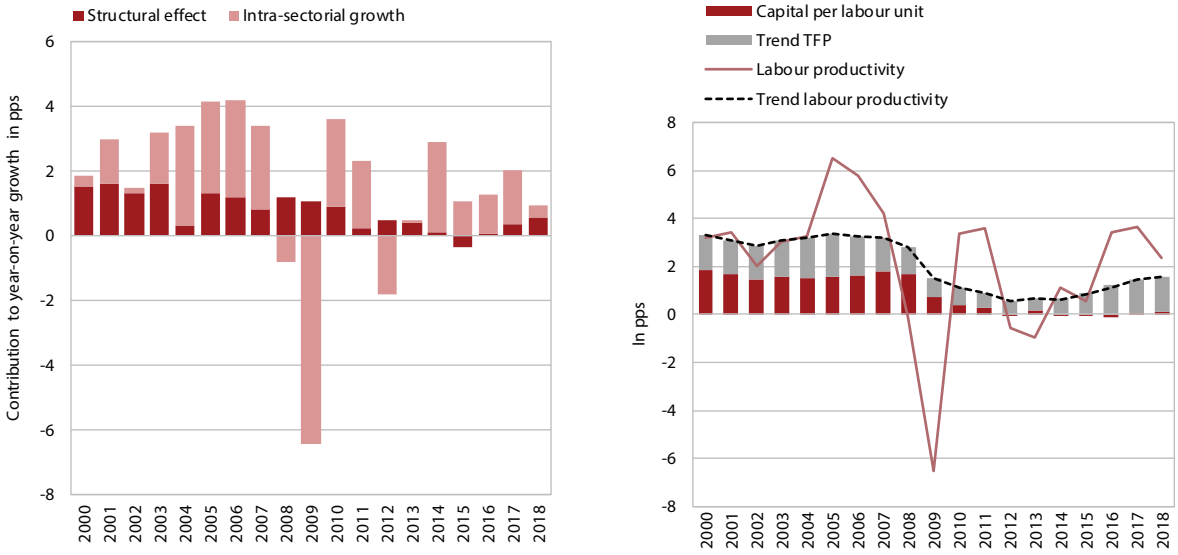
After the economic and financial crisis, the modest productivity growth was mainly attributable to structural factors and relatively low investment activity. In the post-crisis period, productivity growth slowed in most sectors (lower contribution of the intra-sectoral component), and after 2009, the impact of the migration of production factors to more productive sectors declined as well (lower structural effect; see Figure 9). Among individual production factors, low contribution of capital deepening had the biggest impact on productivity growth, remaining modest even during the period of economic growth 2014–2019 in considerably improved investment conditions. Weak investment was mainly associated with a slow recovery of domestic demand in the first years after the crisis (particularly impacting the low investment in service activities, mainly geared toward the domestic market) and with more prudent investment decisions of companies related both to the experience with the economic and financial crisis and to the future economic outlook (see Box 1). Many companies also reported the issue of bureaucratic obstacles, i.e. lengthy procedures for obtaining various permits (see Section 5). In the future, this factor could have an even bigger negative impact on investment activity than in the previous years due to the increasingly fast dynamic of introducing new products. In terms of technical structure of investment, in 2018, all major categories of investment experienced a decline compared to 2005,[22] most notable here being low investment in traffic infrastructure and housing.

[20] In terms of narrowing the gap in GDP per capita with more developed countries.

[21] Measured by added value per employee.

[22] The comparison was made with 2005, the year before the period of overheating of the economy which resulted in the onset of the crisis in 2008.

Figure 9: Breakdown of labour productivity growth into intra-sectorial growth and the impacts of changes in the structure of sectors, Slovenia (left), and breakdown of trend labour productivity growth into the contribution of capital deepening and total factor productivity, Slovenia (right)



Sources: SURS and Eurostat; calculations by IMAD (right). Notes: Trend productivity growth is growth that excludes cyclical factors, while productivity growth includes the cyclical component. Trend growth is also defined as potential GDP per potential employment, measured by hours worked. Potential GDP is calculated with the production function approach and potential employment is employment assuming normal employment levels.

Box 1: Investment and causes for low growth in the last decade

In the period of economic growth after the crisis (2014–2019), GDP growth was lower than before the crisis, mainly due to the lower contribution of capital. Before 2008, capital had a big impact on economic growth, but in recent years, its contribution has significantly declined and in turn significantly contributed to the slowdown of the growth of GDP and productivity compared to the pre-crisis period. The slower growth of capital is a direct consequence of lower investment. Until 2008, investment had been increasing, but with the onset of the crisis, it fell sharply. In recent years, growth has been strong (again), while investment has remained considerably lower than in 2007 and 2008. In the period 2002–2008, the share of investment in GDP was at 27% but with the onset of the crisis it significantly decreased; in recent years, it has stood at about 19% of GDP.

The decline in housing investment stands out among investment segments. *Housing investment* decreased by more than a third compared to 2005. Data shows that in 2018 housing investment was lower than in 1995 (and in all the years until 2008), indicating an extremely low level of such investment. State investment was higher in 2018 than in 2005, which is associated with the absorption of EU funds. *Corporate investment* was also below the 2005 level. In 2005–2018, companies decreased investment in building and structure (by 51.3%) and increased investment in machinery and equipment (by 28.9%) and in intellectual property products (by 43.6%).

Factors able to decrease corporate investment, as indicated in the economic literature, are often low aggregate demand, high uncertainty, and lower expectations for future profits or for economic growth. In developed countries, a slow growth of investment can mostly be explained by a slow growth of demand (Fay et al., 2017; Banbura et al., 2018). Companies invest to increase their production capacity to satisfy the current and expected demand for their products. Low growth of demand and low expectations of future growth decreased investment activity, especially in recent years. Increasing uncertainty also impacted investment decisions (Bloom et al., 2007). Planning and realisation of investment are associated with lengthy procedures. Investors have the option to wait it out and to not invest (yet). In a period of increased uncertainty, the value of this option increases, which has a negative effect on investment. Uncertainty is said to significantly hamper investment activity, especially at the start of an economic and financial crisis (Fay et al., 2017; Banbura et al., 2018).

Below, we present a simple model used to explain causes of low investment in Slovenia, based on the practices of foreign institutions. The oldest and the simplest model is the accelerator model of investment,

which assumes that investment can be explained by past aggregate demand. For this purpose, we estimated the following regression model (Oliner et al., 1995):

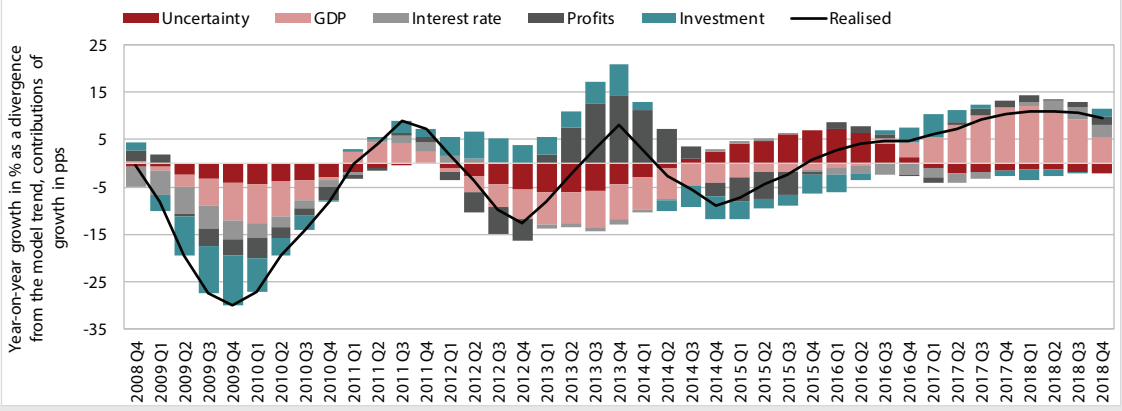
$$\frac{I_t}{K_{t-1}} = \frac{\alpha}{K_{t-1}} + \sum_{i=1}^{12} \beta_i \frac{\Delta Y_{t-i}}{K_{t-1}} + \delta + \varepsilon_t, \quad (1)$$

where I_T is corporate investment[1], ΔY_T is the change in the gross domestic product, excluding corporate investment (hereinafter: aggregate demand), K_{t-1} is the amount of capital[2] in the previous period. A, B_I and δ are regression coefficients of the model, where the value of the coefficient δ is the indirect estimation of the depreciation rate of the capital. ε_t denotes the errors of the model. Estimations indicate that aggregate demand can be used to explain 66% of the variability of investment and coefficients are statistically significant until the seventh investment lag (see table in Annex 2).

Various other factors can impact investments, which is why we extended the basic model and included additional variables. Following the example of the European Commission (2017) and the European Central Bank (2016)[3], we included three additional variables in the model besides demand that are associated with investment based on economic theory: (i) uncertainty in the form of the Economic Policy Uncertainty Index (at the European level)[4], (ii) profits attributable to the gross operating surplus of the total economy, which is an approximation for financial limitations of companies (bigger profits indicate less financial limitations of companies and, in turn, a higher rate of investment, ceteris paribus), (iii) interest rate for non-financial companies, which represents the cost of capital. It appears that all additional variables enter the model with the correct sign and a high rate of statistical significance; the evaluated model is capable of explaining 77% of the variability of investment. Based on the obtained estimates, we conclude that an increase in the uncertainty index of 1% decreases the ratio[5] of investment to capital by 0.11 percentage points, an increase of 1 percentage point of the ratio of profits to capital increases the ratio of investment to capital by 0.46 percentage points, and an increase of the interest rate of 1 percentage point decreases the mentioned ratio by 0.02 percentage point[6].

On the basis of the above factors, we also estimated the vector-autoregression (VAR) model for the purpose of demonstrating the historical decomposition. The calculated historical decomposition[7] provides an insight into the relative importance of individual factors of investment in different periods. It indicates that after 2008, the dynamic of investment was significantly impacted by aggregate demand and partly by uncertainty and profits of companies. The latter had a significantly positive impact, especially in the years 2012–2013, when other financing sources were quite limited. At first, the rebound of investment after 2014 was mainly a result of reduced uncertainty and later also of the recovery of aggregate demand, which is evident from the positive impact of these two factors[8].

Figure 10: Historical decomposition of corporate investment growth



Source: IMAD estimates. Note: four quarterly moving averages are shown.

[1] Following the example of the ECB (2016), we used total investment excluding construction investment (i.e. flats and other buildings and structures) as the approximation of corporate investment.

[2] Data on the amount of capital was obtained from the AMECO data base. As the aforementioned data are only available at annual frequency, we obtained quarterly data based on the linear interpolation in such a way that the data in the last quarter matches the annual data. Others have used the same approach (see, for example, Oliner et al., 1995; Barkbu et al., 2015, and others).

[3] Investment in the EU Member States, 2017; ECB Economic Bulletin. No. 7/2016, 2016.

[4] The authors of the economic policy uncertainty index are Scott R. Baker, Nick Bloom and Steven J. Davis, according to the information at https://www.policyuncertainty.com/europe_monthly.html.

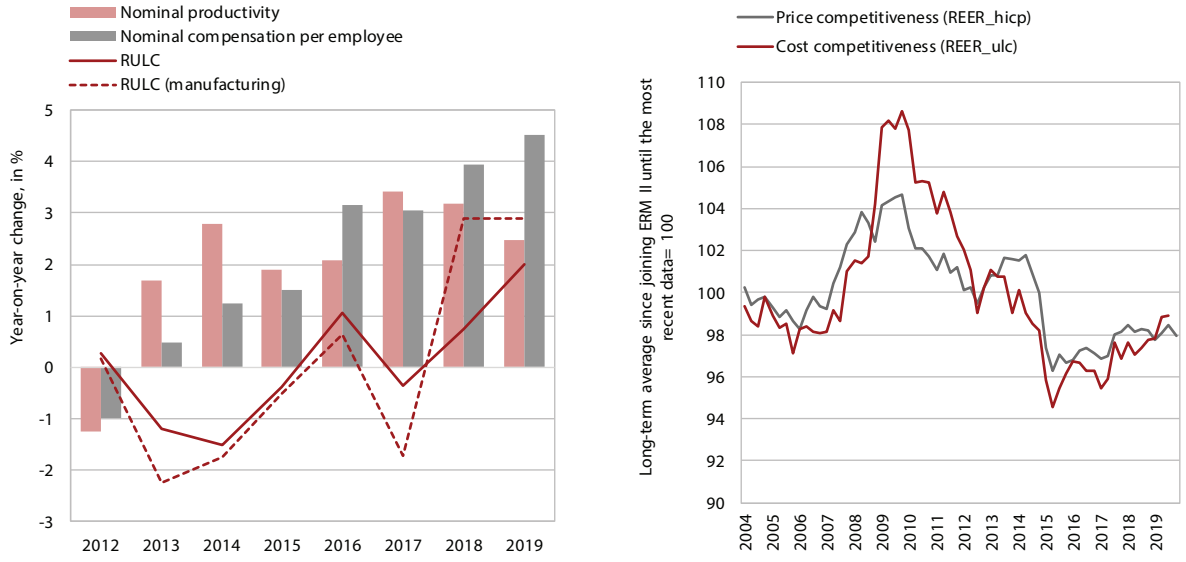
[5] The average ratio of investment to capital was 1.35% in the observed period.

[6] The estimations of regression coefficients are comparable with other studies. See, for example, Investment in the EU Member States, 2017.

[7] Historical decomposition is calculated based on estimations of the VAR model for the period of 1997q1–2018q4. The identification of structural shocks was based on the Cholesky decomposition, which assumes the ordering of variables based on their exogenous rate, i.e. from the most exogenous to the most endogenous variable, where uncertainty was ordered first.

[8] Such analyses need to be interpreted with a certain amount of caution, since they depend on the selection of data and the combination of variables.

Figure 11: Real unit labour costs and components (left) and indicator of price and cost competitiveness (right)



Sources: SURS; calculations by IMAD (left); ECB; calculations by IMAD (right).
Note: Real unit labour costs (RULC) show the ratio of compensation (of employees) per employee and productivity. The indicators of price and cost competitiveness include a narrow set (37) of trade partners. *The information refers to the first three quarters of 2019.

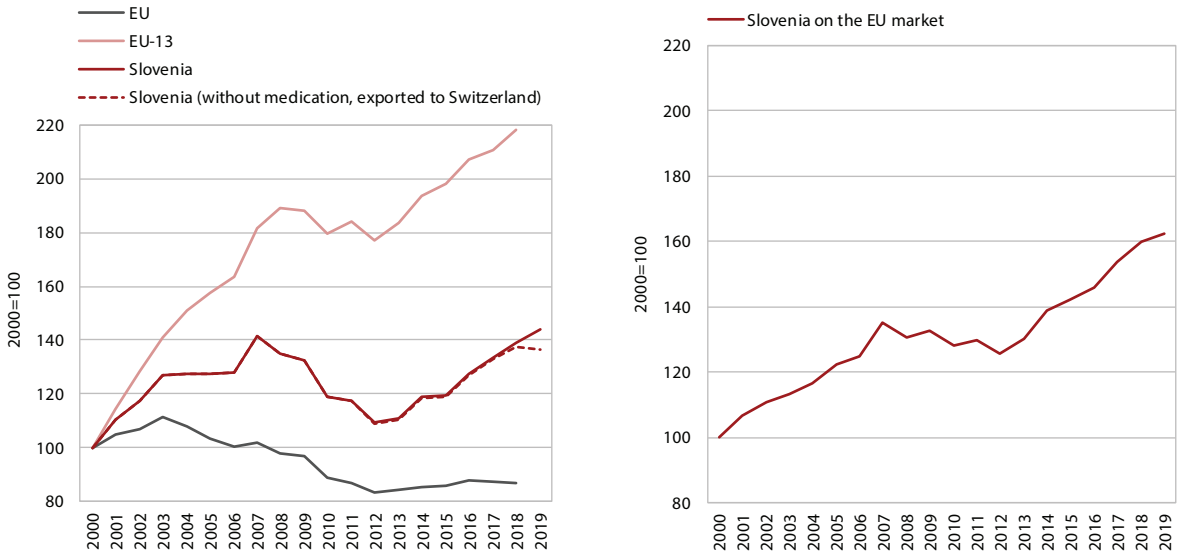
The slowdown of productivity growth since 2018 together with a slightly increased wage growth negatively affected the cost competitiveness. After rapid growth during the crisis, in 2011–2017, despite the modest productivity growth, the trend of real unit labour cost mostly had a favourable effect on competitiveness, since the growth of labour cost was also moderate in this period. At first, this was reflected in the depreciation of the real effective exchange rate (REER_ulc), which remained at a relatively low level in 2015–2017, below the long-term average despite a slight increase. In 2018, under the influence of a stronger slowdown of foreign demand, productivity growth slowed, most notably in manufacturing. In 2019, wage growth slightly increased due to the increasingly limited labour supply and also due to the increased wages in the public sector. This caused an increase in the relative unit labour costs (compared to the trading partners, in 2018 most notably in manufacturing and in 2019 in all economic sectors)[23] and a slightly more notable appreciation of the real effective exchange rate based on these costs (REER_ulc). The effective exchange rate, which takes into account the price trends (REER_cpi), was quite stable in 2019, possibly indicating a decline in mark-ups on costs in this period. Considering the moderate growth[24] of the real effective exchange rate (REER_ulc) and the stable trends of the indicator of price competitiveness, we can conclude that negative trends in price factors in 2018–2019 have not yet significantly affected the export trends.

Slovenia's export market share, which is an indicator of the export competitiveness of the economy, grew in the 2013–2019 period, but since mid-2018, the growth has been slow due to the slowdown of growth in export demand. In 2013–2017, the growth of merchandise export market share, boosted by increased import demand by Slovenia's most important trade partners and by stable factors of price and cost competitiveness, was one of the highest in the EU.

[23] In 2018, the growth of real unit labour costs was incurred mainly by manufacturing activities, while in 2019 it increased in most activities of the corporate sector (see Indicator 1.13).

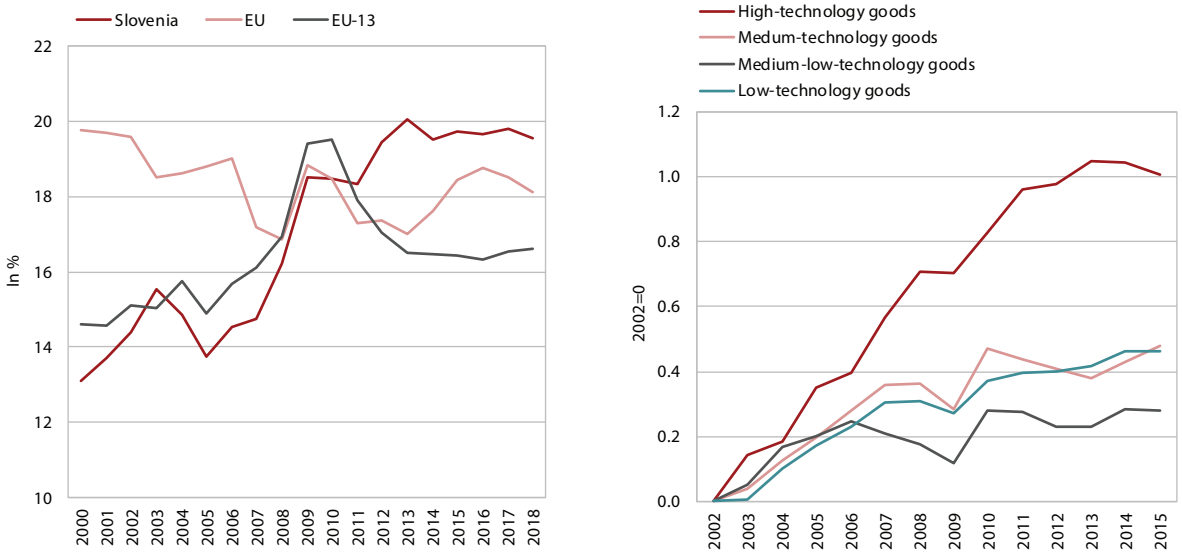
[24] The real effective exchange rate is also relatively low in respect of the long-term average.

Figure 12: Export market shares of Slovenia, the EU and the EU13 on the global market (left) and Slovenia's export market share on the EU market (right)



Sources: SURS, Comext; calculations by IMAD.

Figure 13: Share of high-technologic products in goods exports (left) and natural logarithm of weighted average of labour productivity, manufacturing companies (right)



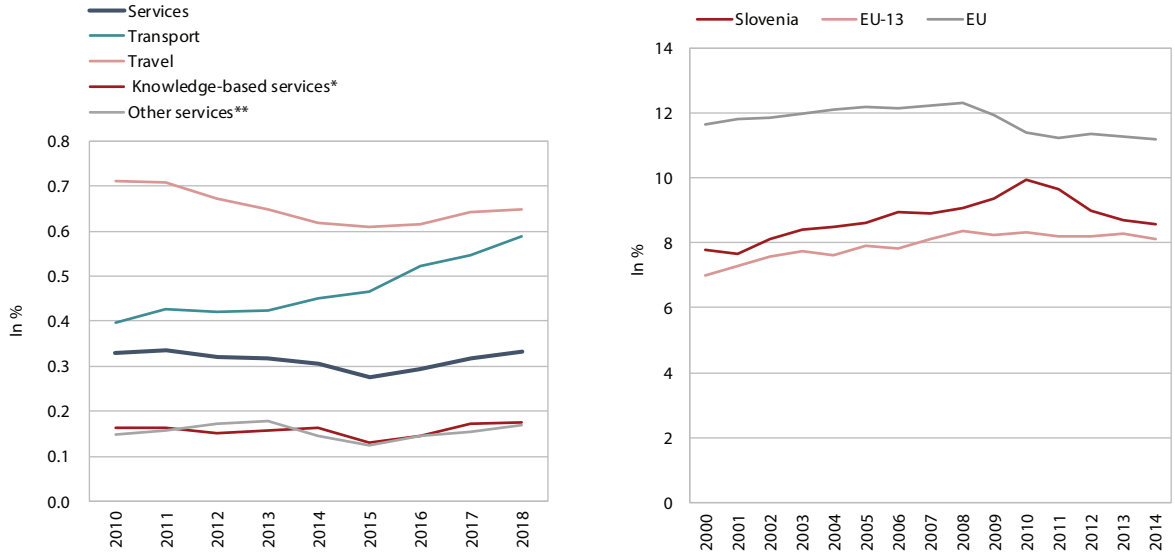
Sources: Comtrade UN, SURS, 2020; calculations by IMAD (left); AJPES, Multiprod; calculations by IMAD (right).
Notes: TZ – technology intensity. The classification of products into individual groups is based on the UN methodology (Lall).

The improvement of export competitiveness is also indicated by a rapidly increasing integration in global value chains[25] (2009–2015). Since mid-2018, mainly due to the significant growth slowdown in import demand from the EU[26], the growth of export market share on the global market declined. The growth slowdown in 2018 was also a result of a one-off factor, i.e. the newly

[25] This integration in global value chains is, in terms of forward linkages, measured in domestic value added shares in foreign exports.

[26] Approximately three-quarters of Slovenia's total merchandise exports is directed to the EU market. In the event of growth in import demand from the EU slowing down more than the growth of global import demand, the impact of the geographical structure of exports on the growth of the market share is negative.

Figure 14: Export market rate of services on the EU market (left) and share of value added of knowledge-intensive services* in total domestic value added in exports of manufacturing activities (right)**



Sources: Eurostat; calculations by IMAD (left); WIOD; calculations by IMAD (right). Notes: * According to the balance of payments statistics, knowledge-intensive services are the following: telecommunications, computer and information services, and other business services. ** Other services: manufacturing services, maintenance and repair, construction, insurance, pension and financial services, charges for the use of intellectual property, personal, cultural, recreational and government services. *** For calculations of value added of knowledge-intensive services, the Eurostat definition is used (including the following SKD divisions: 50–51, 58–63, 64–66, 69–75, 78, 80, 84–93), where, due to the limited access to data on such a detailed level, the WIOD does not include the following SKD divisions: 78 (employment services), 80 (security and investigation services), 90–93 (cultural, recreational and sporting services).

introduced production line in vehicle manufacturing from 2017 losing its effect.[27] The provisional data for 2019 indicates a further slowdown in growth on the EU market (+1.5%) but solid growth on the global market (+3.5%). The latter was strongly affected by a significant acceleration of exports of previously imported medication (especially with Switzerland) with a relatively low impact on domestic economic activity (see Indicator 1.12).

The structure of merchandise exports and value added changed over a long period of time in the direction of increasing productivity and competitiveness of the economy, but these changes have not been as intense in recent years. The increase of merchandise export market share in 2001–2017 was mainly a result of growth in exports of high-technology products.[28] In 2010, their share in merchandise exports slightly exceeded the EU average, but, similarly to the EU as a whole, it has remained almost unchanged for several years since then (Lall methodology; see Indicator 1.14). Over a longer period of time (2002–2015), the share of value added of companies engaged in high-tech activities also increased (Eurostat methodology). High-tech companies, otherwise reaching the highest levels of productivity growth,[29] created 8% of total value added in the corporate sector in 2015 (latest data) and about one-fifth together with medium-high-tech companies. However, in the last years of this period, the growth of their share stagnated. Even though these fluctuations could be short-term, related for example with the business cycles, these data could point to a risk of a gradual decline in the Slovenian economy's ability to compete, especially considering the unfavourable trends in R&D and innovation activity over several years amid ever faster technological changes worldwide (see Section 1.2.2).

In services exports, mainly traditional services where Slovenia has a comparative advantage dominate, while exports and competitiveness of knowledge-intensive services are low. In service exports, traditional services prevail, especially travel and transport, where Slovenia has a comparative advantage on foreign markets.[30] The share of knowledge-intensive services (including various business services and telecommunications, computer and information services) is considerably lower than the EU average. After the economic and financial crisis, their export share rapidly increased in the context of slower recovery

[27] The one-off factors causing the rise in growth of export market share since 2018 are the increased export of oil and its derivatives (in the EU until the last quarter of 2019) and of pharmaceutical products (outside the EU). In both cases, the merchandise was mostly previously imported, which is why the impact of the increased exports of both products on GDP growth is relatively small compared to export growth.

[28] See more in the Productivity Report 2019 (IMAD), 2019.

[29] Ibid.

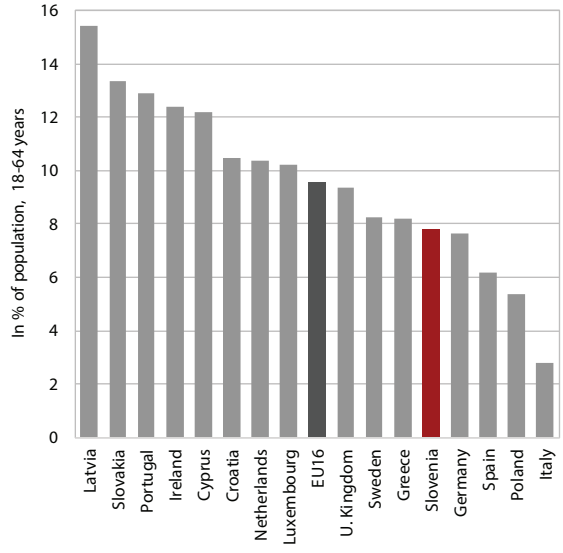
[30] Construction services are also among the service activities with a bigger import share.

of the domestic market and the growing demand for services around the world. The market share on the EU market, an indicator of export competitiveness, has been increasing very slowly only since 2016, following several years of stagnation. Similarly, the share of knowledge-intensive services in total service exports remained modest by international standards (see Indicator 1.14). After 2009, the considerable slowdown in productivity growth of companies which perform knowledge-intensive services was also unfavourable for their competitiveness. Since the role of knowledge-intensive services is increasingly important, their further development and an increase in export competitiveness hold a lot of potential for increasing the productivity of the overall economy.[31] The possibility of increasing value added (and consequently productivity) by increasing sales of services and knowledge in manufacturing is still insufficiently exploited. The share of value added of knowledge-intensive services in total value added of exports of manufacturing activities is significantly below the EU average and was falling between 2010 and 2014.[32]

After the economic and financial crisis, the internationalisation of the economy was boosted by increasing trade and by higher levels of FDI inflows, which, however, were still distinctly low by international standards. The internationalisation of the Slovenian economy is mostly conducted through foreign trade flows. The average value of imports and exports compared to GDP, as an indicator of trade openness, reached 81% in 2018; after a decline following the outbreak of the crisis, it has been continuously and rapidly increasing since 2010. Since 2014, due to the acceleration of the privatisation process and increased sales of equity stakes in Slovenian companies, the FDI inflows were rising more rapidly as well. The FDI inflows were also boosted by more expansions of existing foreign-owned companies in Slovenia and new (greenfield) investment. Despite very encouraging trends (see Indicator 1.15), in 2019, the level of inward FDI was relatively low. Among EU countries, only five countries had a smaller inward FDI stock as a share of GDP, and among new EU Member States, Slovenia's stock is the smallest. It should be pointed out that, in attracting foreign direct investment to Slovenia, the environmental and social aspects of development defined in the SDS need to be satisfied besides the economic goals.

In the period of economic growth, entrepreneurial activity increased, but it remained relatively low by international comparisons. Entrepreneurial activity is an important factor of long-term productivity growth, as it represents the potential to transfer knowledge and to transform new ideas into commercially viable innovation. Early-stage entrepreneurial activity, which shows the share of the population starting a business in a given year, has been increasing since 2013 together with economic growth, and in recent years, it has stood considerably above the level from the period before the onset of the economic and financial crisis in 2008[33]. According to the GEM report, self-confidence in entrepreneurial competences has been rising, as has the share of individuals who identified good business opportunities in their environment and who had a positive perception of entrepreneurship[34]. Despite these favourable trends, Slovenia still ranks among the countries with the lowest levels of early-stage entrepreneurial activity. According to the conditions for entrepreneurship, Slovenia received a relatively low assessment in international comparison[35] for (i) cultural and social norms which boost or hamper entrepreneurship, (ii) regulations of government policies, especially in regard to obtaining authorisation and concessions and concerning tax burdens (includes all contributions that burden companies), (iii) access to business and professional infrastructure, and (iv) education at the primary and secondary level. Nonetheless, according to the GEM report, overall conditions for entrepreneurship had gradually improved and, by international comparison, Slovenia received an above-average assessment for (i) access to physical infrastructure, (ii) dynamic and open internal market, (iii) financial support for entrepreneurship, and (iv) government programmes that create conditions for the development of entrepreneurship.[36] In 2019, incentives

Figure 15: Early-stage entrepreneurial activity*, 2019



Sources: Bosman, N., et al. and GERA, 2020. Note: * Early-stage entrepreneurial activity is the share of the population starting a business in a given year. EU-16: the average of EU countries included in the GEM report.

[31] Productivity Report 2019 (IMAD), 2019.
[32] WIOD (World Input-Output Database) data is only available until 2014.
[33] According to the Global Entrepreneurship Monitor (GEM) data, in 2016–2019, total early-stage entrepreneurial activity stood at 7.3% (in the 2002–2008 period at 4.5%).
[34] Rebernik et al., 2019.
[35] In comparison with EU countries included in the GEM report.
[36] Ibid.

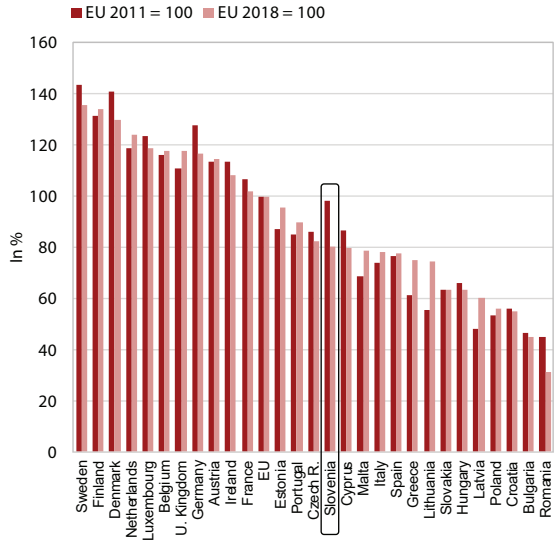
increased for high-technology companies in early development stages, while for SMEs, a voucher scheme for different fields is available at the Slovene Enterprise Fund (vouchers for prototypes, for quality certification, etc.).

In Slovenia, the promotion of introducing socially responsible practices[37] in companies is dispersed among multiple institutions, and internationally comparable data is only available for environmental responsibility, where Slovenia ranks close to the EU average. The introduction of various socially responsible practices is becoming an increasingly important instrument in the world for the promotion of sustainable production and consumption and also for possibly raising competitive advantages of companies. In Slovenia, the promotion of social responsibility of companies and other organisations is dispersed among multiple institutions in the absence of a strategic national framework.[38] The data benchmarks that would enable systematic monitoring of progress in introducing social responsibility are also scarce. These benchmarks are best developed in environmental responsibility, one of the segments of corporate responsibility. The prevalence of various environmental certificates demonstrating corporate environmental responsibility (see Indicator 1.18) is roughly on a par with the EU average, but it lags considerably behind the most successful countries in this area.

1.2.2 Research, innovation and digital capability

In the latest European Innovation Index (EII), Slovenia's ranking went down significantly and slipped into the group of moderate innovators after several years in the group of strong innovators. After 2014,[39] the gap in the efficiency of the innovative system (measured by the EII) increased relative to the EU average, which indicates faster progress of other countries. The fall from the group of strong innovators to the group of moderate innovators was due to the decline in most EII indicators (15 out of 27). By individual EII components (see Indicator 1.10), the biggest and the most widening gap relative to the EU average is in the level of innovation activity of companies and in sales impacts, especially concerning the share of knowledge-intensive services in services exports. Slovenia's score is the lowest in finance and support, at less than 30% of the EU average. The fall

Figure 16: European Innovation Index 2018 by countries relative to the EU average in 2011* and 2018



Source: European Innovation Scoreboard 2019, 2019. Note: The figure shows the EII value relative to the EU average as it is the basis for the classification of countries into the four groups: leading, strong, moderate and modest innovators (see Indicator 1.10). For monitoring the current progress/lag in innovation efficiency, the comparison of EII values for an individual country with the EU average of the current year is more suitable.

in the EII ranking and the deterioration of the situation in Slovenia was especially marked in 2018,[40] when it stood at only about 80% of the EU average (in 2011, 98%; see Figure 16).[41] In the aforementioned period, Slovenia, besides Romania, suffered the biggest fall in EII values among EU Member States, which significantly decreases the prospects of achieving the SDS goal in this area (see Indicator 1.10).

After several years of declining, R&D expenditure increased to 1.95% of GDP in 2018. In this year, the level of R&D expenditure did not yet reach the level from 2013, with the relatively widest gap in the government sector, followed by the business sector, which financed 62.6% of R&D activity in Slovenia in 2018 (see Indicator 1.16). The state can significantly impact the efficiency of the innovation system by ensuring an encouraging environment, direct funding and tax incentives for investment in R&D. The OECD study concludes that tax incentives as well as subsidies for R&D investment of companies contribute to the performance of companies in terms of R&D activity.[42] The reduction of government sector R&D expenditure already began in 2012, reflecting the consolidation of public finances (see Figure 17).

[37] The concept of social responsibility of organisations in the broad treatment encompasses the responsibility of organisations to the natural and social environment. The narrow treatment encompasses responsibility to stakeholders (consumers, business partners, interest groups, shareholders, etc.). See more in Box 1 in the Development Report 2018 (IMAD), 2018.

[38] Slovenia is in a small group of EU countries without an officially adopted national strategy of social responsibility (Development Report 2018, 2018).

[39] The data, included in the EII for a certain year, are available for the period t-1 and even t-2.

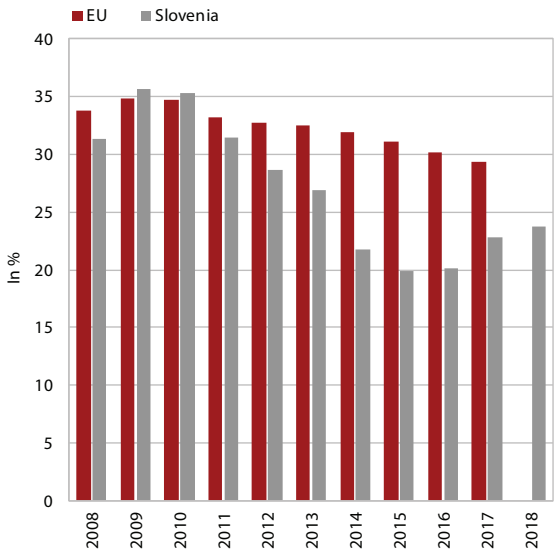
[40] EII for 2018 is calculated based on data mainly relating to 2016 and 2017.

[41] The EII value for Slovenia in 2018 stood at 87.6% of the 2011 EU average and the SDS goal for 2030 is to classify for the innovation leaders group, where the innovation efficiency (EII) is above 120% of the 2011 EU average.

[42] Measuring R&D Tax Support (OECD), 2019.

Especially after 2013, it has been associated with the discontinuation of public funding of instruments from the previous financial perspective for strengthening investment and cooperation between the business and the public sector in R&D.[43] As the R&D funding from the new financial perspective (2014–2020) was made available with a delay and the utilisation rate remained low,[44] the R&D investment of the business sector fell as well. The declining R&D investment of both sectors in the 2013–2017 period together with the increasing share of the business sector self-financing of R&D activities (97% of total R&D expenditure in 2018) decreased the potential for cooperation between the two sectors in innovation, especially in breakthrough innovation, where basic research of the public sector plays an important role. The expectation of state investment in R&D is also unfavourable. Until the end of September 2019,[45] 96% and 97% of all funding intended for promoting investment of companies in research had already been allocated in the Eastern and the Western cohesion regions respectively. It indicates that if Slovenia's budget structure remains unchanged, this domain will be left without the necessary incentives before the start of the implementation of the next EU financial period. The share of foreign R&D funding was mostly increasing in 2012–2018. Foreign R&D funding from the business sector increased more rapidly than European funding, which is encouraging in terms of the internationalisation of companies and knowledge institutions.[46]

Figure 17: Public expenditure in total R&D expenditure



Sources: Eurostat Portal Page – Science and Technology – Research and Development, 2020; SI-STAT Data Portal, 2020.

In 2010–2018, budget appropriations for R&D for environment and energy increased significantly more rapidly than the EU average despite the interim fluctuations. Its share in total budget appropriations has been higher than the EU average since 2015. In Slovenia, R&D investment for the environment was almost double the investment for energy in 2018, while the EU allocates on average more R&D investment for energy than for the environment. In Slovenia, the share of investment for environment and energy together in the total budget appropriations for R&D went up from 5.3% in 2010 to 9.8% in 2018, and in the future, the investment in these fields is expected to further strengthen considering the European Green Deal (see Section 4). In 2018, Slovenia slipped down on the European Eco-Innovation Index[47] (from 5th place to 10th place among EU Member States). Of the five dimensions, Slovenia lagged behind the EU average in eco-innovation outputs and resource efficiency (with the biggest gap in energy efficiency, where it was in the last quarter of countries; see also Section 4).

In 2018, the number of researchers increased in all sectors, but the growth in the public sector did not compensate for the several years of declining numbers. The business sector employed the biggest share of researchers[48] and their number increased by over 500 in the past year, which could be the basis for a new push in innovation activity provided that favourable conditions for R&D in the public sector are ensured. The declining numbers of researchers in the public sector and halving the funding for young researchers in the period 2012–2017 mainly affected young staff at the beginning of their careers, which does not add to the potential for cooperation with the business sector and the transfer of knowledge of young researchers with a PhD in new areas of research. Besides the unfavourable age structure of researchers (see Indicator 1.16) and the brain drain, the provision of a sufficient number of highly qualified researchers will also be difficult because of the declining cohort of the population for enrolment in tertiary education and consequently in PhD studies. In 2018, the number of new PhDs fell the most in science and technology; given the increasing importance of new technologies, this poses a number of challenges for the successful digital transformation of the economy and society.

[43] Centres of excellence, Competence centres and Development centres were funded by state and European funding, while for concrete projects, co-funding by the business sector was required.

[44] Until the end of 2019, Slovenia sent claims for reimbursement from the EU budget in the amount of EUR 1.04 billion (EU part), which represents 34% of available funding for all areas of cohesion policy which are available for the 2014–2020 period (Report on the Implementation of the European Cohesion Policy 2014–2020 for the Period from January 2014 until December 2020, 2020).

[45] Ibid.

[46] Foreign business sector funding has been higher than the inflow of European funding since 2016.

[47] The Eco-Innovation Index comprises 16 indicators covering five areas: (i) eco-innovation inputs, (ii) eco-innovation activities, (iii) eco-innovation outputs, (iv) resource efficiency outcomes and (v) socio-economic outcomes (Eco-Innovation Scoreboard 2018, 2019).

[48] Expressed as a full time equivalent (FTE).

The innovation activity of enterprises (IAE) decreased in the 2010–2016 period and the gap to the EU average widened especially in small enterprises. The latest data on IAE for the period 2014–2016 showed[49] that medium-sized enterprises have also started to lag behind the EU average and the advantage of large innovation-active enterprises compared to the EU average has reduced.[50] In this period, in Slovenia, similarly to the EU average, the share of enterprises introducing only technological innovation went up while the share of enterprises introducing only non-technological innovation went down. Both in Slovenia and in the EU on average, at least half the innovation-active enterprises introduced technological and non-technological innovation at the same time, which indicates the importance of complementarity of both types of innovation. The low rate of innovation activity in service enterprises in Slovenia and the widening gap with the EU average[51] is increasingly problematic considering the prevailing share of service activities in value added. The incentives that would address the specific features of innovation in services (for example new business models, innovative marketing and organisation approaches in using advanced technology) are still inadequately developed.[52] Due to the close inter-dependence of processes between the sectors, weak innovation activity in services also hampers growth of value added in manufacturing and international competitiveness (see also Section 1.2.1). The weakness of IAEs, especially of SMEs, can be related, among other things, to a slow introduction of modern methods of management in enterprises, such as design management.[53]

In intellectual property, Slovenia made progress only in EU trademarks in the recent period, while the gap with the EU average widened with regard to patents and designs. In EU trademark legal protection, the number of Slovenia's applications per million inhabitants was mostly rising in 2008–2019, and in the past year, it significantly exceeded the EU average. In terms of the numbers of first patent applications at the European Patent Office (EPO) per million inhabitants, Slovenia ranks in the middle of the rankings of EU countries, but since 2014, the number of applications has been falling[54] and the gap with the EU average has been widening (see Indicator 1.17). This situation reflects multiple factors, such as insufficient technological intensity of products, high costs of application and management of patents, lengthy procedures for acquiring patents, and the structure of the economy concerning the use of technology, since their level of patentability varies.[55] The decline in patent applications of companies since 2014 could have been impacted by the decreasing R&D expenditure of the business sector in this period, associated with the discontinuation of funding for centres of excellence and competence and development centres. The trends are also negative for Community registered designs per million inhabitants,[56] which fell by a third between 2014 and 2019 and indicate a lack of attention to design as a factor for increasing value added. Considering the limited human and financial resources, the protection of intellectual property is especially problematic for small and medium-sized enterprises; at the beginning of 2019, the Slovene Enterprise Fund launched vouchers for the protection of all types of intellectual property,[57] which could help narrow the gap in these areas in the future.

The intensity of digital transformation in Slovenia is too low considering the challenges of the fourth industrial revolution. In 2019, Slovenia's ranking on the Digital Economy and Society Index (DESI) went down by one place, though it remains around the EU average (see Indicator 1.11), which poses an increasing developmental risk considering the importance of digitalisation for the competitiveness and inclusion of Slovenian companies in global value chains. The summary indicator of digital transformation,[58] last published in 2018, indicates that Slovenia, ranking in 20th place in the EU in the area of enabling conditions,[59] notably lagged behind not only the EU average, but also some new EU member states. The results were somewhat better in the area of impacts, i.e. in individual segments of the corporate sector, associated with the digital technological integration and with the environment for ICT start-ups.

Slovenia's transition to a more digitally advanced society is hindered, in particular, by the lack of adaptation of the population's competences to the needs of the future, underdeveloped digital public services for enterprises, low digital security and the social attitude towards new technologies. Despite some improvements in human capital (see Section 2.1), Slovenia is increasingly lagging behind in digital competences. It is stagnating according to most DESI

[49] The study is carried out every other year; the next study, for 2016–2018, will be available in 2020.

[50] See Development Report 2019, 2019.

[51] In the 2010–2012 period, the lag was 3 percentage points and in the 2014–2016 period 12 percentage points.

[52] Among innovation-active enterprises which do not invest in R&D, in 2014–2016, less than one percent of enterprises received support for innovation, while among enterprises which do invest in R&D, this share was 30% (Business Innovation Indicators and Statistics, OECD, 2020).

[53] Design management exceeds just the design of products, since an integral part of this process is development and the promotion of innovation. It includes planning and managing processes that leads to innovative products of the highest quality and better design. The key element to the efficiency of design management is adequately qualified staff. See more in Klinar and Škrinjar, 2019.

[54] Eurostat estimates and preliminary data for 2018 and 2019.

[55] Economic Mirror, 2/2009.

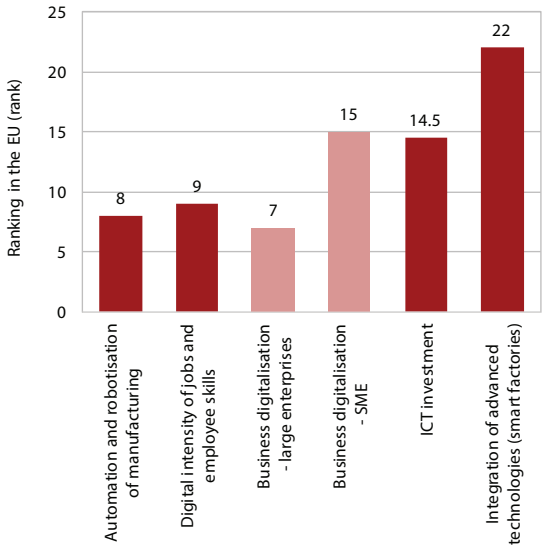
[56] A design is defined as the external appearance of a product protected by the law.

[57] SMEs can obtain funding to co-finance services of external experts and procedures, associated with the protection of intellectual property. The measure will be valid until 30 September 2023.

[58] Digital Transformation Scoreboard 2018 (EK, 2018).

[59] Enabling conditions refer to five areas, digital infrastructure, supply and demand of digital skills, entrepreneurial culture, investments and access to finance, and e-leadership.

Figure 18: Components of the digital technology integration of the corporate sector: Slovenia's ranking in the EU (latest available data)*



Sources: Eurostat, OECD and International Federation of Robotics; IMAD calculations.The *automation and robotisation of manufacturing* indicator is based on the number of robots per 10,000 employees (2018), the share of enterprises using industrial robots (2018), the share of enterprises using radio frequency identification technology (2017), and the share of enterprises analysing big data from their own smart devices and sensors (2018). *Digital intensity of jobs and employee skills:* The first figure comes from the OECD (2019) and refers to 2015, while the second measures the share of enterprises training employees in ICT (2019). *Business digitalisation* is based on the share of enterprises with e-invoices suitable for automatic sending (2018), the share of enterprises with automated business processes with suppliers and customers (2017), and the share of enterprises with ERP (2019) (CRM ((2019)), purchasing cloud computing services (2018), and those analysing big data from any source (2018). *ICT investment* is based on the volume of investment in ICT and software and databases as a percentage of GDP (2017) and ICT investment as a share of gross fixed capital formation (2017). *Integration of advanced technologies (smart factories)* is based on the number of M2M SIM cards per 100 inhabitants (2017). Ranks by component are calculated as the average of the ranks that Slovenia achieves for each indicator.

indicators related to human capital, creating a growing divide in relation to digitally more dynamic countries. The share of ICT graduates has remained unchanged in recent years, while in Estonia, for example, it was increasing rapidly (by 2.5 percentage points in 2015–2017). Slovenia has the 11th highest share of enterprises in the EU which reported difficulties in accessing skilled ICT professionals.[60] Regarding digital public services, Slovenia exceeds the EU average, mainly due to e-health and access to open data; despite improvements since 2017, it ranks in the bottom third of EU countries in the quality of digital public services for enterprises. The use of internet services is less sophisticated than in comparable countries,[61] which may be linked to the relative backlog in basic and advanced digital skills, where Slovenia ranks 18th or 17th in the EU, and partly to general social awareness and attitude towards digital technologies, which is among the lowest in the EU.[62] Slovenia also lags behind in terms of internet security, where it is ranked behind all EU countries according to the global index.[63]

The digital transformation of the corporate sector shows both positive and negative sides. Ranking 15th in the EU, Slovenia achieves average performance in the field of integration of digital technologies according to the DESI methodology, which obscures important differences by individual dimensions. The Slovenian corporate sector ranked among the more successful when it comes to the digital intensity of jobs, with over 50% of jobs created in high digital intensity sectors in 2006–2016 (the fifth highest share among the EU countries). Slovenian enterprises also provide above-average training for their employees in ICT, which applies to SMEs and especially to large enterprises.[64] Even better is the corporate sector's ranking in the automation and robotisation of manufacturing, with particularly rapid advances in robotics.[65] Manufacturing reached the 13th highest density of robots globally in 2018, with growth in the deployment of robots after 2016 among the fastest worldwide (ranking among the top five countries).[66] Robot density more than doubled in Slovenia, eliminating the lag behind countries such as Austria.[67] Slovenia's above-average level of automation is also confirmed by the relatively high share of enterprises performing big data analysis from their own smart devices and sensors and by the share of enterprises using radio frequency identification technologies. Large enterprises are among the most successful in the EU in business digitalisation, while further efforts towards digitalisation are needed especially in the SME segment. Most critical, however, is to significantly accelerate the integration of advanced technologies, such as smart factory solutions, at least according to the M2M SIM card indicator per 100 inhabitants (2017), which is a technology indicator that allows not only traceability but also data transfer between machines. Slovenia not only lags far behind in this indicator, but also marked the third lowest growth in the EU in 2014–2017 (27%, while in Austria, for example, progress was more than ten-fold).

[60] Measuring the Digital Transformation (OECD, 2019).
[61] Ibid.
[62] Digital Transformation Scoreboard 2018 (EC), 2018.
[63] The global index is calculated by the International Telecommunication Union, adapted from Measuring the Digital Transformation (OECD, 2019).
[64] Applies to the share of enterprises (Eurostat) and the share of employees participating in ICT training (Measuring the Digital Transformation (OECD, 2019)). The share of SMEs is the ninth highest in the EU and the share of large enterprises is the third highest.
[65] The accelerated growth coincides with the start of implementation of the government's support measures from the current financial perspective, and particularly Slovenia's Smart Specialisation Strategy.
[66] IMAD calculation based on OECD data from Measuring the Digital Transformation (2019) and data from the International Federation of Robotics (2019).
[67] Like in other countries, robots are particularly present in the automobile industry, and it should be added that the dependence of robotisation on this industry in Slovenia is average, which is positive (Csefalvay, Z., 2019).

The new instruments address some of the weaknesses in Slovenia's research, innovation and digital capabilities. In recent years, new mechanisms have been put in place to fund R&D and strengthen SMEs' ability to innovate. According to the interim assessment of the Strategic Development Innovation Partnerships (SDIPs), this is a good instrument for connecting the corporate sector and science, which, among other things, has resulted in the establishment of new partnerships, R&D cooperation, human resource development and integration into international networks, thereby strengthening mutual trust.[68] The success of SDIPs in increasing the number of innovative products and services can only be reflected in the medium and long term. Since the end of 2017, long-term financing of development projects has been provided in the form of favourable loans under European cohesion policy programmes via the Fund of Funds.[69] Although these are refundable funds, the interest of enterprises is high and indicates the possibility of complementarity in absorption of European funds. The Slovene Enterprise Fund also provides these loans (especially micro-loans); in 2019, it issued a series of vouchers for SMEs to strengthen their competences (e.g. digital marketing, raising of digital competences and drawing up of a digital strategy).

The development of Slovenia towards a more productive economy based on digital transformation and sustainable orientation requires higher investment and a faster and more coordinated response from all actors and of different policies. Against the backdrop of extraordinary technological changes, positive steps only in specific areas of the innovation system (e.g. in enterprises' investment in R&D and increasing the number of researchers, new instruments for human resource development and cooperation between enterprises and the scientific and research sector, a relatively high level of robotisation and automation of enterprises and business digitalisation in large enterprises) are insufficient and poorly supported financially to reduce gaps. The lengthy procedures for adopting the Scientific Research and Innovation Activities Act indicate a lack of awareness that cooperation and achieving synergies between the public and private sectors is crucial for enhancing the efficiency of the innovation system and for a breakthrough in Slovenia's innovation capacity. Slovenia's lag in digital transformation needs to be overcome by accelerated investment in (future-ready) workers and information and communication technology, also by strengthening measures that promote digitalisation, which will accelerate the deployment of smart factories and advancing towards a circular economy. Given the large and rapid impact on productivity growth,[70] digital transformation should be identified as a priority, while striving for sustainable development and stimulating the investment cycle towards this goal as soon as possible with public funds and corporate investment.

[68] Bučar et al. (2019).

[69] The implementation is managed by SID Bank, and financial resources are provided by financial intermediaries (commercial banks, savings banks, and public funds, such as the Slovene Enterprise Fund), as well as directly by SID Bank.

[70] Roland Berger, 2015; Bain, 2018; The Rise of Digital Challengers (McKinsey & Company), 2018; Industry 4.0. Capturing value at scale in discrete manufacturing (McKinsey & Company), 2019; Gal N et al., 2019.

2 Learning for and through life

Slovenia has long had a high rate of youth participation in education, resulting in a relatively high share of the population with upper secondary and tertiary education. The achievements of young people in reading, mathematics and science literacy are above average by international comparison, and education has become increasingly internationalised over the years. But alongside these favourable results, deficiencies are also present in the development of knowledge and skills. The low reading, mathematical and digital skills of adults and the lack of relevant skills in upper secondary and tertiary graduates stand out in particular. Changes in the structure of enrolment in educational programmes are too slow given the unfavourable demographic trends. All these deficiencies are reflected in a knowledge and skills mismatch of the working age population, which additionally reduces the availability of suitable workers in the light of demographic changes. Meeting the current and especially future needs of society and the economy is thus becoming a growing challenge, and it is therefore essential to focus on accelerated development of future-ready knowledge and skills to effectively face the challenges and opportunities of digital transformation and the transition to the fourth industrial revolution, an ageing population, and the reduction of the carbon footprint and adaptation to climate change. In the area of cultural and language development, production and attendance of cultural events are high, and the quality and visibility of Slovenian culture abroad is increasing. Progress has also been made in the development of the cultural and creative industries, and the challenge is the faster development of language resources and technology for the promotion and development of the Slovenian language.

2.1 Knowledge and skills for a high quality of life and work

Knowledge and skills for a high quality of life and work (Development Goal 2)

The aim is to promote high-quality and accessible learning for and through life in order to improve the competitiveness of the economy and the prosperity of society. The goal will be realised through the promotion of learning for and through life across the entire population, with incentives for those with lower educational attainment and other marginalised groups to participate in education, with improvement of the functional literacy of young people and adults, by making sure education is efficient and of a high quality, by linking the education system to the economy, and by developing skills to improve employability. The realisation of this goal is essential for an active and healthy life, which the SDS deals with in Development Goal 1, for the competitiveness and digital transformation of the economy, which is discussed in Development Goal 6, and for sustainable development, which is discussed in Development Goals 8 and 9.

SDS 2030 performance indicators for Development Goal 2:

	Latest data		Target value for 2030
	Slovenia	EU average	
Participation in lifelong learning, in %	11.4 (2018)	11.1 (2018)	19
Share of population with tertiary education, in %	32.5 (2018)	32.3 (2018)	35
PISA results, ranking among EU countries	Mathematical literacy: 5th Scientific literacy: 4th Reading literacy: 10th (2018)		Ranked among the top quarter of EU countries

Participation in education and the educational structure of the population are relatively high in Slovenia; however, the supply of knowledge and skills is not sufficiently aligned with the needs of society and the economy. The shares of young people (ages 20–24) and adults (ages 25–64) with at least upper secondary education is higher than the EU average and are increasing in the long run. The same applies to the share of young people and adults with tertiary education (Indicator 2.1). Although these movements increase Slovenia's human capital, there are some deficiencies in the development of knowledge and skills. Low skills of adults (reading, mathematical and digital) can affect their quality of life and work. The lack of adequate knowledge and skills in upper secondary and tertiary graduates[71] and the decline in the number of young people enrolled in upper secondary and tertiary education due to demographic reasons reduced economic supply during economic growth despite positive shifts in the enrolment structure (see Indicators 2.2 and 2.3). Therefore, providing a well-educated labour force in the medium term is a major challenge, especially given the estimated decline in graduates due to demographic change and the anticipated increased need of employers for appropriately skilled labour during economic expansion[72]. An additional source of adequate labour force could be ensured by minimising knowledge and skills mismatches and through migration policy measures, including attracting tertiary educated people who had emigrated from Slovenia over the years.[73] There are also reserves in the use of existing knowledge and skills at work in Slovenia[74], which means a loss of human capital, and enterprises still underexploit the opportunity to fully use the knowledge of tertiary educated persons to boost value added.[75]

Knowledge and skills mismatches during a general labour shortage (due to demographic change) reduce the availability of adequate human resources for society and the economy to face future challenges. Knowledge and skills mismatches are present in young people both at the end of formal education and for those in employment. Enterprises encountered various mismatches in past years as they recruited new workers. In 2019, almost half of the enterprises had such

[71] According to World Economic Forum (The Global Competitiveness Index 2019, 2019), Slovenia ranks 19th in upper secondary education and 21st in tertiary education among 28 EU countries.

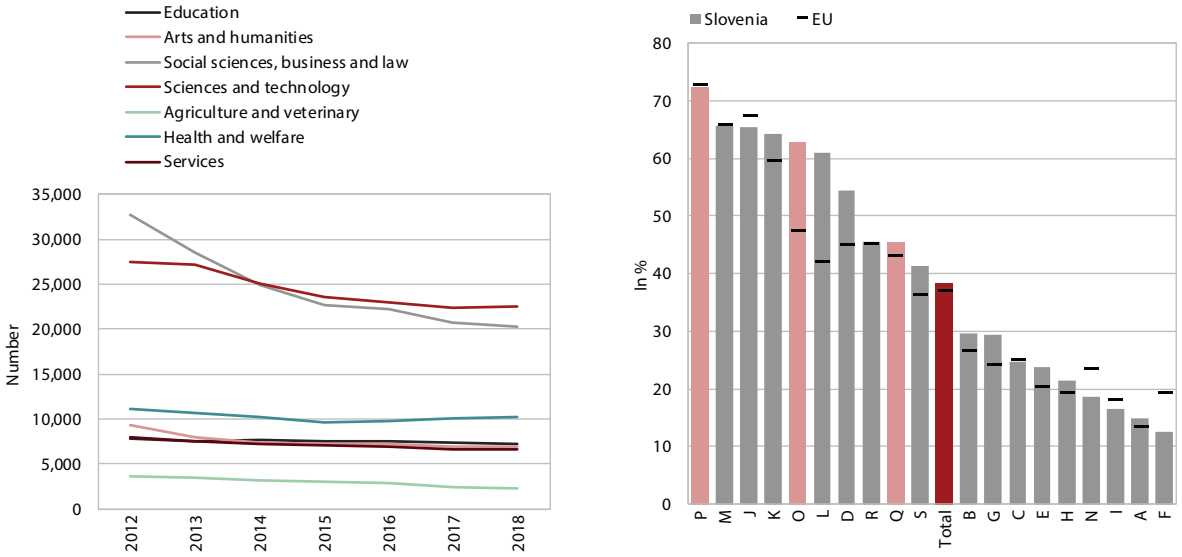
[72] Cedefop predicts employment growth in Slovenia in the 2018–2030 period, particularly the needs for experts, engineers and some other tertiary education profiles.

[73] In 2018, net migration of tertiary educated people from abroad was positive for the first time in several years.

[74] The OECD measures the use of knowledge with several indicators. In relation to other OECD countries, Slovenia has reserves in the following areas: (i) do workplaces make intensive use of skills, (ii) are workplaces designed to use knowledge skills effectively (the share of workplaces that have developed practices to ensure high performance), and (iii) promoting the use of knowledge and skills through innovation (researchers, patents) (OECD Skills Strategy 2019: Skills to Shape a Better Future, 2019).

[75] The share of persons in employment (ages 25–64) with tertiary education who are employed in occupations which do not require such education increased in Slovenia in the 2008–2017 period, reaching 14.2% in 2017; this share also increased among young people (ages 25–34), to 25.2%.

Figure 19: The number of enrolled in tertiary education (left) and the share of employed people with tertiary education by activity, 2018 (right)

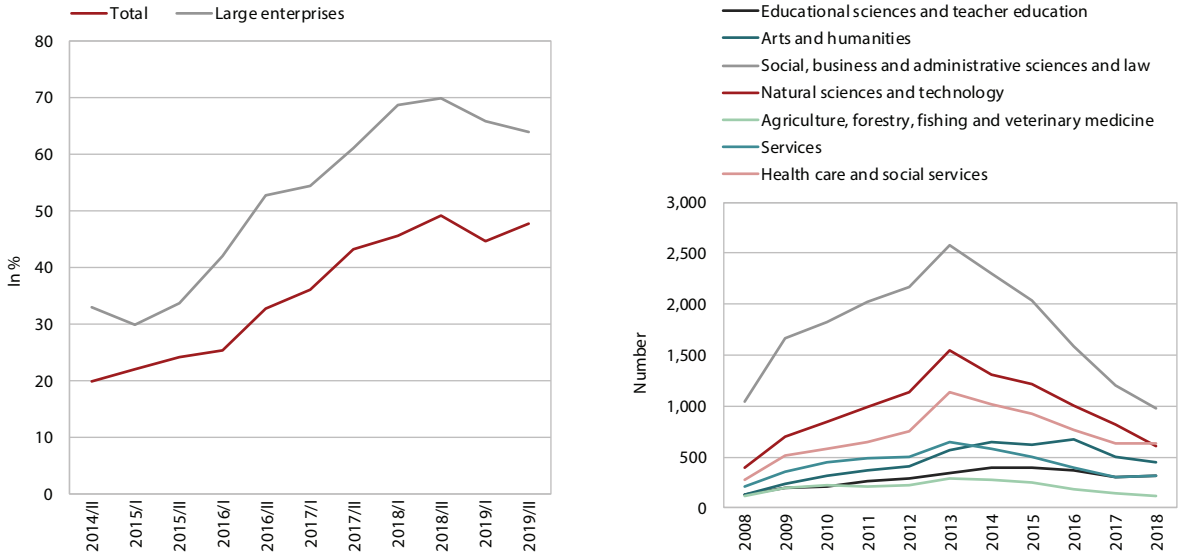


Sources: SURS, SiStat data portal – Demography and social statistics – Education; Eurostat portal page – Population and social condition – Education and training. Note: O, P and Q activities are public sector activities, while other activities are private sector activities. P – Education, M – Professional, scientific and technical activities, J – Information and communication, K – Financial and insurance activities, O – Public administration and defence, compulsory social security, L – Real estate activities, D – Electricity, gas and steam and air conditioning supply, R – Arts, entertainment and recreation, Q – Human health and social work activities, S – Other service activities, total, B – Mining and quarrying, G – Wholesale and retail trade, repair of motor vehicles and motorcycles, C – Manufacturing, E – Water supply, sewerage, waste management and remediation activities, H – Transportation and storage, N – Administrative and support service activities, I – Accommodation and food service activities, A – Agriculture, forestry and fishing, F – Construction.

problems; among large enterprises, this proportion was even higher.[76] Most often, candidates lack vocationally specific skills, an appropriate attitude to customers and problem-solving skills. From the point of view of education, there has been a lack of profiles with upper secondary vocational and professional education and certain tertiary education profiles for many years.[77] The positive shifts achieved over many years towards a higher share of enrolment in upper secondary vocational and professional education and in tertiary education in science and technology, health care and welfare (Indicator 2.3), combined with the falling number of enrolled students due to smaller generations, do not meet labour market needs.[78] Labour market mismatches are linked to the young people's modest interest in some educational programmes, the lack of attractiveness of some professions, the low number of available places for enrolment in some study programmes, and the lack of cooperation between educational institutions and the economy. In the future, the responsiveness of education could be increased by the wider use of apprenticeships, which shows good results[79], and other measures already in place.[80] Knowledge and skills mismatches of the already employed are reflected in the lack of social and verbal skills, logical reasoning, participation, adaptability, conscientiousness, and autonomy.[81] Insufficient supply of suitable trained workers limits productivity growth, therefore, measures to provide the right knowledge and skills should be strengthened. An example of such a measure is the planned establishment of medium-term forecasting of knowledge and competency requirements (i.e. the competency forecasting platform), which is crucial not only in terms of achieving the Smart Specialisation objectives in the field of human resource development[82], but above all for society and the economy to tackle future challenges, e.g. digitalisation,

[76] Data by the Employment Forecaster 2019/II (ESS, 2019).
[77] Data by the Employment Forecaster 2019/II (ESS, 2019).
[78] According to the Occupational Barometer data (ZRSZ, 2019), the lack of experts in health care and welfare, science and technology, and profiles with upper secondary vocational and technical education was assessed for 2020.
[79] Enterprises welcome apprenticeships – we publish the first evaluation report on trial apprenticeships (MIZŠ, CPI), 2018.
[80] The measures such as integration of vocational and professional education with labour market needs 2018–2022, renewal of vocational education in 2018–2022, promotion of vocational education in 2016–2020, raising teachers' professional competences in 2017–2019, expanding apprenticeships, student innovative projects for social benefit, and setting up a system for monitoring the employability of higher education graduates.
[81] OECD Skills for jobs database, 2020.
[82] The competency forecasting platform is a tool for three key areas of human resource development: (i) long-term forecasting of competency requirements; (ii) identifying gaps in the competences of the employed and unemployed against long-term forecasts and drawing up a career development plan and education plan; and (iii) development of proposals for education and training programmes in relation to labour market needs and competency gaps and filling the gaps with education and training in existing programmes or timely preparation of new programmes (Slovenian Government, Information on the Implementation of the Smart Specialisation Strategy 2016–2018, pp. 33–34).

Figure 20: Lack of adequate workers for employment (left) and the number of unemployed graduates (aged up to 29) with tertiary education (right), Slovenia



Source: ESS, Employment Forecaster; ESS.

Box 2: Knowledge and skills required for society and the economy to face future challenges

Strengthening creativity is essential to effectively respond to situations that require innovative solutions and to prepare for professions that do not yet exist. Creativity is key to generating new ideas, finding solutions in an innovative way, and making progress in society and the economy and should therefore be developed through education and culture (see Section 2.2). In Slovenia, schools organise various activities that stimulate creativity (e.g. the measure to promote creativity, entrepreneurship and innovation in primary and secondary schools,[1] innovative learning environments and flexible forms of learning,[2] and the festival of innovation and creativity); creativity is also developed outside the school, for example in the House of Experiments. In higher education, creativity is fostered by student innovative projects for social benefit, in which students seek solutions to the challenges of the public and non-profit sectors.[3] Creativity is also important for adults, and therefore it is sensible to promote it through study groups, intergenerational cooperation and learning programmes, the Third Age University and the Learning Parade – a day of learning communities. The investigative art platforms (KONS and RUK – Network of Investigative Art and Culture Centres) also contribute to the development of creativity.

Improvement of digital knowledge and skills would enable faster digital transformation of society and enterprises. The lack of qualified workers has been empirically proven to reduce productivity growth potential.[4] Accelerated public and private investment in human resources is the first recommendation of a series of studies analysing the transition to the new industrial revolution. In addition to the knowledge and skills needed to meet current requirements, the economy in particular needs skills to help take advantage of the opportunities, and face the challenges, of digitalisation and automation. In Slovenia, the development of digital knowledge and skills is too slow given the great needs of the corporate sector (see Section 1.2.2), which should be addressed as a

[1] The public call for primary and secondary schools for allocating incentives designed to carry out activities to promote creativity, entrepreneurship and innovation among young people in 2019–2020, 2019.

[2] The call for proposals for the selection of operations entitled "Development and implementation of innovative learning environments and flexible forms of learning to raise general competences", 2016; the call for proposals to co-finance the operation of development and implementation of innovative learning environments and flexible forms of learning to raise general competences – development of communication skills through cultural and artistic education, 2017; the call for proposals entitled "Promotion of flexible and innovative forms of learning through the development of language resources and technologies", 2017. The measure of innovative and flexible teaching and learning is being implemented at some higher education institutions (MIZŠ, the call for proposals entitled "Innovative and flexible forms of teaching and learning", 2018).

[3] Student innovative projects for social benefit (ŠIPK) (Public Scholarship, Development, Disability and Maintenance Fund of the Republic of Slovenia).

[4] Gal, N., et al., 2019.

priority. Digital technology is underused by primary and secondary schools, despite their being well equipped,[5] which hinders the development of young people's digital knowledge and skills; therefore teachers should be more encouraged to be trained in the (effective) use of this technology. In higher education, the measure of integrating the use of information and communication technology into the higher education teaching process is being implemented. However, government measures (such as a voucher for raising the digital competences of employees in enterprises, incentives for digital transformation of small and medium-sized enterprises, and obtaining basic and professional competences, including ICT skills) could help to improve the digital skills of adults, which are low by international comparison.

The development of knowledge and skills for sustainable development is being strengthened and will accelerate the sustainable transformation of society and the economy. Sustainable development topics are included in the education of young people; however, it will be necessary to further expand and integrate them into the whole educational process and the functioning of educational institutions to reach sustainable development goals. This could be achieved in the future through the climate change awareness and education programme, which was launched in 2020.[6] Such knowledge and skills should also be developed in adults and in enterprises where related activities have been strengthened in recent years (e.g. Sustainable Development Week, LIFE IP CARE4CLIMATE[7] climate projects and LIFE Climate Path 2050[8], energy consulting, NGO activities, Academy of Sustainable Business Strategies and Models in Enterprises (TPSMP Academy),[9] sustainable development training provided by the ACS, etc.). Dissemination of knowledge on the challenges of sustainable development will also be necessary to achieve the objectives of the European Green Deal (see Section 4) and to restructure jobs that will be threatened by the introduction of new clean technologies.

Strengthening entrepreneurship requires a greater presence of entrepreneurship skills in the education of young people and adults. The emergence of new professions and jobs and the spread of atypical forms of employment increase the need for greater entrepreneurship of individuals. To this end, entrepreneurship knowledge and skills among young people and adults enrolled in various educational programmes at all levels of education should be promoted, as well as building on existing measures implemented (the measure designed to promote creativity, entrepreneurship and innovation in primary and secondary schools and the measure designed to strengthen entrepreneurship competence and promote flexible transition between education and the wider world in elementary schools[10]).

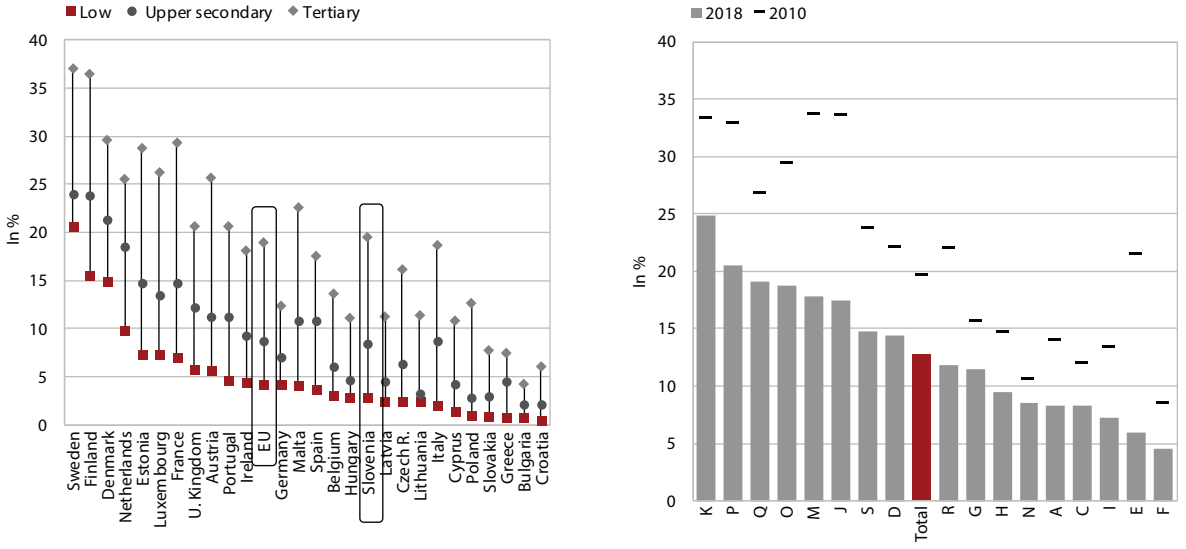
[5] 2nd Survey of Schools: ICT in Education. Slovenia Country Report (European Commission), 2019.
[6] The measure is implemented in the 2020–2023 period. In the last year of implementation of the measure, the programme will be tested on a sample of up to 80 schools (Climate Change Fund spending programme in 2020, 2019).
[7] Life IP CARE4CLIMATE is an integral project that, through awareness-raising, education and training of key stakeholders, will encourage the implementation of measures to help Slovenia meet its greenhouse gas emission reduction targets by 2020 and 2030. It was launched in 2019.
[8] Life Climate Path 2050 is aimed at monitoring progress and planning climate action to reduce greenhouse gas emissions in buildings, transport, industry, agriculture, forestry and waste. Various workshops, seminars, etc. are organised in the context of the project.
[9] The TPSMP Academy includes a comprehensive process in which enterprises together with experts develop sustainable business/corporate strategies, sustainable business models and implementation projects (the call for proposals entitled "Promotion of sustainable business strategic transformation and development of new business models in Slovenian enterprises to facilitate integration into global value chains", 2019).
[10] Strengthening of the entrepreneurship competence and promotion of flexible transition between education and the wider world in primary schools, 2017.

automation, climate change, social and other challenges. According to the OECD, future-ready skills comprise creativity, social, entrepreneurship and digital skills[83] (see Box 2).

Although knowledge quality indicators for young people have deteriorated, they are favourable by international comparison. According to the PISA 2018 study, the results in reading, mathematics and science literacy among young people, which is an indirect indicator of the quality of education, deteriorated compared to the preceding study (PISA 2015) (see Indicator 2.4) but are above average by international comparison. The relatively low differences between the regions show a favourable picture, among which the most economically developed region (the Osrednjeslovenska region) stands out the most. All regions below the Slovenian average are in eastern Slovenia, but even these do not deviate significantly from the Slovenian average. Given Slovenia's overall favourable position, more continuous professional development for teachers could contribute to further improving the quality of education. In the medium and long term, due to the

[83] OECD (OECD Future of Education and Skills 2030, 2019) notes that professions requiring social skills and professions requiring creativity are less likely to be at risk.

Figure 21: Participation of adults (aged 25–64) in lifelong learning by education in 2018 (left) and participation of employed persons (aged 25–64) in lifelong learning by activity in Slovenia (right)



Source: Eurostat – Population and social condition – Education and training, Labour Force Survey.
Note: O, P and Q activities are public sector activities, while other activities are private sector activities. K – Financial and insurance activities, P – Education, Q – Human health and social work activities, O – Public administration and defence, compulsory social security, M – Professional, scientific and technical activities, J – Information and communication, S – Other service activities, D – Electricity, gas and steam and air-conditioning supply, total, R – Arts, entertainment and recreation, G – Wholesale and retail trade, repair of motor vehicles and motorcycles, H – Transportation and storage, N – Administrative and support service activities, A – Agriculture, forestry and fishing, C – Manufacturing, I – Accommodation and food service activities, E – Water supply, sewerage, waste management and remediation activities, F – Construction.

high proportion of older teachers (aged 50 and over), a sufficient number of new teachers will need to be provided and an appropriate policy should be adopted to motivate young people for the teaching profession, including by improving its standing in society, which is low by international comparison.[84] The quality of education could also be further improved through increased investment in education, which is low by international comparison (see Indicator 2.5). Improving the quality of education and the development of new knowledge and skills are also promoted by cooperation projects[85] carried out at all levels of education, with their number varying considerably over the years.

The internationalisation of education that enhances the offer of knowledge and skills has increased over recent years. Education abroad enables an individual to obtain additional professional knowledge and knowledge about foreign countries, language and culture and so forth, thus enriching the labour market's supply of knowledge and skills after they complete their education. The number of young people enrolled in upper secondary schools who took part in foreign exchange programmes has increased over many years.[86] In the context of long-term mobility[87], the proportion of students from Slovenia having studied abroad has increased in recent years and was higher in 2017 than the EU-23 average.[88] The number of students studying or doing an internship in a company or organisation[89] abroad under the Erasmus+ programme has fluctuated in recent years but has increased in the long run. Foreign students[90] can widen the pool of graduates; their share in total tertiary education enrolment is increasing but is lower than the EU average. The number of foreign students studying or doing an internship under the Erasmus+ programme has also increased.

Reduced participation of adults and employees in lifelong learning is unfavourable in terms of effective integration into the labour market and society and coping with changes at the workplace due to digitalisation and automation. According to the PIAAC survey, the reading, mathematical and digital skills of

[84] OECD, TALIS 2018, 2019.

[85] The purpose of these projects is to promote the exchange of good practices and the development, transfer and implementation of innovative practices at organisational, local, regional, national and European levels (CMEPIUS, http://www.erasmusplus.si/kljucna-aktivnost-2/).

[86] A total of 1,342 students participated in mobility abroad in the 2018/2019 school year (according to CMEPIUS data available in December 2019).

[87] Longer-term mobility or diploma mobility is characterised by the fact that a student goes abroad for a longer period of time (usually for the entire period of study) and obtains a diploma abroad.

[88] It was 4.0% in Slovenia in 2017, while the average of 23 EU Member States that are also OECD members was 3.5%.

[89] The duration of mobility is 3–12 months for study purposes and 2–12 months for the purpose of internship (CMEPIUS, 2020).

[90] With permanent residence abroad.

adults are low and hinder their integration into society and quality work. Participation of adults in lifelong learning, which could contribute to improving such skills, is decreasing and is only slightly higher than the EU average and far from the SDS target for 2030 (Indicator 2.6). Participation of the elderly, less educated, foreigners and adults with low skills is particularly low.[91] Employee participation in lifelong learning has also decreased over many years, which is an unfavourable trend in terms of coping with technological progress, digitalisation and automation. The low participation of employees at workplaces which are subject to high levels of digitalisation and automation stands out in particular,[92] although these employees need a lot of new knowledge and skills, some of them also retraining, to enable them to work in other professions. Improvements in the areas mentioned by the European Commission could contribute to improving the situation in adult learning:[93] (i) promotion of adult interest in learning; (ii) access to education for everyone; (iii) relevance of educational programmes; (iv) quality of education; and (v) the integration of the education policy with other policies at all levels. The OECD[94] also highlights the issue of modest expenditure on adult learning by individuals, enterprises and the state. The high dependence of adult learning on the availability of EU funds is also a drawback.[95] Action taken in recent years could also contribute to improving adult knowledge and skills, making education more accessible and increasing the relevance of ongoing educational programmes.[96]

[91] According to the OECD, PIAAC 2012 and 2015, some upper secondary and tertiary graduates and young people and individuals in middle age groups also have low skills.

[92] According to the results of the PIAAC survey (2012, 2015) (OECD), OECD Skills Strategy 2019, 2019.

[93] Adult Learning in the EU 28 Member States (EC), 2019.

[94] Getting Skills Right: Future-ready Adult Learning Systems (OECD), 2019.

[95] A drawback is the high dependence of a significant number of adult learning providers on the unpredictable effective rate of absorption of funds from the European Social Fund (Beltram, 2019).

[96] For example, the measure to obtain basic and vocational competences and the measure to implement continuing vocational education and training programmes and the programme of comprehensive support to enterprises for the active ageing of the labour force.

2.2 Culture and language as main factors of national identity

Culture and language as main factors of national identity (Development Goal 4)

The purpose of the goal is to preserve and develop the national culture and Slovenian language as factors of national identity, the country's visibility, and social and economic progress. The achievement of the goal will be supported by the promotion of participation in culture, development and preservation of culture and cultural heritage, strengthening of cooperation between businesses and culture, and promotion of creativity and creative industries. In addition, the SDS 2030 refers to digitalisation as an important factor for the preservation and development of the Slovenian language and access to the culture, and international cultural collaboration as a means to increase the country's visibility. Cultural participation contributes to the development of functional literacy, which is addressed in Development Goal 2, and to achieving a healthy and active lifestyle, which is addressed in Development Goal 1.

Performance indicators for Development Goal 4:

	Latest data		Target value for 2030
	Slovenia	EU average	
Visit to cultural events, number per capita	6.3 (2018)	n/a	8
Share of cultural events performed abroad, in %	5.1 (2018)	n/a	3.5
Open source language resources and tools, number	180 (2019)	n/a	153

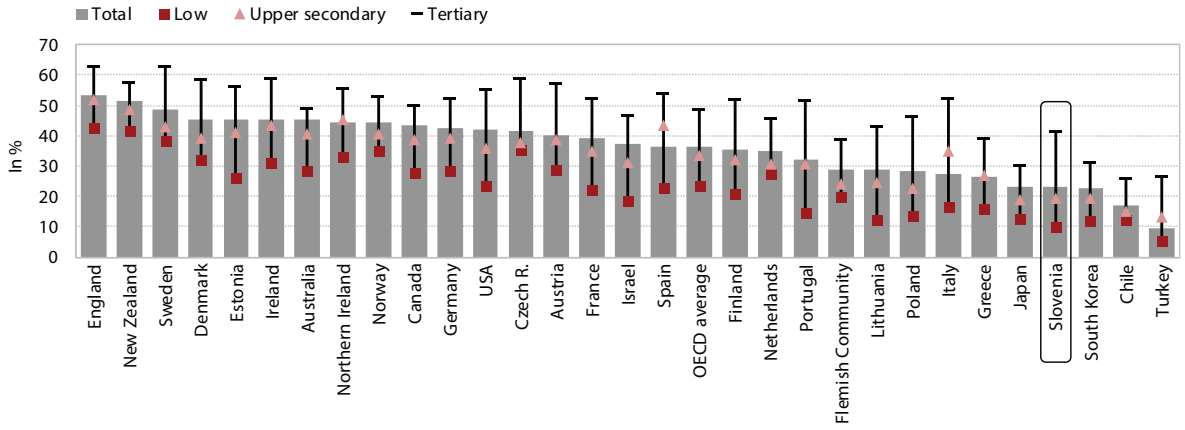
Culture and language are important factors in national identity, national visibility, and social and economic progress. These impacts are intertwined, very complex and usually long-term, which limits the possibilities for comprehensive annual monitoring of the achievement of this SDS development goal. Culture and language contribute to the recognition of a country's uniqueness and the openness of its society and to the development of creativity, innovation and cooperation and are an important factor in economic and regional development. Highlighted below are some areas that are more closely related to SDS 2030 guidelines.

Trends in cultural production and visits to cultural events are favourable, while the spread of digitalisation and preservation of cultural heritage would enable even greater accessibility of culture. Visits to cultural events have increased over many years (see Indicator 2.7) and are high by international comparison.[97] The high number of visits is linked to a good supply of cultural events throughout Slovenia, especially in Ljubljana, which, compared to comparable cities in the EU, is also characterised by an above-average number of cultural venues.[98] Trends in amateur culture are also favourable, the number of cultural societies (mostly in music), members, events and visitors having increased over many years. In Slovenia, strong cultural production is facilitated by above-average government expenditure and a high number of people employed in culture by international standards. The accessibility of cultural content is also affected by digitalisation, which, despite progress, is lagging behind plans,[99] and the preservation of cultural heritage, where the implementation of the Cultural Heritage Strategy 2020–2023 and the Provision of Funds for Certain Vital Cultural Programmes of the Republic of Slovenia Act (ZSNNPK) could yield favourable results.[100] The nomination of buildings and urban development works by architect Jože Plečnik in Ljubljana for inclusion on the UNESCO World Heritage List, which Slovenia submitted in 2020, is also important for the preservation of cultural heritage and its visibility. In addition to the scope of cultural production, its quality is also an important factor. An indirect quality indicator here is the share of cultural events performed abroad, which has increased in recent years and is higher than the SDS 2030 target (see Indicator 2.8).

The slow development of language resources and technology,[101] poor reading habits of the population,

[97] See Development Report 2019, 2019.
[98] European Commission, The Cultural and Creative Cities Monitor, 2019.
[99] The number of items published on the KAMRA portal in 2018 was 33,534 and was lower than the target for 2017 (50,000) set in the Resolution on the National Programme for Culture 2014–2017.
[100] According to this Act, additional funds of EUR 122.6 million are provided from the national budget for the 2021–2027 period for vital cultural programmes, of which EUR 32.0 million for the reconstruction of the most threatened and most important cultural monuments, EUR 7.7 million for the preservation and restoration of the most threatened and most important Slovenian film, music, ballet and dance heritage and digitisation of cultural heritage, and EUR 3.5 million for the purchase of cultural heritage and contemporary artworks.
[101] Language resources is a collective name for language manuals (dictionaries, grammar books, spelling books, etc.) and linguistic collections (corpora and linguistic databases) that speakers use on a daily basis for independent and effective communication. Language technology is a collective name for various computer tools and applications that use existing linguistic (meta)data to solve language-related practical user dilemmas (speech recognition and synthesis

Figure 22: The share of adults (aged 25–64) who read books at least once a week in 2012 and 2015



Sources: OECD, Education at a Glance 2019, 2019; PIAAC 2012 and 2015.

and discouraging trends in the field of books and public libraries are unfavourable from the point of view of the preservation and development of the Slovenian language. Book reading, which affects reading literacy, is not widespread in Slovenia. The share of adults who read books at least once a week is lower than the OECD average, with the low share of adults with low educational attainment standing out.[102] Although activities to promote reading literacy (National Month of Reading Together, Reading Friendly Municipality) have been intensified in recent years, major shifts would be needed given the low adult literacy skills. The possibilities for this are offered by an extensive network of public libraries and bibliobuses, which increase the spatial accessibility of books. Trends relating to public libraries are also discouraging, with membership having stagnated in recent years and the borrowing of library materials having decreased. Reading literacy will also be positively affected by the implementation of the National Strategy for the Development of Reading Literacy for 2019–2030. Promoting book reading and introducing a lower VAT rate for printed and electronic books[103] could also have a positive effect on publishing, where trends have been unfavourable for some time. The number of titles of published books and brochures decreased in 2009–2018, as did the number of published titles of Slovenian literature. The development of reading literacy and the accessibility of the Slovenian language can also be facilitated by language resources, technology and digitalisation. Several planned measures have not been implemented in these areas;[104] the Resolution on the National Programme for Language Policy 2014–2018 has expired and a new one has not yet been adopted. In the field of linguistic equipment, the number of open, accessible language resources and tools in the national CLARIN[105] repository is increasing, reaching 180 at the end of 2019 (the SDS 2030 target is 153).

Some major international cultural events offer the opportunity for wider promotion of Slovenian culture abroad and a higher number of visits to cultural events. International cooperation in culture and its promotion contribute to the visibility of Slovenia and its culture abroad and to a higher number of visits to cultural events. Several international events were planned for 2020 and the coming years; these represent an opportunity for the promotion of Slovenia and Slovenian culture, as well as for tourism and economic development. EXPO 2020 was announced for 2020 and 2021; in 2021 Slovenia is to host the largest international choir festival in Europe (Europa Cantat 2021), the event Slovenia – European Region of Gastronomy 2021, and in 2025 the event European Capital of Culture 2025. With regard to publishing, Slovenia is to be guest of honour at the Frankfurt Book Fair 2022, which will offer opportunities for greater promotion of Slovenian books abroad. In addition to the participation or organisation

systems, machine translation, computer-assisted translation, spell- and grammar-checkers, question answering systems, text mining, etc.) or for computer-assisted natural language analysis procedures for the production of digital language manuals in particular and other resources (see the call for proposals for (co-)financing projects aimed at promoting and fostering the Slovenian language in the field of language resources, technology and digitisation in 2018 and 2019, 2017).

[102] The difference in book reading between persons with low and tertiary education in Slovenia is greater than the OECD average.

[103] In 2019, the Act Amending the Value Added Tax Act (ZDDV-1K) was adopted, setting a lower VAT rate for printed and electronic books.

[104] According to the Report on the Implementation of Action Plans for Language Education and Equipment for 2018, which was adopted on the basis of the Resolution on the National Programme for Language Policy 2014–2018, many planned measures relating to language equipment were not implemented.

[105] CLARIN is a research infrastructure organised as an interinstitutional consortium and provides the development and operation of a unified computer platform, which offers research communities permanent storage and free access to language resources, applications and advanced tools for computer processing of Slovenian and other languages.

of some of the more prominent international events, a number of regular activities continued to be carried out by Slovenia in 2019.[106]

Integration between culture and the economy is strengthening and the economic importance of culture is increasing; however, there are further possibilities for exploiting the economic potential of culture. The Centre for Creativity has been active for several years; the second call for proposals "Promotion of creative cultural industries – Centre for Creativity 2020–2021" was published in 2020. The integration of science, art, technology and the economy is also promoted by the centres of investigative art and culture.[107] Culture also represents the potential for entrepreneurial activity and creating added value. With the exception of visual arts, the business results of enterprises engaged in cultural activity have been unfavourable for many years (especially in design and decoration).[108] This is particularly true in the field of books and press publications, which creates the most added value and employs the most people among all areas of culture. In the future, more favourable trends in book exports and the development of publishing activity could be encouraged by Slovenia's participation as guest of honour at the Frankfurt Book Fair 2022.

[106] In Slovenia, the Ministry of Culture and the Ministry of Foreign Affairs are taking a number of measures to increase the international visibility of Slovenian culture.
[107] Call for proposals for the selection of operations Network of Investigative Art and Culture Centres, 2018.
[108] Čelebič, 2020.

3 An inclusive, healthy, safe and responsible society

Slovenia's post-crisis development was generally inclusive. With increased participation of below-average represented groups (young people, the elderly and the less educated) and faster income growth in lower income classes, social exclusion and income inequality indicators returned to relatively favourable pre-crisis levels, while long-term unemployment also decreased. Inclusive development is also indicated by the high participation of the population in social life and low gender gap. However, the at-risk-of-poverty rate remained slightly higher than before 2008, with a particular challenge being to reduce the at-risk-of-poverty rate among older women. Despite somewhat higher permanent employment, labour market segmentation remains high, especially among young people. Demographic change has exacerbated the problem of the lack of adequate labour force during economic expansion, which is becoming an increasingly important limiting factor for further development in the medium term, also in the light of rapid technological changes (see Sections 1 and 2). There are also a number of challenges relating to health. As in other countries, the increase in life expectancy has halted in recent years, and health inequalities have started to rise again. The rate of mortality preventable by health care fell sharply between 2011 and 2016, but significantly more deaths could still be prevented through better prevention and public health measures. Further strengthening of prevention programmes to reduce risky behaviour, especially of the socially disadvantaged (alcohol consumption, smoking, drug abuse, obesity), improved access to health care services in terms of waiting times and regulating the long-term care system could contribute to this. Systemic regulation of social protection systems is particularly important in the light of demographic change.

3.1 A healthy and active life

A healthy and active life (Development Goal 1)

The aim of the goal is to ensure quality life for all generations by promoting a healthy and active life. Achieving this goal will require raising awareness of the importance of a healthy lifestyle and mental health, preventing risky behaviour, strengthening prevention, reducing health risks from environmental pollution and climate change, and promoting sustainable consumption, intergenerational cohesion and gender equality. With demographic change, the challenge will be to maintain sustainable social protection systems that ensure adequate pensions and high access to health care and long-term care and contribute to reducing health inequalities. In order to achieve this goal, it is also important to create conditions for a dignified life of all generations, which is addressed by Development Goal 3.

Performance indicators for Development Goal 1:

	Latest data		Target value for 2030
	Slovenia	EU average	
Years of healthy life expected at birth, number of years	Men: 55.3 years; 70.7% of life expectancy (2017)	63.5 years 81.1% of life expectancy (2017)	Men: 64.5 (80% of life expectancy)
	Women 54.6 years; 65.0% of life expectancy(2017)	64.0 years 76.6% of life expectancy (2017)	Women: 64.5 (75% of life expectancy)
Gender Equality Index, index	68.3 (2019)	67.4 (2019)	> 78

The rate of mortality from treatable causes fell sharply between 2011 and 2016, indicating relatively effective health care, but significantly more deaths could still be prevented through better prevention and public health care measures. Improving health status is a general trend associated with advances in medicine and improving quality in health care, along with a range of other factors, such as income growth, raising education levels and information. In most EU and OECD countries, the rapid increase in life expectancy (LE) characteristic of 2002–2007[109] slowed down in 2012–2017. In Slovenia, the slowdown was even more pronounced, as neither the number of healthy life years (see Indicator 3.1) nor life expectancy increased after 2014 (see Indicator 3.3). At the same time, the gap with the EU average in the number of healthy life years widened again, and health and disability self-assessment remains well below the EU average. According to the indicator of mortality from treatable (or amenable) causes, which shows the effectiveness of the health care system, great progress was made between 2011 and 2016 in reducing mortality that can be mainly avoided through health care interventions but less progress in preventable mortality that could be avoided through prevention interventions (see Indicator 3.4), which is related to the prevalence of an unhealthy lifestyle. Risky behaviour is also the reason for the high burden of chronic diseases[110] such as cancer, heart and lung disease, and diabetes. Due to the ageing of the population, cancer incidence is increasing in all EU countries; Slovenia ranks 9th among the EU countries in terms of the incidence rate of various types of cancer and 3rd in terms of mortality.[111] Greater improvement in preventable mortality could be achieved by strengthening prevention at the primary level, expanding GP model practices and health-promotion centres, screening programmes, integrating health and long-term care, vaccination, and greater investment by employers in health.

Following a decline in 2007–2014, health inequalities have increased again in recent years. The NIJZ analysis[112] showed that in 2007–2014 health inequalities decreased according to most indicators, but in 2014 (the latest international data according to the EHIS) the differences in the proportion of overweight adults in terms of education were still the highest in the EU, while the differences in the proportion of chronically depressed in terms of income were high. In 2014–2018, the gap between the first and fifth income quintile groups in health[113] and disability[114] self-assessment

[109] Health at a Glance 2019 (OECD), 2019.

[110] According to the EHIS, the share of the population with one or two chronic diseases was 40.5% in 2014, compared to the EU average of 31.3%.

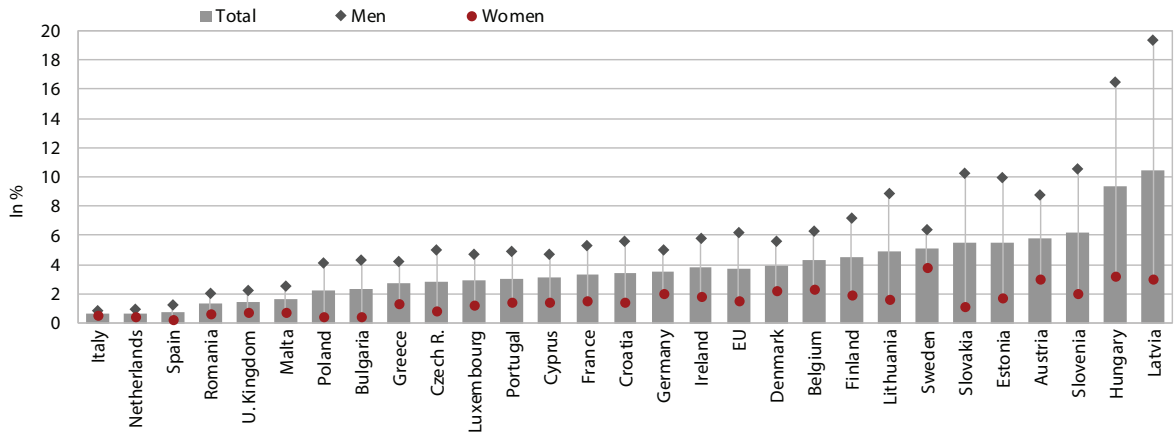
[111] Health at a Glance: EU 2018, 2018.

[112] Health inequalities during the economic crisis, 2018.

[113] According to the 2018 EU-SILC survey, 50% of respondents from the first income quintile group and 78% from the fifth quintile group rated their health as good or very good (in the EU: 60% from the first quintile and 80% from the fifth quintile). The gap between the first and fifth quintiles in Slovenia was 28 percentage points and in the EU 20 percentage points (vs. 22 percentage points in Slovenia and 17 percentage points in the EU in 2014).

[114] In 2018, 16% of respondents from the first income quintile group and 4.5% of respondents from the fifth quintile group assessed that, due to health problems, they have had been severely hindered in performing daily activities for a long time (in the EU: 12% from the 1st quintile and 4% from the 5th quintile). The gap in Slovenia was 11.7 percentage

Figure 23: The share of dependent drinkers in 2017



Source: Global Status Report on Alcohol and Health, WHO 2018.

indicators again increased sharply, and in 2018 it was significantly larger than the EU average. Reducing health inequalities requires coordinated intersectoral action aimed particularly at promoting a healthier lifestyle for socially disadvantaged and most vulnerable groups. Especially the less-educated need additional attention and opportunities to be able to use their potential, actively contribute to society and live to a healthy old age. A further reduction in health inequalities would also make an important contribution to reducing the pressure on health expenditure growth and absenteeism (see Indicator 3.21).

The prevalence of some forms of unhealthy lifestyle has decreased in recent years, while other health risks have begun to increase. Compared to EU countries, overweightness and obesity in adults is the biggest problem in Slovenia, which is almost at the top of the EU in this regard (see Indicator 3.7).[115] This is also related to the high prevalence of diabetes.[116] At the same time, a significantly higher share of adults (74%) than the average of the EU countries which are members of the OECD (the EU-23) are engaged in physical activity almost every week and eat fruit and vegetables every day (more than 60% of adults).[117] The share of adult smokers in Slovenia is slightly below the EU average, but it did not decrease in the last ten years as in most other countries, and lung cancer is still the main cause of preventable mortality. However, the proportion of young smokers decreased more than in the EU,[118] though marijuana use is above average among young people and the use of other illicit drugs is only slightly below the EU average.[119] The use of psychoactive drugs increases the risk of accidents and injuries among young people and the risks of mental health problems later in life. The share of alcohol-dependent people (the third highest in the EU) and the share of heavy episodic drinkers are still extremely high,[120] and the rate of preventable alcohol-related deaths is almost twice as high as the EU average. As with obesity, the gender gap is very high. Particularly problematic is the very high share of alcohol-dependent men. Nevertheless, Slovenia has still not introduced excise duties on wine; after an 18-year ban, a law was passed in 2017 that again allows the sale of beer and wine at sporting events. In order to improve lifestyle, it is essential both to strengthen prevention interventions and public health and to raise awareness of individuals about being responsible for own health; in addition, men with lower and upper secondary education in particular will need to be included in policies to reduce risky behaviour. The latter would also contribute to greater participation in the labour market.

Among the health risks arising from the environment, particular emphasis is on the health risks of air pollution. General environmental pollution in Slovenia is not high and is improving,[121] but air pollution, which poses the greatest risk to health (respiratory diseases, lung cancer, cardiovascular diseases) in developed countries, exceeds the limit to which pollution is acceptable according to WHO guidelines. Air pollution also exceeds the EU average (see Indicator 4.13 and

points and in the EU 7.7 percentage points (vs. 9.2 percentage points in Slovenia and 7.7 percentage points in the EU in 2014).

[115] The OECD study "The Heavy Burden of Obesity" shows extremely high economic impact of overeating.

[116] In 2017, 7.3% of adults had diabetes (OECD: 6.4%; EU: 6.0%) (Health at a Glance 2019, 2019, and Health at a Glance: Europe 2018, 2018).

[117] Health at a glance 2019, 2019.

[118] In 2016, the share of regular smokers among young people (aged 15–16) was 22% and among adults 19% (Health at a Glance: Europe 2018, 2018).

[119] The most widespread illicit drugs among young people are ecstasy, amphetamines, cocaine and LSD (OECD Health at a Glance: Europe 2018, 2018).

[120] The alcohol policy in Slovenia, 2018.

[121] See ARSO – Environmental indicators. Air pollution improved from 2005 to 2017, but in recent years it has remained at the same level and is heavily dependent on weather conditions.

Section 4.2).[122] According to the OECD, the economic costs[123] associated with outdoor air pollution in 2017 in Slovenia accounted for 3.7% of GDP, similar to the EU average but well above the OECD average.[124] As the share of the elderly population increases, the number of premature deaths due to air pollution could increase in the future.

Mental health problems are an increasing economic burden. The rise in mental health problems is characteristic of all developed countries, this as a result of a fast-paced lifestyle, high expectations from the individual, a poor lifestyle, growing inequalities, deprivation and loneliness of the elderly. According to the OECD, total costs due to mental health problems in Slovenia in 2015 accounted for 4.13% of GDP, which is approximately as much as the average in EU countries.[125] Slovenia differs especially in terms of the high share of women with mental health problems and at the same time in terms of very high inequalities in mental health in terms of income.[126] In 2014, Slovenia ranked fifth among EU countries in terms of the share of respondents who reported chronic depression. The high suicide rate has decreased in the last ten years, but it is still among the highest in the EU or twice as high as the EU average and four times as high among men.[127] Only the prevalence of dementia is lower than the EU average (in 2017, in Slovenia: 12.4 per 1,000 persons; EU: 15.0), but is projected to increase to 25 by 2050.[128] In early 2018, the Resolution on the National Mental Health Programme 2018–2028 was adopted; this provides for wider action by several sectors and policies to reduce the burden of mental illness. The focus is on shifting from predominantly hospital treatment to addressing mental disorders at the primary and local levels.

Slovenia is successful in the field of gender equality, which is an important element of an active society. According to the Gender Equality Index, Slovenia has progressed rapidly over the last ten years and was above the EU average in five of six domains of the index[129] in 2019 (see Indicator 3.2). Much progress has been made over the last ten years, especially in terms of the participation of women in political decision-making, which can be linked to the introduction of gender quotas on candidate lists. The challenge remains to improve the domain of time, which indirectly measures the possibilities for work–life balance and the division of labour between men and women in the household. From the point of view of the Gender Equality Index, it is also a challenge to reduce the large gap between the enrolment of men and women in the fields of education, health, social protection and the arts. Moreover, gender differences in some risky behaviour factors (obesity, alcohol) are very high in Slovenia. The gender gap in the suicide rate, which is higher among men, is also one of the biggest in the EU.

Participation in social life is relatively good, whereas political participation lags far behind the EU average. The share of the population who regularly perform unpaid volunteer work exceeded the EU average in 2016 and has increased in recent years (see Indicator 3.8). With the growing need for long-term care and social assistance services, it also makes sense to encourage the participation of older volunteers in the provision of these services, as the gap with the EU average is the largest in this area. More volunteering at all ages can contribute to greater inclusion in society and to intergenerational cooperation, as well as to the expansion of an individual's social network, gaining new knowledge and experience, and preventing loneliness. In recent years, political participation has also increased slightly in Slovenia (see Section 5.1), but it remains lower than the EU average. In this area, efforts should be made to increase the political participation of all citizens, especially young people. The participation of the population in most cultural activities that contribute to an active lifestyle is high by international comparison,[130] while the low share of adults reading books stands out.[131] The latter can negatively affect the maintenance of mental abilities, especially among the less educated and men, who read books the least. The share of the population engaged in sport that contributes to a healthier lifestyle is higher than the EU average, although it decreased between 2013 and 2017 (to around 50%).[132] It is low for the elderly; thus it is essential to strengthen lifelong sports programmes and design programmes that are tailored to the needs of the elderly.

Work–life balance is better than the EU average. Work–life balance is an important factor in quality of life. In Slovenia, 81% (EU: 78%) of people under the age of 65 are satisfied with their work–life balance, with a slightly higher percentage in men.[133] Work–life balance

[122] OECD Health at a Glance 2017, 2017, and OECD Health at a Glance: Europe 2018, 2018.

[123] Included are the costs of treating illness, labour productivity losses due to sick leave, the impact on the quality of agricultural land, and welfare costs due to premature mortality and an individual's incapacity due to illness (pain and suffering) ("The economic consequences of outdoor air pollution", 2016).

[124] OECD Stat 2020 (data based on *Global Burden of Disease Study 2017 Results*, 2017 and the updated methodology used in "The Rising Cost of Ambient Air Pollution...", 2017.

[125] This estimate takes into account direct costs for the health system (1.3% of GDP) and social benefits (sick leave, unemployment and disability benefits: 0.8% of GDP) and indirect labour market costs of 2.02% of GDP.

[126] According to the EHIS; Eurostat Database; OECD Health at a Glance: Europe 2018; Development Report 2019, 2019.

[127] Slovenia 2015: 18.1 suicides per 100,000 population; EU 2013: 12.1 (OECD Health at a Glance 2017, 2017).

[128] OECD Health at a Glance 2016, 2016.

[129] Work, money, knowledge, time, strength, health.

[130] Cultural heritage, Special Eurobarometer Report 466, 2017.

[131] According to OECD data, PIAAC, 2012 or 2015 (OECD, Education at a Glance 2019, 2019).

[132] Sport and physical activity, Special Eurobarometer Report 472, 2017.

[133] Source: Flash Eurobarometer 470, 2018. Are/were you satisfied or not with the balance between your work/studies and your personal life?

is important for promoting equal opportunities for women and men in society, especially in the labour market. It can enable men to take on a greater role in family life and women to participate equally and fully in the labour market. Men spend more hours on paid work and women spend significantly more hours on unpaid work.[134] Women remain the main caregivers of children and the elderly or disabled relatives, and they also do more housework than men. One-third of employed fathers in Slovenia used paternity leave in 2018.[135] Flexible work arrangements,[136] including flexitime, used by 62% of employees, can also help to make it easier to balance the work and life of parents and caregivers.

The answer "satisfied" combines the answers "very satisfied" (28%) and "fairly satisfied" (53%). As much as 83% of men are satisfied and 78% of women.

[134] While women do only five hours of paid work per week less than men, they spend 32 hours per week on care and unpaid household work compared to 15 hours for men (European Working Conditions Survey (EWCS), 2015, in: "Report on equality between women and men in the EU", 2017).

[135] Source: Flash Eurobarometer 470 (2018). In Slovenia, 32% of employed men used paternity leave, which is well above the EU average (20%). Only Sweden, Finland and Denmark recorded a higher share.

[136] Flash Eurobarometer 470 (2018) included a question about the following types of flexible work arrangements: part-time, working from home (telework) and flexitime.

3.2 Decent life for all

Decent life for all (Development Goal 3)

A decent life for all generations is based on creating the conditions in which all people will be able to realise their potential with dignity, equality and responsibility through activities in various areas. The main SDS guidelines to achieve this goal are aimed at: (i) providing an appropriate level of income for a decent life and maintaining low income and wealth inequality; (ii) creating sustainable systems of social protection and care and child protection; (iii) ensuring a good quality of the living environment; (iv) strengthening cooperation, solidarity and volunteering; and (v) eliminating all forms of discrimination. A decent life is linked to an inclusive and healthy society, which is described in Development Goal 1.

SDS 2030 performance indicators for Development Goal 3:

	Latest data		Target value for 2030
	Slovenia	EU average	
Social exclusion rate, in %	16.2 (2018)	21.9 (2018)	< 16
Income distribution inequality, income quintile share ratio (S80/S20)	3.4 (2018)	5.2 (2018)	< 3.5
Discrimination experience, in %	9 (2019)	17 (2019)	< 10

After having declined in the 2009–2013 period, gross disposable household income[137] has again increased in recent years and exceeded the 2008 level in real terms. The bulk of disposable income is accounted for by employee compensation (see Figure 24). Due to the deterioration of the labour market, it declined markedly during the economic and financial crisis, which the state mitigated with social benefits in cash and in kind. Austerity measures[138] again significantly reduced household income in 2012 and 2013. At the same time, new social legislation came into force in 2012 which tightened the conditions for obtaining social rights with the aim of better targeting. Following the recovery of economic activity accompanied by growth in employment and wages,[139] along with the gradual release of austerity measures, income has been increasing since 2014.[140] Gross adjusted disposable income per capita in purchasing power standard stood at 81.3% of the EU average in 2018, a decline of 3 percentage points relative to 2008.[141]

Median equivalent household income has also been rising since the fall in the economic and financial crisis, indicating an improvement in the material situation, while the gap with the EU has widened in the last ten years among people over 65 and those with tertiary education. Median equivalent disposable income has been rising since 2014, and in 2018 it was already approaching its peak level seen in 2009 in real terms (see Indicator 3.12). Following the increase during the economic and financial crisis, the gap with the median income of the EU average has also narrowed in recent years, mainly due to the decreasing median income gap among the working age population. Over the last ten years, the gap between the median income of persons over 65 and the total median in Slovenia increased relative to the EU average, which is a result of modest growth in pensions due to the restrictive policy of pension adjustment during the crisis. The median income of persons with tertiary education deviated from the EU average in this period, which was also influenced by the progressive reduction of wages in the public sector in 2012 and 2013.

In accordance with the goals of the Slovenian Development Strategy (SDS), income inequality has remained low and is one of the lowest in the EU, while according to the criteria of wealth inequality, Slovenia ranks around the middle of the EU countries which are members of the OECD.[142] The ratio between the lower and upper quintile groups was 3.4 in 2018 and thus within the SDS 2030 target for the second consecutive year (see Indicator 3.10). Low income inequalities are significantly affected by the system of progressive personal income tax and to some extent

[137] Gross disposable household income comprises gross household income from employment, social benefits in cash, operating surplus, and miscellaneous income from property less contributions and taxes. Gross adjusted disposable income additionally includes social transfers in kind, i.e. services for individuals provided by the state for free or at non-market prices (educational, health, housing, cultural, sports, etc.).

[138] Fiscal Balance Act.

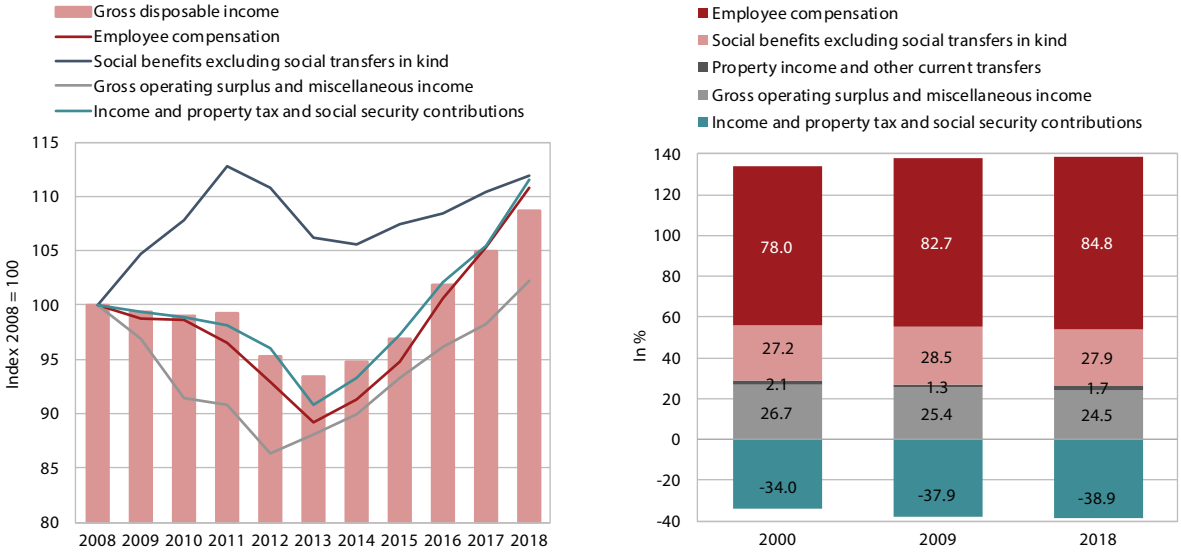
[139] As a result, the share of income from employment in gross disposable income also increased; it stood at 84.8% in 2018, thus already higher than before the crisis.

[140] In 2018, gross adjusted disposable household income and NPISH was the equivalent of 70.6% of GDP (2008: 70.4%).

[141] The lag behind 2008 is similar to that of economic development measured by GDP per capita in PPS.

[142] The wealth distribution analysis is made only for the OECD countries.

Figure 24: Real growth of the main components of gross disposable income (left) and its structure (right)

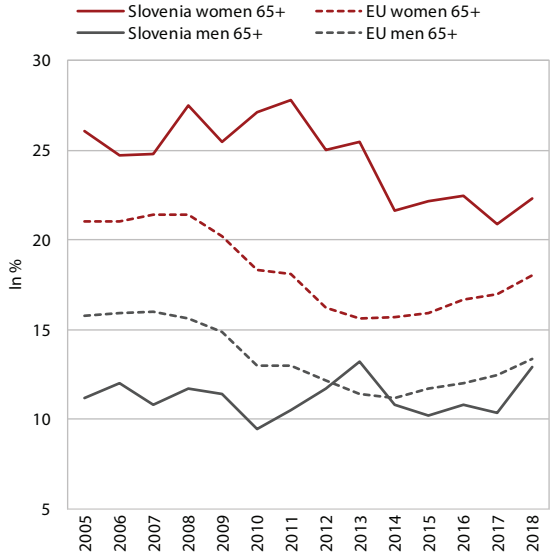


Source: SURS, national accounts; IMAD calculations.

also by social transfers.[143] Wealth inequality is higher than income inequality in most countries, as OECD data show that the share of wealth held by higher income classes is much higher than the share of their income. In the OECD countries, 10% of the wealthiest households own about half of their wealth, which is twice as much as for disposable income, while in Slovenia these figures are slightly lower (10% of the wealthiest own 48.6% of wealth and 19.7% of income).[144]

The social exclusion rate has declined since 2014 and was the lowest in 2018, at 16.2%, which is very close to the SDS 2030 target. Among its components,[145] only the at-risk-of-poverty rate was higher than before the crisis. In 2018, at 13.3%, it was 1.1 percentage points higher than before the crisis in 2007. Among persons aged 18–64, it exceeded the 2007 level in all groups (employed, unemployed, retired and otherwise inactive) and continued to be the highest among the unemployed (45.6% in 2018). Compared to the pre-crisis period, it fell the most for persons over 65, as pensions were one of the most stable forms of income during the crisis. Nevertheless, the risk of poverty for older women remains above the EU average,[146] as they are more likely

Figure 25: At-risk-of-poverty rate by sex for persons older than 65



Source: Eurostat Portal Page – Population and social conditions, 2019.

to live in a single-member household and to have been employed in lower-paid occupations more often than men or have fewer years of working life. A total of 326 thousand people were exposed to the risk of social exclusion in 2018, which is 34 thousand less than in 2008 (see Indicator 3.9). Material deprivation has also declined since 2014 and was the lowest in 2018 (see Indicator 3.16).

The socio-economic situation affects education gaps among young people and adults, which are

[143] Executive summary: Income redistribution through taxes and transfers across OECD countries (OECD), 2017.

[144] Inequalities in household wealth…, 2019, pp. 10–11. Wealth inequality is measured by the ratio of average net wealth to its median or by the share of wealth held by those at the top of the distribution (10%, 5% and 1% of the wealthiest respectively; Inequalities in household wealth…, 2018, pp. 13–14).

[145] The components of the social exclusion rate are: (i) persons living below the at-risk-of-poverty threshold, (ii) persons with severe material deprivation, and (iii) persons living in low work intensity households.

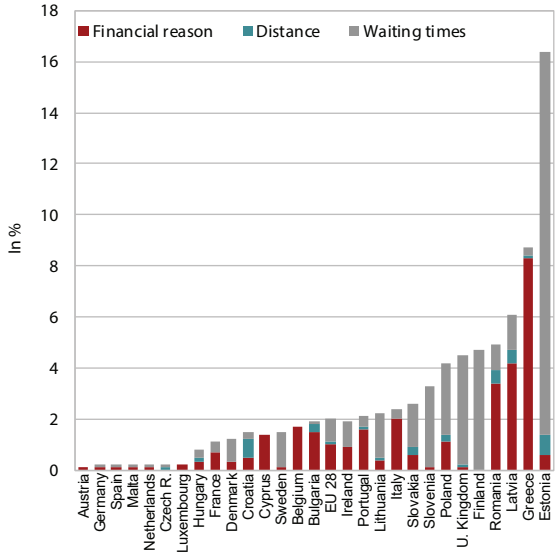
[146] In 2018, it was 22.3% for women over 65 in Slovenia (EU: 18%) and 12.9% for older men, which is less than the EU average (13.4%).

mostly lower than the EU average. The participation of children in pre-school education, which both contributes to women working and prepares children for school, is higher than the EU average and the differences in participation according to socio-economic characteristics are smaller than those in the EU overall. Nevertheless, the low participation of children in the lowest income bracket and of children whose mothers have not more than primary education reduces the chances of social inclusion of the most vulnerable groups of the population. Differences in student achievement in terms of socio-economic status in reading literacy are also smaller than the EU average, although they increased between 2015 and 2018. The socio-economic situation also affects an individual's career path; young people from socially weaker families have lower career expectations, similar to the EU average. Thus, according to the PISA survey, fewer of them expect to complete tertiary education and work in highly demanding occupations (ISCO 1–3). In Slovenia, the share of students from families with poor financial standing is high by international comparison,[147] which, in our opinion, is due to the high accessibility of tertiary education. The income situation also affects adult participation in education, which is the lowest for the less educated with on average low incomes, while the gap compared to those with tertiary education is greater than the EU average.

The accessibility of paid leisure activities has increased in recent years but is low among the elderly and low-income people. The average self-assessment of satisfaction with the length of leisure time improved between 2013 and 2018, while low satisfaction stands out in the age groups 25–34 and 35–44, which include the most active working population and usually those with the most family responsibilities, and among low-income people. In addition to the overall improvement in the financial situation of the population, the accessibility of paid leisure activities has increased in recent years, which can lead to a higher quality of life.[148] Increased accessibility affects the attendance of cultural events and participation in sporting activities,[149] which are high by international comparison. Despite favourable developments, paid leisure activities in 2018 were not accessible to almost half of the population for financial or other reasons, with the elderly, the low-educated, pensioners and low-income earners being particularly affected.

The financial accessibility of health care services from the system viewpoint remains good, but the problem of waiting times is actually exacerbating accessibility. In an international comparison of unmet medical needs for persons over 16 years of age due to waiting times, whether for financial reasons or for reasons of remoteness, Slovenia is one of the countries with a high share of unmet medical needs, waiting times being the only reasons for poor ranking. The financial accessibility of health care services remains very good for all income groups, which is due to a broad basket of publicly funded rights, a high level of participation in supplementary health insurance and the coverage of premiums for those socially disadvantaged from the state budget. The regressiveness of the financing of supplementary insurance also decreased significantly after 2012.[150]

Figure 26: Unmet treatment needs* due to financial reasons, distance and waiting time, 2018



Source: Eurostat, EU-SILC survey. Note: * Excluding dentistry.

The provision of long-term care services (LDCs) is a challenge requiring systemic regulation. Slovenia is slightly above the average of the 25 OECD countries with available data on the inclusion of persons aged 65 and over in long-term care services (11.4 %; OECD-25: 10.8 %) and the delay in including this population group in home care is increasing (58 %; OECD-20: 67.5%).[151] Slovenia is one of the countries where the cost of long-term home care surcharges is already very high for people with moderate handicaps and on average exceeds the income capacity of retired persons.[152] For persons with limited self-care abilities (the highly handicapped), the extra charges are even higher, so the most handicapped usually seek help in the institutions.[153] Inadequately

[147] Social and economic Conditions of Student Life in Europe, 2018.
[148] In 2017, people experiencing difficulty paying bills most of the time were, of all groups, the most rarely involved in sports, placing Slovenia among the top third of EU Member States in this regard (Sport and physical activity, Special Eurobarometer, 2018).
[149] Cultural heritage, Special Eurobarometer Report 466, 2017; Sport and physical activity, Special Eurobarometer, 2018.
[150] See Economic Challenges 2019, Figures 16 and 17.
[151] Health at a Glance 2019, 2019.
[152] Muir, 2017.
[153] More on this can be found in Economic Challenges 2019, Section 4.3.1.

regulated long-term care increases the burden on families and the pressures on the use of health services and demonstrates the need for early systemic regulation in this area. In 2018, a pilot testing of solutions for long-term care arrangements was launched, this provided for by the proposal for a Long-Term Care Services and Long-Term Care Insurance Act, which was up for debate in 2017.[154] Thus some projects are being developed at the local level, although the Long-Term Care Services Act has not yet been adopted.

The quality of dwellings was much better in 2018 compared to 2011, but the level of housing deprivation is still among the highest in the EU. This is the result of an old and poorly maintained housing stock. In its reconstruction, there is great potential for improving the quality of housing and reducing energy costs in households towards sustainable development.[155] However, the financial capacity of households living in these homes is often low, and energy poverty[156] is also the highest in lowest-income households.[157] The share of low-income households (less than 60% of the median) that are unable to provide adequately heated housing was slightly lower in Slovenia in 2016 than the EU average for all types of households.[158] The overburdening of households with housing costs is decreasing with the growth of disposable income and was half lower than the EU average in 2018, this significantly influenced by the high share of owner-occupied dwellings. Compared to other EU Member States, Slovenia is characterised by an above-average share of household energy expenditure in total household consumption, which is due, among other things, to lower purchasing power, high taxation of energy products and above-average stock of poorly maintained or less energy-efficient housing.[159] The housing policy, outlined in the resolution on the National Housing Programme 2015–2025, addresses, among other things, the vulnerable groups (young people and the elderly) where problems are greatest.[160] However, in the absence of financial resources, it is being implemented too slowly due to under-implementation of the measures based on public-private partnership.

A decent life can also be affected by exposure to various forms of discrimination, though the prevalence of this is relatively low in Slovenia.[161] Long-term exposure to various forms of discrimination has negative effects on a discriminated person or group, as it can lead to social exclusion and has a negative impact on the economic sphere;[162] it is therefore important to make a continuous effort to eliminate all forms of discrimination. The proportion of people who experienced discrimination or harassment in Slovenia decreased in the period 2008–2019 and is among the lowest in the EU (see Indicator 3.11). In view of the expected future trends in the ageing population, the reduction in age discrimination has been encouraging in recent years. Although the share of people experiencing discrimination in Slovenia is relatively low (9 %), Slovenia has the highest share of people that experienced it in the workplace (33 %). Violence against women, which may originate in discrimination against women and constitutes a violation of human rights, is, according to a pan-European survey on violence against women, below the EU average.[163] According to the police (2020), the number of victims of crime in 2019 was higher than in 2015. In 2019, the number of female victims of crime (domestic violence and sexual violence) was significantly higher than the number of male victims, as in previous years. In the case of crimes of physical injury, however, there are significantly more male victims.

The quality of life is also influenced by trust in people and in the social networks[164] of individuals (social capital indicators), which have improved in recent years. The results of the European Social Survey show that, in the period 2014–2018, trust in people increased in Slovenia, though it remained lower than the average of the countries included in the survey.[165] In 2018, 24 % of respondents felt that most people could be trusted (EU: 36%).[166] Higher trust is also reflected in the increase

[154] The pilot projects should be the basis for the adoption of the new act by testing the solutions of the proposed act.

[155] Environmental Indicators, 2019

[156] There is no single, internationally accepted definition of energy poverty. According to one definition, the energy-poor are those households that spend more than 10% of their income to provide adequately heated housing and other energy services. (Boardman, 1991). Energy poverty occurs when a household is unable to provide an appropriately warm home and other energy services (hot water, lighting, etc.) at an affordable price. The phenomenon of energy poverty is most affected by income, energy prices and consumption; the latter depending both on the behaviour of occupants and on the energy efficiency of the housing.

[157] In 2015, household energy expenditure in the first quintile amounted on average to 17.7% of a household's total disposable income (Rutar, 2016).

[158] Primc, K., et al., 2018.

[159] Primc et al., 2018 (p. 51).

[160] Young people dealing with their housing problems for the first time and older people, whom custom dwellings would enable to live more independently in their home environment, encounter the greatest difficulties.

[161] Discrimination is unequal treatment of an individual or a group of people in different areas of social life (e.g. employment, education, access to goods, etc.) because of a particular personal circumstance (ethnic origin, race, age, gender, sexual orientation, gender identity, religion or belief, disability, and others).

[162] Kogovšek, N., and Petković, B., 2007.

[163] Physical and/or sexual violence has been experienced by 22% in Slovenia (EU: 33%). The study also shows that the share of violence reported to the police and other institutions is low; the main reason mentioned by the respondents for not reporting violence is that they are dealing with the violence and its consequnces alone or with the help of friends and family (i.e. violence being treated as a private affair).

[164] A social network means human connection with other people, which is one of the essential human needs and qualities. It is expressed in personal human relations and in working and other relationships (Ramovš, J. (2020): Dictionary: Social network. Ljubljana: Anton Trstenjak Institute for Gerontology and Intergenerational Coexistence).

[165] The chart for a group of European countries shows the total average result of the selected countries regardless of the size of the national samples or the size of the country. The selected countries are those whose data are available at a given time (in this case Belgium, Germany, Finland, France, United Kingdom, Ireland, the Netherlands, Poland, Hungary and Slovenia).

[166] Trust in people over the whole period 2002–2018 was higher only in 2012 (25.3%).

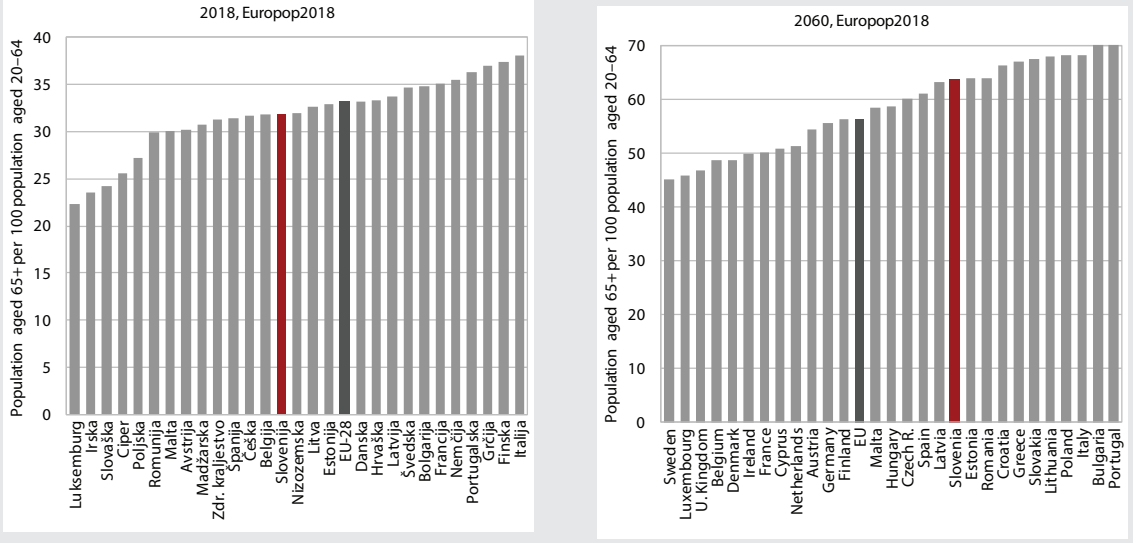
Box 3: Demographic trends and their impact on social protection systems

Demographic changes, which will be more intense in Slovenia in the future, also have a significant impact on the possibilities for ensuring a decent life. Life expectancy has increased significantly, the number of births is decreasing slightly and the number of net migrations has risen sharply over the last two years, though it is not sufficient to compensate for the fall in the working age population. In the coming years, the intensity of demographic change is projected to increase further, with larger generations getting older and smaller generations entering the labour market. According to the latest EUROPOP2018 population projections, there will be 44.7 working age older people per 100 working age people by 2030 (old-age dependency ratio, 65+/20–64), which is 13 more than in 2018 and 22 more than in 2000.

Slovenia is currently not significantly deviating from the EU average according to ageing indicators, though expenditure related to the ageing of the population in the light of unadjusted social protection systems is expected to increase. According to ageing indicators (the proportion of older people and the old-age dependency of older people), Slovenia is currently not deviating from the EU average, and expenditure related to an ageing population was lower in 2016 (base year of the latest long-term EC projections) than the EU average. Indicators will, however, start to increase in the future and reach their peak around 2050. This is due to the ageing of larger generations born before 1980. However, as social protection systems are not adapted to demographic change, the projections point to a much earlier start in the increase of ageing-related expenditure. Assuming no policy change, in Slovenia the effect of ageing alone will have a very strong impact on government expenditure and will be significantly greater than the EU average (the reference scenario). Potentially higher growth in public expenditure on health and long-term care, taking further account of various non-demographic factors (the risk scenario), would result in an even greater pressure on the long-term sustainability of public finances. Slovenia stands out most in terms of the increase in expenditure on pensions, while it also exceeds the EU average in terms of the growth of expenditure on health, education and unemployment. Relatively late entry into the labour market and early retirement, reflected in the low employment rate of the 55–64 age group (see Section 3.3), make a significant contribution to the increase in pension expenditure. While the share of expenditure on pensions compared to GDP in Slovenia over the last ten years has been lower than the EU average, expenditure growth in recent years has been largely contained by temporary non-systemic measures. Delaying the adoption of pension reforms, which would ensure greater fiscal sustainability of the system, only increases pressures on public expenditure.

In Slovenia, social contributions of the working population are the predominant source of funding for social protection expenditure, but even today these dedicated resources are not sufficient to cover all expenditure, which is why other resources will be needed in the future. Due to demographic and technological changes (robotisation, automation) affecting the labour market, the problem of financing social protection systems can be expected to worsen in the future. Non-standard forms of employment, often with lower contributions to social

Figure 27: Old age dependency ratio 2018 and 2060



Source: Eurostat Portal Page – Population and social conditions, population projections, 2019.

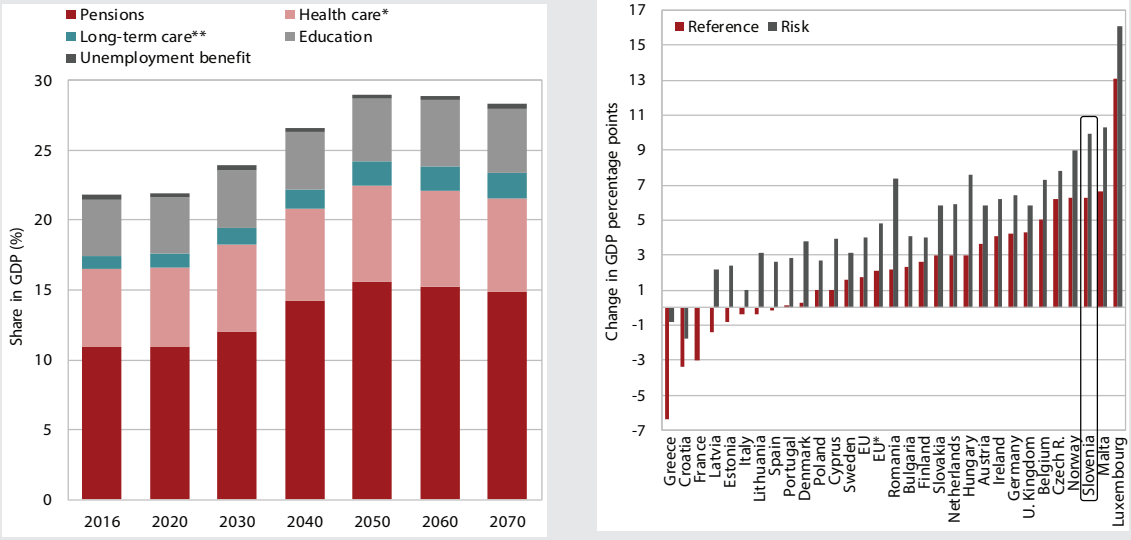
protection systems, put additional pressure on systems. Therefore, in addition to measures that will slow down the growth of social protection expenditure, measures will have to be taken in the future to compensate for the loss of social security revenue in order to ensure the financing of growing needs. In the field of pension insurance, the promotion of additional insurance will be crucial for Slovenia and, in the field of health insurance, it will be essential to expand resources that are not linked to the income of the working population and are less dependent on cyclical fluctuations. In the field of long-term care, where the current dispersed public resources account for the highest share of social contributions, additional resources will have to be determined as soon as possible, since the lack of funding represents one of the main obstacles to the establishment of a uniform long-term care system in Slovenia (for more information on financing social protection systems in Slovenia and cases of other countries, see also Economic Challenges, 2019).

Demographic change also affects labour shortage. The population in the 20–64 age group, which is the most active population group, is falling, while at the same time the number of people aged over 65 is increasing. Demographic change thus reduces labour supply, which already affects labour market trends (see more in Economic Challenges 2019). These changes will intensify in the coming years. In 2030, almost 25% of the population (2018: 19.4 %) will already be over 65 years old and 6.8% will be over 80 years old (2018: 5.2%).

A strategy for a long-lived society has been adopted to meet the challenges of demographic change.[1] The strategy is based on a lifelong approach, as quality life in old age requires a comprehensive and active approach throughout the lifecycle, and on the concept of active ageing, which emphasises activity and creativity at all stages of life, health care and intergenerational cooperation and solidarity. The strategy provides a comprehensive framework for orientations that indicate the direction of the necessary adjustments and changes in four pillars: (i) employment/working activity (labour market adaptations, including education and training, promotion of foreign labour immigration); (ii) independent, healthy and safe lives of all generations (social protection systems, accessibility to health services and long-term care, health care, reducing health inequalities); (iii) social inclusion (intergenerational cooperation, volunteering, use of ICT for communication, prevention of discrimination and violence in society, political engagement); (iv) establishment of an environment for activity throughout the lifecycle (economic adaptations, adaptations to living conditions and transport arrangements supported by ICT and technological solutions).

[1] Long-Lived Society Strategy, 2017.

Figure 28: Projections of public expenditure related to ageing, Slovenia (left) and comparison with EU countries (right), 2016–2070



Source: The 2018 Ageing Report: Economic and budgetary projections for the EU Member States (EK), 2018; Country Fiche on Pension Projections for Slovenia (MF), 2017. Notes: *Public expenditure on health according to the SHA methodology, but excluding expenditure on long-term health care and including expenditure on investments according to the COFOG methodology. **Total public expenditure on long-term care according to the SHA methodology (excluding expenditure on disability allowances included in previous AWG projections). EU weighted average; EU* – arithmetic average.

in the proportion of the population who consider people to be honest. An individual's social network, which is a source of social support and social inclusion, is also important for a decent life. Most respondents have at least one person in their lives to talk to about personal matters. Overall, 53% of respondents had frequent contacts with relatives, friends or colleagues, which is similar to previous years and less than the average of the countries included in the European Social Survey (57%).[167] On the other hand, the analysis[168] of Slovenian social support networks for the period 1987–2018 shows the problem of the inadequacy of social support, and therefore the increasing importance of formal support structures.

[167] Contact at least once a week.
[168] Iglič, H., 2019.

3.3 Inclusive labour market and quality jobs

Inclusive labour market and quality jobs (Development Goal 7)

The content of the goal is to create an inclusive labour market that will provide high-quality jobs with high added value (see also Development Goal 6). The promotion of the concept of sustainable working life and the adaptation of jobs to demographic change will help to increase the employment activity of older workers and improve their health. Improving the system of flexicurity and promoting employment of both sexes in atypical occupations will, moreover, contribute to increased participation of under-represented groups in the labour market.

Performance indicators for Development Goal 7:

	Lates data		Target value 2030
	Slovenia	EU average	
Employment rate (20–64 years), %	75.4 (2018)	73.1 (2018)	> 75
At-risk-of-poverty rate of persons in employment, %	6.0 (2018)	9.5 (2018)	< 5

The increase in the employment rate[169] of under-represented groups (young people, older people, low-income earners) in recent years has shown a trend towards an inclusive labour market. The overall labour shortage has also contributed to improving the situation of these groups, which tend to have lower job prospects and are often unemployed or inactive.[170] The employment rate among young people (20–29 years) has in recent years exceeded the EU average despite their high participation in education, which has been influenced, among other things, by active labour market measures for youth. The rapid increase in employment rates among the elderly (55–64 years) in recent years has been influenced, among other things, by the effects of a gradual increase in the retirement age in line with the 2013 pension reform, but the employment rate of this group is still among the lowest in the EU (see Figure 29). The increase in the participation rate of vulnerable groups is also reflected in relatively greater access to the labour market for low-income groups.[171] The overall labour participation rate increased to 75.4 % in 2018, thus exceeding the 2030 SDS target. The higher participation rate is also largely due to changes in population structure in recent years.[172]

Inclusive development has been demonstrated by an increase in employment of the long-term unemployed in recent years. Following the sharp rise in long-term unemployment during the economic and financial crisis, employment opportunities for the long-term unemployed have increased considerably since 2014. For the third consecutive year, the long-term unemployment rate decreased more than the EU average last year and is also below this average (see Indicator 3.19). In addition to some active employment policy measures, this has been contributed to by labour shortages faced by businesses in recent years. In such circumstances, businesses were more likely to employ long-term unemployed persons who may have had less relevant skills. The long-term unemployed often risk losing their skills and obsolescence thereof due to long-term absence from the labour market, which can increase stigma towards them on the part of potential employers, further reduce their job prospects and have a lasting impact on future earnings. There is also an increased risk of health problems related in particular to depression and stress. The match between the supply and demand for labour, as shown by the Beveridge curve,[173] has not shown a significant and sustained deterioration in the match in recent years compared to the pre-crisis period, as the unemployment rate was similar at the same level of labour shortages. Despite favourable labour market developments, in 2019 around one-fifth of all unemployed people had been unemployed for two years or more (the very long-term unemployed). Slovenia is also one of the countries where, compared to other EU Member States, a relatively

[169] The labour force participation rate reflects what proportion of the working age population is in active employment.

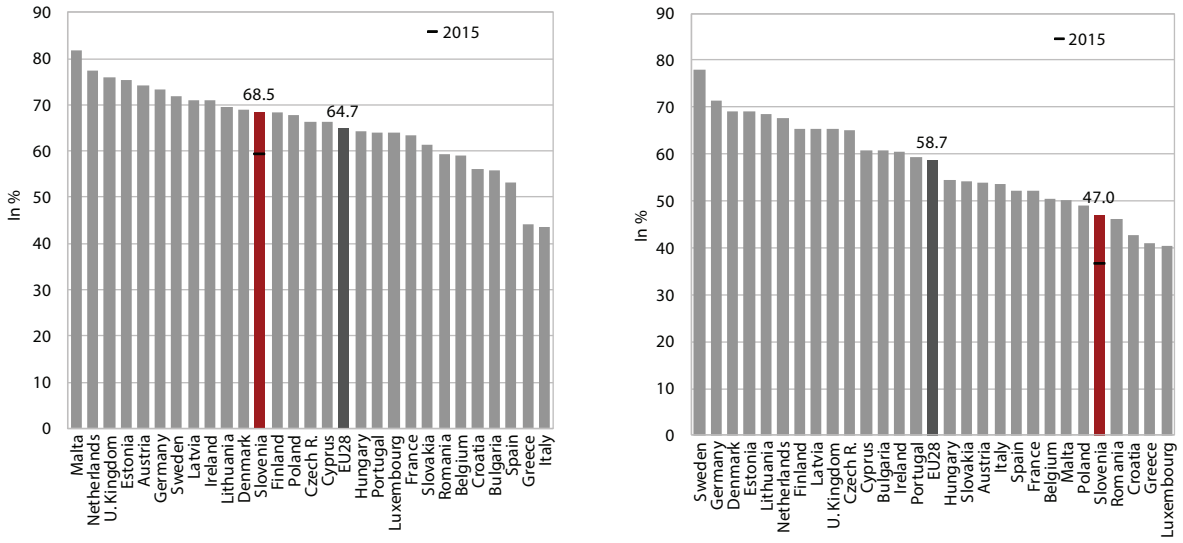
[170] More favourable employment opportunities have also encouraged those who, in times of crisis and long-term low demand, have not actively sought employment because of their feeling that there is no proper job for them.

[171] The gap between lower and upper income quintile class activity has narrowed in recent years. The lower quintile class accounts for the 20% of the population with the lowest income and the upper for the 20% with the highest.

[172] This is a phenomenon where the proportion of the highly educated with an above-average labour force participation rate increases among the population along with the transition of the younger, working age groups to the higher age groups.

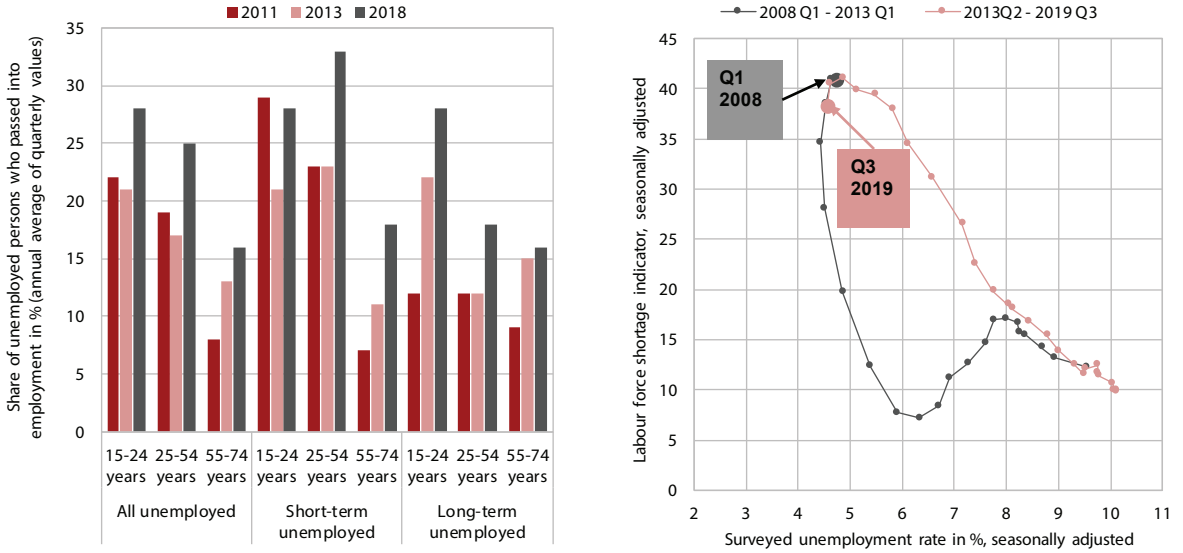
[173] The horizontal axis shows the survey unemployment rate representing labour supply and the vertical axis the labour shortage indicator, which shows the share of manufacturing businesses indicating that labour shortages are a limiting factor for production. Shifts of the curve to the right and upwards are characterised by a weaker match (higher unemployment given the labour shortage), while left/down shifts indicate an improvement in matching rate (lower unemployment given the labour shortage). Nevertheless, such shifts can be temporary or cyclical by nature (Labour market and wage developments in Europe: Annual Review 2017).

Figure 29: Labour force participation rate of age groups 20–29 (left) and 55–64 (right), 2018



Source: Eurostat Portal Page – Labour market – Population – LFS series, 2019

Figure 30: Share of unemployed persons who passed into employment (left) and the Beveridge curve for Slovenia (right)



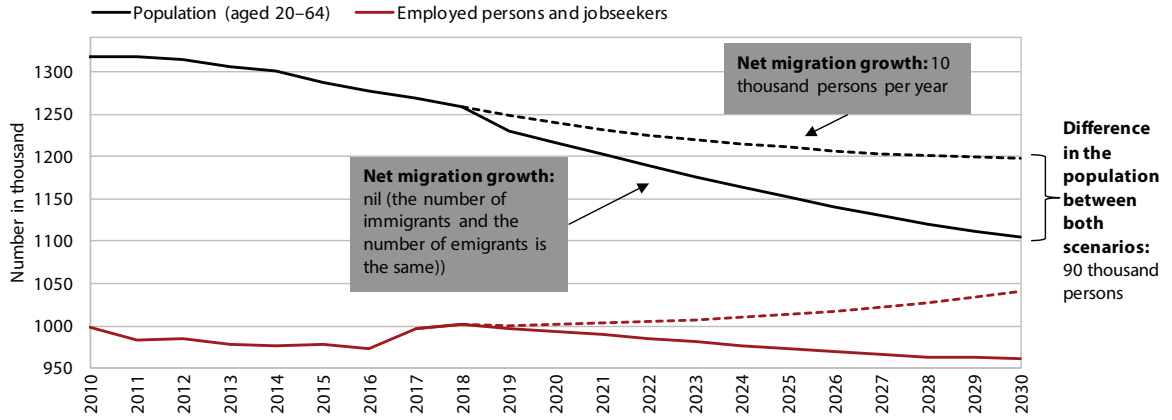
Sources: Eurostat, SURS; recalculation by IMAD Note: The long-term unemployed are those who have been unemployed for one year or more. The values of the two series of the Beveridge curves are a four-quarter moving average, smoothing the individual fluctuations.

small proportion of jobseekers are included in active employment policy measures.[174] This requires further measures to activate and train unemployed people, accompanied by an integrated and personalised service, so as not to turn part of long-term unemployment into permanent unemployment, especially in an environment of widespread labour shortages.

Demographic change in the medium term reduces the potential labour supply and changes its structure, which requires both measures to further increase labour force participation and appropriate migration and integration policies. Since 2011, Slovenia has been facing intense demographic change, as there has been a decrease in the number of people in the most active age group (20–64 years) and an increase in the share of older

[174] According to the EU Social Scoreboard, only 6.1% of jobseekers were involved in active employment policy measures in 2016, compared with 23.8% in EU countries (unweighted) overall.

Figure 31: Simulation of different levels of net migration to more substantially mitigate the decline in the population aged 20–64



Source: SURS; recalculation by IMAD.
Note: The fertility rate and life expectancy are consistent with ESSPOP 2018. For a more detailed description of the methodology, see Peschner and Fotakis (2013) and Fotakis and Peschner (2015).

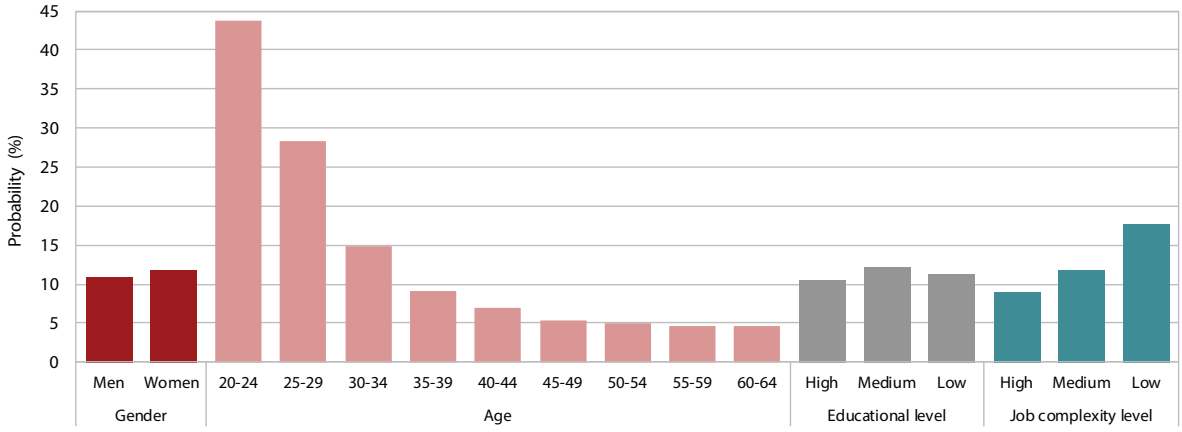
people.[175] As a result, the potential labour supply (the number of inhabitants who could enter or stay in the labour market) is being reduced in the medium term. In 2019, a large proportion of businesses faced difficulties in finding properly qualified workers. This may become a constraint for further economic growth in the medium term. According to demographic projections, adverse trends will continue and exacerbate the problem of labour shortages over the medium term[176] (see Box 3). Simulations show that, despite a further strengthening of labour force participation of under-represented groups, it would take a very large net migration (significantly higher immigration than emigration) to mitigate the decline of the working age population more substantially. Tackling demographic challenges therefore requires a comprehensive systemic approach with a set of measures for: (i) further integrating under-represented groups into the labour market, (ii) increasing labour attractiveness by ensuring adequate pay and reducing labour market segmentation, (iii) reducing labour market mismatches by enhancing knowledge and skills, and (iv) attracting foreign labour and promoting the return of citizens who emigrated by developing an appropriate migration and integration policy.

In terms of job quality profiles, Slovenia does not deviate significantly from the average of the countries included in the Eurofound European Foundation for the Improvement of Living and Working Conditions survey.[177] There is no uniformly accepted definition of the concept of quality of employment and it is largely dependent on the institution which has developed the set of job quality indicators. The various employment quality indices derive largely from data from the Eurofound European Labour Conditions Survey, which is carried out every five years. On the last occasion when this survey was carried out, Eurofound prepared a complex analysis of the quality of jobs on the basis of indicators for seven job quality dimensions, grouping jobs in the following job quality profiles by means of a classification method: (i) high-flying jobs (well-paid and demanding), (ii) smooth-running jobs, (iii) active manual jobs, (iv) under-pressure jobs and (v) poor-quality jobs.[178] According to the share of individual job profiles, Slovenia was close to the EU average in 2015, with only a higher share of poor-quality jobs and a lower share of smooth-running jobs differing slightly from the EU average.[179]

Despite somewhat higher growth in permanent employment in recent years, labour market segmentation remains high, especially among young people. The segmented labour market is characterised by a gap between workers in regular, protected, better-paid permanent employment and those in less protected, lower-quality forms of work with less chance of moving to a safer form of employment. Employees with fixed-term employment contracts also receive lower pay compared to permanent employees. For Slovenia, IMAD's analysis shows that employees in temporary work, even after eliminating certain factors such as

[175] The number of working age population (20–64 years) decreased on average by 8.5 thousand per year in the period 2012–2018. The share of older people (55–64 years) increased by 2.2 percentage points to 23.5% during this period.
[176] According to demographic projections, the decrease in the number of population aged 20–64 years (potential labour supply) will be higher in Slovenia than the EU average in the period 2018–2030.
[177] Eurofound (2017), Sixth European Working Conditions Survey – Overview report (2017 update), Publications Office of the European Union, Luxembourg.
[178] European Foundation for the Improvement of Living and Working Conditions.
[179] Sixth European Working Conditions Survey – Overview report, 2017 update. Most of the surveys that measure the individual components of employment quality are carried out every five years.

Figure 32: Risk of temporary employment by socio-employment characteristics, Slovenia



Source: SURS; IMAD estimates on microdata of the Active and Inactive Population Survey.

Figure 33: Real growth of average gross wages, minimum gross wages and median gross wages (left) and real increase of average gross wages by education level in the period 2009–2017, Slovenia

Source: SURS; IMAD assessments on EU-SILC microdata.

age, education and occupation, receive about 10% lower wages than employees in regular work, with the difference having increased slightly in recent years.[180] In addition to greater inequalities between employees, the high segmentation of the labour market can also result in higher volatility and redundancies, lower incentives to invest in employees by businesses, and less motivation to carry out work. Although permanent employment is the most common form in Slovenia and in other EU Member States, depending on the duration of the contract, temporary employment in Slovenia accounts for around 15% of all employment, which is more than the EU average (see Indicator 3.20).[181] Young people in Slovenia are at high risk of temporary employment, which is influenced by the presence of student work and the high frequency of fixed-term employment contracts

[180] The analysis for Slovenia was performed on EU-SILC microdata with a regression model with fixed effects at the individual level. The variable in the model was the logarithm of the gross earnings of the individual, and the explanatory variables were for gender, age, marital status, number of hours normally worked per week, length of service, level of education, activity according to the ISCO, and the variable for the type of contract, which may be fixed-term or regular. Some 22 aspects were included in the evaluation. The estimates are similar to those of the European Commission's study "Labour market and wage developments in Europe: Annual Review 2017".

[181] Together with other less secure forms of work (e.g. self-employment without other employees), about a quarter of all jobs.

in younger age groups.[182] Econometric risk analysis for temporary employment has shown that people with medium and lower levels of education or those who are not in highly demanding occupations are also faced with a higher risk than others.[183]

Wage inequality has been decreasing for a long time, while Slovenia is one of the countries with a more even distribution of wages. The reduction in wage inequalities after 2010 was mainly driven by higher average wage growth of the low-educated compared to other educational groups. On the one hand, this was a result of the increase in the minimum wage, which during this period was much higher than average wage growth, and on the other of changes in the demographic-employment structure, which are linked in particular to the ageing of the population and staying longer in employment.[184] A real reduction in the average wage for the high-skilled was also due to a fall in public sector wages in 2012. In 2009–2018, the minimum wage and the median wage[185] increased more than average wages. Despite a faster rise in the wages of low-skilled workers compared to the high- and medium-skilled, the at-risk-of-poverty rate was higher in 2018 than ten years ago (see Indicator 3.18). Among other things, this has been influenced by the increase in the proportion of self-employed and part-time employees. The international comparison of wage distribution is based on the survey on the structure of earnings (SES)[186] and for 2014 showed that Slovenia was among the countries with a more even distribution of wages, as wage differences were lower than in Slovenia in only in six EU Member States.

The quality of employment has an impact on health and opportunities to prolong working life. Demographic changes which lead to a higher proportion of older workers and hence the increased presence of chronic health problems require longer working lives, which also means longer exposure to risks in the workplace. Therefore an integrated lifelong approach, i.e. better prevention that ensures healthy ageing and a sustainable working life for all, is important. The European Agency for Safety and Health at Work (EU-OSHA) also stressed the importance of risk assessment in the "Healthy Jobs for All Generations" campaign,[187] which takes into account the diversity of workers and provides the basis for adapting the workplace to the needs of the individual.[188] With the ageing of the workforce and the fact that 38% of respondents in Slovenia think that work has a negative impact on health and as much as 43% that they will not be able to do their work until the age of 60,[189] it is very important to develop an integrated approach for a safer and healthy working environment.

[182] In Slovenia, the share of temporary employment in the age group 15–29 in 2018 was 46.1% (EU: 31.9%).

[183] The analysis of the risk/probability for temporary employment was carried out on microdata of the active and inactive population (ANP), with an estimate of the logit of the regression model, where the dummy variable depends on whether a person has a fixed-term job. Explanatory variables were variables for age groups (nine groups together with the reference group), sex, education (three groups), ISCO occupation (10 groups) and NACE employment activity (20 groups). The evaluation included around 250 thousand phenomena from 2008–2019.

[184] Changes in the structure of employees have an impact on the average wage level, as, for example, the shift towards a higher proportion of older workers, who often have higher wages due to seniority benefits, has the effect of increasing the average wage level. The analysis considers changes in the structure of employees according to the following data: age, length of service, activity of employment and gender. The analysis is based on the Blinder-Oaxaca decomposition of the mean gross wage level. For details of the methodology, see footnote 6 in Economic Challenges 2019, p. 14.

[185] Median wages represent the wage amount that divides the number of employees in half, which means that half of employees receive less and half more than the median value. Since wage distribution is not symmetrical (asymmetrical to the right or higher concentration at lower wage levels), median wages are lower than average wages. According to the EU-SILC microdata calculation, about 65% of employees received lower than average wages in 2018.

[186] The Structure of earnings survey (SES) that is carried out every four years and covers all activities except agriculture (A) and state administration (O).

[187] The campaign took place in all Member States in 2016–2017 and sought to raise awareness and understanding of the importance of ensuring occupational safety and health for all generations, as well as occupational safety and health management, taking into account the ageing of the workforce.

[188] Taken from the EU-OSHA European Agency for Safety and Health at Work's "Healthy jobs for all generations: Striving for a sustainable working life – Campaign Guide".

[189] On average, 25% of polled people think that work has a negative impact on their health and 27% feel that they will not be able to perform their or similar work until they are 60.

4 Preserved healthy natural environment

Most indicators on the exploitation and sustainable management of natural resources point to an improvement over a long period of time, which, in the future, will not be sufficient to achieve the SDS goals the without systematic energy and resource efficiency measures. Greenhouse gas emissions, which are a major environmental problem, declined during the economic and financial crisis with lower use of energy and resources. Resource productivity, expressed as the ratio of GDP to resource consumption/emissions, continued to increase over the period of economic growth, but the growth rate so far has been slow compared to the EU average. Faster improvement was mainly limited by the increasing use of energy in transport, which, together with the unsustainable attitude, has a great negative impact on the environment. The combined use of renewable energy sources is relatively high, but it has been stagnating for many years. The increasing generation of waste increases the urgency of faster integration into the circular economy, and despite the progress made so far in the management of waste, the problem is worsening. In addition to the extensive area of protected zones, high forest cover and moderate intensity of farming, the natural environment is on average not excessively polluted. Two issues have been raised over the last few years, namely the deterioration in air quality linked to the relatively high content of dust particles and the irrational use of space associated with less exploited or abandoned areas following the crisis.

4.1 Low-carbon circular economy

Low-carbon circular economy (Development Goal 8)

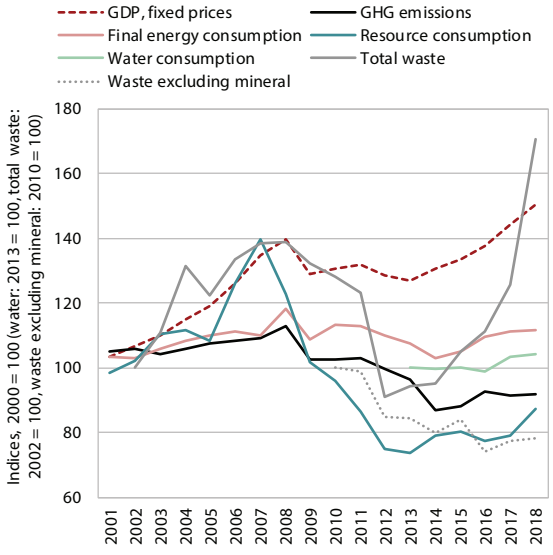
The goal of the SDS 2030 is to break the link between economic growth and growth in the use of raw materials and energy and the associated high environmental burden. Sustainable growth will be achieved mainly through radical changes in consumption and production patterns, making better use of resources, more efficient waste management, and more efficient use of energy and a higher share of renewable energy. This will also allow greenhouse gas emissions to be reduced. The planned changes will be supported by education and integration, the promotion of environmental innovation and, above all, the cessation of fossil fuel use. In addition, the SDS 2030 highlights the need for changes in transport towards faster development of sustainable mobility.

Performance indicators for Development Goal 8:

	Latest data		Target value for 2030
	Slovenia	EU average	
Resource productivity, PPS/kg	1.9 (2018)	2.2 (2018)	3.5
RES share of energy end-use, %	21.1 (2018)	18.0 (2018)	27.0
Emission productivity, PPS/M kg CO_2	3.2 (2018)	3.4 (2017)	EU average in 2030

The use of key natural resources, decreasing, as might be expected, in the economic and financial crisis, has increased again in the period of economic growth; as GDP grows faster, environmental efficiency has nevertheless improved, but the rapid increase in waste is notable. The analysis of the environmental dimension of economic development is usually based on the use of indicators that show the relationship between economic growth on the one hand and emissions of emerging greenhouse gases, consumption of resources, energy, water and waste generated on the other. In the context of the economic crisis, the use of observed resources decreased and consequently emissions decreased. The greatest fall in consumption was recorded in the use of resources, as expected, which was due to the shrinkage of construction activity. Energy use has declined less as a result of increased transport use. The lowest use of resources was recorded in 2013 and, despite the already present economic growth, the lowest use of energy one year later, this due to the technological modernisation and closure of one of the thermal power plants. Resource use and subsequent greenhouse gas emissions increased slightly in the following years despite relatively low winter heating needs. With the revival of activities in the construction industry, the most significant increase was in the consumption of resources. Resource efficiency has also largely improved in the economic growth period due to higher GDP growth, but with relatively strong externalities, this was not only due to planned solutions of a sustainable nature. Over the past few years, the growth of mineral waste generation,[190] accounting for about half of the total amount of waste, has stood out, indicating unexploited potential for mineral circulation.

Figure 34: GDP growth in relation to GHG emissions, growth in use of energy, resources and water, and waste generated

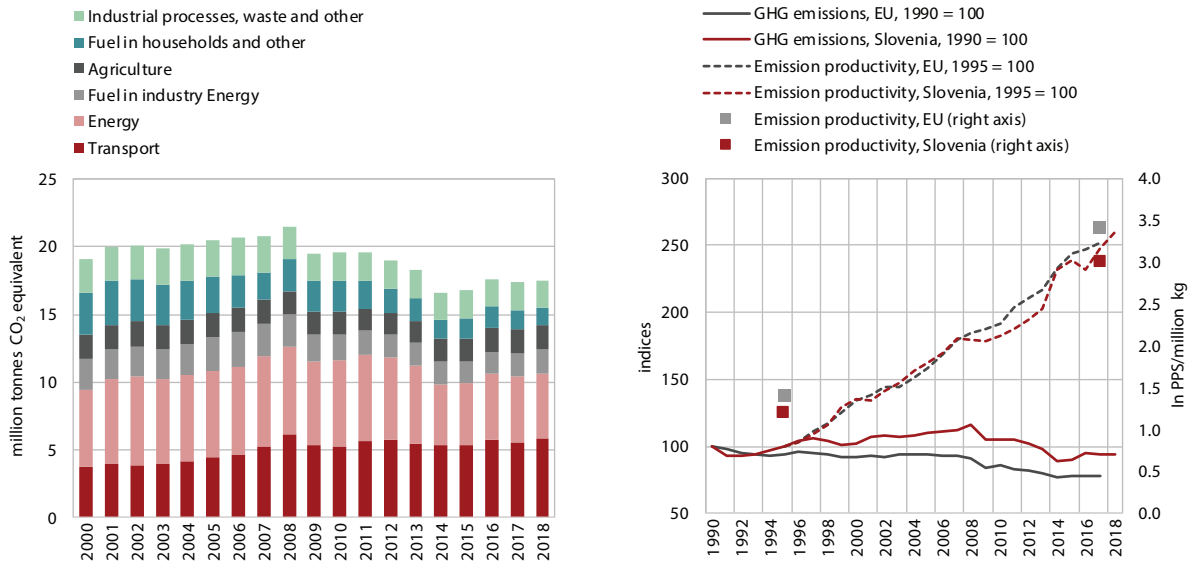


Sources: SI-STAT Data Portal – Economy, SI–STAT Data Portal – Environment, 2020; calculations by IMAD. Note: the resulting wastes excluding mineral resources are not deducted from waste incineration and treatment; Eurostat methodology.

Greenhouse gas (GHG) emissions, which are a key factor in climate change and declined in the economic and financial crisis, have increased slightly again in the economic growth period, but the relatively low emission productivity of the economy has nevertheless improved due to higher GDP growth.

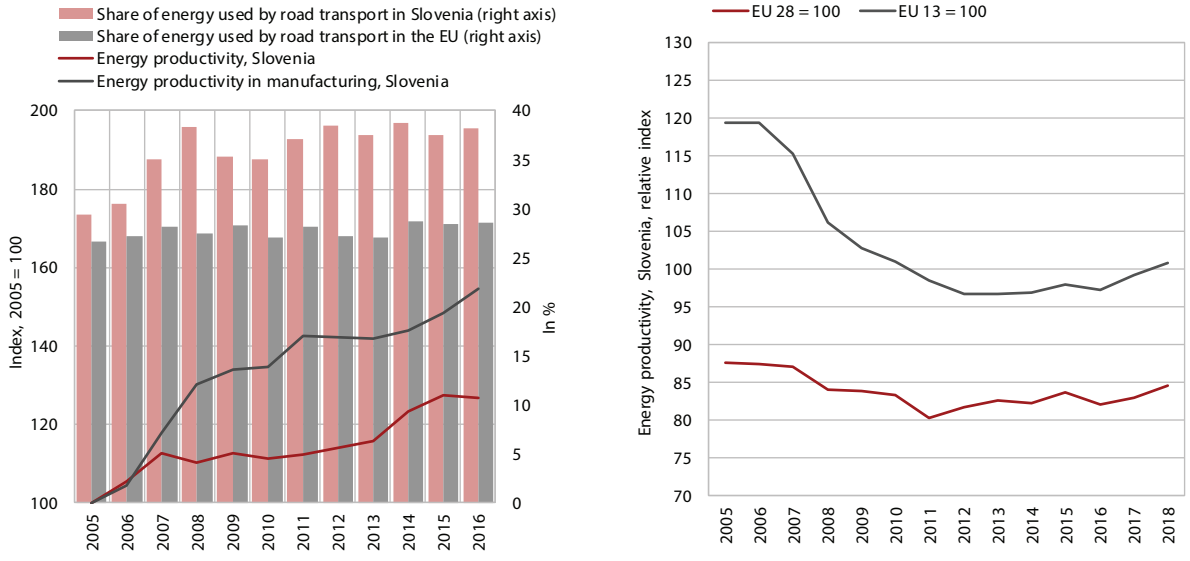
[190] Mineral waste includes construction and demolition waste, excavations, soils, and other waste of various natural and man-made minerals.

Figure 35: GHG emissions by sector, Slovenia (left) and emission productivity (right)



Sources: ARSO, 2020; Eurostat Portal Page – Environment and Energy, 2020; Eurostat Portal Page – Economy and Finance, 2020; calculations by IMAD.
Notes: ARSO's first estimate for 2018; calculations by IMAD. Comparison in PPS makes sense between countries in a particular year but not over a longer time period.

Figure 36: Energy productivity and share of energy use in road transport in final energy use (left) and energy productivity of Slovenia (right)



Sources: Eurostat Portal Page – Environment and Energy, 2020; Eurostat Portal Page – Economy and Finance, 2020; calculation by IMAD.

In 2018, the first estimate of these emissions was that they were about a fifth lower than in 2008 and about 6% higher than in 2014, when they were the lowest in the observed period. The majority of GHG emissions occur in two economic activities: energy and transport. Following technological modernisation and the shutdown of one of the major thermal power plants, they have declined in the energy sector, but they are increasing in transport. The problem is the use of fossil fuels, which has been stimulated by higher subsidies in recent years, contrary to the targets for reducing emissions.[191] The goal of the EU strategy 2020 that emissions in sectors not covered by the trading scheme[192] should not increase by more than

[191] Climate Mirror 2019, PJS.

[192] The trading scheme, i.e. the EU ETS sectors, includes emissions mainly from power and industrial plants. These companies receive or purchase emission rights that they can trade with other companies. By attributing monetary value to carbon, companies are encouraged to find the most cost-effective solutions to reduce emissions and invest in clean low-carbon technologies. The goal is to reduce these emissions

Box 4: European Green Deal[1]

Climate change mitigation and adaptation are major challenges for further development. At the end of 2019, the European Commission published a strategy for growth aimed at transforming the EU into a fair and prosperous society with a modern, competitive and resource-efficient economy that will not generate net greenhouse gas emissions in 2050 and in which economic growth will be decoupled from resource use. The document aims to speed up and support the necessary transition in all sectors of the economy. Its content is divided into three sections: (i) transforming the EU economy for a sustainable future; (ii) the EU's leading role in the world and (iii) the time for joint action: the European Climate Pact.

Key sectors are identified where changes in green transition policies will be the most urgent and where the most decisive action is needed. These are: energy supply, industry, production and consumption, large-scale infrastructure, transport, food and agriculture, construction, taxation and welfare benefits. Building on the vision already presented on achieving climate neutrality by 2050,[2] it is proposed to increase the ambition of the EU's objectives on climate. Greenhouse gas emissions in the EU are expected to fall by at least 50% by 2030 compared to 1990 levels. Revisions will be needed (i) of the emissions trading scheme, with a possible extension to new sectors, (ii) of targets by Member State to reduce emissions in the non-ETS sectors, and (iii) in the area of land use and forestry.

Priority will be given to decarbonising the energy system. Important areas are energy efficiency, the use of renewables, the rapid abandonment of coal and the decarbonisation of gas. The industrial sector will need to be transformed towards a circular economy and the transition must be used to expand sustainable economic activities geared to job creation. Measures to encourage companies to supply reusable, durable and reparable products will be supported, thereby also achieving a significant reduction in waste. Energy and resource efficiency will require accelerated energy-saving construction and renovation of buildings. It will be essential to increase the efficiency of the transport system by shifting freight to rail, reducing pollution through sustainable mobility, and enhancing the production and use of sustainable alternative fuels. Food production will focus on reducing the consumption of chemical pesticides, fertilizers and antibiotics and increased organic farming.

Green financing and green investment, for which the European Commission is expected to mobilise EUR 1 billion over the next decade, will require investment in research, tax and subsidy systems, including through the European Investment Plan[3] and the European Investment Bank. This will be facilitated by increased resources from greenhouse gas emissions trading in ETS sectors. A great deal of attention is paid to ensuring a fair transition, aimed at helping the most affected. A detailed roadmap of key policies and actions is in place.

[1] Communication from the Commission to the European Parliament... and the Committee of the Regions. European Green Deal, 2019.
[2] A Clean Planet for All. European strategic long-term vision for a prosperous, modern... and climate-neutral economy, 2019.
[3] Communication from the Commission to the European Parliament... and the Committee of the Regions. The European Green Deal Investment Plan, 2020.

4% in Slovenia compared to 2005 has been exceeded for several years.[193] The ambitious target of reducing emissions by 15% by 2030[194] will require, in particular, greater action in the field of transport. *Emissions productivity*, measured by the ratio of GDP to total greenhouse gas emissions, lags behind the EU average (see Indicator 4.1). The lag, which increased during the crisis, declined[195] due to one-off factors to around 12% in the first few years thereafter, but no further progress has been made in the following years. In order to achieve the SDS goal of emissions productivity, which is to reach the level of the EU average, in particular in the context of faster economic growth, the cross-cutting link of measures to develop the economy and to reduce emissions will need to be strengthened and measures implemented effectively.[196]

at the EU level by 21% in 2020 compared to 2005 without setting goals for individual Member States (see Development Report 2019, p. 51). The goal set for the EU has already been exceeded, mainly due to reduced consumption of hard coal and lignite and a higher share of RES in electricity generation (Building the future..., EAA, 2017).

[193] Emissions in 2018 were 15% lower than in 2005; see Figure 33.

[194] EU Decision No 406/2009/EC; EU Regulation 2018/842.

[195] Reductions in emissions have been linked to the thermal power stations: one of the larger ones was closed, while the other was technologically modernised.

[196] The measures adopted concern four areas: (i) sustainable production and consumption; (ii) turning waste into a resource; (iii) supporting research and innovation; and (iv) environmentally harmful subsidies and fair pricing (Operational programme of GHG reduction measures by 2020, 2014).

Box 5: Comprehensive National Energy and Climate Plan of Slovenia[1]

The first and key action towards a climate-neutral society is to improve energy and resource efficiency in all sectors of the economy, thus achieving reduced use of energy and other natural resources. The Comprehensive National Energy and Climate Plan (NEPN), which is drawn up for the period up to 2030 and with a view up to 2040, set out objectives, policies and actions in the field of the Energy Union. They are grouped into five areas: decarbonisation, energy efficiency, energy security, the internal market and research, and innovation and competitiveness.

In order to achieve the decarbonisation target, (1) mitigation and adaptation to climate change must be achieved, (i) reducing greenhouse gas emissions by at least 20% by 2030 compared to 2005; emissions should only be increased in transport and reduced in large-scale use, waste management, industry, energy and agriculture, and (ii) reducing fossil energy use and import dependence by phasing out coal use, banning the sale and installation of new fuel oil boilers, and supporting the implementation of pilot facilities for the production of synthetic methane and hydrogen; at the same time (2) increasing the overall share of renewable energy sources to 27% by 2030 while increasing the use of renewable energy in buildings, industry, electricity, heat and cooling and transport.

In order to achieve the energy efficiency target, it is necessary (i) to improve energy efficiency by at least 35% by 2030 compared to the 2007 baseline scenario, (ii) to ensure the systematic implementation of adopted policies and measures at the levels of primary and end-use of energy, and (iii) by 2030 to reduce final energy use in buildings by at least 60% and greenhouse gas emissions by at least 70% compared to 2005.

Additional financial, human and technical resources will be needed to achieve the objectives of energy security and the internal market in energy. These will be necessary to accelerate the overall development and management of the electricity distribution network in terms of increased capacity, interference resistance, advancedness, connectivity and adaptability. These objectives include the following: (i) sources in Slovenia to provide at least 75% of electricity supply, (ii) continue to exploit nuclear energy, (iii) reduce import dependency on fossil fuels, (iv) develop technologies, infrastructure and energy storage services, (v) support market development to exploit the flexibility of the electricity system and new technologies, and (vi) provide conditions for storage of as much energy from renewable sources as possible.

In order to achieve the objectives of research, innovation and competitiveness, investment in R&D will have to be increased to at least 3.6% by 2030. Among other things, businesses will need to be directed towards financing and engaging in development research programmes and demonstration projects, including through an active tax policy.

[1] Government of the Republic of Slovenia, February 2020.
Note: In parallel with the preparation of NEPNs, Slovenia must develop a long-term strategy to reduce greenhouse gas emissions for at least the next 30 years. Both documents need to be coordinated (Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action).

Energy use has been at the forefront of addressing environmental challenges and, as a result of the increase in transport, it has declined more slowly over a longer period than in the EU overall. Energy use for heating is reduced through more economical use, better insulation of buildings, increased efficiency of combustion installations and other efficiency-enhancing measures. In some years, the decrease was significantly linked to the above-average temperatures during the heating season. The use of solid fuels decreased in 2014 due to the closure of the thermal power plant powered by brown coal and the launch of the modernised part of the power plant powered by lignite. Regarding liquid fuels, the use of petrol and heating oil[197] has been falling for a long time, while diesel fuel use has grown with increased transit road freight transport, though decreasing significantly in 2019.[198] While *energy efficiency* has deteriorated slightly, it is still moving towards the EU target for 2020 (see Indicator 4.2). *Energy productivity*, measured by the ratio of GDP to total energy consumption, increased over a longer period up to 2007, as in the EU; after a relative slowdown due to the slower post-crisis recovery of the Slovenian economy, it increased more strongly again only in

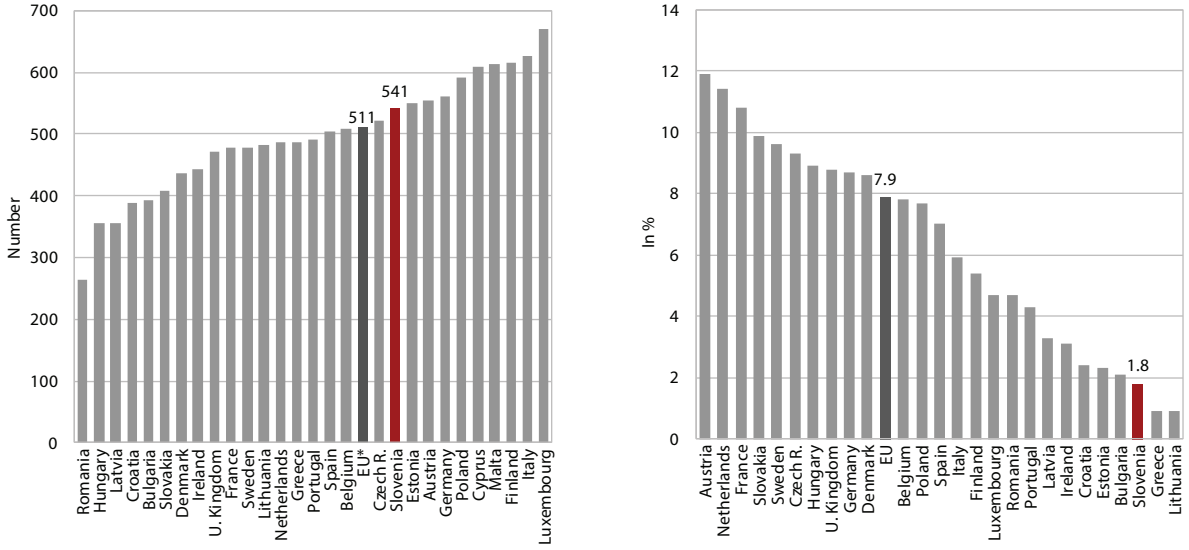
[197] Reduced use of heating oil for space heating is partly compensated by the use of wood and wood briquettes.
[198] This is partly due to the affairs connected with frauds in measuring fuel consumption by some major car manufacturers.

2017 and 2018. In particular, with higher GDP growth, the new EU members (the EU-13) have increased their energy productivity much more. The reduction in energy use in Slovenia would be much greater if energy use in road transport were not significantly increased due to its transit position in the enlarged EU; in some years (2008, 2011 and 2012) this was further stimulated by the lower price of motor fuels compared to neighbouring countries. Slovenia's lag in energy productivity behind the EU in 2018 was the lowest since 2007, at around 15%.

The share of renewable energy sources (RES), for which the availability of natural resources is relatively favourable in Slovenia, is higher than the EU average, but achieving the set targets requires a more effective cross-sectoral approach following several years of stagnation. In Slovenia, *the use of traditional RES, i.e. wood and hydropower, strongly predominates* (see Indicator 4.3). Until 2009,[199] increased use of wood contributed most to the growth of RES use, while later the use of solar and geothermal energy did. The overall share of RES was highest in 2013–2015, when it stood at 22%; it then decreased by one percentage point and remained at approximately the same level until 2018. In the EU as a whole, it increased in all observed years and reached 18% in 2018. According to *the share of other RES use*, Slovenia bottoms the list of EU Member States, with the difference greatest in wind energy. The latter is almost unexploited in Slovenia, while in the EU overall it already accounts for over 15% of total RES use and exceeds the use of hydropower. *As regards electricity*, the share of RES in Slovenia has increased by two percentage points in the last decade and has almost doubled in the EU, so that the two shares are now equal, i.e. 32%. The share of RES in *heating* is much higher in Slovenia as a result of the extensive use of wood, but its improper use can also be problematic in terms of deterioration of air quality. The lag behind the EU is extremely high in *transport*.[200] In order to increase the joint use of RES, under favourable natural conditions such as high forest cover, hydropower potential and windiness, common solutions should be sought more intensively when siting individual projects.[201] While preserving the environment and biodiversity, it is essential to seek acceptable solutions to replace fossil fuel use.

Transport, which makes a significant contribution to greenhouse gas emissions and air pollution, has increased significantly since the enlargements of the EU. The main problem is road transport. Transport is an important economic activity and shapes a modern way of life, but its adverse effects on the environment and the health of the population are significant and increasingly worryingly. Most of the problems arise from the large use of non-renewable energy sources, i.e. fossil fuels. In Slovenia, as in the EU, most goods are transported by lorries and most passengers by cars, which are the least environmentally acceptable modes of transport. Due to Slovenia's transit position, *total goods traffic* is high and has increased in recent years.

Figure 37: Number of cars per thousand population (left) and share of rail in total passenger transport, passenger kilometres (right), 2017



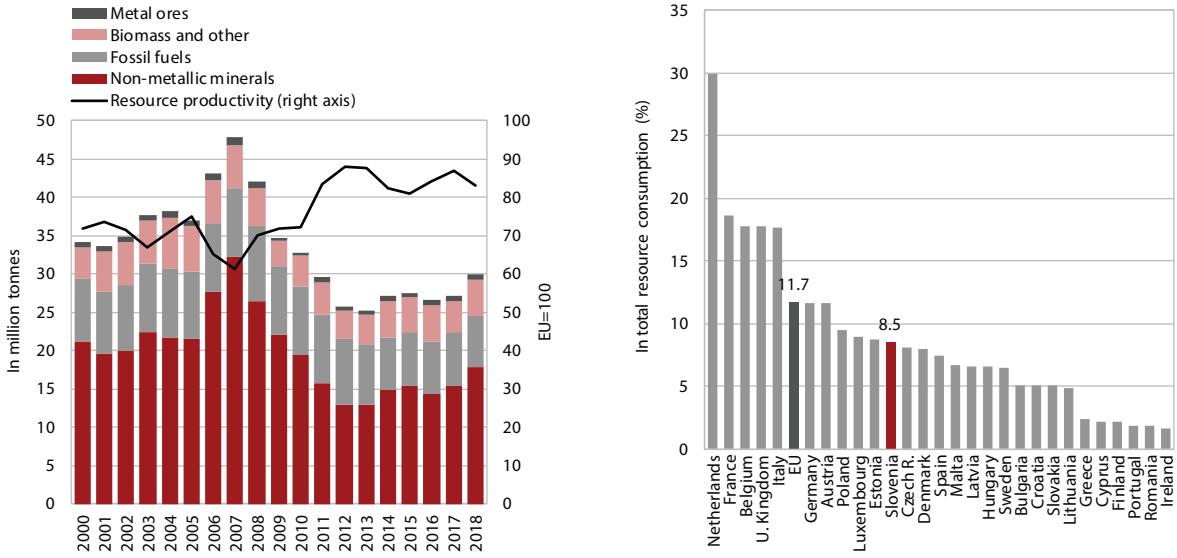
Source: Eurostat Portal Page – Tables on EU Policy, 2020. Notes: (i) Chart on left: Italy and Romania figure for 2016 and 2015 respectively; (ii) graph to the right: the indicator refers to travel within a country, irrespective of the ownership of the vehicle; Cyprus and Malta have no rail transport.

[199] In this year, the share of RES use increased the most due to the crisis and the fall in energy use, while there was also better statistical coverage.

[200] In 2018, the share of biofuels in transport was 5.5% (EU 8.0%); the 2020 EU target for all Member States was 10%.

[201] Environmental problems are mainly related to the continued use of water and wind energy.

Figure 38: Domestic resource consumption[1] and relative resource productivity, Slovenia (left) and recovery rate[2], 2017 (right)



Sources: SI-STAT Data Portal – Environment, 2020; Eurostat Portal Page – Environment, 2020; Eurostat Portal Page – Economy and Finance, 2020; Eurostat Portal Page – Tables on EU policy; calculations by IMAD. Notes: [1] Domestic resource consumption is defined as the exploitation of indigenous resources increased by net imports of resources; [2] the ratio between the recovered amount of waste used and the total amount of resources used and the waste.

If converted per unit of GDP, it grew the most, by 22%, in Slovenia in 2010–2017, while it decreased in the EU overall. In the per capita calculation, much more goods are transported than in the EU overall; in this comparison a higher share of rail transport (see Indicator 4.4) stands out in Slovenia, which is a more energy-efficient solution with low greenhouse gas emissions.[202] The use of rail and other public transport in *passenger transport* is also very low by international comparison and the share of the use of passenger cars is high. This is partly due to a lower degree of urbanisation and greater settlement dispersion, and in particular and increasingly due to an outdated and modest public passenger transport service. This is also indicated by the relatively high proportion of the population who estimate that they have problems with access to public transport. Its increased diversification, frequency and harmonisation and the adaptation of timetables would contribute to a more comprehensive implementation of sustainable mobility alongside more passenger- and environment-friendly rolling stock.

Resource productivity, which is one of the basic indicators of a sustainable economy, has improved since the beginning of the economic and financial crisis, with lower resource consumption, but has stagnated in recent years. *Resource productivity*, calculated as the ratio of GDP to raw materials and materials consumed, increased more rapidly over the period 2007–2012 than the EU average. This was associated with lower building activity and consequently reduced use of non-metallic minerals. Fluctuations in the scale of this activity have had a significant impact on the consumption of resources in the following years. In the structure of resource consumption, the share of construction materials is among the highest in the EU. With the renewed increase in the use of sand and gravel in 2018, resource productivity declined to 83% of the EU average, meaning that 17% less GDP was created with the same amount of resources consumed than in the EU (see Indicator 4.5). It can be expected that further increasing the resource productivity of the Slovenian economy will be more difficult to achieve when construction activity is revitalised. The implementation of major construction projects, such as the planned construction of railway infrastructure and the so-called third development axis road connection, will slow the growth of resource productivity. To achieve the objectives set, more attention should therefore be given to the planned recycling measures.

From the point of view of efforts to reduce the consumption of primary raw materials, it is particularly important to increase the inclusion of processed materials in re-use, which is lagging behind the EU average in Slovenia. The rate of incorporation of processed materials into economic activities, calculated as the ratio of recovered waste to the total amount of resources consumed, increased in the first years of this decade (from 5.9% in 2010 to 9.3% in 2013), then slightly decreased and remained at approximately the same level until 2017 (8.5%). Growth was faster in the observed

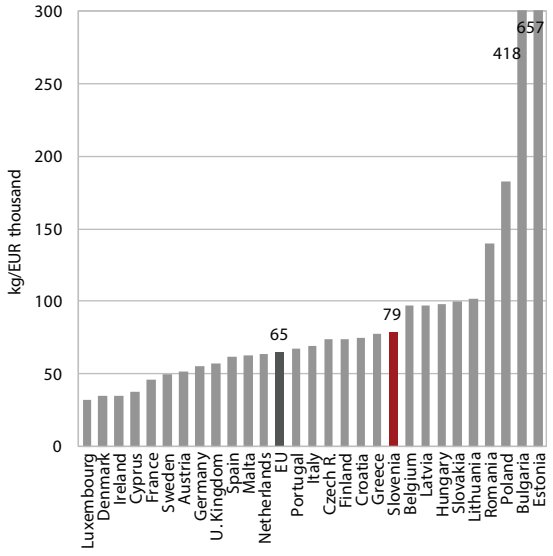
[202] The increase in rail transport is, however, limited by the existing railway infrastructure. It needs to be extended, modernised and upgraded (Climate Mirror 2018, 2018).

period than the EU average, but the level of processed material consumption is still lower in Slovenia (by 3.2 pps in 2017). In order to optimise the use of raw materials, existing economic frameworks need to be adapted to the principles of the circular economy. To this end, economic policies should take into account (i) closing cycles that can stimulate the recovery of resources in the economy, (ii) optimal use of local natural resources already used and (iii) the efficiency of the system of material flows, thereby reducing the consumption of non-renewable or toxic materials and reduced pollution of the environment.[203]

The unexploited potential for resource circulation is also reflected by an increasing amount of waste from industry and from households; in spite of the progress made, the problem of dealing with them remains significant. *In manufacturing and service activities*, the amount of waste generated in the period 2012–2018 increased by around 90% in relation to construction activity and the growth of mineral waste (see Indicator 4.6). Calculated per unit of GDP, Slovenia generates about a fifth more waste than the EU average. This is due to differences in the structure of the economy, but it also points to a difference in levels of investment, innovation and clean technologies.[204] In order to reduce waste generation, in particular in the context of increased economic activity, a greater shift of production towards a circular system, i.e. a reduction in the consumption of new resources and a higher proportion of recycling of suitable materials, will be crucial. *Municipal waste* is also increasing; in the per capita calculation, it is approximately the same as the EU average. *Waste management* has improved considerably in recent years, partly due to several new or upgraded regional waste centres.[205] This has reduced disposal, which is the least desirable from an environmental point of view, but has increased recovery and recycling, which is a move towards more sustainable behaviour. Preparing waste for reuse increases resource use efficiency and reduces greenhouse gas emissions and dependence on imports of raw materials. Given the large accumulation of waste in landfills, increased efforts to reduce it at source will mean a decision on its thermal treatment will be crucial.

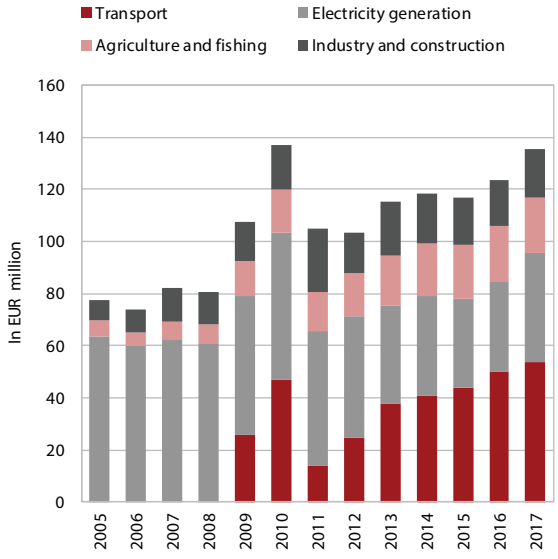
There is still room for maximising the use of the existing financial resources in order to achieve the set objectives of the transition to a low-carbon circular economy, but additional resources will be needed in the future. In Slovenia, revenues from environmental taxes, including taxes on energy, transport, pollution and the use of natural resources, relative to GDP, are among the highest in the EU, but their share has decreased in recent years. The bulk of revenue is represented by energy taxes (84%), which decreased in 2018 due to the reduction in excise duties, similar to preliminary data for 2019 (see Indicator 4.7). Over a long period of time, the already modest share of revenue from taxes on pollution

Figre 39: Total waste generated, excluding mineral, per unit of GDP, 2016



Source: Eurostat Portal Page – Tables on EU Policy, 2020.

Figure 40: Subsidies contrary to GHG emission reduction targets, Slovenia



Source: Climate Mirror 2019, IJS. Note: the calculation carried out under the OECD methodology covers (i) supporting the production of electricity from domestic sources in order to ensure security of energy supply, (ii) exemption for energy products (coal, petroleum products, natural gas) used in co-generation of electricity and heat, (iii) closure costs of the Trbovlje-Hrastnik coal mine, (iv) refund of excise duty on freight fuels, (v) partial refund of excise duties on fuel for agricultural machinery, and (vi) half refund of excise duty on fuel for movable working machinery.

[203] ESPON, 2019.
[204] Environment at a Glance Indicators, OECD, 2019.
[205] In the previous programming period, it was one of the environmental cohesion projects.

Box 6: Slovenia as a model country in a comprehensive strategic project for the transition to a low carbon circular economy[1]

At the European level, projects are underway to integrate national projects for the transition to a low carbon circular economy through integrated strategic approach (Deep Demonstration) programmes. In cooperation with the European institutes of innovation and technology (EIT Climate-KIC and EIT RawMaterials) and the Joint Research Centre of the European Commission (JRC), Slovenia has prepared a comprehensive programme of transition to a carbon-free society which represents a model example at the EU level. The three-year project aims to strengthen and systematically integrate the efforts and initiatives already underway for the transition to a low carbon circular economy, while introducing new innovative approaches and solutions that will help to transform the challenges of this area into opportunities. The implementation of the measures will contribute to the achievement of the strategic development goals defined in the Slovenian Development Strategy 2030.

The content of the programme is divided into three pillars, consisting of interconnected programmes:

(i) Smart and circular *communities*, including circular school programmes, circular learning and resources, and the implementation of circular solutions in regions and local communities. The aim is to empower stakeholders in education processes and in regions and local communities so as to better equip them to design and implement solutions for the transition to a low carbon circular economy;

(ii) Circular *development*, including programmes in the field of entrepreneurship, support for circular start-ups, and support for circular innovation in small and medium-sized enterprises; and

(iii) Circular *policy-making and science*, which includes programmes in the field of circular higher education, policymaking for the transition to a circular economy and circular public procurement.

These three pillars are linked by three horizontal programmes: (i) establishment of a centre for the transition to a smart and circular society with the task of coordinating the programme's content and bringing together initiatives and projects in this field; (ii) transformation capital aimed at facilitating the strategic combination of different sources of financing and establishing a new investment logic; the programme will provide support for financial and fiscal policymaking and other instruments to create the conditions for capital markets to shift financial flows towards more low-carbon and climate-neutral investment projects; (iii) circular pilots or value chains to contribute to the development of pathways for the necessary transition in relevant areas of industry.

[1] A Deep demonstration of a Circular, Regenerative and Low-Carbon Economy, EIT Climate-KIC, 2020.

and the use of natural resources has declined. Although environmental taxes do not constitute a dedicated resource for achieving environmental objectives, such movements do not suggest sufficient efforts are being made to limit pollution. At the same time, tax incentives of various forms (subsidies, reliefs) are being maintained and increased, contrary to the objectives of reducing environmental burdens.[206] The last tax reform, which relieved the burden on labour (see Indicator 1.4), did not exploit the potential of green tax restructuring. However, while maximising the use of the existing budget revenue and expenditure, the planned transition to a low-carbon circular economy will also require additional public and private financial resources in the future. This is reflected in the initial estimates of the necessary funding for the Investment Plan of the European Green Compact[207] (see also Box 4). In conjunction with the necessary investment momentum for the transition to a low-carbon circular economy, there will also be a need for a thorough reflection on reforming the fiscal rules, where the already known proposals also refer to the possibility of excluding green investment expenditure from the common expenditure limitation package (see Section 1.1).

[206] Climate Mirror 2019, PJS.
[207] Financing the green transition, European Commission, February 2020.

4.2 Sustainable management of natural resources

Sustainable management of natural resources (Development Goal 9)

The goal of the SDS 2030 is to protect natural resources in a sustainable manner and plan their efficient use, as they are one of the key pillars for ensuring a healthy living space, producing quality food and carrying out high value-added economic activities. The goal will be achieved by going beyond sectoral thinking, preserving biodiversity, sustainable soil management, preserving quality agricultural land, sustainable forest development and efficient water management. The SDS 2030 recognises the importance of responsible spatial management. Mitigation of, effective adaptation to and exploitation of the opportunities provided by climate change will be of particular importance.

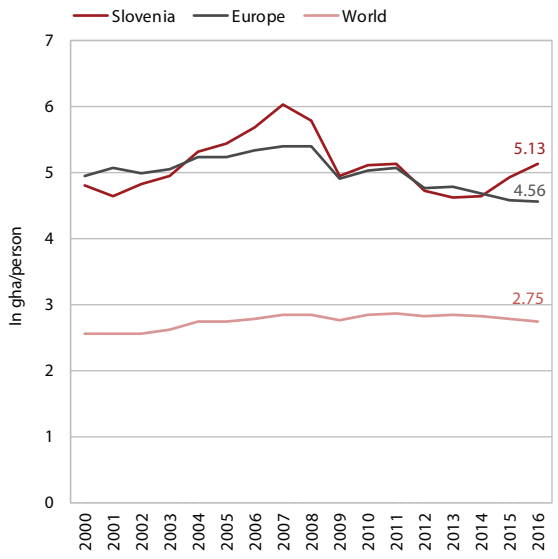
Performance indicators for Development Goal 9

	Latest data		Target value for 2030
	Slovenia	EU average	
Share of utilised agricultural area, %	23.6 (2018)	40.9 (2018)	>24
Watercourse quality, mg O_2/l	1.1 (2018)	2.0 (2015)	< 1
Ecological footprint, gHa/person	5.1 (2016)	4.6 (2016)	3.8

With current production processes and lifestyles, we are seriously overburdening nature, and after the decline in the economic and financial crisis, the burden has increased again since 2013, which represents a significant shift away from the set SDS goal. With long-term changes in our way of life, we are increasingly exploiting natural resources and increasing pollution. The *ecological footprint*, which is one of the most comprehensive indicators of environmental burden,[208] increased relatively rapidly in the period of economic growth in Slovenia and declined to around pre-existing levels in the recession, but in recent years the calculation has increased again (see Indicator 4.8). It was the lowest in the observed period in 2013 but in the next three years increased and exceeded the European average. This shows that economic development has been achieved through increased use of resources and increased environmental pollution Biological surfaces that are capable of regenerating, the biological *capacity of nature*, is lower in Slovenia in the conversion per person than the European average. Forests bring the highest biocapacity to Slovenia, but despite their large area, they are not sufficient to absorb carbon dioxide emissions, which contribute the most to the ecological footprint. The difference between ecological footprint and biocapacity, the so-called *ecological deficit*, is thus greater in Slovenia than the average of European countries and is twice as much as the biological capacity of restoring its nature.[209]

Slovenia is classified as an area of greatest biodiversity in Europe. This is primarily a natural condition but also the result of the systematic protection of plant and animal species and sound ecosystem management. Protected areas of high biodiversity and landscape diversity value are of particular importance. Measured by the share of protected area, which is a key to preserve the habitats of endangered species, Slovenia ranks at the top among EU countries, with twice the average share of such area. Yet despite numerous activities to protect it, biodiversity in Slovenia has also continued to decline over the long term. The farmland bird index, which is one of the indicators of change, shows a decline in the farmland bird population.[210] The

Figure 41: Ecological Footprint

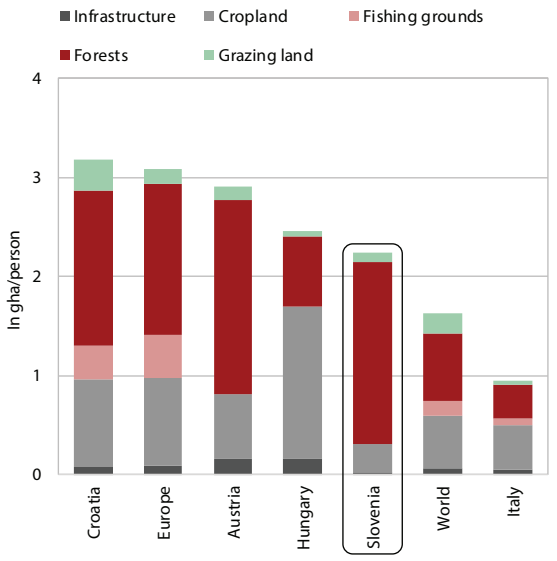


Source: National Footprint Accounts (Global Footprint Network), 2019.
Note: the gha – global hectare – is the fertile area needed to meet human food needs and maintain its lifestyle and dispose of the resulting waste.

[208] National Footprint Account (Global Footprint Network), 2019.
[209] Kovač, M., 2019.

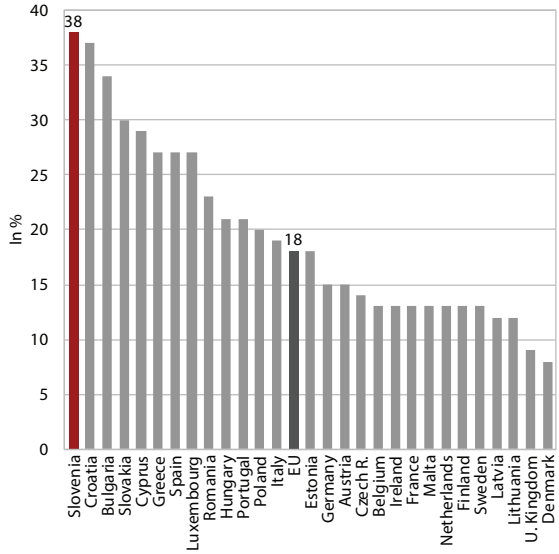
[210] It is quite difficult to determine biodiversity because of the large

Figure 42: Biocapacity, 2016



Source: National Footprint Accounts (Global Footprint Network), 2019.

Figure 43: Share of protected areas – Natura 2000, 2018



Source: Eurostat Portal Page – Tables on EU Policy, 2020.

most pressing problems are (i) development, with the inappropriate spread of urbanisation, transport and economic activities, (ii) poorly conceived management of waterways, mostly in connection with flood prevention measures, and (iii) agriculture, which provides habitat for protected species but also shrinks habitat in areas of very intensive agriculture. The challenges are to overcome silo mentality and seek compromise between the interests of nature protection and economic activity. Recently, finding a compromise solution for the siting of hydro and wind power plants has been extremely challenging.

Soil in Slovenia is largely unpolluted. Despite the good overall condition of soil, there are individual areas highly contaminated by some *heavy metals*, e.g. cadmium, zinc, lead, arsenic and mercury.[211] Exceeded action values, and in some areas critical values, have been detected in particular in areas with a long history of mining, smelting and metallurgic activity and in areas with denser traffic. Unlike in air or water, substances in soil build up, which means that reduced release does not typically result in reduced levels. The most polluted areas include the Mežica Valley, the Celje Basin, Jesenice and Idrija.[212] In these and several other areas in Slovenia it is necessary to clean polluted soil and conduct remediation of polluted sites, but this is often technologically demanding and entails high costs.[213] Furthermore, some of the pollution with heavy metals is not the result of human activity, since heavy metal levels may also depend on bedrock. In Slovenia, the pollution of soil with *organic pollutants* is less problematic, since in most areas action values have not been exceeded. In some areas of intensive agricultural production, limit values of pesticides or their breakdown products have been recorded to be moderately exceeded. It is particularly important to monitor soil quality on an ongoing basis and prevent excessive release of pollutants into the soil, especially in areas designated for food production.

Agriculture, which has a major role in soil management, is not particularly intensive by international standards. Slovenia ranks among the EU countries with the highest share of agricultural land in less-favoured areas and the highest share of grassland. Field surfaces are modest and shrinking (see Indicator 4.9). The synthetic indicator of soil quality, the "soil value number", shows that only 7% of agricultural land is in the top-quality class and as much as a fifth is in the lowest two quality classes.[214] These conditions hamper agricultural production, reduce efficiency and dictate a significant focus on animal production. Since attention has increasingly been turned to environment concerns,

number of species and interactions between them and with the abiotic environment. Indicators that broadly show the general condition include the population size of selected bird species, the farmland bird index, conservation of wildlife populations and forest conservation.

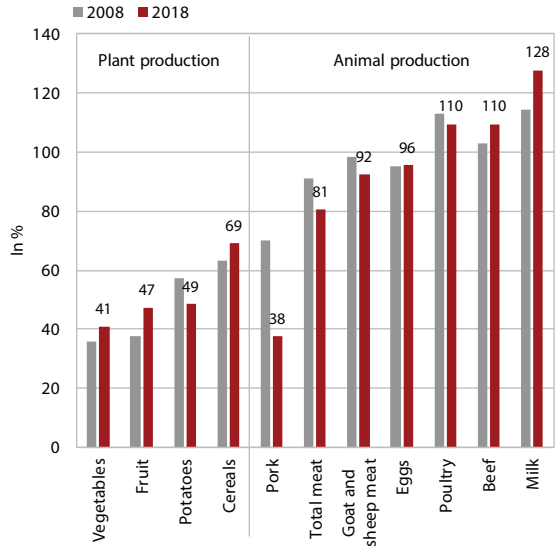
[211] Soil Pollution Surveys of Slovenia in 2008 and 2009 and Geoportal, 2018.

[212] In the Mežica Valley, measures have been in place since 2008 to remedy the problem of soil pollution, including the asphalting of unmetalled roads, replacing polluted soil, resurfacing with unpolluted soil and planting grass. Lead content dropped to below action level, but in some places, it has started to again increase gradually (Report on the Environment in the Republic of Slovenia 2017, 2017).

[213] Soil Pollution – Hidden Dangers, Slovenian Partnership for Soil et al., 2018.

[214] The soil value number indicates the capacity of soil to sustain agricultural production and its capacity to perform basic ecological functions. Features such as soil depth, the ability to retain water and slope are factored in. Soil is divided into five classes (Slabe, 2015).

Figure 44: Degree of self-sufficiency in basic agricultural products, Slovenia



Sources: SI-STAT Data Portal – Environment and Natural Resources – Agriculture and Fisheries, 2020; Report on the State of Slovenian Agriculture... in 2018, 2019.

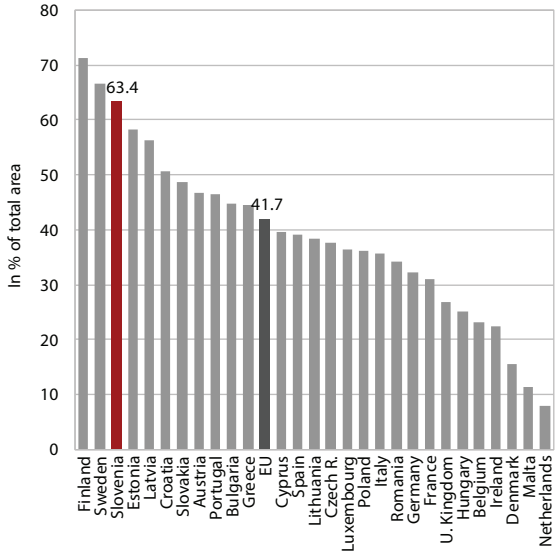
gross nitrogen and phosphorous surpluses, which are basic indicators of agriculture's impact on soil and water, have significantly declined over the long term. Moreover, agricultural land remains poorly utilised, even though significant structural changes such as increases in the size of agricultural holdings and increased specialisation are underway (see Indicator 4.10). The average yields per hectare are mostly below the EU average, which means that the impact on the environment is less severe but also indicates lower productivity of natural resources. Consequently, self-sufficiency in the majority of basic agricultural products, in particular organic produce, is relatively low.[215] Agriculture faces major challenges that relate not only to the volume of food production and its quality, but also to protecting the environment and adapting to climate change.[216]

The management of forests, which cover a large proportion of the land area of Slovenia, has in recent years been dealing with the mitigation of the effects of natural disasters and wood pests; with extensive logging, wood as raw material still remains insufficiently exploited. Slovenia is one of the three most forested countries in Europe, with its forests being its best-preserved natural ecosystem. This is favourable for the environment since forests act as carbon sinks and thus help offset the impact of greenhouse gas emissions.

[215] Increasing self-sufficiency – providing food security with stable production of safe, high-quality and accessible food – is one of the main strategic goals of the Slovenian agri-food sector (Resolution on Strategic Guidelines… until 2020, 2011).

[216] Resolution: "Our food, rural areas and natural resources beyond 2021", 2019.

Figure 45: Forest area, 2015



Source: Eurostat Portal Page – Tables by themes, 2020.

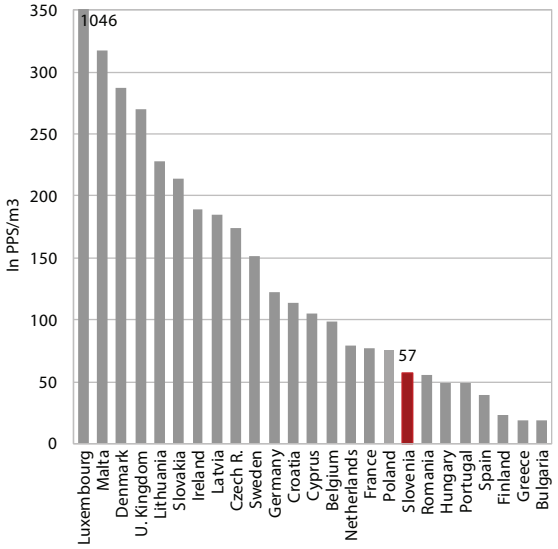
Nevertheless, a very high share of forest is not desirable in terms of optimal use of space. Slovenia's forest cover has been increasing over the long term, but the changes have not been uniform. It has increased in areas where there was already ample forest from the point of view of landscape diversity and decreased in areas of intensive agriculture and, in particular, in suburban areas.[217] In recent years, forests have been hard hit by three natural disasters: glaze ice in 2014, which was followed by an invasion of wood pests, and in 2017 and 2018 by a strong windthrow. Due to a high share of older and thicker trees, which provide high biocapacity and carbon storage with a high average growing stock, Slovenia's forests are less resistant to climate change.[218] The intensity of felling has increased significantly due to forest restoration (see Indicator 4.11), and the high share of net exports of unprocessed timber, especially of the highest quality category, is particularly problematic in terms of achieving higher value added and productivity in the chain. Increased logging has reduced the greenhouse gas sink in the forests.

Slovenia has abundant water sources and most water bodies have a good chemical status; although the quality level of river waters has not been converging with the SDS goal in recent years, it is the highest in the EU. The *abundance of water resources* is evident from the per capita availability of freshwater resources, which is at twice the EU average and the fourth highest among EU Member States. On average, water is sufficient, as only half of the quantity of surface waters flowing into

[217] Resolution on the National Forest Programme, Official Gazette of the Republic of Slovenia (*Uradni list RS*), No. 111/07.

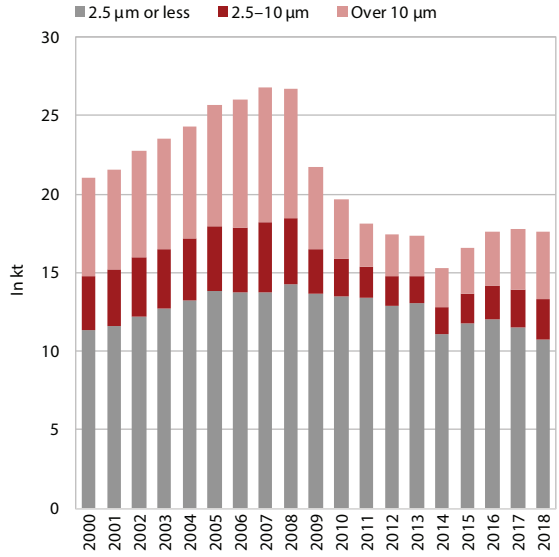
[218] The Ecological Footprint of Slovenia… for selected measures. Stritih, 2018.

Figure 46: Water productivity, 2017 or latest data available



Source: Eurostat Portal Page – Tables by themes, 2020.

Figure 47: Particulate matter emissions, Slovenia



Source: Environmental indicators in Slovenia, ARSO, 2020.

or falling on the territory is utilised and only a fifth of groundwater. There are nevertheless occasional floods or water shortages, a consequence of weather and human intervention. The share of water for irrigation in total water use remains almost negligible. *Overall water productivity*, measured as GDP per unit of pumped freshwater, has been improving at a very slow pace over the long term and remains low by international standards. *Water quality*, measured with biochemical oxygen demand in rivers, has improved to the highest level among EU countries due to the increasing and more efficient treatment of wastewater (see Indicator 4.12). This indicates a significant improvement in its chemical, biological and microbiological parameters.[219] Slovenian rivers are fairly oxygen-rich on average and contain low levels of nutrients, organic matter and pesticides, though in some areas their content is nevertheless excessive. The vast majority of water bodies of surface waters have a good chemical status and about two-thirds also a good ecological status. Adriatic rivers and the Soča and Upper Sava basins have the best ecological status, with the situation worst in the Mura and Drava river basins, which are areas with more expansive and intensive agriculture.[220]

Air quality in Slovenia is held back by high average concentrations of particulate matter and ozone. The concentration of *particulate matter (PM) particles* is created mostly by sub-optimal burning of wood biomass in household furnaces and in road transport, but it is also generated by industry and agriculture. Despite the downward trend, the exposure of the urban population to these particles is still relatively high and exceeds the EU average (see Indicator 4.13). In the cold part of the year, local concentrations are highly dependent on location and wind conditions. Daily limit values of particulate matter of 10 micrometres were most commonly exceeded at measuring points in towns, which are more affected by transport emissions. There is, however, significant uncertainty about the conditions in populated rural areas, where there are far fewer measurements.[221] Aside from greater awareness of the population, the biggest improvements could be achieved through broader uptake of technologically more advanced combustion plants and improved energy performance of buildings. Due to the significant impact of air quality on people's health, the EU policy in this field is becoming stricter.[222] The second major air quality problem in Slovenia concerns ground-level *ozone and its precursors*, which is associated with transboundary pollution from the west.[223] High ozone levels have been detected at most measuring stations even in rural areas and at higher altitudes. In addressing problems *with some other pollutants, for example sulphur and nitrogen oxide*, which were highly problematic in the

[219] The chemical status of waters is determined with reference to 45 priority substances including atrazine, benzene, cadmium and mercury. Their ecological status is assessed based on the condition of communities of water plants, algae, invertebrates and fish.

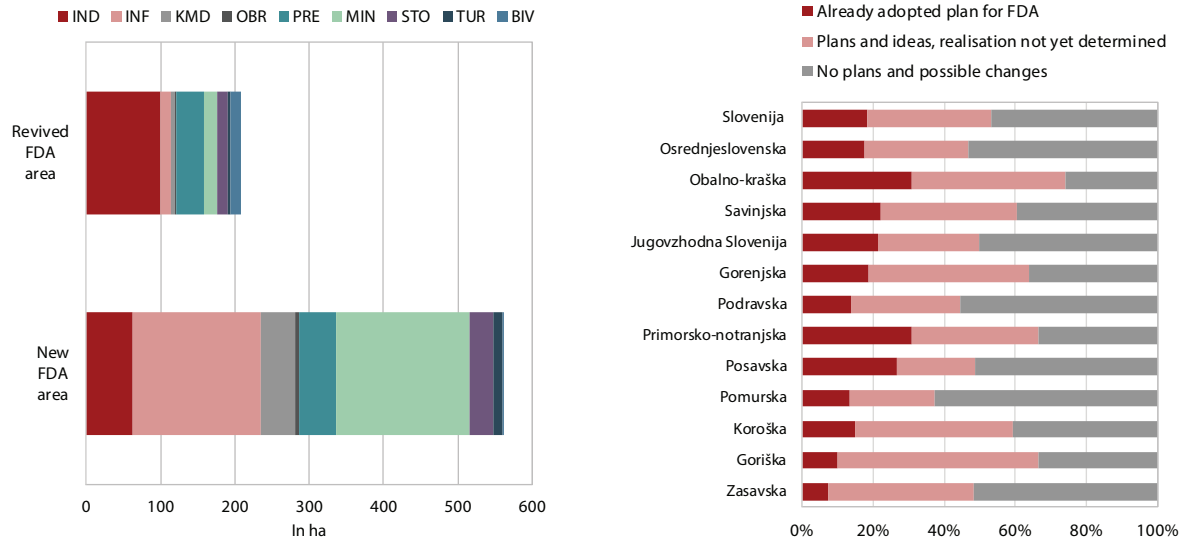
[220] Trobec, T., 2017; Ecological status... in Slovenia, ARSO, 2018; Environmental Indicators, ARSO, 2020.

[221] Excessive concentration of airborne PM_{10} particles is also a legal issue in that it constitutes a breach of the Ambient Air Quality Directive.

[222] The EU Directive on the reduction of national emissions, which is the central element of the comprehensive "Clean Air Programme for Europe", sets stricter limits for five major pollutants, including PM particles. Slovenia is expected to reduce $PM_{2.5}$ emissions by 25% by 2020 compared to 2005 and by 70% by 2030 (EU average by 22% and 51% respectively). This will require new investments, but the savings on labour are supposed to be several times higher due to lower health care and sickness absence costs.

[223] Air quality in Slovenia in 2017 (ARSO), 2018.

Figure 48: Comparison between new and revived functionally derelict areas – FDAs (left) and structure of planned changes by region (right), Slovenia, 2020



Source: Lampič, B., et al., 2020. Note: IND=FDA industrial and craft activities, INF=FDA infrastructure, KMD=FDA agricultural activities, OBR=FDA defence, protection and rescue, PRE=FDA transitional use, MIN=FDA extraction of mineral raw materials, STO=FDA service activities, TUR=FDA tourism, sports and sports activities, BIV=FDA for residence.

past, efficient solutions have been achieved over the long term as legislation has been tightened and sectoral policy measures deployed.[224]

A further significant negative impact on the environment is associated with the irrational use of space. The population in Slovenia is unevenly distributed and dispersed, with many small settlements. Only around half of the population lives in urban areas, against approximately three-quarters in the EU on average.[225] The population in suburban areas close to urban centres is increasing, mainly along the motorway network that offers good commuting links to areas with high concentrations of jobs. This causes fragmentation of space, interrupts green corridors between settlements, hampers the provision of social services of general interest and services of general economic interest,[226] and increases demand for developed land. At the same time, this also increases commuting and car use and hence exerts a negative impact on the environment with increased noise and emissions. On the other hand, other rural areas, in particular along the border, face accelerated population ageing, which is also characteristic of Slovenia as a whole. In these areas, it is reasonable to revitalise central settlements and use existing infrastructure and building land more economically.

Degraded areas are underutilised, while the newly built on areas are encroaching further into agricultural land and are often a threat to the environment. Over the last few years, efforts to integrate activities on already built-up but abandoned and underutilised areas (i.e. functionally derelict areas (FDAs)) have increased, but at the same time new ones are being created or the extent of some existing FDAs is increasing (see Indicator 4.14). In particular, there is an expansion of new FDAs into agricultural land,[227] which is already scarce, along with an increasing number of owners' applications for agricultural land-use change. The latest FDA census, in 2020, showed that there are still serious obstacles to their major revival. These are associated with heterogeneous ownership, the lack of interest by owners and the lack of financial resources. In fact, about two-thirds of FDAs did not change during the three-year period between the two censuses. The established recording of these areas has already helped to identify the issue and the consequences of irrational use. In this respect, activities for rehabilitation are more intense in the cohesion region of Zahodna Slovenija. Addressing issues related to heterogeneous ownership and financial resources will also require a major systemic action in terms of environmental protection.

[224] Ogrin, 2017. In this context, the introduction of new measures continues. Recent efforts are aimed at reducing emissions from small and medium-sized combustion plants.

[225] World Bank, 2019. In Slovenia, only about a quarter of the population lives in the major towns and cities, which are few. This settlement pattern is the result of natural conditions, historical development, targeted promotion of a polycentric urban system and the fact that people place a high value on living close to nature.

[226] Services of general interest are basic non-market public services to which people have equal rights and access (e.g. public administration, education, health care and the judiciary). Services of general economic interest are market services subject to the principles of competitiveness (electronic communications, postal services, supply of electricity, gas, water and transportation, etc.) (Nared et al., 2016).

[227] In some places, they pose a serious environmental threat from illegal landfills, with disposal of construction, bulky and even hazardous waste.

5 A high level of cooperation, training and governance efficiency

Slovenia's institutional competitiveness has been gradually improving, but it remains lower than the EU average. In recent years, significant progress has been made in the digitisation of certain public services, the introduction of quality standards in public administration, and the adoption of measures to reduce administrative barriers and corruption. The efficiency of the justice system has also improved and its quality is comparable to that of other EU countries. Trust in public institutions and the rule of law has remained low, as has the level of representative democracy; the perception of corruption is high. Business executives have highlighted that the biggest obstacles to business are excessive red tape and a lack of encouraging business environment. Some procedures in the business environment continue to be lengthy, the tax burden on labour is high and, according to a number of international institutions, the labour law is too rigid. All of these point to a number of challenges related to the strategic governance of public institutions; furthermore, it would also seem essential to improve the participation of the public and key stakeholders in action. There are still shortcomings in regulatory impact analysis, since new legislation is still not subject to a systematic and comprehensive analysis of the impact of regulations on public finances, the economy, the environment and society. Slovenia continues to be one of the most peaceful and safest countries in the world, participating in the most important international organisations, operations and missions. This has a positive impact on the quality of life and its reputation in the international environment. Membership of the EU enables Slovenia's involvement in decision-making processes, but its active role in the EU should be strengthened. However, the fulfilment of international commitments to international development aid and security remains a challenge going forward.

5.1 Efficient governance and high-quality public service

Efficient governance and high-quality public service (Development Goal 12)

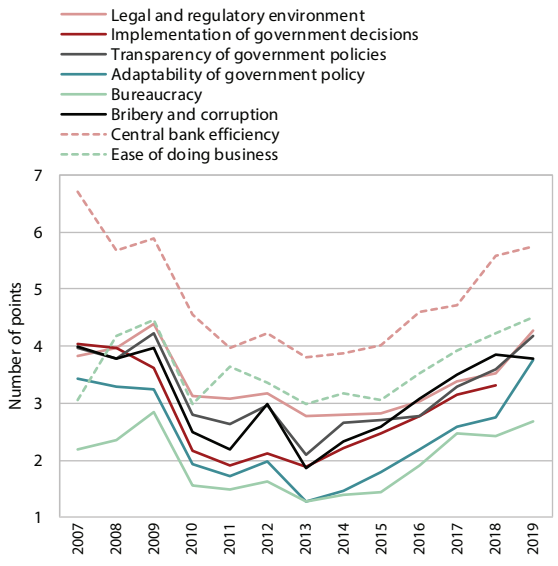
To achieve this goal, it is necessary to ensure effective strategic governance of public institutions and the formulation of quality public policies that respond to change effectively and quickly. Significant factors listed in the SDS 2030 as contributing to stronger governance of the public sector include framing goal-oriented policies, creating a highly developed culture of cooperation between citizens and institutions to strengthen trust in the latter, involving stakeholders at all levels of policy development and monitoring, nurturing social dialogue, and ensuring accessibility of information. It is also important to make governance of public systems and services efficient (and innovative), improve oversight of institutional and social structures, and ensure accountability for adopted decisions.

Performance indicators for Development Goal 12:

	Latest data		Target value for 2030
	Slovenia	EU average	
Trust in public institutions, %	Parliament: 26 Government: 31 Local authorities: 46 (2019, autumn survey)	Parliament: 34 Government: 34 Local authorities: 53 (2019, autumn survey)	At least half of the population trusts public institutions (average of the latest three surveys)
Executive capacity, average score on a 1–10 scale	4.9 (2019)	6.0 (2019)	EU average in 2030

Institutional competitiveness has been gradually improving, but it still continues to lag behind the EU average. The international indicators of competitiveness (IMD, WEF, World Bank) show that institutional competitiveness deteriorated significantly during the economic and financial crisis, with a marked decrease in the values of survey indicators.[228] The trend is attributed to the performance of the legislative, executive and judicial branches and sluggish adaptation to altered circumstances during the crisis. The improvement in business sentiment and institutional competitiveness due to the post-crisis macroeconomic conditions and more stable public finances has been among the highest in the EU in the past four years. Nevertheless, Slovenia is still lagging behind the EU average, with surveys continuing to show dissatisfaction with the high level of bureaucracy, the efficiency of government institutions and tax policy.[229] Trust on the part of businesspeople and citizens in key institutions of the state (the Parliament, the Government and the judiciary) and political parties has increased over the past two years, while in citizens it remained relatively low and below the EU average (see Indicator 5.1). Institutional competitiveness also depends on the country's ability and readiness to adopt and deploy digital technologies. In recent years, no significant progress has been made in this regard, with Slovenia lagging behind the EU average in a number of areas, notably in terms of regulation and readiness for new trends and technologies[230] (see also Section 1.2.2).

Figure 49: Government efficiency indicators for Slovenia according to IMD



Source: The World Competitiveness 2019 (IMD), 2019.
Note: Higher scores are better. With reference to more detailed indicators, the maximum score is 10; all indicators are survey-based.

The turnout in elections at which political representatives are directly elected is relatively low

[228] The decline in survey indicators was also the result of a sharp deterioration in the business sentiment during the crisis, which was more pronounced than in other countries.

[229] According to the World Bank (Doing Business, 2019), the amount of taxes is not problematic, the problem being the time it takes for companies to pay them. Other institutions draw attention to the burdening of labour costs as a result of tax policy.

[230] The IMD World Digital Competitiveness Ranking (IMD), 2019.

compared to other EU countries. The voter turnout for the last parliamentary elections stood at 52.6%, which is lower than in most EU countries, while fewer than half of the voters cast ballots in the last local elections (2018: 49.2% at the runoff election) and the elections of the President of the Republic of Slovenia (2017: 42.1%). The low voter turnout is attributed to voters' lack of trust in political parties and institutions of the state (see Indicator 5.1). Slovenia traditionally has a low voter turnout for elections to the European Parliament, and it was again among the lowest in the EU in 2019. Satisfaction with the functioning of democracy has improved over the past two years but is still lower than the EU average, which partly explains the relatively weak turnout in the elections.[231]

The degree of participatory democracy, i.e. the involvement of stakeholders in all stages of framing and monitoring policies and regulations, is too low. The Rules of Procedure of the Government envisage the indication of public participation in the drawing up of a proposed law as a mandatory component thereof. In Slovenia, public involvement is relatively low, with several surveys suggesting that the accepted minimum standards of participation[232] are often ignored, while the majority of ministries do not involve stakeholders in the drafting of regulations until the final stage.[233] On the other hand, the OECD data indicate that in Slovenia the involvement of stakeholders in drafting regulations (in particular primary legislation) is stronger than on average in the EU, while the monitoring of their implementation is much weaker.[234] The public is able to send their proposals to the Government via a web portal;[235] in 2019, more than 300 proposals for amendments to regulations and laws were sent to the ministries for consideration in this manner. Participatory democracy does not replace representative democracy (e.g. elections); rather it strengthens public trust in state institutions, improves transparency and contributes to making policies more sustainable. Public participation as an expression of democracy in referendum voting is very low as well, with turnout in consultative referenda rarely above 20% in recent years. The amended referendum legislation, however, contributed to the tightening of conditions for calling a referendum and confirming referendum decisions.

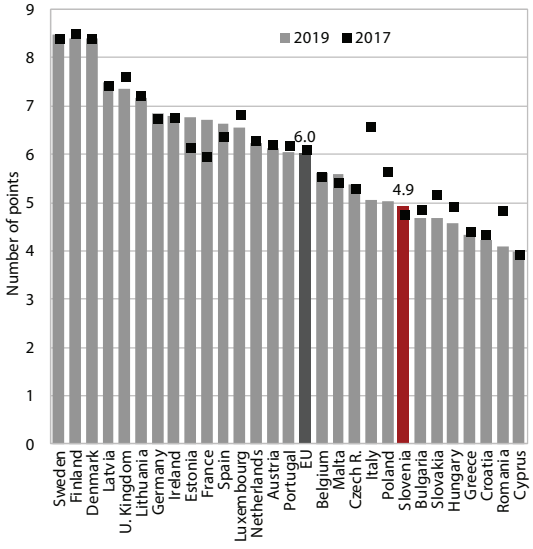
Social dialogue plays an important role in addressing issues and measures related to social and economic policies in Slovenia. The typical forms of social dialogue are bilateral (between representatives of employers and employees) and trilateral, which takes place at the national level (among representatives of the state, employers and employees). The central forum of dialogue is the Economic and Social Council (ESC); social dialogue involves all kinds of negotiations, consultations and exchanges of information between employers, employees and representatives of the state on matters of shared interest regarding economic and social policies. The state plays an important role in social dialogue, even when it is not directly involved therein, as it provides an appropriate institutional framework and is responsible for ensuring the right political and social climate. An overview of past practice shows that social dialogue has great potential for development in Slovenia, which can be achieved by improving the knowhow, competences and awareness of social partners.[236] The most important form of bilateral dialogue is collective bargaining between trade unions (workers) and employers (companies or the state in the case of negotiations for public employees) and results in the conclusion of collective agreements. The Industrial Democracy Index shows that the involvement of stakeholders in social dialogue is high, but cooperation between the social partners in Slovenia could still be improved.[237] In order to strengthen social dialogue, the Protocol of the Government of the Republic of Slovenia and the social partners on the respect for and promotion of social dialogue was signed in November 2019 and the Rules on the Operation of the ESC were amended.[238]

5.1.1 Performance of the public administration and provision of public services

The strategic governance of public institutions continues to be assessed as weak compared to most other EU countries, and the efficiency of public administration, which plays an important role in local and national development, is also scored too low. The fundamental document for the efficient performance of the public administration is the Public Administration Development Strategy 2015–2020, which is implemented in conjunction with the adopted operational programmes. International comparisons show that weak executive capacity, an indicator measuring the strategic governance of public institutions, is largely a consequence of inefficient government performance and organisation and the performance of key government institutions. The rating

[231] Standard Eurobarometer 92 (EC), 2019.
[232] Resolution on Legislative Regulation, Official Gazette of the Republic of Slovenia (*Uradni list RS*), No, 92/2007.
[233] Public Participation in the Legislative Procedure (Ministry of Public Administration), 2015; Regulatory Policy in Slovenia – Oversight Matters (OECD), 2018.
[234] Regulatory Policy in Slovenia – Oversight Matters (OECD), 2018.
[235] The web portal predlagam.vladi.si
[236] Report of the analysis of the situation in social dialogue in Slovenia and abroad and overview of best practices in Slovenia and abroad, 2018.
[237] The Industrial Democracy Index incorporates four dimensions: the autonomy of social partners in wage bargaining, representativeness at the macro (social dialogue) and company level (works councils), the participation of employees in management decision-making at company level, and the interaction of all parties in collective bargaining and management decision-making. Source: Measuring varieties of industrial relations in Europe: A quantitative analysis (Eurofund), 2018.
[238] http://www.ess.si/.

Figure 50: Executive Capacity Index



Source: Sustainable governance indicators, 2019; IMAD calculations. Note: The index uses eight indicators to measure the strategic governance of public institutions (see Indicator 5.2). Higher is better, the maximum score being 10.

is strongly affected by inefficient strategic planning (i.e. the coordination of development policies with national and other strategies), the fragmentation of public sector bodies, weak inter-ministerial coordination, and the low involvement of various expert publics in government decisions (see Indicator 5.2). This has also hampered the effective implementation of strategies in various areas and slowed the processes of EU funds absorption, which also results in a less attractive business environment. Little progress has been made in improving legislation. Line ministries are required to use tools of better regulation such as impact assessment[239] and stakeholder engagement when drafting laws and regulations. However, challenges remain in ensuring the effective practical application of these tools by line ministries.[240] Several online portals have been established as well (an upgrade to the public procurement portal, the national open data portal, etc.) in an effort to increase the transparency and quality of service.

The accessibility of eGovernment services has gradually improved in recent years, but the uptake of these services remains below the EU average. Citizens can access the eGovernment portal, offering a one-stop shop gateway to electronic services for doing business with the state, and the e-VEM portal – Slovenia Business Point for businesses and entrepreneurs. Despite improving the online accessibility of public services and increasing the number of users,[241] Slovenia continues to lag behind the EU countries on average in the uptake of digital services, especially as regards the use of eGovernment services for businesses. In addition to the quality of public services for businesses, an important reason for the low level of use is the lack of a widespread and user-friendly way of electronic identification, since in Slovenia almost all eGovernment services require users to hold a qualified electronic signature certificate.[242] The EC analysis confirms that the development level of eGovernment in Slovenia is above the EU average, but the uptake of services and digitisation lags behind more developed countries, which means that the full potential of e-services remains unexploited.[243] The uptake of e-health services, however, is among the highest in the EU, largely as a result of the introduction of electronic prescriptions and referrals;[244] furthermore, Slovenia performs very well in access to open data.[245]

The introduction of quality models in public authorities continues. Quality is controlled using the Common Assessment Framework (CAF)[246] in the public sector, which was initially introduced to administrative units and over the past three years also to the state administration authorities. In 2019, 95 users participated in the CAF project; the ultimate goal of using the model is to contribute to good governance by improving the performance of organisations and development. The first regular CAF EPI external assessment project was also carried out; this showed that more attention should be paid to the preparation of proposals for improvements and to acquainting the users with them.[247] The quality of service is also linked to the satisfaction of users of public services, which is regularly monitored by the Ministry of Public Administration. The survey has shown that the majority of customers are satisfied with the expertise and professional qualification of employees at administrative units, with dissatisfaction mostly associated with waiting times.[248]

In recent years, measures have been in place to modernise the public procurement system and optimise its transparency, while Slovenia continues to lag behind in terms of efficiency. The emphasis

[239] Slovenia ranks very low among EU countries in terms of ex-post evaluation of the impact of adopted legislation (Government at a Glance, OECD, 2019).

[240] Regulatory Policy in Slovenia – Oversight Matters (OECD), 2018.

[241] According to data provided by the Ministry of Public Administration, the number of registered users exceeded 100,000 at the end of 2019. All basic public services for citizens are available online and about 80% of them are available for legal entities (DESI, 2019).

[242] DESI, 2019.

[243] EGovernment Benchmark 2019 (EC), 2019.

[244] The DESI survey (2019) states that Slovenia ranks highest in the EU in the use of e-presciptions (used by 98% of general practitioners) and medical data exchange (27% of general practitioners).

[245] DESI, 2019; eGovernment Benchmark 2019 (EC), 2019.

[246] The Common Assessment Framework in the public sector is a tool for comprehensive quality control developed in the public sector and for the public sector; it is based on the business excellence model of the EFQM European Quality Management Fund.

[247] Report on the implementation of the first regular CAF EPI 2019 (Ministry of Public Administration), 2019.

[248] Report on the satisfaction of public service users for the period from 17 January to 30 June 2018 (Ministry of Public Administration), 2018.

here is on e-procurement; in 2018, a system for electronic submission of tenders in public procurement procedures, which reduces contractor costs, shortens procedures, and allows for a greater transparency and better supervision of the use of public funds (the e-JN system), was established. With a view to increasing cost-effectiveness and transparency, several joint procurements have also been carried out for government authorities and public administration authorities. The priority was the centralisation of public procurement in the health care sector (e.g. pooling of contracts for medicines, medical devices and equipment); this is an area in which considerable uneconomic spending of funds has been observed in recent years and accounts for one-third of all procurement.[249] The OECD states that Slovenia ranks among the most developed EU and OECD countries in terms of transparency of public procurement and publicly available information, but lags behind on systems that ensure greater efficiency (e.g. analysis of the effects of public procurement, lengthy procedures in handling complaints).[250] The lack of competition is also a problem due to a relatively large number of calls for tenders with only one contractor, which could increase the price and the risk of corruption.[251] In 2019, the Act Amending the Legal Protection in Public Procurement Procedures Act [252] was adopted; this strengthened the legal certainty of bidders (possibility of judicial review, decision of the National Audit Commission) and shortened the deadlines for review procedures for major projects, which should have a significant impact on efficiency.

The implementation of the programme of measures to eliminate administrative barriers and draft better regulations is ensured through the ongoing "STOP the Bureaucracy" project. Various programmes for the elimination of administrative barriers have been systematically implemented in Slovenia for more than ten years, with the currently applicable document being the Single Document for Ensuring a Better Regulatory and Business Environment, adopted in 2013. The Single Document is regularly updated with new measures, while the implementation of the planned measures continues (currently about two-thirds of all the planned measures).[253] Over recent years, several key measures have been in place in areas including entrepreneurship (the SME test, setting up the SPOT system – Slovenian Business Point (e-VEM), improving the availability of financial resources for start-ups, voucher counselling), the environment and spatial planning (new spatial planning and construction legislation), services (reforming the regulation of professions and activities), public procurement, and the promotion of investments. According to the Ministry of Public Administration, the measures have annually produced more than EUR 420 million of savings [254]; within the "Stop the Bureaucracy" project, evaluations of key measures under the single database of measures are regularly published. The results of surveys among business people reveal progress in reducing administrative burdens, which is also reported by the WEF.[255] Slovenia is lagging behind other EU countries in the widespread use of regulatory impact analysis (RIA) and in ex-post evaluations of the impact of adopted legislation.[256] The regulatory impact analysis is already conduced in the areas relating to entrepreneurship (e.g. the SME test); a key problem remains the lack of a systematic and comprehensive analysis of the regulatory impact on public finances, the economy, the environment and society as a whole. The OECD notes that Slovenia needs to strengthen the institutional framework and capacity for the assessment of regulatory impact, the involvement of stakeholders and ex-post evaluation.[257]

5.1.2 Impact of public institutions on the economy sector

According to various estimates, the main obstacles to doing business are related in particular to excessive bureaucracy. The performance of the state and its institutions, and hence an efficient institutional framework, are essential to creating an environment conducive to business. One of Slovenia's main advantages is well-qualified workforce (a favourable ratio between the quality and price of labour/knowledge is particularly important for foreign investors), with companies stating that good staff are hard to find and keep.[258] The ease of doing business has been significantly improved with amendments to insolvency legislation that reduced the duration of insolvency proceedings and prevented asset stripping of insolvent debtors. In addition, the World Bank and the OECD state that administrative barriers to firms entering and exiting are lower than the EU average,[259] but the problem remains, in particular, the support to business operations. In addition to excessive red tape, which is reflected in the lengthy public service procedures (e.g. acquisition of building permits,

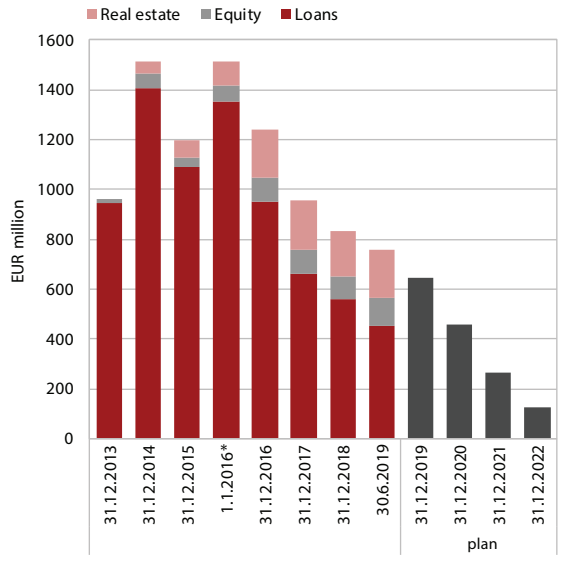
[249] The Programme of the Government of the Republic of Slovenia to Enhance Integrity And Transparency for the 2017–2019 period, 2017; Second interim report on the implementation of the Government's Programme to Enhance Integrity and Transparency 2017–2019, 2019.
[250] Government at a Glance 2019 (OECD), 2019.
[251] Commission staff working document – 2020 Country Report Slovenia (EC), 2020.
[252] The Act Amending the Legal Protection in Public Procurement Procedures Act (Official Gazette of the Republic of Slovenia *[Uradni list RS]*, No. 72/2019).
[253] 12th Report on the Implementation of Measures Under the Single Database of Measures Aimed at Improving the Legislative and Business Environment and Increasing Competitiveness (Ministry of Public Administration), 2020.
[254] "STOP the Bureaucracy" website (Ministry of Public Administration), 2020.
[255] The Global Competitiveness Report 2019 (WEF), 2019.
[256] Government at a Glance 2019 (OECD), 2019.
[257] Regulatory Policy in Slovenia – Oversight Matters (OECD), 2018.
[258] Jaklič, A., Koleša, I., 2018.
[259] OECD Indicators of Product Market Regulation (OECD), 2018; Doing Business, 2019.

registration of real estate that is mainly associated with complex procedures and coordination with other stakeholders), other important barriers to business are primarily related to tax policy (e.g. labour cost burden) and relatively rigid labour law.[260]

State ownership of companies, especially in network industries, is more widespread in Slovenia than in other EU countries. Slovenian Sovereign Holding (SSH), as the manager of state-owned equity stakes in companies, provides conditions for active management of its assets in accordance with annual management plans.[261] At the end of 2018, the book value of assets under management (assets in direct ownership of SSH and assets managed on behalf of the Republic of Slovenia by SSH) stood at EUR 10.1 billion and had slightly decreased against the previous year. Of these, two-thirds are strategic investments, the remainder being significant and[262] portfolio investments. The OECD survey shows that ownership of state-owned enterprises is more widespread than in other EU countries, especially in some network industries where state-owned enterprises are also market leaders (e.g. transport, energy and telecommunications).[263] International organisations (WEF, IMD, World Bank, European Commission, OECD) have also cautioned against state interference in company operations, sluggish sale of state-owned companies and a lack of good corporate governance in state-owned companies. According to the IMF,[264] the privatisation of state-owned enterprises should be accelerated to boost foreign direct investment and knowledge transfer, which would have a positive impact on the entire economy. At the same time, Slovenia's interest lies in the divestment of companies to strategic owners, which would ensure further growth and the long-term development of the thus privatised companies.

The return on equity in state-owned investments has improved, but similar trends are not projected to continue as a result of the change in the portfolio structure. Over recent years, the net return on equity (ROE) managed by SSH has increased (6.3% in 2018) during the period of favourable economic conditions, with high dividend payouts (EUR 250 million in 2018). The profitability of publicly owned enterprises was above the SSH projections. As there have been significant changes in the portfolio structure over the past two years as a result of the sale of two banks (which accounted for about one-fifth of the total value of the portfolio)[265], further growth in profitability and dividend payouts are not envisaged.[266]

Figure 51: Assets under the BAMC management and portfolio plan through 2021



Source: BAMC Half-Year Report, 2019; BAMC Business Strategy 2019–2022, 2019. Notes: On 1 January 2016, the value of the portfolio increased after the merger by acquisition of Factor banka and Probanka. Under the transaction, the BAMC received a small leasing portfolio that is included among the loans. In 2019, the asset reduction plan for 2019–2022 was amended for failing to achieve the objectives.

The withdrawal of the state from company ownership continues through the Bank Asset Management Company (BAMC) and SSH; in 2019, the second part of the sale of Nova ljubljanska banka (NLB) and the sale of Abanka were completed. In compliance with commitments made to the European Commission and following the sale of 65% equity stake in NLB in 2018, SSH sold a further 10% equity stake, minus one NLB share in 2019 (EUR 109.5 million), and 100% equity stake in Abanka (EUR 444 million). Equity stakes in 10 out of 15 state-owned companies designated for sale have been disposed of so far,[267] while privatisation procedures for the remaining five are currently suspended.[268] For the time being, SSH does not plan further privatisation of any of the major companies. SSH is to transfer all strategic and significant investments into the state's ownership

[260] Doing Business, 2019; WEF, 2019; IMD, 2019.

[261] Ordinance on state-owned assets management strategy. Official Gazette of the Republic of Slovenia (*Uradni list RS*), No. 53/2015; Annual Asset Management Plan (SSH), multi-year overview.

[262] Significant investments include companies that are the drivers of wider economic development and have an important role in the integration of companies within the supply chain and the internationalisation of the economy. This includes systemic financial institutions, the lottery, and development and technological companies.

[263] OECD Indicators of Product Market Regulation (OECD), 2018.

[264] Slovenia Staff Concluding Statement of the 2018 Article IV Mission. (IMF), 2018.

[265] Over the past two years, both portfolio banks (NLB d.d. and Abanka d.d.) paid out above average amount in dividends and achieved high ROE.

[266] Annual Report of the SSH Group and SSH d.d. for 2018 (SSH), 2019.

[267] From this list, which had been confirmed by the government in 2013, SSH has so far sold equity stakes in Adria Airways, Adria Airways Tehnika, Aerodrom Ljubljana, Cimos, Elan, Fotona, Helios, Nova KBM, Paloma and Žito.

[268] Three more companies (Cinkarna Celje, Gospodarsko razstavišče and Telekom Slovenia) remain to be privatised, while two (Aero and Terme Olimia bazeni) no longer exist.

by the end of 2020.[269] The state is also withdrawing from company ownership via the BAMC[270], which has to be wound down by the end of 2022. The assets under the BAMC management amounted to EUR 830.1 million as of the end of 2018 and decreased by a further 9% by mid-2019. Despite a gradual decline in recent years, the BAMC is lagging behind the initially planned reduction in terms of the value of assets under its management. Claims from non-performing loans (accounting for around 60% of the BAMC's assets) represent the bulk of decrease over the past two years, while, contrary to the BAMC business strategy 2016–2022, the value of real estate and equity investments even increased in 2019.[271]

[269] State-owned assets are classified into strategic, significant and portfolio assets on the basis of predefined criteria set out in the State Assets Management Strategy (Official Gazette of the Republic of Slovenia *[Uradni list RS]*, No. 53/2015).

[270] The state withdraws from company ownership through the BAMC by selling claims (non-performing loans) to companies, by offloading real estate of which the BAMC took possession in the process of bank restructuring and by selling equity in companies.

[271] The asset reduction plan was supplemented in 2019; the reduction is projected to be more gradual than originally planned and is expected to be delayed beyond 2022. The figure for 2019 is an estimate based on available data for the first half of the year (BAMC Half-Year Report, 2019; BAMC Business Strategy 2019–2022, 2019).

5.2 A trustworthy legal system

A trustworthy legal system (Development Goal 10)

The legal system is of significant national and strategic importance for the protection of the rights of citizens, economic development and prosperity, given the fact that all social systems and subsystems are highly dependent on it. The goal is to create a legal system that provides a high-quality and efficient legal framework. Key factors of trust in the legal system listed by the SDS 2030 include the protection of human rights, fundamental liberties and equal opportunities, clear procedural and substantive legislation, concern for the independence, efficiency and transparency of the judiciary, and the elimination of the causes of corruption.

Performance indicators for Development Goal 10:

	Latest data		Target value for 2030
	Slovenia	EU average	
Rule of law index, rank among EU member states	Rank 14 (data for 21 EU countries) (2019)	–	Ranking in the top half of EU countries
Estimated time to resolve civil and commercial court cases, number of days	292 (2017)	215 (2017)	200

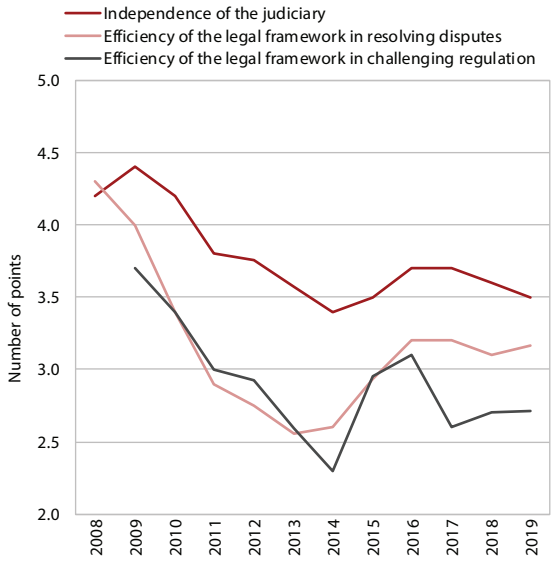
Trust in the rule of law and the judiciary is relatively low and is improving only slowly. The bedrock of people's trust in the legal order and respect for legislative provisions is clear, understandable, transparent and unambiguous legislation, while people's trust in the legal system and the rule of law also depends on the implementation of rights in practice, the duration of administrative and court proceedings, accessibility to legal remedies, and the predictability and stability of legal standards. International comparisons (World Justice Project and World Bank Governance Indicators) suggest that trust in the judiciary has slightly improved, but Slovenia still ranks poorly in terms of both the rule of law and the judiciary (see Indicator 5.3). Despite some positive developments, trust in the independence of courts and judges is also low and still ranks much lower than in other EU countries. Surveys point to the perceived influence of politics on court decisions as the reason.[272] The number of applications to the European Court of Human Rights (ECHR) and the infringements found have substantially decreased, both indicators no longer deviating from the EU average over the past two years.[273] Favourable developments in the ECHR indicators may indirectly point to an improvement in trust in the rule of law and the judiciary, in which regard it is necessary to point out that improving the reputation and people's trust in the judiciary requires a concerted effort by the legislative, executive and judicial branches.

The main priorities set in the judiciary over recent years have been to improve the effectiveness, transparency and quality of the justice system. In implementing the Justice 2020 Strategy, one of the principal challenges is to create a predictable and stable legal environment. The Supreme Court has drawn attention to the broadening of competences and the adoption of insufficiently considered measures by the legislative branch of power, which should also be aligned with the judicial branch (e.g. the entry into force of the Act Governing Judicial Protection Procedure for Former Holders of Bank Eligible Liabilities). Significant progress has been made in recent years in terms of increasing efficiency and reducing employment; however, the attainment of some of the goals set by the justice strategy is uncertain should similar trends continue. There has been a considerable delay in achieving the goals related to the expected time to resolve major pending cases, with the ratio between court staff and judges still being too low.[274]

Positive trends in the performance of the judiciary show that the efficiency of courts continues to increase. Court statistics suggest that, with the decrease in the number of judges and court staff, the number of pending cases in almost all courts has further decreased.[275] For several years, the number of cases resolved by the courts has exceeded their caseload. The average time taken to resolve all cases has shortened, but the time required for adjudication of an important case has not significantly changed (see Indicator 5.4). The Supreme Court has cautioned that the

[272] Flash Eurobarometer 474 (EC), 2019; Flash Eurobarometer 475 (EC), 2019; The 2019 EU Justice Scoreboard (EC), 2019.
[273] Analysis of statistics 2019. (ECHR), 2020.
[274] The strategy pursues the goals that by 2020 the expected time for resolving major cases should be reduced to six months and for other cases to three months. The number of judges per 100,000 inhabitants should also decrease (to 42), while the ratio between court staff and judges should increase to 4:3. (Justice 2020 Strategy, 2012).
[275] In the past five years, the number of pending cases dropped by 54%. The decrease was significant in enforcement cases as a result of the implementation of systemic measures and projects regarding enforcement proceedings.

Figure 52: Indicators of efficiency of the judiciary in Slovenia according to the WEF



Source: The Global Competitiveness Report 2019 (WEF), 2019.
Note: A higher score is better, the highest score being 7.

average length of proceedings will be further reduced in the future, but that the excessive shortening of the duration of procedures may jeopardise parties' right to be heard and the right to fair trial.[276] Compared to other EU countries, the expected duration of civil and commercial proceedings at first instance is longer and has even lengthened in recent years. This is due to the increased number of more demanding proceedings and the new competences conferred on the courts through law amendments. Personal bankruptcy proceedings and bankruptcy proceedings against a legal entity remain lengthy[277] because these cases are conducted before the court as unresolved until the bankruptcy proceedings have been completed; the court has no direct influence over the course of the proceedings after the decision on initiating bankruptcy proceedings is issued. Amendments to the insolvency legislation have shortened bankruptcy proceedings; however, the total duration of such proceedings also contributes to a relatively poor assessment of the performance of the judiciary by entrepreneurs (the WEF survey).

The quality of the Slovenian judiciary is comparable with other EU countries. This includes, in the strict sense, the quality of court decisions and, in the broader sense, the provision of judicial services. Since 2016, a project to improve the quality of the judiciary has been underway; this has so far focused on judicial skills, knowledge transfer and the training of court staff.[278] The EC study shows that citizens and businesses in Slovenia have good access to justice and that, compared to other countries, Slovenia has very well-regulated monitoring and evaluation of court activities and transparent standards of efficiency. The quality of the judiciary in Slovenia is further enhanced by the constant training of judges and court staff and improvements of the competences of court staff.[279] However, further improvements are needed in particular in communicating with interested publics (particularly by lower courts) and in providing information to parties in proceedings. Establishing a comprehensive system of electronic operations (e.g. electronic filing, service of court documents and data access) is one of the priorities of the judiciary. Within the framework of the Procedural Justice project, the judiciary has established a comprehensive communication system (including a web portal) over the past year which enables its users to obtain the information they need in a simple and comprehensible language; the system is intended for anyone who contacts the court.[280]

The perception of corruption has not changed significantly in recent years, remaining relatively high. The perception of corruption reflects the performance of institutions of the rule of law, public sector integrity and the quality of public sector management. The number of reports of corruption and other irregularities surged after the start of the economic and financial crisis, which can be largely attributed to the increased exposure of competent institutions and, as a result, the increased recognition and reporting of corruption. In recent years, some measures have been adopted to improve the integrity of institutions, public employees and holders of public office and increase the transparency of public sector operations.[281] Nevertheless, international comparisons of the perception of corruption suggest that the perception of corruption remains high and above the EU average (see Indicator 5.5), which is also reflected in the lack of public trust in the work of competent authorities. The Commission for the Prevention of Corruption (CPC)[282] and various international institutions[283] maintain that progress will not be possible without substantial systemic changes and a higher level of political culture. The OECD Working Group on Bribery in International Business Transactions has raised concerns about the operation and position of the CPC, in particular in terms of its effectiveness, independence and appropriate working conditions, as well as about the state of play regarding legislative changes aimed at improving the prevention and

[276] Opening of the Judicial Year 2020 (Supreme Court), 2020.
[277] Other liquidation procedures are much shorter (e.g. compulsory liquidation and simplified compulsory settlement).
[278] Supreme Court websites, 2020.
[279] The survey monitors performance through indicators in the areas of accessibility, resources, assessment tools and standards (The 2019 EU Justice Scoreboard, EC, 2019).
[280] Supreme Court websites, 2020.
[281] The Programme of the Government of the Republic of Slovenia to Enhance Integrity and Transparency for the 2017–2019 Period (Ministry of Public Administration), 2017.
[282] The Response of the Commission for the Prevention of Corruption to the 2019 Corruption Perceptions Index (CPC), 2020.
[283] Evaluation Report Slovenia – Fifth Evaluation Round (GRECO), 2018; Corruption Perceptions Index 2019 (Transparency International), 2020.

prosecution of corruption-related crimes.[284] The Act Amending the Integrity and Prevention of Corruption Act is currently under discussion. It aims, inter alia, to provide tools to increase the effectiveness of the CPC, strengthen control of lobbying, broaden the circle of persons obliged to declare assets, and extend restrictions and prohibitions on the acceptance of gifts to all officials and their family members.[285]

[284] Statement of the OECD Working Group on Bribery on Slovenia's Limited Implementation of the Anti-Bribery Convention (OECD), 2016
[285] The CPC will no longer be a "toothless tiger" (Ministry of Justice), 2019.

5.3 A safe and globally responsible Slovenia

A safe and globally responsible Slovenia (Development Goal 11)

The aim is to address global challenges that Slovenia is facing, such as migration flows, terrorism, climate change and respect for human rights. Some of the challenges also pose threats and risks to national security. Factors listed by the SDS 2030 as instrumental to strengthening global responsibility and solidarity include providing a high level of security, which includes providing protection against terrorist and other supranational threats (cyber threats included), promoting prevention, and strengthening the capacity for managing natural and other disasters. The SDS 2030 also draws attention to increasing foreign policy cooperation at the bilateral and multilateral levels and defence capabilities. Through international development cooperation and humanitarian aid, Slovenia contributes to a more balanced and just global development and the eradication of poverty and inequality.

Performance indicators for Development Goal 11:

	Latest data		Ciljna vrednost za 2030
	Slovenia	EU average	
Share of population that reported crime, vandalism or violence in their area, %	7.9 (2018)	12.7 (2018)	< 10
Global Peace Index, Rank	4 (in the EU) (2019) 8 (163) (2019)	–	Ranking among the top five countries in the EU or among the top ten in the world

Since its independence, Slovenia has been a member of the most important international organisations that maintain a stable international environment, security and human rights. For over a decade it has also been a member of the EU, its most important value-based, political and legal environment. Changes in the broader international environment affect the EU as well as Slovenia, the two grappling not just with developmental, political and economic issues, but also with global security challenges. The fundamental framework of institutional national security aside from the EU's common foreign and defence policy is NATO. Slovenia allocated 1.07% of GDP for defence in 2019,[286] which is below the EU average and falls short of NATO commitments.

5.3.1 Safety

Slovenia is one of the safest and most peaceful countries in the world. The Global Peace Index shows that Slovenia has ranked among the most peaceful countries in the world over the past decade, with the EU the most peaceful region (see Indicator 5.7). The number of criminal offences in 2018 was the lowest over the past ten years, with a decrease in general, economic and juvenile crime though an increase in organised crime.[287] The downward trend in the number of criminal offences continued in the first half of 2019.[288] In 2016, the standardised death rate for assault in Slovenia was lower than in the previous five years, but it remained slightly above the EU average (Slovenia: 0.7 persons per 100,000 population; EU: 0.6). In 2018, the General Data Protection Regulation (GDPR) entered into force,[289] strengthening the protection of the rights of individuals with regard to their personal data, in particular in terms of information security.

Slovenians have felt safe in their country over the past years. The sense of endangerment in the living environment remains low, as shown by the high proportion of people who feel safe in their local area (see Indicator 5.7). In 2018, 11% of those surveyed had a personal experience of burglary or physical assault, which is similar to previous years and less than in the EU as a whole.[290] The sense of safety also depends on people's trust in the police, which has been significantly

[286] The Secretary General Annual Report 2019 (NATO), 2020.

[287] Annual report on police work 2018 (Ministry of the Interior – Police), 2019. Organised crime accounts for the smallest proportion of total crime (2018: 1%).

[288] Overview of police work for the first half of 2019 (Ministry of the Interior – Police), 2019. The comparison of data for the first half of 2019 vs. the first half of previous years shows that the number of criminal offences of organised crime has fallen the most compared to 2018, while economic crime has increased.

[289] Regulation (EU) 2016/679. It should be noted that the Regulation became directly applicable in May 2018. Slovenia is late in transposing the Regulation into its national law and in adopting the relevant legislation.

[290] European Social Survey (ESS), 2019. Since 2008, the proportion of respondents who have personally experienced a burglary or physical assault has ranged between 9% and 11%. The data for a group of European countries shows the total average result of the selected countries regardless of the size of the national samples or the size of the country. The selected countries are those for which data are available at a given time (in this case Belgium, Germany, Finland, France, the UK, Ireland, Netherlands, Poland, Hungary and Slovenia).

higher over recent years than trust in other institutions in the country, though it also remained below the EU average in 2019.[291] According to the latest survey (in 2017), Slovenians considered that their immediate neighbourhoods and indeed Slovenia as a whole are secure places to live in.

Road safety has improved considerably since 2010. In 2018, Slovenia recorded 44 deaths per million population as a result of traffic accidents, which is less than the EU average (49 per million population). The number of deaths from road accidents in the 2010–2018 period decreased more than in the EU as a whole and is much lower than before 2010.[292] In 2018, 91 people died in road accidents, and though in 2019 the number of deaths increased to 102, this was still the second lowest figure since records began.[293] There are several factors behind the improvement, including better transport infrastructure (e.g. motorway construction), safer cars and preventive measures (e.g. the reduction of permitted blood alcohol level and education of young drivers). It should be noted that the total number of kilometres travelled in Slovenia is increasing annually and is now almost 50% more than in 2000.[294]

Natural and other disasters are among the constant sources of threat in Slovenia. The goals, policies and strategy for the protection against natural and other disasters in the country are set out in the national programme for the 2016–2022 period, which was adopted in 2016.[295] In 2019, the Administration of the Republic of Slovenia for Civil Protection and Disaster Relief intervened in 17,248 incidents[296] in which, in addition to other services, protection, relief and rescue personnel were engaged. The number of incidents fell in 2018 following an increase in 2013–2017, mainly due to a much smaller number of fires and explosions. Similarly, after a previous three-year increase, the number of interventions in natural disasters decreased in 2018.[297] Timely emergency response is ensured through emergency notification centres and public rescue services and by the preparedness of other rescue services, commissions and units and the Civil Protection Headquarters. As part of the disaster risk assessment process, the risk of 16 natural and other disasters was assessed in a uniform manner in the 2015–2018 period. The biggest risks in Slovenia are floods, earthquakes, pandemics of communicable diseases in humans, aircraft accidents, terrorism and glaze ice.[298] The key challenge is creating a system that will facilitate effective coordinated action and contribute to the mitigation of damage and other consequences of accidents. Preventive measures are an important factor as well, in particular in spatial planning and management and in protection against fire and other natural disasters.[299]

Threats and risks to national security have increased slightly in recent years. Regarding national security, activities are primarily focused on ensuring the security of the EU's national and external borders, preventing, detecting and investigating organised crime, cybercrime, crime associated with firearms, and fighting terrorism. The prevention of illegal border-crossings has been a priority for the police over recent years. The number of illegal border-crossings has increased between 2015 and 2019, mainly due to migration developments related to the situation in the Middle East.[300] The number of criminal offences of organised crime dealt with has increased since 2014,[301] with the highest number of offences involving drugs and prohibited substances in sport; the number of criminal offences related to arms trafficking increased the most in 2018 compared to the previous year. Since 2014, the number of cybercrime offences had declined, but this trend was halted in 2018, mainly because of an increase in attacks on the information system.[302] Modern technology also facilitates new kinds of cybercrime (e.g. the use and theft of cryptocurrency). The number of weapons-related crimes also increased in 2018, following a decrease in the previous four years.[303] In terrorism, Slovenia focuses on preventive action.[304]

[291] Standard Eurobarometer 92 (EC), 2019.

[292] In Slovenia, the number of deaths due to road accidents decreased by 34% (EU 20%) in the 2010–2018 period (EC, 2019).

[293] Slovenian Traffic Safety Agency (press release), 2020.

[294] OECD Road Safety Annual Report 2017, 2017.

[295] Resolution on the National Programme of Protection against Natural and Other Disasters 2016–2022, Official Gazette of the Republic of Slovenia (*Uradni list RS*), No. 75/2016.

[296] These are: natural and other disasters, traffic accidents, fires and explosions, pollution incidents, accidents involving hazardous substances, nuclear and other incidents, finds of unexploded ordnance, supply disruptions, damage to buildings, and other events that required technical and other assistance.

[297] Over the past five years, the number of actions, primarily due to glaze ice, was the highest in 2014. The primary causes of problems and interventions are floods, strong wind and snow.

[298] The websites of the Administration for Protection and Rescue: http://www.sos112.si.

[299] Slovenia will also address these challenges by using EU funds, in particular for the 5th and 6th priority axes of the Operational Programme for the Implementation of EU Cohesion Policy (Adaptation to Climate Change and Better State of the Environment and Biodiversity).

[300] In 2015, a total of 437 illegal crossings of the national border were dealt with, not including migrants who entered Slovenia during the period of mass migrations (around 360,000 persons), with the figure increasing to 1,934 in 2017 and surging to 9,262 in 2018 and to around 16,000 in 2019 (citizens of Pakistan, Afghanistan and Algeria accounted for the bulk of the crossings).

[301] The number of cases of organised crime totalled 393 in 2014, 467 in 2016, 431 in 2017 and 592 in 2018. The data have been available since 2014.

[302] The number of attacks on information systems in the last five years peaked in 2016 (261) (before decreasing to 171 in 2017 and rising again to 213 in 2018).

[303] The least weapons-related offences occurred in 2017 (67); in 2018 there were 154.

[304] Annual report on police work 2018, 2019.

5.3.2 Global responsibility

Slovenia strives to improve global responsibility and solidarity.[305] This entails speaking up and working for peace and security, prosperity and dignity for all people, eradication of poverty, environmental and sustainable development, respect for human rights, and more peaceful and inclusive societies. By endorsing the UN Global Compact for Migration, Slovenia supports the strengthening of international cooperation on all aspects thereof.[306] An important aspect of this is that undertaken international commitments in other areas are always honoured, including financial obligations, adjustment of the domestic legal order, and the fulfilment of international commitments regarding climate change and sustainable development (see Section 4). Slovenia remains one of the most successful countries in achieving the sustainable development goals enshrined in the 2030 Agenda.[307]

Changes in the international environment and new global trends pose a challenge for Slovenia. Over recent years, there have been a number of interventions in the established system of international relations, in particular in terms of the weakening of multilateralism and the deviation from the agreed rules of international regulation. The challenge for Slovenia is not just to improve its ability to respond and adapt to new trends and global changes (climate change, cybersecurity, the impact of technological progress on integration of regions and countries, migration flows, radicalisation, violent extremism and terrorism), but also to increase its role and influence in the shaping of these trends and overcoming the associated challenges.[308] To this end, in recent years Slovenia has strengthened its network of diplomatic and consular missions[309] and its activities in international organisations and other forums,[310] including through its participation in international operations and missions, where it ranks among the allies with an above-average operational burden. Having actively participated in the Human Rights Council between 2016 and 2018, Slovenia had the opportunity to strengthen its role in the UN, not only in human rights but also in the maintenance of international peace and security and respect of international law.[311]

Membership of the EU enables Slovenia's involvement in decision-making processes, but its active role in EU action should be strengthened. Over recent years, Slovenia's activity within the EU has been focused in particular on areas such as security, measures for growth and jobs, strengthening the social dimension, and enhancing the global role of the Union.[312] Another priority has been strengthening the democratic legitimacy of the EU[313] and improving trust in the work of the EU and European institutions. As an EU member, Slovenia participates in decision-making on the implementation of the EU's Global Strategy as a framework for EU action[314] in international relations. By pursuing its own foreign policy, it complements the EU's action, in particular by working towards deepening political, economic, social and cultural relations in the Western Balkans with the aim of strengthening the resilience of societies and countries in the region and accelerating their EU accession process. Despite good economic cooperation, a lack of progress is evident in relations with Croatia, mainly due to outstanding issues following the dissolution of the former common country.[315] The formation and advancement of Slovenia's interests in the EU requires in-depth action in the field of EU affairs, closer coordination within the state administration and reinforcement of staff.[316]

Over recent years, the EU has been facing serious challenges that have a significant impact on Slovenia. The major challenge at present is fighting the spread of the coronavirus epidemic in the first months of 2020 and facing the economic consequences of emergency and comprehensive measures to protect public health in the EU and Slovenia. Slovenia's ability to successfully address global trends and challenges hinges to a certain extent on the resolution of fundamental issues concerning the existence, further integration and political nature of the EU. Slovenia advocates the deepening and enlargement of the Union. In the EU, key debates are underway about the future of the Union (e.g. preparations for the Conference on the Future of Europe), the completion of Economic and Monetary Union, and the next financial perspective. This not only affects the scope of funding for Member States from the EU budget, but also means identifying priority areas and the direction in which the EU aspires to develop. In this respect, the presentation of the European Green Deal[317], which represents a proposal for the new growth strategy and includes a roadmap for making the EU's economy sustainable, was of considerable importance. The exit of the United Kingdom from the EU will have a significant impact

[305] Slovenia's Development Strategy 2030 (Government Office for Development and European Cohesion Policy), 2017.
[306] Addressing root causes, preventing illegal migrations, fighting human trafficking, and managing safe, orderly and legal migrations.
[307] Slovenia ranks 12th among 162 countries and has been rated best in terms of eradicating extreme forms of poverty and access to cleaner energy sources. (Sachs, J., Schmidt-Traub, G., Kroll, C., Lafortune, G., Fuller, G.: Sustainable Development Report, New York, 2019.
[308] Slovenia: Safe, Successful and Respected in the World (Ministry of Foreign Affairs), 2015.
[309] In the past two years, Slovenia has opened embassies in Bulgaria, Iran and the United Arab Emirates. It now has 55 diplomatic and consular missions abroad.
[310] Annual report of the Ministry of Foreign Affairs for 2019, 2020.
[311] Slovenia chaired the UN Human Rights Council in 2018.
[312] Declaration on the activities of the Republic of Slovenia in the institutions of the European Union for the period January 2019–June 2020 (Ministry of Foreign Affairs), 2019.
[313] Lange, S., 2016.
[314] Shared Vision, Common Action: A stronger Europe. A Global Strategy for the European Union's Foreign and Security Policy, 2016.
[315] Annual report of the Ministry of Foreign Affairs for 2018, 2019.
[316] Barbutovski, D., Bucik, M., Lange, S., 2017.
[317] The European Green Deal (EC), 2019.

on the balance of power between Member States, the division of interests and financing in the EU. It also highlights the need for a serious deliberation on the future of the Union.

One of Slovenia's key future tasks is the Presidency of the Council of the EU in the second half of 2021. Given the complexity of operational management and taking into account organisational, staffing and financial aspects, thorough preparations are of great importance for a successful Presidency. These are already in progress. Above all, the organisation of events necessitates appropriately qualified staff and meeting all security, technical and logistic requirements. One of Slovenia's priorities is to promote a sustainable, secure and rule-of-law-based EU.[318] In the same light, it is equally important to prepare activities for the promotion of Slovenia. In addition to strengthening Slovenia's reputation in the EU, the Presidency will also provide an opportunity to build on the knowledge, skills and capacity of the public administration and increase its capacity to operate in the EU in the long term.

Expenditure on official development assistance (ODA) remains significantly below the internationally agreed commitments. International development cooperation and humanitarian aid are important components of global responsibility and contribute to the strengthening of Slovenia's bilateral relations and visibility in the world.[319] ODA expenditure has increased over recent years but remains well below internationally agreed commitments imposing on Slovenia the obligation to strive towards increasing official development assistance to 0.33% of GNI by 2030.[320] With the increase in ODA, the available bilateral development assistance, which Slovenia provides to priority geographical areas and substantive areas, is increasing proportionately at the fastest rate. Multilateral assistance in support of EU development policies accounts for the majority of assistance, while the structure of ODA expenditure has been influenced in recent years by migration developments (see Indicator 5.8).[321] The OECD states that Slovenia's main challenges in international development aid include narrowing its focus to just a few priority regions and hence improving the effectiveness of aid, improving cooperation with and providing information to stakeholders in Slovenia, and forging long-term partnerships with prospective aid donors.[322]

[318] Terms of reference for the special government project of the Presidency of the Republic of Slovenia of the Council of the European Union 2021, 2019.
[319] Mrak, M., Bučar, M., Kamnar, H., 2007.
[320] Resolution on the International Development Cooperation and Humanitarian Aid of the Republic of Slovenia, Official Gazette of the Republic of Slovenia (*Uradni list RS*), No. 54/2017.
[321] Report on International Development Cooperation 2018 (Ministry of Foreign Affairs), 2019.
[322] OECD Development Cooperation Peer Reviews: Slovenia (OECD), 2017.

Appendix:
Indicators of Slovenia's development

1 A highly productive economy creating value added for all

Economic stability

1.1 Gross domestic product per capita in purchasing power standards

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Gross domestic product per capita in purchasing power standards 1.1

In 2016–2018 Slovenia was reducing its gap with the EU average in terms of economic development as measured by GDP per capita in purchasing power standards (PPS). With 26,900 PPS, Slovenia reached 87% of the EU average in 2018, which is two percentage points more than in 2017 and three less than the highest value before the onset of the economic crisis in 2008. Its GDP per capita was at approximately the same level as in 2005, i.e. before the significant acceleration of economic growth in the years before the economic and financial crisis. A breakdown of per capita GDP into productivity and employment rate shows that since 2016 the decline in the lag behind the EU average was mainly due to a relatively faster increase in the employment rate than in the EU as a whole and, to a lesser extent, to productivity growth. The employment rate was otherwise above the EU average in Slovenia throughout the analysed period; in 2018, it exceeded it by 6%. Productivity, however, remained relatively low (82% of the EU average in 2018), the lag in this area fully explaining the relatively low level of Slovenia's economic development measured by per capita GDP.

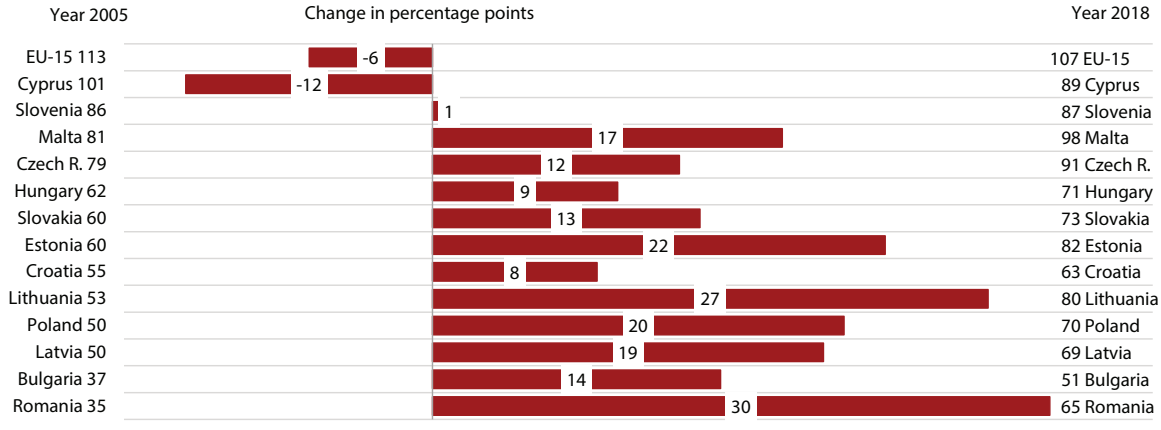
In terms of growth in GDP per capita in comparison with the period before the outbreak of the crisis in 2008, Slovenia ranks in the bottom half of EU Member States. In 2018, GDP per capita expressed in relation to the EU average lagged the most behind the levels from the middle of the previous decade in Greece, Italy, the UK and Cyprus, while the most progress in this period was made by Iceland and some new EU Member States (Romania, Lithuania, Estonia and Poland). Before the crisis, the countries closest to Slovenia in terms of GDP per capita in PPS were Greece and the Czech Republic; in 2018, these countries were Cyprus (89%) and the Czech Republic and Spain (91%). The gaps in GDP per capita in PPS between EU Member States have been declining over the years. From the beginning of the previous decade to 2018, the ratio between the most and the least developed Member State dropped from 1:9.5 (Romania/Luxembourg) to 1:5.2 (Bulgaria/Luxembourg).

Table: GDP per capita in purchasing power standards for selected countries (EU-28=100)

	2000	2005	2008	2010	2011	2012	2013	2014	2015	2016	2017	2018	SDS 2030 target
Slovenia	80	86	90	84	83	82	82	82	82	83	85	87	100
EU-15	116	113	111	110	110	109	109	109	109	108	108	107	
Scandinavian countries	129	125	128	127	127	126	126	124	123	122	122	122	
New Member States excluding Slovenia	51	60	67	67	68	69	69	70	71	72	73	75	

Source: Eurostat Portal Page – Purchasing Power Parities, 2019; calculations by IMAD.

Figure: Change in GDP per capita in PPS 2005–2018, EU-28 = 100



Source: Eurostat Portal Page – National Accounts, 2019; calculations by IMAD.

Real GDP growth 1.2

GDP increased for the sixth consecutive year in 2019; its growth, which had started to moderate in 2018, slowed noticeably. Following the double-dip recession, real GDP has been rising in Slovenia since 2014. In 2014–2017, economic growth was strengthening, while since 2018 it has been slowing. In 2018, its slowdown was primarily due to more moderate growth in exports and thus industrial production, while in 2019 to a somewhat greater extent also to lower growth in investment. The easing of growth in exports and investment, the main drivers of growth in 2017, largely reflects the moderation of economic activity in trading partners and significant uncertainty regarding external trade and political relations. In 2014–2018, economic growth was, in addition to rising exports, increasingly driven by growth in domestic consumption, but in 2019 this slowed considerably owing to weak investment growth. Growth in household consumption remained solid. It continued to be boosted by favourable labour market conditions and hence higher growth in (net) wages, which was also partly due to government measures. In 2017 and 2018, a significant contribution to growth came from rebounded growth in investment in fixed assets, which had declined significantly during the crisis (2009–2012). In 2019, its growth slowed the most in the segment of machinery and equipment. Growth in non-residential construction investment was also considerably lower. For the fifth consecutive year, growth in domestic consumption was also supported by increased government consumption.

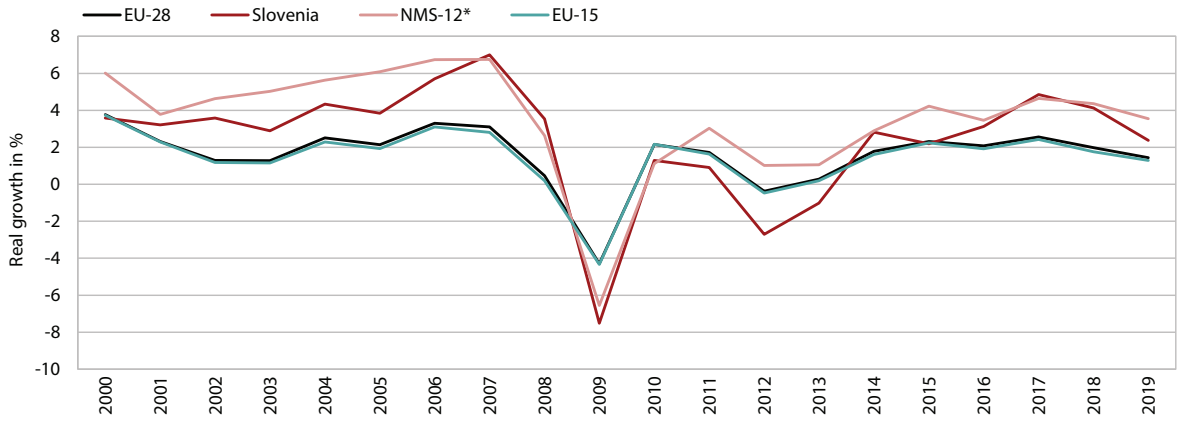
In 2019, the growth of real GDP, which contracted more in Slovenia than in the EU as a whole during the crisis, was still higher than the EU average. Economic growth, having slowed at the global level after 2017, remained above the EU average in Slovenia (2019: 2.4%, compared with 1.5%). In addition to robust growth in private consumption, it was due to growth in exports that was higher than on average in the EU. However, the slowdown of growth in Slovenia was more pronounced than in other new EU Member States, behind which Slovenia lagged almost by 17 percentage points in terms of the cumulative growth since 2005.

Table: Contribution of expenditure components to GDP change, Slovenia

	2000	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Real GDP growth, in %	3.7	3.8	3.5	−7.5	1.3	0.9	−2.6	−1.0	2.8	2.2	3.1	4.8	4.1	2.4
Contribution to GDP growth, in pps														
Total domestic consumption	1.3	1.7	3.5	−9.1	−0.8	−0.2	−5.4	−1.8	1.2	1.6	2.7	3.7	3.9	1.9
Private consumption	−0.1	1.1	1.5	1.1	0.5	0.5	−1.2	−2.3	0.9	1.1	2.4	1.0	1.4	1.3
Government consumption	0.7	0.5	0.9	0.4	0.0	0.0	−0.5	−0.4	0.0	0.4	0.5	0.1	0.6	0.3
Gross fixed capital formation	0.7	0.9	2.0	−6.5	−3.2	−1.0	−1.7	0.7	0.0	−0.2	−0.7	1.8	1.7	0.6
Change in inventories	0.1	−0.9	−0.8	−4.1	1.9	0.4	−2.0	0.2	0.3	0.3	0.6	0.7	0.2	−0.4
External trade balance (goods and services)	2.3	2.1	0.0	1.6	2.1	1.1	2.8	0.8	1.6	0.6	0.4	1.2	0.2	0.5
Exports of goods and services	5.6	6.3	2.8	−11.0	5.8	4.4	0.3	2.2	4.5	3.6	5.0	8.2	5.1	3.7
Imports of goods and services	−3.2	−4.1	−2.8	12.6	−3.7	−3.4	2.4	−1.5	−2.9	−3.0	−4.6	−7.0	−4.9	−3.2

Source: SI-STAT Data Portal – Economy – National Accounts, 2020.

Figure: GDP growth



Source: Eurostat Portal Page – National Accounts, 2020.
Note: * Data for NMS-12 are a non-weighted average for countries that entered the EU in 2004 or later, except Slovenia, which is presented separately.

General government debt 1.3

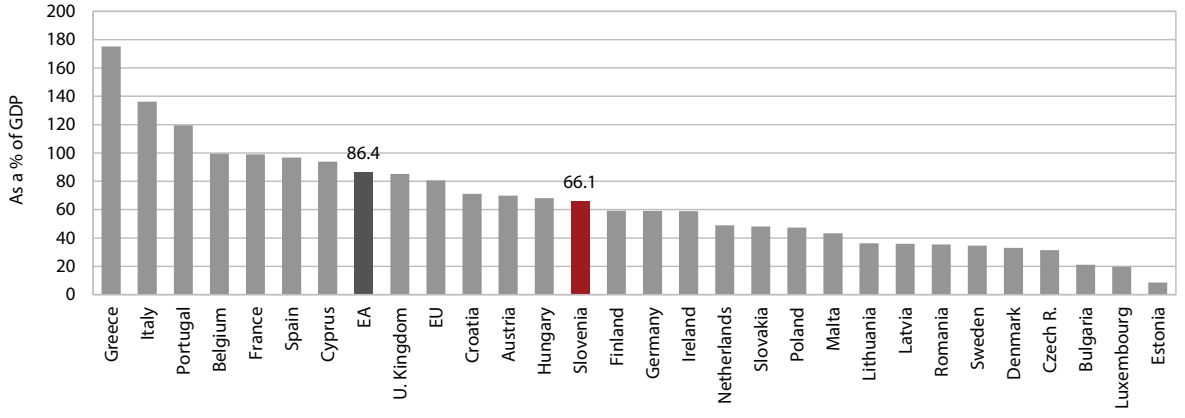
The improvement in the general government balance in circumstances of strong economic growth was reflected in a rapid decline in the general government debt as a share of GDP in the 2015–2019 period. The share of debt, having increased strongly after the financial crisis and many years of persistently high general government deficits, fell by 16.5 pps to 66.1% of GDP from 2015 to 2019. The decline was even larger than required by the Stability and Growth Pact. The share of debt also dropped notably on an international scale – among EU Member States, it was higher only in Ireland. In 2019, the debt-to-GDP ratio was 20 pps lower than the euro area average. The decline reflected the improvement in the primary balance (surplus). The contribution of economic growth was also favourable, but in 2019 it declined. In nominal terms, the debt has remained more or less unchanged for several years (having declined only in 2016 and 2019), partly on account of the strengthening of liquidity reserves[1] in conditions of low interest rates. In such circumstances and due to active debt management, which involved buy-backs of dollar-denominated bonds with high interest rates issued during the financial crisis, the implicit interest rate dropped to 2.5% (in 2008: 5.7%).

Table: Consolidated general government debt and breakdown of annual debt change, Slovenia

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	SDS 2030 target
In EUR billion													
General government	8.3	12.5	13.9	17.2	19.4	25.5	30.2	32.1	31.8	31.9	32.2	31.7	
As a % of GDP													
General government	21.8	34.5	38.3	46.5	53.6	70.0	80.3	82.6	78.7	74.1	70.4	66.1	60.0
In pps													
Debt change, of which	–1.0	12.7	3.8	8.2	7.1	16.4	10.3	2.3	–3.9	–4.6	–3.7	–4.3	
1. Primary balance	0.3	4.5	4.0	4.7	2.0	12.0	2.3	–0.4	–1.1	–2.5	–2.7	–2.3	
2. Snowball effect	–0.6	2.2	1.5	1.2	3.0	2.2	1.0	0.7	–0.1	–2.2	–2.4	–1.5	
- Interest payments	1.1	1.3	1.6	1.9	2.0	2.5	3.2	3.2	3.0	2.5	2.0	1.7	
- Effect of GDP growth	–0.7	1.7	–0.4	–0.3	1.2	0.5	–1.9	–1.7	–2.5	–3.5	–2.9	–1.6	
- Effect of inflation*	–1.0	–0.8	0.3	–0.4	–0.2	–0.9	–0.3	–0.8	–0.6	–1.2	–1.5	–1.6	
3. Stock–flow adjustments**	–0.8	5.9	–1.8	2.3	2.1	2.2	7.0	2.0	–2.7	0.2	1.5	–0.5	

Source: SI-STAT Data Portal – Economy – National Accounts – General Government Accounts – Main Aggregates of the General Government, March 2020.
Notes: * Measured by the GDP deflator. ** The change in the debt-to-GDP ratio that is not a consequence of the primary balance or the snowball effect (loans, currency, deposits and other liabilities). Some calculations do not add up to total due to rounding.

Figure: General government debt, 2019



Sources: For Slovenia, SI-STAT Data Portal – Main Aggregates of the General Government, March 2020; for other EU Member States, Autumn Forecast 2019, European Commission. Note: The EC's autumn forecast for Slovenia was 66.7% of GDP.

[1] Investment of the treasury single account reached EUR 4 billion at the end of December 2019 (8.4% of GDP).

General government balance 1.4

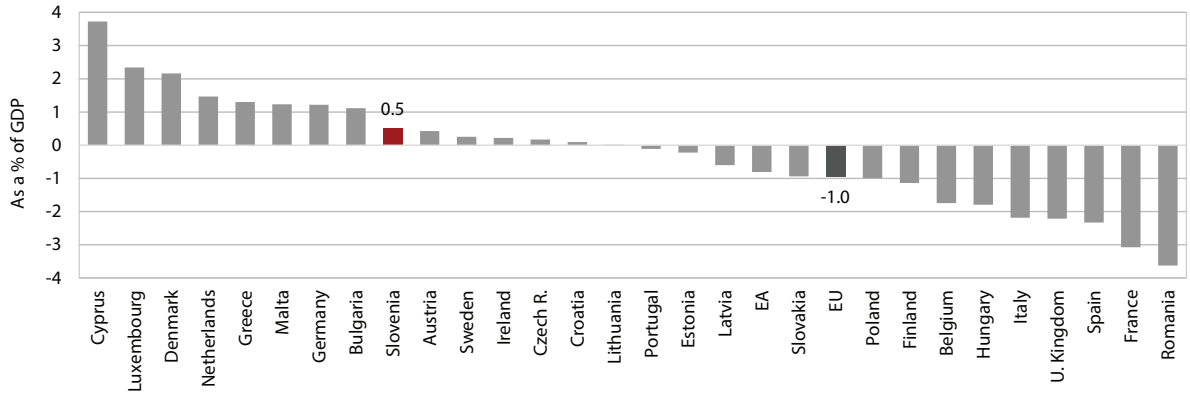
Slovenia significantly improved its fiscal position in the 2015–2019 period. In 2017, the general government budget was balanced, while in 2018 and 2019, it was in surplus. The primary budget balance (the fiscal balance excluding interest payments) has been positive since 2015. In 2019, Slovenia was in the group of approximately half of EU countries that had a general government surplus, while some larger countries, such as Italy, Spain and France, were still in the group of countries with deficits (a deficit being also recorded for the EU average). The improvement in Slovenia's balance was a consequence of measures to stabilise the situation after the financial crisis, improved economic conditions, and measures to increase revenue and contain expenditure.[1] In 2019, revenue growth started to moderate under the impact of lower economic growth, the easing of the tax burden on holiday allowance[2] and, with the sale of ownership stakes in companies owned by the government, a decline in property income, which until 2018 had been rising. At the end of 2019, an additional package of tax changes entered into force, which further decreased the tax burden as of 2020.[3] On the expenditure side, austerity measures were relaxed amid more favourable economic conditions in recent years, particularly those relating to social benefits and transfers and compensation of employees, while in 2019, growth in this expenditure also strengthened as a result of certain new measures.[4] In 2018 and 2019, investment activity also increased more significantly again, partly due to the increased drawing of funds from the EU budget. In 2019, expenditure growth thus outpaced revenue growth for the first time since 2013. Meanwhile, interest expenditure dropped markedly as a result of low interest rates and the active debt management after 2015. In 2019, it totalled 1.7% of GDP, which is one of the lowest levels in the last ten years.

Table: General government revenue, expenditure and balance (ESA 2010), Slovenia, as a % of GDP

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Revenue	43.7	43.5	44.6	44.2	45.4	45.7	45.3	45.9	44.3	44.0	44.3	44.2
Expenditure	45.1	49.4	50.2	50.9	49.4	60.3	50.8	48.7	46.3	44.1	43.6	43.7
Balance	–1.4	–5.8	–5.6	–6.6	–4.0	–14.6	–5.5	–2.8	–1.9	0.0	0.7	0.5
Primary balance	–0.3	–4.5	–4.0	–4.7	–2.0	–12.0	–2.3	0.4	1.1	2.5	2.7	2.3

Source: SI-STAT Data Portal – Economy – National Accounts – General Government Accounts - Main Aggregates of the General Government, March 2020.

Figure: General government balance, 2019



Sources: For Slovenia, SI-STAT Data Portal – Main Aggregates of the General Government, March 2020; for other EU countries, Autumn Forecast 2019, European Commission. Note: The EC's autumn forecast for Slovenia's balance amounted to 0.5% of GDP, as according to the first statistical release.

[1] For a more detailed description of individual measures, see Development Report 2018.

[2] According to the Act Amending the Personal Income Tax (Official Gazette of the RS, No. 28/2019), the annual holiday allowance in the amount of up to 100% of the average monthly wage is not included in the tax base. When the amendments were being prepared, the financial effect of the revenue loss was estimated at EUR 90 million.

[3] In October 2019, Slovenia adopted a package of tax changes, which changed the income tax brackets, increased the tax allowance and – to partially offset the revenue loss – raised the rate of personal income tax on capital income (dividends, interest and capital gains), the rates of personal income tax on capital gains arising from the disposal of capital, which are dependent on the period of ownership, and the rate of personal income tax on rental income. At the same time, a minimum effective tax rate for businesses was also introduced (in the corporate income tax, 7%); for more details on the measures and their macroeconomic effects, see Economic Issues 2019).

[4] The Agreement on Salaries and Other Payments of Labour Costs in the Public Sector (Official Gazette of the RS, No. 80/2018) was adopted. In the area of social benefits and transfers, expenditure growth strengthened as a result of the extraordinary indexation of pensions and a rise in the annual pension supplement, higher minimum income (in 2019, the amount of the minimum income remained at the increased level that applied in the second half of 2018), and the adoption of the Personal Assistance Act and the Social Inclusion of Disabled Persons Act, which broadened the scope of beneficiaries and the level of assistance.

Current account of the balance of payments and net international investment position 1.5

The surplus on the current account of the balance of payments in 2019, at EUR 3.1 billion (6.6% of GDP), was the highest to date. The current account surplus recorded in Slovenia since 2012 reflects the extensive deleveraging of banks and companies abroad, favourable conditions internationally and the improved competitive position of Slovenian exporters amid modest growth in imports due to relatively low domestic spending. Particularly in 2013–2016, the surplus also widened as a result of better terms of trade, which, owing to the fall in energy and other primary commodity prices, contributed around EUR 950 million to the change. From the perspective of the savings/investment gap, the surplus reflected a high level of savings amid the still relatively low level of domestic investment. At the sector level, the surplus of savings over investment arose from both the private sector (an increase in household savings and the excess of savings over investment in non-financial corporations) and the public sector (the entire period of the surplus being marked by an improvement in the general government balance).

The current account surplus is reflected in both an increase in external claims and a decline in external liabilities. The improvement in Slovenia's international investment position in 2015–2019 was attributable to the net outflow of government and private sector financial assets, which exceeded the net inflow of assets of the BoS. The *government* placed long-term deposits in accounts abroad, where interest rates are higher than in domestic banks, and repaid a portion of debt to foreign portfolio investors. The *private sector* (commercial banks and mutual and pension funds) significantly increased financial investment in foreign debt securities; in addition, commercial banks continued to deleverage abroad. Inward FDI flows rose in recent years, this on account of the sale of ownership stakes in domestic companies, and exceeded outward FDI flows. The BoS was buying securities based on its investment decisions and in the framework of non-standard monetary policy measures (under the Asset Purchase Programme) coordinated at the level of the Eurosystem and financed through money issuance. At the same time, the BoS lowered its financial assets in foreign accounts and increased its liabilities within the Eurosystem.

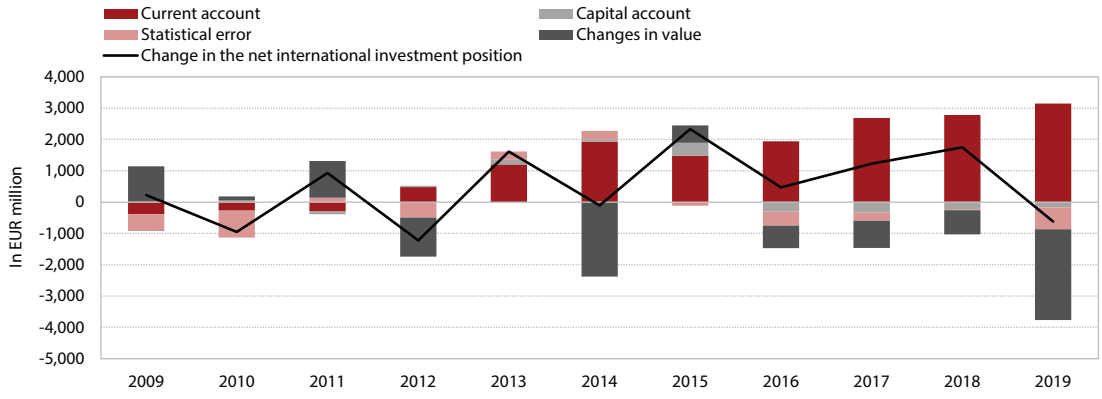
Slovenia's net international position, which has been gradually improving since 2013, has been below the indicative threshold of external imbalances since 2015 (35% of GDP). At the end of 2019, it amounted to 19.3% of GDP.

Table: Slovenia's international investment position, as a % of GDP

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
1 Debt claims	71.9	75.9	74.0	74.2	75.3	75.3	87.6	88.3	85.4	82.9	83.0	89.4
2 Equity claims	17.3	21.5	22.2	21.1	22.3	22.5	23.6	27.7	26.9	25.5	24.6	26.7
3 Total claims (1+2)	89.2	97.5	96.2	95.2	97.6	97.7	111.1	116.0	112.3	108.3	107.6	116.1
4 Gross external debt	106.5	115.0	115.6	111.8	117.5	112.9	124.3	118.8	109.7	100.5	92.0	91.8
5 Equity liabilities	22.1	23.1	23.8	23.2	24.2	24.2	25.2	28.4	31.5	32.1	34.6	43.7
6 Total liabilities (4+5)	128.6	138.1	139.3	135.0	141.6	137.1	149.5	147.2	141.2	132.6	126.6	135.5
7 Net external debt/claims (1–4)	–34.5	–39.0	–41.5	–37.7	–42.2	–37.6	–36.7	–30.4	–24.3	–17.6	–9.0	–2.4
8 Net equity debt/claims (2–5)	–4.8	–1.6	–1.6	–2.1	–1.9	–1.7	–1.7	–0.7	–4.6	–6.6	–9.9	–17.0
9 Net financial position (7+8)*	–39.4	–40.6	–43.1	–39.8	–44.0	–39.3	–38.4	–31.2	–28.9	–24.2	–18.9	–19.3

Source: Bank of Slovenia, 2017; calculations by IMAD. Note: * A negative (positive) sign in the balance concerned indicates a net debt (credit) external financial position.

Figure: Breakdown in NIIP change, in EUR million (flows)



Sources: SURS, BoS; calculations by IMAD.

Financial system development 1.6

The level of development of the banking system and capital market is low compared with the EU average and the gap has not narrowed in recent years. The indicators of development in both segments of the financial system did not even reach one-third of the EU average. The value of banks' total assets increased by 5.0% in 2019, however. This is the first somewhat more pronounced growth after a longer period of decline (since 2010),[1] during which the volume of loans to the non-banking sector contracted, while banks were heavily burdened by the repayment of liabilities to foreign banks. On the asset side, last year's growth was driven by the growth of deposits at the ECB and lending to the domestic and foreign non-banking sectors. Growth in lending activity was supported particularly by growth in domestic non-banking sector deposits, while the dependence on foreign sources of finance was low. The value of the capital market, having fallen sharply at the outbreak of the financial crisis in 2009, did not improve significantly in the period of economic recovery. In 2019, the market value of shares increased but was still more than 60% lower than before the financial crisis. Trading in shares declined even more (by 85%).

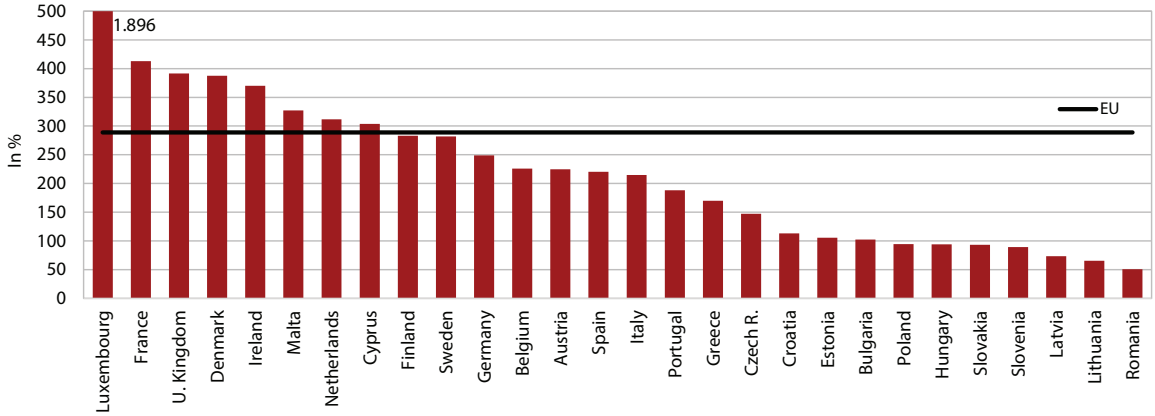
The development gap is the smallest in the insurance sector. After the onset of the economic crisis in 2008, the share of insurance premiums in GDP increased due to the contraction of economic activity, then stabilised at slightly above 5% of GDP in recent years. The largest part of the insurance sector is still accounted for by non-life insurance premiums, while the share of life insurance premiums in GDP remains low,[2] which we assess is also a consequence of (too) low saving for old age.

Table: Indicators of financial system development in Slovenia and the EU

V %	2000	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Banks' total assets, as a % of GDP														
Slovenia	84.5	103.5	129.2	147.3	145.8	141.5	140.1	127.1	115.8	107.1	99.6	94.1	88.8	88.9
EU	233.6	293.3	331.3	347.9	346.2	350.4	337.0	311.9	307.7	291.3	288.3	278.3	272.5	277.0
Insurance premiums, as a % of GDP														
Slovenia	5.0	5.3	5.3	5.7	5.8	5.5	5.6	5.4	5.1	5.1	5.1	5.1	5.1	
EU-25*		8.7	8.2	8.7	8.7	8.2	8.2	8.3	8.4	8.4	8.2	8.1	8.0	
Market capitalisation of shares, as a % of GDP														
Slovenia	17.7	23.0	22.3	23.3	19.3	13.1	13.5	14.2	16.5	14.2	12.4	12.3	13.9	14.7
EU	95.6	90.2	42.3	56.8	64.7	56.8	60.7	68.2	68.2	69.7	70.6	78.0	64.2	74.0

Sources: Financial Stability Report (various volumes); Annual Statistical Report (Ljubljana Stock Exchange, various volumes); Statistical Insurance Bulletin (Slovenian Insurance Association, various volumes); InsuranceData at http://www.insuranceeurope.eu/insurancedata, Sigma-World insurance (Swiss Re Institute, various volumes); Company files (London Stock Exchange, various volumes); European Securities Exchange Statistics (Federation of European Securities Exchanges); National accounts (EUROSTAT); National Accounts (SURS), 2016. Note: * The indicator of insurance premiums (as a % of GDP) does not include data for the Baltic states.

Figure: Banks' total assets as a % of GDP, 2019



Sources: BoS, ECB, SURS, Eurostat.

[1] Modest (less than 1%) growth was recorded in 2017 and 2018.
[2] It reaches less than one-third of the EU average.

Regional variation in GDP per capita 1.7

GDP per capita is the highest in the Osrednjeslovenska region, which exceeded the Slovenian average by more than 40% in 2018. Osrednjeslovenska is the region with the most jobs and, consequently, high daily commuter flows, which raises its GDP per capita (GDP pc). The only other region where GDP pc exceeds the Slovenian average is Obalno-kraška, which is one of the regions that were the most affected during the crisis in 2009–2013 but also the region that had the strongest economic growth of all Slovenian regions in 2014–2018. Jugovzhodna Slovenija, which is moving ever closer to the Slovenian average in terms of GDP pc, recorded strong GDP growth in 2018 again and was just behind the Osrednjeslovenska region with the highest growth. Zasavska has been at the tail end of regions for a number of years with below-average economic growth, gradually increasing its lag behind the Slovenian average in GDP pc.

Regional disparities, which narrowed slightly during the economic and financial crisis, have been stable in recent years, albeit somewhat higher than in 2000, when they were the lowest. In 2018, the relative dispersion of GDP per capita[1] was 2.7 pps lower than in 2009, when regional disparities were the highest, yet higher than its 2000 low (19.6%). After 2009, the dispersion decreased until 2015 and was stable in the subsequent three years. The ratio between the regions with the highest and the lowest GDP per capita was 2.7:1 and was slowly, yet persistently, rising in the long term.

The eastern cohesion region experienced a smaller decline in GDP pc during the crisis, mainly due to weaker population growth. After 2008, economic growth declined less in western Slovenia (Zahodna Slovenija), but until 2013 GDP per capita was falling more slowly on average in eastern Slovenia (Vzhodna Slovenija) due to slower population growth in this region. The differences in development between the two cohesion regions were thus declining. With a rebound in economic activity after 2014, GDP per capita was again rising somewhat faster in Zahodna Slovenija, the gap with the EU average thus narrowing again. In 2018, Zahodna Slovenija thus exceeded the EU average in GDP per capita for the second consecutive year,[2] while Vzhodna Slovenija (at 71%) remained among the less developed EU regions.[3]

Table: Regional GDP, Slovenia

Cohesion (NUTS 2) / statistical (NUTS 3) region	GDP per capita										GDP structure, in %, 2018
	Slovenia = 100								EU = 100		
	2000	2005	2008	2014	2015	2016	2017	2018	2008	2018	
Slovenia	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**90**	**87**	**100.0**
Zahodna Slovenija (NUTS 2)	**118.9**	**121.6**	**121.2**	**119.2**	**119.1**	**119.5**	**119.6**	**119.9**	**109**	**104**	**56.7**
Obalno-kraška	106.5	104.6	107.1	97.6	99.8	99.8	102.3	102.5	96	89	5.6
Goriška	97.6	93.9	95.5	90.6	91.7	92.2	92.2	90.3	85	78	5.1
Gorenjska	88.7	87.1	84.7	87.8	88.3	87.7	89.3	89.8	76	78	8.8
Osrednjeslovenska	139.6	146.3	144.9	142.1	140.9	141.6	140.7	141.1	130	122	37.1
Vzhodna Slovenija (raven NUTS 2)	**84.5**	**82.1**	**82.0**	**83.0**	**83.0**	**82.7**	**82.4**	**82.2**	**73**	**71**	**43.3**
Primorsko-notranjska	81.5	73.7	73.0	72.2	74.6	74.9	72.5	71.7	65	62	1.8
Jugovzhodna Slovenija	98.5	95.9	97.0	95.0	95.3	94.3	97.6	97.9	87	85	6.8
Posavska	83.9	81.0	79.8	83.6	83.9	83.7	83.0	82.9	72	72	3.0
Zasavska	73.6	63.8	60.7	56.7	54.2	53.4	52.6	52.4	54	45	1.4
Savinjska	90.1	89.1	89.4	91.3	92.4	91.9	91.6	90.5	80	79	11.2
Koroška	84.6	79.4	77.0	80.2	81.4	81.2	80.2	81.0	69	70	2.8
Podravska	82.2	82.3	83.7	83.4	82.6	82.0	81.1	80.8	75	70	12.6
Pomurska	70.3	66.5	63.3	68.4	67.3	68.0	67.6	67.6	57	59	3.7
Dispersion of GDP per capita (NUTS 3)	**19.6**	**22.9**	**23.0**	**21.8**	**21.2**	**21.7**	**21.7**	**21.5**			

Sources: SI-STAT Data Portal – Economy – National Accounts – Regional Accounts, 2020; Eurostat – General and Regional Statistics, 2020; calculations by IMAD.

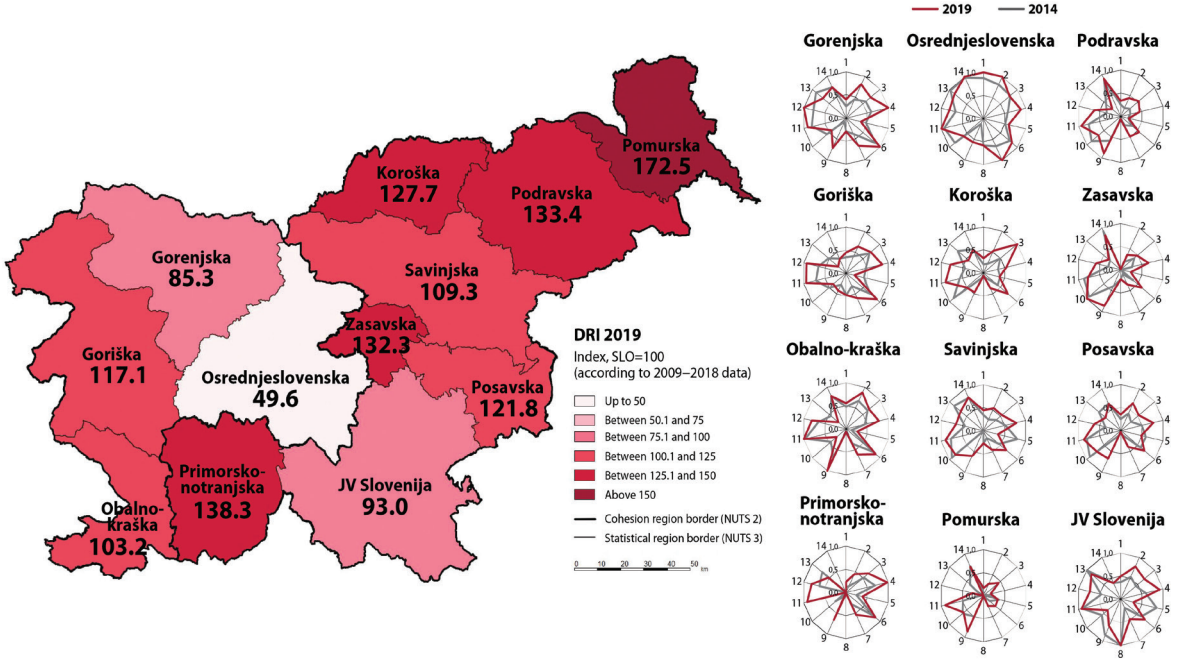
[1] One of the indicators of regional disparities. It is measured as the sum of the absolute differences between the regional and the national GDP per capita weighted by the share of the population. It is expressed as a percentage of national GDP per capita.
[2] It was at this level for the first time before the crisis in 2003 and for the second time in 2010.
[3] Less developed regions are defined as NUTS 2 regions where GDP per capita is less than 75% of the EU average. Zahodna Slovenija, which is currently a region in transition, will be ranked into the group of more developed regions in the next programming period, as it will slightly exceed the EU average.

The development risk index for regions 1.8

According to the development risk index (DRI)[1] for 2019, two regions stand out in terms of the risk to development; the differences between the other regions are smaller. Particularly Osrednjeslovenska stands out in a positive way, its DRI value[2] being half lower than the Slovenian average. The DRI does not exceed the Slovenian average in only three regions: Osrednjeslovenska, Gorenjska and Jugovzhodna Slovenija. Pomurska stands out negatively, as its DRI exceeds the Slovenian average by more than two-thirds. Disparities between other regions are significantly smaller. The coefficient of variation, which shows the deviation from the average, totals 25.7%. If the two extreme regions are excluded from the analysis, the ratio between the new two extreme regions is much smaller (1:1.9), the coefficient of variation totalling 20%.

The improvement in the indicators encompassed in the DRI index, for the most part, did not reduce the regions' gaps with the Slovenian average. The indicators, which make up the DRI index (Pečar, 2018), improved for the majority of regions, the most for Osrednjeslovenska. The gaps of the other regions with the Osrednjeslovenska region and the Slovenian average therefore widened. The ratio between the two extreme regions (which in 2019 were still the same as in 2014) deteriorated from 1:2.7 to 1:3.5, while the coefficient of variation increased by around 2 pps. The Pomurska region made progress on some indicators (particularly the indicators of the level of development), but not sufficiently to reduce its lag behind the Osrednjeslovenska region. The regions' rankings changed only slightly. The greatest change was observed for the Podravska region, which fell by two places. A comparison of the DRI indices between 2014 and 2019 shows that more developed regions adapt more easily to fast economic changes. In these regions, the economic situation was improving more rapidly after the crisis (2009–2013), which means that regional disparities are again rising.

Map: Development risk index for regions, 2019



Sources: SI-STAT Data Portal, SURS, SMARS, MOP, Institute of the Republic of Slovenia for Nature Conservation, Administration for Civil Protection and Disaster Relief, MGRT, DRI Investment management Ltd.; calculations and mapping by IMAD.

Note: the figures in the spider web chart denote: (1) GDP per capita; (2) gross value added per employee; (3) disposable income per capita; (4) the employment rate (20–64 years); (5) investments in fixed assets as a share of GDP; (6) the registered unemployment rate for young people (15–29 years); (7) the proportion of the population with tertiary education (25–64 years); (8) gross domestic expenditure on R&D as a share of GDP; (9) the proportion of wastewater treated with secondarily and tertiary treatment; (10) the proportion of protected areas in the region; (11) estimated damage caused by natural disasters as a share of GDP; (12) the registered unemployment rate; (13) the population ageing index; (14) population density.

[1] For more on this, see Pečar, 2020.

[2] The lower the index value, the lower the risk to development (and vice versa).

Productivity 1.9

Slovenia's productivity gap with the EU average in 2018 was slightly wider than before the beginning of the crisis in 2008 and quite far from the SDS 2030 target, despite the gradual convergence in the past few years. The post-crisis decline in *trend* productivity growth is largely related to the absence of capital deepening – in the period between 2000 and 2008, capital deepening explained half of productivity growth in Slovenia (significantly more than in the EU overall). In the absence of this factor in the post-crisis period, trend productivity growth has been based solely on the contribution of total factor productivity, i.e. more efficient utilisation of capital and labour. Particularly in 2016 and 2017, total productivity growth was again also supported by a more pronounced *cyclical* contribution, but in 2018 and 2019 its impact was gradually weakening. From the point of view of the *impact of changes in the sectoral structure of the economy* on productivity growth, the structural contribution of the reallocation of labour to sectors with higher (or more rapidly rising) productivity was significantly smaller than in the pre-crisis period. Growth was mainly based on the otherwise slower within-sector productivity growth, i.e. productivity growth in individual sectors (see Section 1.2.1).

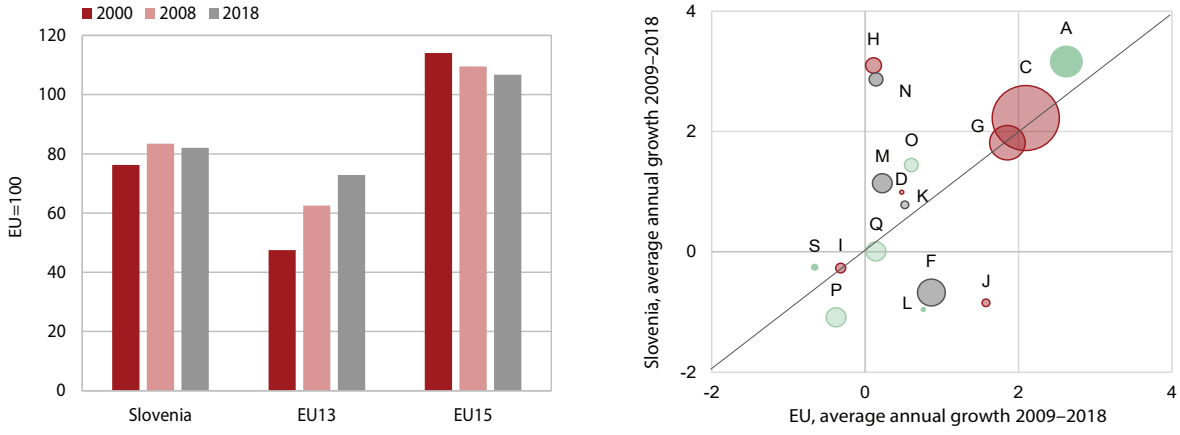
After 2009, in most business sector activities productivity growth has been lower than in the pre-crisis period, although comparable with or higher than the EU average; a significant lag is still recorded in construction and ICT activities. [1] In 2009–2019, productivity growth was the highest (around 3% per year on average) in transport (H) and administrative and support service activities (N), particularly in the segment of employment agencies. In these sectors, productivity increased considerably more than the EU average. Relatively strong productivity growth was also recorded in manufacturing activities, whose movement was roughly comparable with the EU average, which is partly a consequence of their significant integration into global value chains. A significant lag behind the pre-crisis level is still evident in construction, despite the favourable developments in 2016–2018. ICT activities stand out even more in a negative way in international comparisons.[2] With foreign demand cooling, productivity growth slowed cyclically again in 2018–2019. Productivity in manufacturing activities had already declined in 2018, but in 2019 real growth slowed (or turned negative) in the majority of activities.

Table: Labour productivity, Slovenia

	2000	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	SDS 2030 target
Real productivity growth*, in %	2.0	1.0	–6.0	3.5	2.6	–1.7	0.1	2.3	0.9	1.3	1.8	0.9	0.1	
Productivity level**, EU=100	76	83	80	79	81	80	81	81	80	81	82	82	N/A	95

Sources: SURS, 2019; Eurostat, 2019, calculations by IMAD.
Note: * GDP (at constant prices) per employee; ** GDP (in purchasing power standards) per employee.

Figure: Productivity level in the entire economy (left) and real productivity growth by sector (right)



Source: Eurostat; calculations by IMAD. Note: The tradable part of the business sector (red): mining (B), manufacturing (C), energy supply (D), public utilities (E), trade (G), transportation (H), accommodation and food services activities (I), and ICT activities (J); the non-tradable part of the business sector (grey): construction (F), financial services (K), professional, scientific and technical activities (M), administrative and support services activities (N); the non-business sector (green): agriculture (A), real estate (L), public administration (O), education (P), human health and social work (Q), arts, entertainment and recreation (P), and other service activities (S). The size of the circles represents the share of persons employed in individual activities in Slovenia in the baseline year (2008).

[1] Total productivity growth is also significantly affected by the slow growth of productivity in the non-business sector, but activities in this sector have their own specifics and their productivity is harder to measure statistically.
[2] In ICT activities, capital deepening, i.e. capital per person employed (in hours worked), has also been decreasing in the whole period since 2009. Among ICT activities, productivity fell the most in telecommunications.

The European Innovation Index 1.10

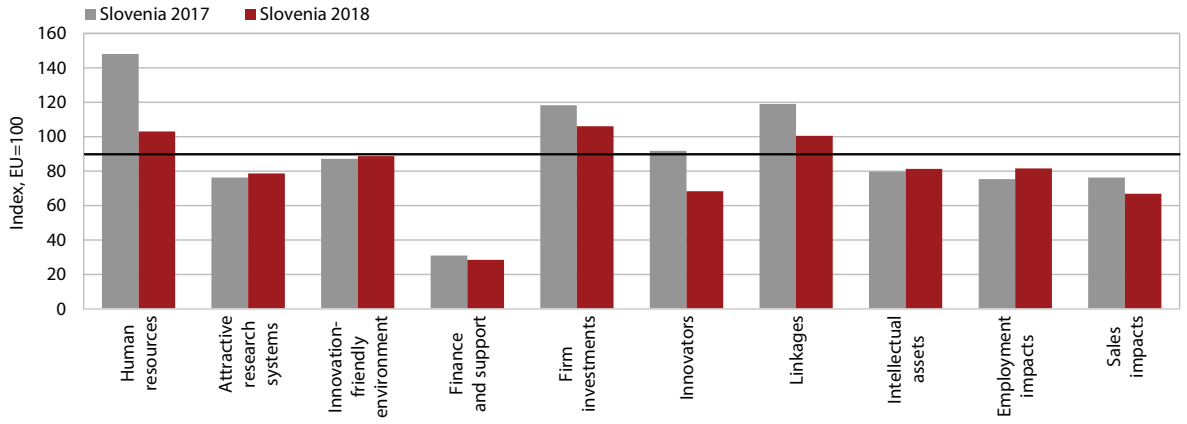
With the latest measurement of the European Innovation Index (EII), for 2018, Slovenia saw a significant deterioration in its ranking and slipped into the group of moderate innovators. The EII value for Slovenia has been deteriorating for most of the period since 2014,[1] while the EU average has been rising. The EII is a composite indicator measuring performance of national research and innovation systems in EU countries.[2] Based on its values, countries are classified into four innovation performance groups.[3] The latest EII measurement, for 2018, shows a decline in Slovenia's performance relative to the preceding year, which arises from deterioration in most EII indicators (15 of 27). Looking at individual EII dimensions,[4] the decline in performance and the widening of the gap with the EU average are largest in innovation activity of enterprises[5] and sales impacts.[6] Slovenia has also seen a deterioration in its performance on the indicator of linkages and collaboration of different actors (where most data refer to the period until 2016) and in firm investments in support of innovation but remains close to the EU average. It performs the worst relative to the EU average in the finance and support dimension, where the low values of venture capital expenditures stand out, and in sales impacts, where the share of knowledge-intensive services exports in total services exports is particularly low (see Indicator 1.14). The decline in R&D expenditure in the public sector between 2012 and 2017 could also be reflected in the EII value in subsequent measurements (for example in innovation activities, linkages and collaboration between the public and the private sector, and intellectual assets), as the effects of the instruments promoting these areas tend to show with a lag.

Table: The European Innovation Index

	2011	2012	2013	2014	2015	2016	2017	2018	SDS 2030 target
Slovenia (index EU 2011 = 100)	98.2	96.2	96.7	97.3	96.0	97.2	96.7	87.6	>120 (ranking among innovation leaders)*
Slovenia (index EU = 100)	98.2	97.0	96.5	97.4	94.5	93.1	91.0	80.5	
Slovenia	0.474	0.464	0.466	0.469	0.463	0.469	0.467	0.423	
EU	0.482	0.478	0.483	0.482	0.490	0.503	0.513	0.525	

Source: European Innovation Scoreboard 2019, 2019.
Note: * Innovation leaders are countries with innovation performance higher than 120% of the EU average recorded in 2011. In 2018, innovation leaders reached EII values between 0.651 and 0.713.

Figure: Dimensions of the European Innovation Index, 2017 and 2018



Source: European Innovation Scoreboard 2019, 2019.

[1] Slovenia also saw a deterioration in its ranking relative to the EU average in 2011. The SDS target for 2030 is to exceed this average by 20%.
[2] 27 indicators are included in the calculation of the EII. Data for the indicators for the latest calculation of the EII 2018 (released in 2019) take into account the situation on 2 May 2019. Data for most indicators are for 2016 and 2017, which should be taken into account in the interpretation.
[3] Innovation leaders are countries with innovation performance higher than 120% of the EU average recorded in 2011, strong innovators have innovation performance between 90% and 120% of this average, moderate innovators between 50% and 90%, and modest innovators below 50% (European Innovation Scoreboard 2019, 2019).
[4] The EII encompasses ten dimensions, three of which have two and seven of which have three indicators.
[5] Innovation activity has been declining since 2010. It fell the most, according to the latest analysis, in 2014–2016 (for more details, see the European Innovation Scoreboard 2019, 2019, and Development Report 2019, p. 91).
[6] The figure shows the sharpest fall relative to the EU average in the human resources dimension, which also includes the indicator of new doctorate graduates. In this indicator, data for calculating the EII 2018 are from 2017, while data for the comparison with the preceding year are from 2016. As 2016 was the last year for completing studies under the pre-Bologna study programmes, a large number of people obtained the title of Doctor of Science that year. The comparison does therefore not reflect the real changes in this indicator, which also had a significant impact on the decline in the human resources dimension.

The Digital Economy and Society Index 1.11

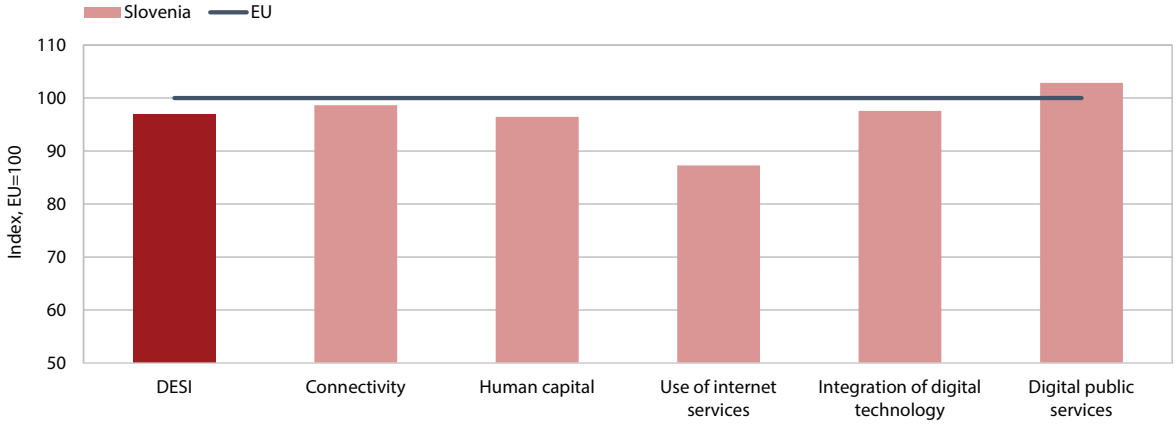
In recent years, Slovenia has progressed at a similar pace as the EU in terms of the Digital Economy and Society Index, meaning that its ranking among the medium-performing EU countries has remained fairly unchanged. The index monitors digital competitiveness of countries in areas of connectivity, human capital, use of internet services, integration of digital technology and digital public services. Slovenia scored similar to the EU average according to the overall index and most of its sub-components for 2019; the SDS 2030 target is to reach at least 9th place in all areas. Only the *use of internet services* was considerably lower than in the EU overall, particularly the use of advanced services,[1] where, despite an increase, the gap with the EU has been narrowing only slowly in recent years. In connectivity and integration of digital technology, Slovenia has advanced at a similar pace and in digital public services somewhat faster than the EU average in the last period. In *human capital* (the share of ICT specialists in the workforce, the share of ICT graduates and digital skills of the population), progress has been very modest since 2017 and slower than in the EU. In digital skills of the population, Slovenia lags behind the EU average, which could to some extent explain the relatively low use of internet services. The slow progress in the area of human capital for digitalisation represents a serious barrier to the digital transformation of the business and the public sectors. Although in recent years, the *integration of digital technology* in businesses has taken place at a similar pace as in the EU, for Slovenia to more effectively follow the rapid progress in introducing ICT technologies to penetrate the group of more successful EU countries, additional efforts will be required, particularly to meet the increased demand for staff with appropriate digital skills. In the area of *connectivity*, broadband coverage (including fast broadband) is relatively high. However, the challenge is to further increase its use, particularly by improving the digital skills of the population and the affordability of these connections.[2] In introducing the 5G network, test activities are underway. The allocation of the 5G-suitable frequency band is planned for 2020.[3] The supply of *digital public services* is relatively good in the areas of e-health and open data. E-government services have also developed relatively rapidly in recent years, but the share of people using them is relatively low due to poor knowledge of these services and the complexity of procedures.[4]

Table: Slovenia's ranking on the Digital Economy and Society Index (DESI) among the 28 EU Member States

	2017	2018	2019	Cilj SRS za 2030
The Digital Economy and Society Index (DESI)	16	15	16	< or = 9
Connectivity	16	18	17	< or = 9
Human capital	13	14	15	< or = 9
Use of internet services	22	21	21	< or = 9
Integration of digital technology	15	14	15	< or = 9
Digital public services	16	16	14	< or = 9

Source: European Commission (Digital Single Market), 2014–2019. Note: Index calculations for individual years are based on data for the preceding year. In 2019 the index methodology was improved and the figures for previous years were recalculated, which changed the countries' rankings from previous DESI reports

Figure: The Digital Economy and Society Index (DESI) and its components, 2019



Source: European Commission (Digital Single Market), 2019.

[1] According to the DESI, these are particularly online consultations and voting, banking, shopping, and professional social networks.
[2] According to the broadband price index, Slovenia ranks among EU countries with low affordability (25th).
[3] The Digital Economy and Society Index (DESI), Country Report 2019, Slovenia, 2019.
[4] The Digital Economy and Society Index (DESI), Country Report 2019, Slovenia, 2019.

Export market share 1.12

In 2013–2019, the export market share of Slovenian goods on the world market was increasing. In 2007, Slovenia met around 0.2% of world import demand for goods. This was followed by a strong decline in its market share on the world market in 2008–2012, one of the largest among EU countries. More than half of the market share decline in that period can be explained by the unfavourable orientation (particularly geographical) of Slovenian exports,[1] although it was also due to the strong deterioration in (cost) competitiveness at the beginning of the crisis. With the rebalancing of price and cost factors and stronger import demand of main trading partners, Slovenian market share has again been rising since 2013, particularly since 2016. In 2013–2018, its growth was one of the highest among EU countries, but over a longer period, world market shares of new EU Member States increased significantly more. We estimate that in 2019 the growth of the Slovenian export market share was still relatively high (3.5%), but it was more narrowly based as it was essentially supported only by individual products.

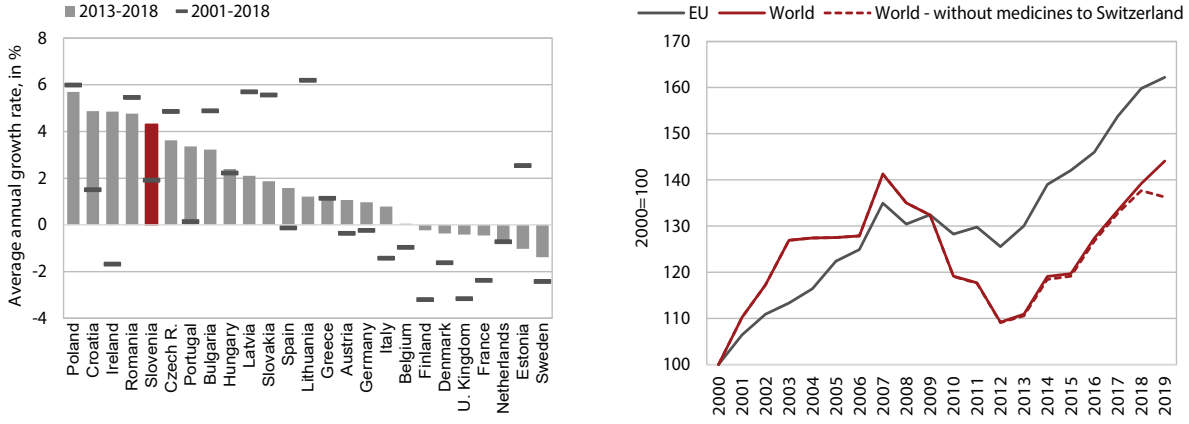
In 2019, market share growth was strongly accelerated by re-exports of medicines, which did not contribute significantly to economic activity. Since 2000, the Slovenian export market share has been rising fastest in the segment of high-technology goods, particularly under the impact of exports of medicines. In 2019, exports and the market share of medicines increased even more[2] than in preceding years, but this time they were crucially influenced by re-exports of medicines (mostly to Switzerland), which had no major impact on economic activity. Market shares are based on the concept of gross exports and do not explain how much added value has been generated. Exports of medicines to Switzerland excluded, the Slovenian export market share on the world market even dropped slightly in 2019 (-1%). In 2019, Slovenia also recorded relatively modest export market share growth on the otherwise already slowly growing *EU market* (1.5%), particularly due to a decline in the last quarter.[3]

Table: Slovenia's market share on world and EU goods markets

	Market share, in %			Average annual growth rates, in %			
	2000	2007	2018	2001–2007	2008–2012	2013–2017	2019*
World	0.138	0.195	0.192	5.1	-5.0	4.1	3.5
EU	0.283	0.382	0.452	4.4	-1.4	4.1	1.5

Sources: SURS, UN Comtrade, Comext, 2020; calculations by IMAD. * Estimate.

Figure: International comparison of growth in EU countries' world market shares (left) and the movement of the Slovenian world and EU market shares (right)



Sources: SURS, UN Comtrade, Comext, 2020; calculations by IMAD. * Excluding Cyprus, Luxembourg and Malta.

[1] Slovenia's above-average orientation of goods exports to markets with modest import demand, particularly to individual EU markets and the markets of former Yugoslavia.

[2] Slovenia's exports of medicinal and pharmaceutical products to the global market increased by more than 50% (nominally, in USD) or more than 60% (nominally, in EUR) in 2016 as a whole.

[3] In the second half of the year, the decline in market share was mainly attributable to unfavourable export specialisation, i.e. an above-average decline in EU import demand for goods that account for a relatively more important share in Slovenian exports. In addition, the quarterly dynamics were strongly influenced by exports of petroleum products, which were strengthening the growth of exports and market share on the EU market in the first three quarters and then made a significant negative contribution in the last quarter of the year.

Unit labour costs 1.13

After five years of aligned wage and productivity growth, unit labour costs increased more markedly in 2019. Under the impact of a fall in productivity (2009) and relatively strong wage growth considering the economic situation at that time (2010),[1] Slovenia significantly deteriorated its cost competitiveness position at the beginning of the economic crisis. The adjustments, which arose mainly from the labour market,[2] were followed by a period of relatively aligned increases in wages and productivity (2014–2017). Over the course of 2018 and especially in 2019, unit labour costs started rising again under the impact of higher wage growth and a decline in productivity growth.

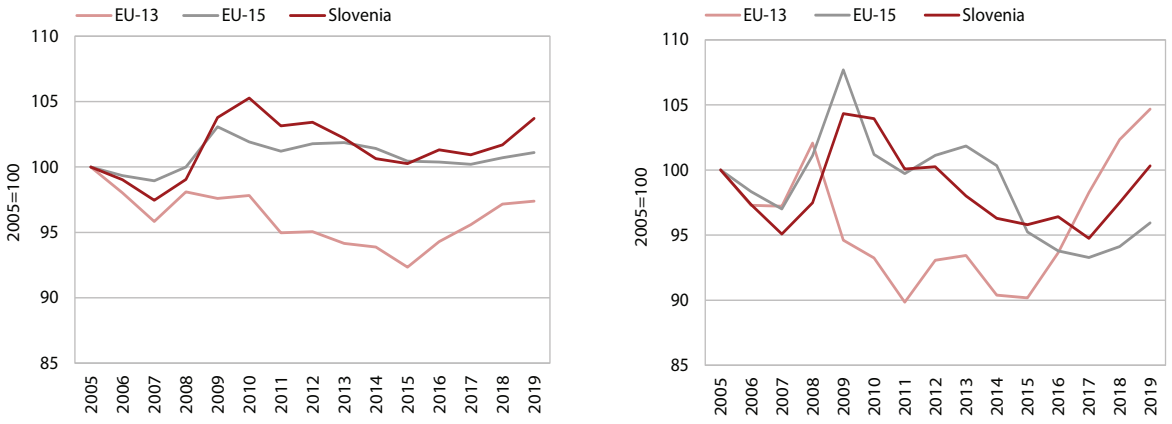
In the export-oriented sectors of the economy, unit labour costs had already started to increase in 2018, while in 2019 they also rose in most other sectors. In the post-crisis period, the alignment of wage and productivity increases was mainly due to sectors that are exposed to international competition, i.e. manufacturing and some traditional market services (such as trade and transportation). Unit labour costs in manufacturing started to rise again in 2018.[3] While wage growth did not deviate from the average growth in the entire economy, growth in productivity, i.e. value added per employee, eased strongly due to the slowdown in import demand in main trading partners. In 2019, the stronger growth of unit labour costs also spilled over into other activities of the business sector. Increased cost pressures, particularly in the tradable part of the economy, were otherwise also typical of most other EU countries, to a lesser extent in older Member States (EU-15), while in most new EU Member States (EU-13) they have already been recorded for several years.

Table: Growth in unit labour costs in Slovenia and the EU

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Slovenia	1.6	4.8	1.4	–2.0	0.3	–1.2	–1.5	–0.4	1.0	–0.4	0.7	2.0
EU	0.9	2.9	–1.0	–0.9	0.5	–0.1	–0.5	–1.1	–0.1	–0.1	0.5	0.3

Source: Eurostat Portal Page, 2020; calculations by IMAD.

Figure: Unit labour costs, entire economy (left) and manufacturing (right)



Source: Eurostat Portal Page, 2020; calculations by IMAD.
Note: EU-13 (EU-15) – the EU Member States which joined the EU after 2004 (before 2004).

[1] Boosted by the increase in the minimum wage.
[2] More precisely, restrained wage growth and a (passive) increase in productivity through a reduction in employment.
[3] In the business sector, besides in manufacturing, unit labour costs also rose more noticeably in ICT activities, although not for cyclical reasons, as they have already been rising continuously since 2013.

Exports of high-technology goods and knowledge-intensive services 1.14

After rising before and during the economic and financial crisis, the share of high-technology products has been fairly stable and higher than the EU average in recent years. It increased more noticeably between 2008 and 2010, when some other less competitive industries started to contract more strongly due to the beginning of the economic crisis. This period was marked by the restructuring of goods exports towards a higher share of high-technology products amid a concurrent sharp decline in the share of low-technology products. More than half of high-technology exports are accounted for by medicinal and pharmaceutical products, alongside electrical machinery, apparatus and appliances, but the share of these in total exports has been shrinking since 2005. Compared with the EU as a whole, Slovenia stands out particularly by its high share of medium-technology products, which are highly integrated into global value chains and thus the most vulnerable to fluctuations in foreign demand.

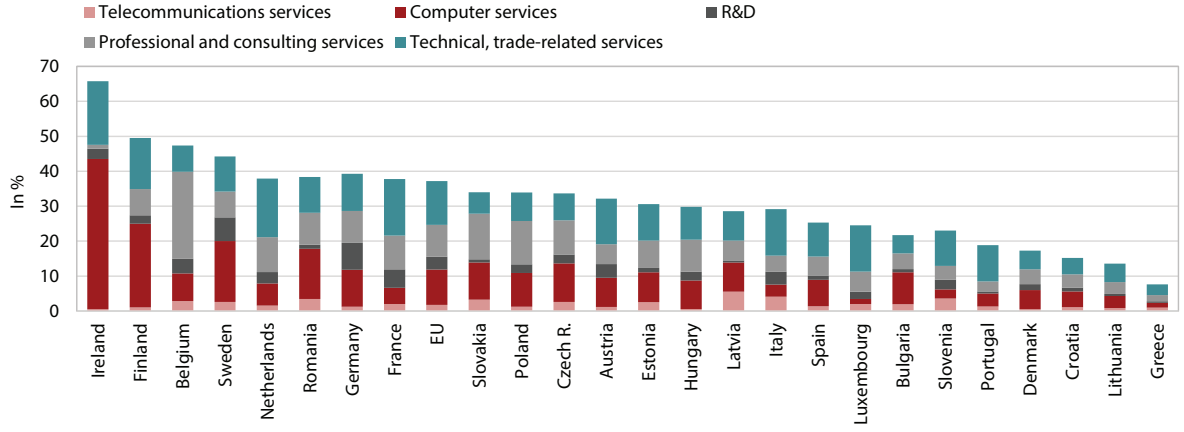
The share of knowledge-intensive services[1] in total exports of services is low in international comparison, but their export orientation has been rising in recent years. Between 2010 (20.6%) and 2017, the share of knowledge-intensive services in total services exports had been rising, while in 2018 it declined by 1 percentage point to 23.6%. This further increased the gap with the EU average, which has been hovering just above 13 pps for several years. Most services lagged behind the EU average, most notably computer services (by around 7 pps). In Slovenia, a higher share than the EU average was recorded particularly for telecommunication services, but their share in total exports of services declined in the three years to 2018. In Slovenia, exports of technical, trade-related services increased the most in 2010–2018, by 10.5% per year on average, and in the EU, exports of information services, by 15.2% per year, where particularly Eastern European Member States recorded significantly stronger export growth than Slovenia (around 20% per year, compared with 7.7% per year).

Table: Structure of goods exports by factor intensity

		2000	2005	2008	2009	2012	2013	2014	2015	2016	2017	2018
Natural resources	Slovenia	5.3	5.3	6.1	5.6	5.7	6.1	6.3	6.8	6.5	6.1	5.9
	EU	7.1	7.0	7.6	7.7	8.3	8.8	8.5	7.9	7.5	7.7	7.8
Resource-intensive goods	Slovenia	15.2	13.1	13.6	14.1	16.4	16.7	16.6	15.5	14.9	15.0	15.7
	EU	16.3	17.0	17.8	17.3	19.5	19.2	18.4	17.0	16.6	17.1	17.9
Low-technology goods	Slovenia	27.1	23.4	20.8	18.4	18.1	17.6	18.0	17.9	18.0	17.7	17.5
	EU	15.2	14.9	14.7	14.4	13.8	13.8	14.3	14.5	14.7	14.7	14.6
Medium-technology goods	Slovenia	38.1	41.8	41.0	40.7	36.4	36.0	36.7	37.3	38.5	39.0	39.3
	EU	34.9	36.9	36.5	34.5	35.3	35.4	36.4	37.3	37.9	38.0	37.3
High-technology goods	Slovenia	13.1	13.7	16.2	18.5	19.4	20.0	19.5	19.7	19.6	19.8	19.5
	EU	19.8	18.8	16.7	18.8	17.3	17.0	17.6	18.4	18.7	18.5	18.1

Sources: Comtrade UN, SURS, 2020; calculations by IMAD. Note: The classification of products into individual groups is based on UN methodology (Lall). As some products are unclassified, the sums of the five product groups for individual countries do not equal 100.

Figure: Share of knowledge-intensive non-financial market services* in total exports of services, 2018



Source: Eurostat Portal Page - Economy and Finance, 2020; calculations by IMAD. Note: * Exports of telecommunications, computer and information services (SI) and other business services (SJ). For a more transparent presentation of the results, the share of information services is not shown in the figure, as it is higher than 1% in only three Member States. The countries are arranged according to the total share of knowledge-intensive services. Data for Ireland and Lithuania are for 2016.

[1] Information and communication activities (J); professional, scientific and technical activities (M) (OECD STI Scoreboard 2013, 2013).

Foreign direct investment 1.15

Since 2014, inward FDI has been rising faster, while outward FDI has remained modest. Higher inward FDI, whose stock increased by as much as 58% in the last five years (2014 to 2019) has mainly been due to accelerated privatisation and the generally higher sales of equity stakes in Slovenian companies. There have also been more expansions of existing foreign-owned companies and more greenfield investments. The results of the SPIRIT surveys in 2014–2018 show that each year more than 35% of the surveyed companies with foreign equity were planning to expand in Slovenia; in 2018, the respective share was 38.2%. Outward FDI, on the other hand, has been rising only modestly since 2014, following a decline in 2010–2013. In 2019, its stock was only slightly higher than the 2009 peak (EUR 6,143 million). The inflows of equity almost doubled year on year in 2019 (an increase of 97%, to EUR 1,052 million), while the outflows dropped significantly (from EUR 314 million to EUR 35 million).

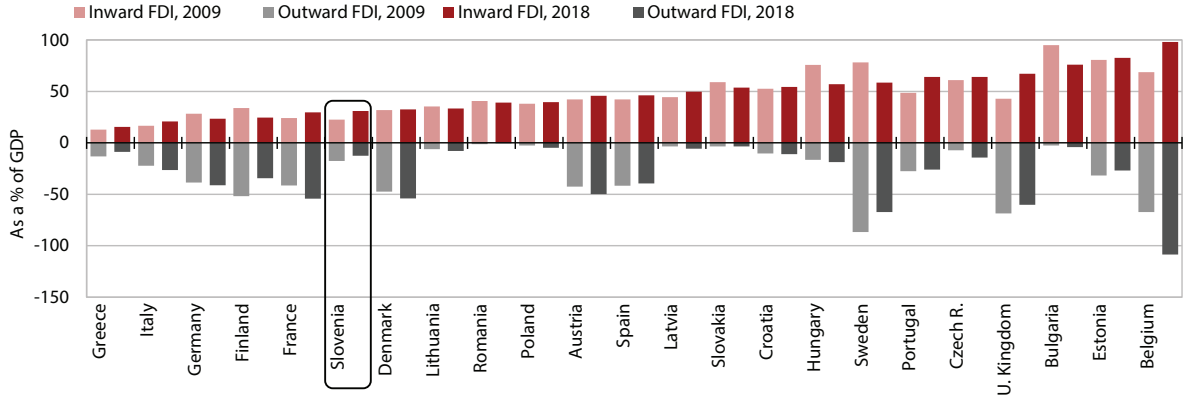
Despite the relatively rapid increase in inward FDI flows, Slovenia remains among the EU countries with the lowest stock of inward FDI as a share of GDP. Although by 2019 the share of inward FDI in GDP had increased to 33.6%, which is 10.9 pps more than at the beginning of the crisis (2008), Slovenia still lags behind other new EU Member States on this indicator. In 2009–2018, however, it recorded the largest increase in inward FDI as a share of GDP of all new Member States. Among EU Member States, only Finland, France, Greece, Italy and Germany had a lower share. The share of outward FDI stock in GDP declined to 13.0% in 2019, from 17.0% in 2009, when it was the highest. Among new EU Member States, Slovenia thus lagged only behind Hungary and Estonia in this regard, both these countries having significantly higher shares.

Table: Flows and stocks[1] of inward and outward FDI[2] in Slovenia

In EUR million	2000	2005	2008	2010	2012	2013	2014	2015	2016	2017	2018	2019
Inward FDI												
Year-end stock	2,567	5,981	8,598	7,983	9,249	8,897	10,202	11,612	12,970	13,957	15,152	16,143
Inflow of equity capital[3]	96.3	270.7	380.3	449.9	334.1	441.7	1,436.1	1,344.1	956.0	581	535	1,052
Stock as a % of GDP	11.9	20.5	22.7	22.0	25.5	24.4	27.1	29.9	32.1	32.5	33.1	33.6
Outward FDI												
Year-end stock	829	2,777	6,085	6,097	5,710	5,179	5,335	5,508	5,741	5,969	6,062	6,252
Inflow of equity capital[3]	55	456	721	181	384	427	134	244	256	191	314	35
Stock as a % of GDP	3.8	9.5	16.0	16.8	15.8	14.2	14.2	14.2	14.2	13.9	13.2	13.0

Source: Bank of Slovenia, 2020. Notes: [1] Stocks are calculated by the new BPM6 methodology according to the directional principle used by the Bank of Slovenia since 2014. The stocks calculated according to the new methodology changed significantly owing to changes in the categories taken into account in the calculation. In the case of Slovenia, this holds true particularly for inward FDI: at the end of 2013, the stock of inward FDI amounted to EUR 10,729 million according to the previous and only to EUR 8,926 million according to the new methodology, while the stock of outward FDI totalled EUR 5,121 million according to the previous and EUR 5,172 million according to the new methodology (Direct Investment 2013, 2014). [2] Companies in which an individual foreign investor holds a 10% or higher equity stake. [3] Equity capital without reinvested earnings.

Figure: Stocks of inward and outward FDI, as a % of GDP



Source: UNCTAD FDI/MNE database, 2019.
Note: For better illustration, the figure shows the EU countries excluding Cyprus, Malta, Ireland and Luxembourg, which stand out with their high FDI stocks in comparison with other countries.

R&D expenditure and number of researchers 1.16

The growth of R&D expenditure in 2018 did not offset its decline in previous years. At 1.95% of GDP, R&D expenditure was below the EU average in 2018. The exceptions were Jugovzhodna Slovenija (the impact of the innovation-intensive pharmaceutical industry) and the Osrednjeslovenska region (an additional impact of the concentration of research institutions). In the public sector, R&D investment declined by EUR 117 million in 2012–2016 and the increase in the next two years compensated for around 40% of this decline. Up to 2015, the business sector was an important driver of R&D expenditure growth, its share in total R&D expenditure being also high in international comparison (Slovenia 2018: 62.6%; EU 2017: 58,0%). The decline in business sector expenditure in 2015–2017 was a consequence of several factors: (i) a lower volume of EU funds in 2013 and 2014, when the co-financing of R&D projects in excellence, competence and development centres was terminated; (ii) after 2015, the amount of R&D tax relief claimed started to decline.[1] R&D funding from abroad was mostly rising in 2008–2018. The private and the public sector are financing R&D investment mainly out of their own resources, which is not encouraging in terms of collaboration and knowledge-sharing between the sectors. The self-financing rate of the business sector rose from 93% to 97% in 2008–2018. In the public sector, the self-financing rate fell from 88% to 80%. The remaining public sector funds were used to finance R&D investment in the business sector.[2]

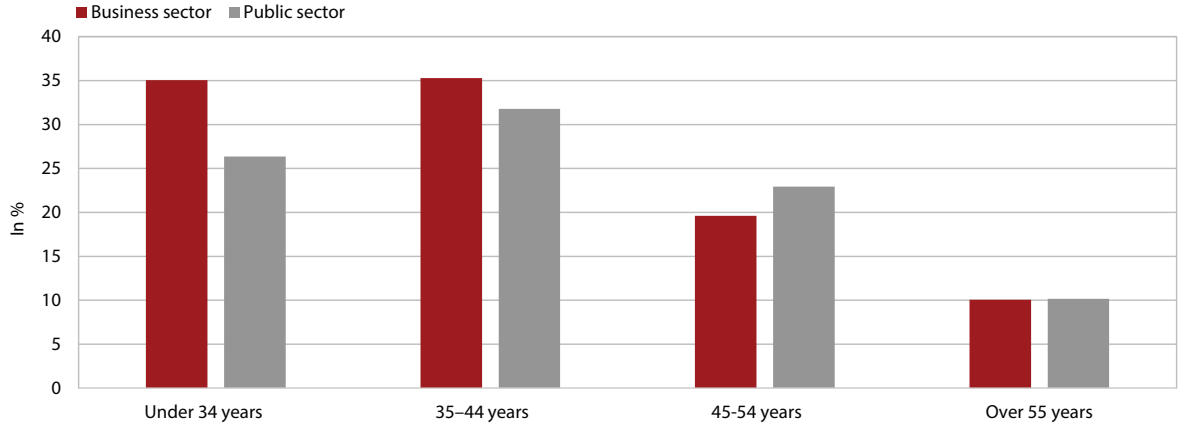
In 2008–2018, the number of researchers[3] was rising particularly in the business sector, which employs the most researchers. In 2018,[4] the share of business sector researchers was 62.3% (EU 52.7%). In the last ten years it was mostly rising. In the public sector, the several-year decline (since 2012) came to a halt in 2018. In the future, given the age structure of researchers (around 41% of researchers being older than 45 years), the shortage of human resources in the public sector may reduce the potential for basic research, which is a basis for the application of advances in the business sector and a driver of breakthrough innovations.

Table: R&D expenditure, as a % of GDP

	2000	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Slovenia	1.36	1.42	1.63*	1.81	2.05	2.41*	2.56	2.56	2.37	2.20	2.01	1.87*	1.95
EU	1.77	1.74	1.83	1.93	1.92	1.96	2.00	2.01	2.02	2.03	2.04	2.07	2.12

Sources: Eurostat Portal Page – Science and Technology – Research and Development, 2020; SI-STAT Data Portal, 2020. Notes: Data for the EU are Eurostat estimates. *The breaks in the time series in 2008 and 2011 are due to the higher number of reporting units in the business sector, while the break in 2017 is a consequence of the harmonisation of data with the revised international methodology, the OECD's Frascati Manual (for more, see Development Report 2019, p. 90).

Figure: Researchers* by age group, Slovenia, 2018



Source: SURS; calculations by IMAD.
Note: * Expressed on a full-time equivalent basis. Data for researchers of government sector older than 55 years are not available for confidentiality reasons.

[1] For more on the relationship between R&D tax relief claims and R&D investment, see Development Report 2019, pp. 23 and 90. In 2018, the amount of R&D tax relief claimed declined only by 1.1%.
[2] In 2013–2018, public funding of R&D in the business sector declined from EUR 90 million to around EUR 41 million.
[3] Expressed on a full-time equivalent basis.
[4] Interpreting data before 2018 requires a great deal of caution because of the methodological changes in the classification of data on R&D personnel, which were introduced with data for 2017 (see Development Report 2019, pp. 23 and 90).

Intellectual property 1.17

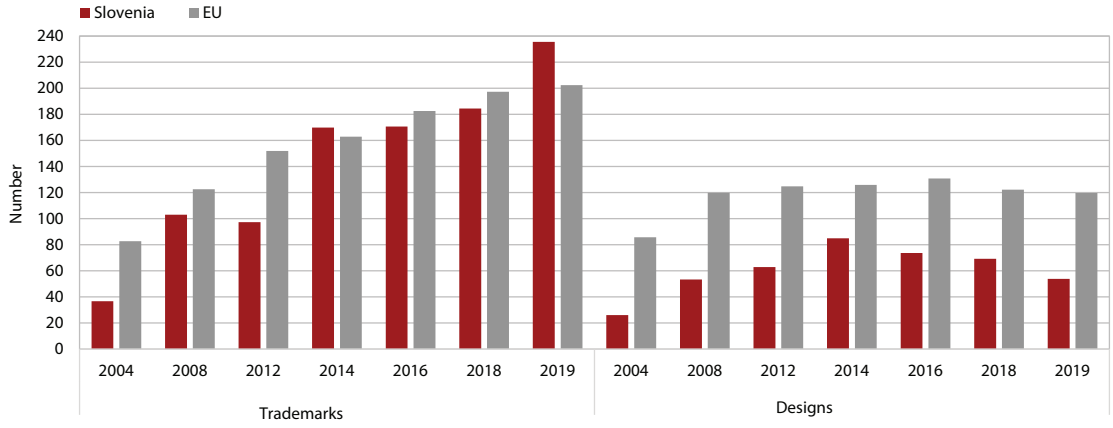
Since 2008, Slovenia has made great progress in terms of EU trademarks, but its gap with the EU average with regard to patents and Community designs has widened. With regard to the level of patenting activity as measured by the number of first[1] patent applications per million inhabitants, Slovenia retained its leading position among the new EU Member States and its ranking around 14th place in the EU throughout the 2008–2019 period. In 2008–2013,[2] Slovenian applicants filed the most first patent applications in the fields of technologies[3] for human necessities (which also include medical and veterinary science) and chemical technologies, which is related to the high share of the pharmaceutical or chemical industry in Slovenia and its investment in R&D. The intensity of filing patent applications is to some extent also conditional on the structure of the economy and technologies[4] used in individual sectors. In the legal protection of EU trademarks,[5] Slovenia generally increased the number of applications per million inhabitants in 2008–2019 and significantly exceeded the EU average in 2019. However, in the number of registered Community designs[6] per million inhabitants, the gap with the EU average remains wide, indicating insufficient awareness of the importance of design for increasing value added and competitiveness. EU trademark or Community design protection can be obtained by a single application[7] and is valid throughout the EU. The costs are lower than in patent protection and the registration procedures much shorter, which makes these intellectual property rights increasingly attractive for enterprises in all sectors, including service activities, where small and micro enterprises are particularly active.

Table: Patent applications filed with the EPO by year of first filing*, per million inhabitants

	2000	2005	2008	2009	2010	2011	2012	2013**	2014**	2015**	2016**	2017**	2018***	2019***
Slovenia	25	54	69	61	52	55	62	62	66	58	54	55	48	58
EU	106	116	114	113	113	114	112	112	112	113	110	107	140	N/A

Sources: Eurostat Portal Page – Science and Technology – Patent Statistics, 2020; EPO Patent Index 2019, 2020.
Notes: * Data for 2018 and 2019 relate to patent applications which were filed with the EPO in the current year and are not necessarily the first filings worldwide (see note 1 below); ** Eurostat estimate; *** provisional data; N/A – not available.

Figure: Number of EU trademark applications and registered Community designs with the EUIPO*, per million inhabitants



Source: EUIPO Web Page, 2020; calculations by IMAD.

[1] The data on patent applications filed in the last two years are from the EPO statistics and pertain to the current year. These are not necessarily the first filings worldwide, which refer to the year closest to the invention date and are released by Eurostat (see Slovenian Economic Mirror 2/2009).
[2] The latest Eurostat data are for 2013.
[3] In line with the international classification of patents, which is based on the classification of technologies (Schmoch, 2008), the legal protection of patents is oriented towards the protection of technologies and related processes in which products are made and not towards the protection of sectors.
[4] According to the WIPO methodology, the most patentable technological fields are medical technology, computer technology, digital communications, and technologies related to electrical energy, machinery and apparatus. Among the ten most important technological fields, technologies related to pharmaceuticals rank 8th.
[5] A trademark or service mark is a legally protected sign or a combination of signs which can be represented graphically and is capable of distinguishing identical or similar goods or services. Trademark protection lasts ten years and may be renewed (SIPO Annual Report 2011, 2013).
[5] A design is defined as the external appearance of a product protected by law. A product qualifies for protection if it is new and has an individual character. Design protection lasts five years and may be renewed (SIPO Annual Report 2011, 2013).
[7] With the EU Intellectual Property Office (EUIPO).

Corporate environmental responsibility 1.18

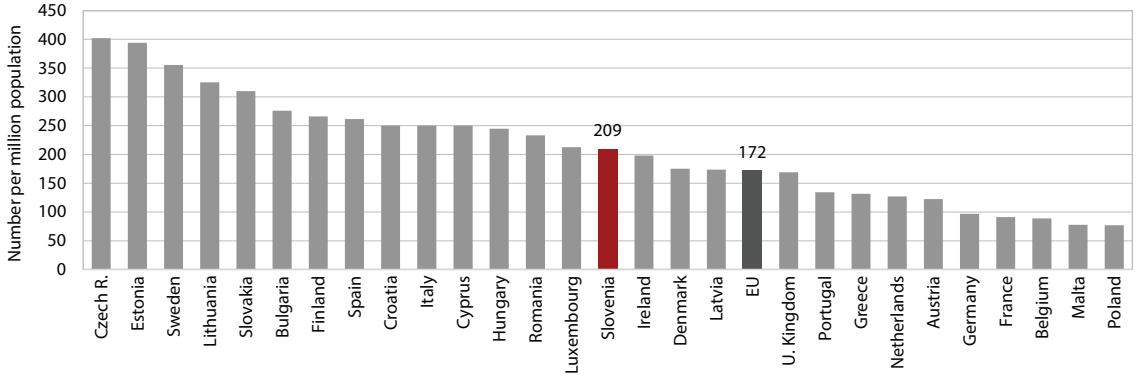
In terms of the prevalence of environmental certificates, Slovenia ranks in the middle of EU Member States. This is mainly due to the higher prevalence of ISO 14001 environmental certificates than in the EU as a whole. As a result of changes in reporting, data on the number of ISO 14001 certificates for 2018 are not comparable with those from previous years,[1] which, amid significant annual fluctuations, did not indicate growth for Slovenia in a longer period. The prevalence of other environmental certificates (EMAS and the EU Ecolabel) is much lower, but it is gradually rising. The prevalence of the Ecolabel (EU Flower), which can be obtained not only for manufactured products but also accommodation and campsite services, is higher than in the EU as a whole, while the participation in EMAS is lower. Some countries are encouraging organisations to join EMAS by various measures – the most tax exemptions and tax breaks have been introduced by Germany, Italy, Spain and Austria. The participation in EMAS in these countries is higher than the EU average. To stimulate the uptake of EMAS, Slovenia participated in the LIFE B.R.A.V.E.R. project between 2016 and 2019 (the project ended at the end of 2019). During this time, five (of the proposed nine) measures to support EMAS were introduced.[2] In 2019, the participation in EMAS decreased, but this may be only temporary due to the changed conditions for registration.[3] The criteria for obtaining the Ecolabel are also being revised and expanded. In 2019, their number at the EU level (temporarily) decreased mainly, as the criteria for tourist accommodation and campsite services expired and the contracts are still in the procedure of renewal.

Table: Number of environmental certificates in Slovenia and the EU, per million inhabitants

		2000	2005	2008	2011	2012	2013	2014	2015	2016	2017	2018	2019***
ISO 14001	Slovenia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	209.0	N/A
	EU	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	172.5	N/A
EMAS	Slovenia	0.0	0.5	0.5	1.5	1.5	0.5	0.5	4.8	4.8	4.8	5.2	4.8
	EU	7.0	6.2	7.9	8.8	8.8	8.1	8.0	7.7	7.7	7.4	7.5	7.2
EU Flower	Slovenia	N/A	0.0	1.5	3.4	4.9	7.3	7.3	7.3	7.8	8.7	8.7	8.7
	EU*	0.1	0.6	1.4	2.0	3.0	4.3	3.8	4.0	3.9	4.2	4.2	3.2

Sources: Eurostat, ISO, ARSO, European EMAS Helpdesk; calculations by IMAD.
Note: Data on EMAS and the Eco-Flower for 2005–2015 and 2000–2010 are available on Eurostat's webpage; data for later periods were obtained at the European EMAS Helpdesk and at http://ec.europa.eu/environment/ecolabel/news-alerts.html; N/A – data not available. * Data for ISO 14001 for 2018 are not comparable with data for previous years due to changes in the reporting. ** EU-27 up to 2010. *** Calculations using data on the population in 2018.

Figure: The prevalence of ISO 14001 certificates, 2018



Source: Eurostat, ISO; calculations by IMAD.

[1] ISO finds that the number of valid ISO 14001 certificates in 2018 was lower than in previous years, as (i) past surveys, in addition to the number of certificates, also included the number of sites covered by the certificates, while under the new rules, the number of certificates is separate from the number of sites with certificates. Moreover, (ii) the data of the same reporting units fluctuated significantly from one year to another and (iii) some reporting units did not participate in the survey (Explanatory note on ISO Survey 2018, results, 2019).

[2] The inclusion of EMAS into the voucher for obtaining quality certificates; the co-financing of the costs for obtaining environmental labels (including EMAS) for tourist accommodation services (MGRT); the inclusion of EMAS as an environmental aspect into green public procurement (MJU); financial incentives for the promotion of EMAS; EMAS as a measure for the allocation of funds for projects for moving towards a circular economy (MOP) (Boosting Regulatory Advantages vis-à-vis EMAS Registration, 2019).

[3] An adjustment to changes in ISO 14001 in 2015. Organisations were able to postpone the renewal of their registration to September 2018 and then renew it under the new conditions. If they had renewed their registration before that date, the certificate was valid until September 2018, after which it had to be renewed under the new conditions. The organisations whose registration in the EMAS scheme had expired before 14 March 2018 were able to postpone the renewal to September 2018 (under the new conditions) (EMAS revised annexes, 2017).

2 Lifelong learning

Knowledge and skills for a high quality of life and work

2.1 Share of the population with tertiary education

2.2 Enrolment in upper secondary and tertiary education

2.3 Graduates from tertiary education

2.4 Performance in reading, mathematics and science (PISA)

2.5 Education expenditure

2.6 Participation in lifelong learning

Culture and language as main factors of national identity

2.7 Attending cultural events

2.8 Share of cultural performances held abroad

Share of the population with tertiary education 2.1

The share of adults (25–64 years) with tertiary education has increased over the long term and is approximately the same as the EU average. In 2018, it amounted to 32.5% (EU: 32.3%), which is lower than the SDS target for 2030 (35%). Its long-term growth, attributable to the high participation of young people in tertiary education, came to a halt in 2018. According to our assessment, this is related to demographics (i.e. a decline in the generation of young people, among whom the share of those with tertiary education is higher than in older age groups). In 2008–2018, the share of tertiary-educated adults rose the most in the 35–44 and 25–34 age groups (within the latter, the share of young people aged 30–34 has already been above the EU average and the Europe 2020 strategy target[1] for several years).

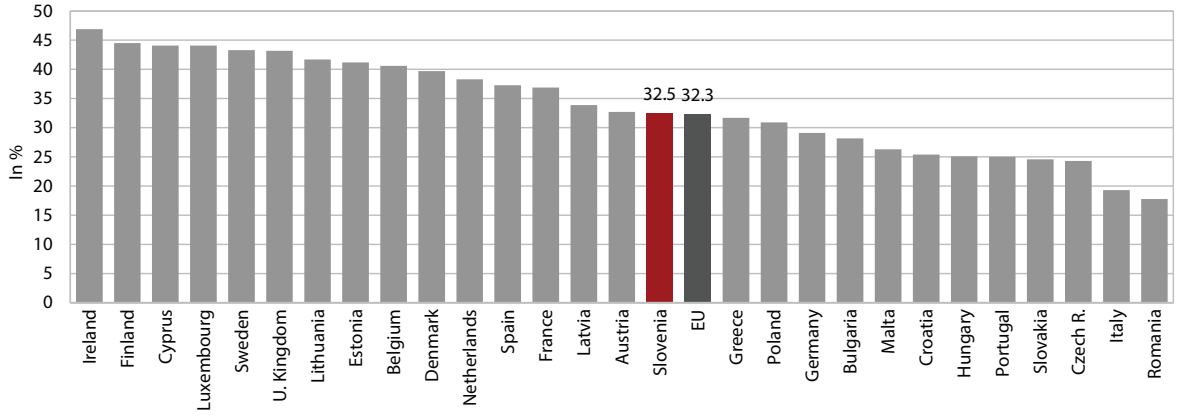
From the point of view of increasing human capital and the competitiveness of the Slovenian economy, these trends are favourable, but given the population ageing, increased demand for tertiary-educated workforce and labour market mismatches, the supply of appropriately educated people lags behind the needs of both society and the economy. Broken down by gender, the share of women is significantly higher than the share of men. According to cohesion regions, more tertiary-educated people are in Zahodna Slovenija (37.7%) than Vzhodna Slovenija (27.9%). The share of people with tertiary education is increasing faster in regions with better access to higher education institutions and more jobs for tertiary-educated workforce.

Table: Share of the population aged 25–64 with tertiary education, in %

	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	SDS 2030 target
Slovenia													
Total	20.2	22.6	23.3	23.7	25.1	26.4	27.9	28.6	30.2	30.7	32.5	32.5	35.0
Men	17.6	19.0	19.0	19.5	20.3	21.1	22.7	23.4	24.0	24.3	26.0	26.4	
Women	22.8	26.4	27.9	28.1	30.1	32.0	33.3	34.1	36.7	37.6	39.4	38.9	
20-24 years	3.2	3.8	3.5	5.5	6.4	7.9	9.7	9.5	11.3	11.9	10.7	12.3	
25-34 years	24.7	30.0	30.4	31.3	33.8	35.3	37.4	38.0	40.8	43.0	44.5	40.7	
30-34 years	24.6	30.9	31.6	34.8	37.9	39.2	40.1	41.0	43.4	44.2	46.4	42.7	
55-64 years	16.3	16.1	16.7	16.3	16.4	17.2	18.3	17.9	18.9	19.1	19.7	21.2	
EU													
Total	22.5	24.2	25.1	25.9	26.8	27.7	28.6	29.3	30.1	30.7	31.4	32.3	
Men	22.7	23.8	24.4	25.1	25.8	26.5	27.1	27.9	28.4	28.9	29.5	30.1	
Women	22.3	24.7	25.8	26.7	27.7	28.9	30.0	30.7	31.8	32.5	33.4	34.5	
20-24 years	12.6	13.4	13.6	14.3	14.8	15.6	16.3	17.0	17.2	17.6	18.0	18.3	
25-34 years	28.3	31.0	32.3	33.3	34.4	35.5	36.4	37.2	37.9	38.2	39.0	40.0	
30-34 years	28.1	31.2	32.3	33.8	34.8	36.0	37.1	37.9	38.7	39.1	39.9	40.7	
55-64 years	16.8	18.1	18.7	19.1	19.7	20.3	20.9	21.3	21.8	22.3	22.9	23.4	

Source: Eurostat Portal Page– Population and Social Conditions– Education and Training, 2020.

Figure: Share of the population aged 25–64 with tertiary education, 2018



Source: Eurostat Portal Page – Population and Social Conditions, 2020.

[1] The share of the population aged 30–34 with tertiary education increased by 11.8 pps in 2008–2018 (EU: by 9.6 pps), totalling 42.7% in 2018 (EU: 40.7%).

Enrolment in upper secondary and tertiary education 2.2

The number of young people enrolled in upper secondary education is falling for demographic reasons. In 2008/2009–2018/2019 it dropped by 16.4%, to a greater extent in general upper secondary than in vocational and technical education. Such developments, which are set to continue for several years according to demographic projections, are reducing the number of candidates for direct enrolment in tertiary education and the supply of young people on the labour market. The decline in the number of young people enrolled in vocational programmes is unfavourable from the point of view of the needs of employers, which for demographic reasons had difficulty finding personnel with appropriate skills (despite the high share of young people enrolled in educational programmes compared with other countries).[1] Moreover, Slovenia also has a high rate of transition from upper secondary to tertiary education,[2] which is additionally diminishing the supply of workers with vocational education. The number of adults enrolled in upper secondary programmes, who could increase the supply of workforce, is decreasing as well.

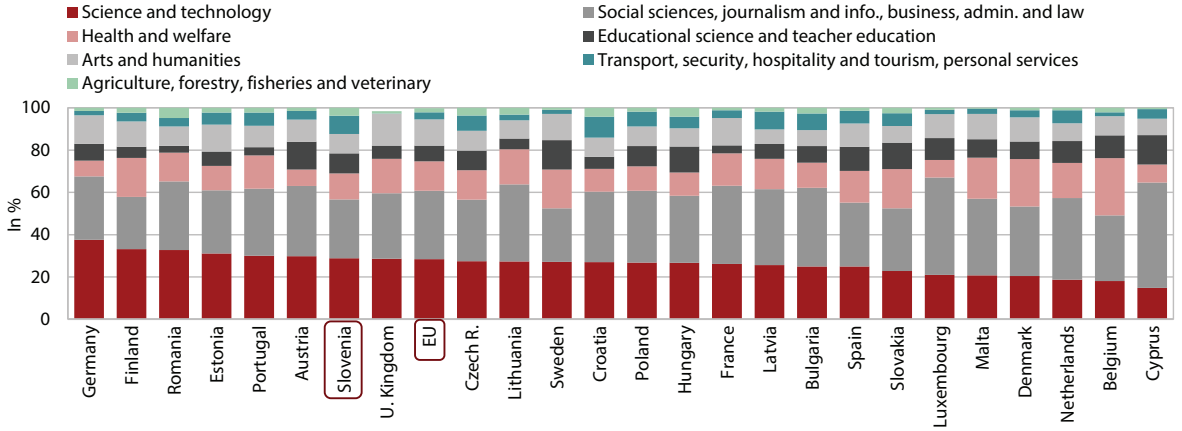
The number of students enrolled in tertiary education has also been falling for demographic reasons for several years. In the 2012/2013–2018/2019 period, it declined by around one-quarter, in all fields, the most in social sciences.[3] We estimate that the number of graduates will therefore also decline in the coming years. Of all fields, the share of students enrolled in health and welfare courses increased the most but is nevertheless still below the EU average and does not meet the rising needs of the ageing society. The share of students enrolled in science and technology fields also rose, but as their overall number is declining, it still lags behind the needs of innovation activity. The insufficient enrolment is due to the too small number of available places in some study programmes[4] and, partly, to low interest in certain other programmes. To satisfy the needs, it would be necessary to strengthen the cooperation between higher education institutions and the economy.[5] In the coming years, Slovenia could improve the responsiveness of the tertiary education system by establishing a system for monitoring the employability of graduates.

Table: Structure of young people* enrolled in upper secondary education by field of education, in %

		2005	2008	2010	2011	2012	2013	2014	2015	2016	2017
Slovenia	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	General educational programmes	39.1	41.1	41.2	40.7	40.1	39.7	38.4	37.5	36.4	35.6
	Vocational programmes	60.9	58.9	58.8	59.3	59.9	60.3	61.6	62.5	63.6	64.4
EU	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	General educational programmes	46.7	50.5	50.8	49.5	50.4	54.7	55.6	55.3	54.5	61.5
	Vocational programmes	53.3	49.5	49.2	50.5	49.6	45.3	44.4	44.7	45.5	38.5

Sources: Eurostat, SURS; calculations by IMAD. Note: * Full-time students.

Figure: Students enrolled in tertiary education, structure by field of education, 2017



Sources: Eurostat, SURS, 2019; calculations by IMAD.

[1] According to the Employment Service of Slovenia (Employment Forecast 2019/I survey, 2019).
[2] In the school year 2018/2019, 81.9% of young people were enrolled in educational programmes that enable enrolment in tertiary education. Direct enrolment is enabled by all types of upper secondary education programmes except short-term vocational and vocational programmes.
[3] Social sciences, journalism and information, business, administration, and law.
[4] In some areas, such as medicine, the number of applicants is significantly higher than the number of available places.
[5] Higher education institutions in Slovenia are implementing fewer measures for strengthening cooperation with the economy than those in most other EU countries; for example, they do not use regular labour market forecasting systematically, do not require or incentivise students to undertake work experience as part of their studies, and do not use regular graduate tracking surveys systematically (Education and Training Monitor, 2019, 2019).

Graduates from tertiary education 2.3

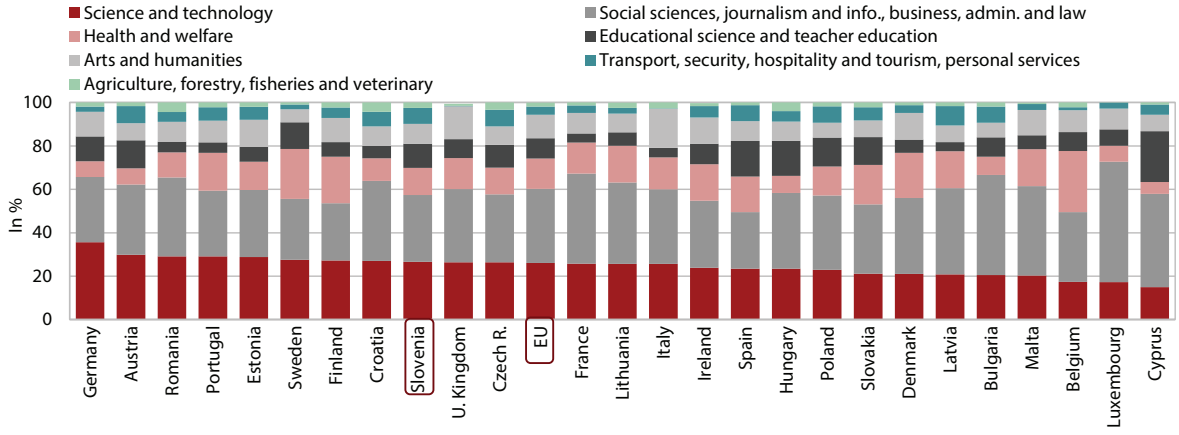
The number of tertiary-level graduates fell in the ten-year period analysed. After declining for several years,[1] it increased in 2018 but was still among the lowest in the last ten years. Given the falling enrolment rates, we estimate that the number of graduates and hence their supply on the labour market will continue to fall in the coming years. In 2012–2018, the number of social science graduates fell the most, and thus their share in the structure of graduates. The share and number of health and welfare graduates increased but nevertheless still lagged behind the rising needs of a long-lived population. The share of science and technology graduates also rose. In 2017, it was roughly at the level of the EU average, but, given the decline in their number, it still lagged behind labour market needs. The supply of workforce is also being diminished by migration abroad, where graduates from health and science and technology fields are in great demand.[2]The potential for increasing the number of science and technology graduates lies in women, who account for about one-third of graduates in this field, which is below the EU average (in total tertiary education, for around 60%). The number of new doctors of science, including those in science and technology fields, has also decreased in recent years, which is unfavourable for innovation activity. In the structure of tertiary-level graduates, graduates from short-cycle tertiary education programmes (which in Slovenia include post-secondary vocational education and are meant to strengthen the links between education and the economy) account for a higher share than in the EU as a whole. The supply of appropriately educated personnel is also being diminished by the low rate of transition of students from the first into the second year of study and the relatively low completion rate in Slovenia compared with other countries.[3] The supply of tertiary-level graduates could also be enriched by studying abroad, but in 2017 the share of tertiary graduates who completed part of their studies or training periods abroad was lower than the EU average and lower than the objective of the Strategic Framework for European Cooperation in Education and Training (Education and Training 2020/ET 2020), which is at least 20%.[4] The potential for increasing the supply of graduates also lies in the return of people with tertiary education who have moved abroad (in 2018, for the first time in many years, more people moved to Slovenia than emigrated from it).[5]

Table: Number of graduates from tertiary education per million inhabitants

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Slovenia	8,567	8,907	9,621	9,980	10,237	9,314	9,133	9,032	15,002	7,967	8,070
EU	8,785	8,638	9,019	9,668	9,604	9,414	9,369	9,065	8,769	9,337	N/A

Source: Eurostat Portal Page – Population and Social Conditions – Education and Training, 2020.
Note: N/A – not available.

Figure: Structure of graduates from tertiary education, by field of education, 2017



Sources: Eurostat Portal Page – Population and Social Conditions – Education and training, 2020; SURS, 2020; calculations by IMAD.

[1] The number of graduates increased sharply only in 2016, this being the last year for completing studies under the pre-Bologna study programmes.
[2] According to the Manpower Group survey (2018), there is strong global demand for engineers, IT professionals, health personnel and other professionals, for example researchers and project managers.
[3] In 2017, the completion rate for tertiary education was 53%, while the international average was 67% (OECD, Education at a Glance 2019, 2019).
[4] In 2017, it amounted to 6.5% in Slovenia (EU: 11.6%).
[5] In 2018, 2,528 persons with tertiary education emigrated from Slovenia and 3,290 immigrated.

Performance in reading, mathematics and science (PISA) 2.4

The performance of Slovenian 15-year-olds in mathematics, science and reading is good. According to the PISA 2018 survey,[1] they score higher than the EU average in all three literacy types. The SDS target in this area is ranking in the upper quarter of EU Member States. Slovenia has reached this goal in mathematics and science, but is still below target in reading. One of the 2020 benchmarks for the average performance in the EU, set in the Strategic Framework for European Cooperation in Education and Training (Education and Training/ET 2020), is that the share of 15-year-old pupils with low achievement (below proficiency level 2) in reading, mathematics and science should be less than 15% on the respective literacy scale. Slovenia has reached this goal in science but it is still below target in reading and mathematics2 Girls achieve better results than boys in reading and science and the same results as boys in mathematics. Between 2015 and 2018, Slovenian 15-year-olds' scores in science and particularly in reading fell, while their performance in mathematics remained approximately the same.

The good results are related to good educational (material and human) resources. Material resources include textbooks, library materials, laboratory equipment, etc. As regards human resources, there is no shortage of teachers in Slovenia according to the PISA 2018 survey. Slovenia's favourable position in this area is also related to the number of certified teachers (i.e. teachers who have obtained a licence or passed a professional examination), the pupil/teacher ratio and a lower rate of student truancy. There is, however, still room for improvement in some indicators, such as class size, disciplinary climate, participation of teachers in professional development programmes, teachers' enthusiasm for teaching and teacher support to pupils in class.[3]

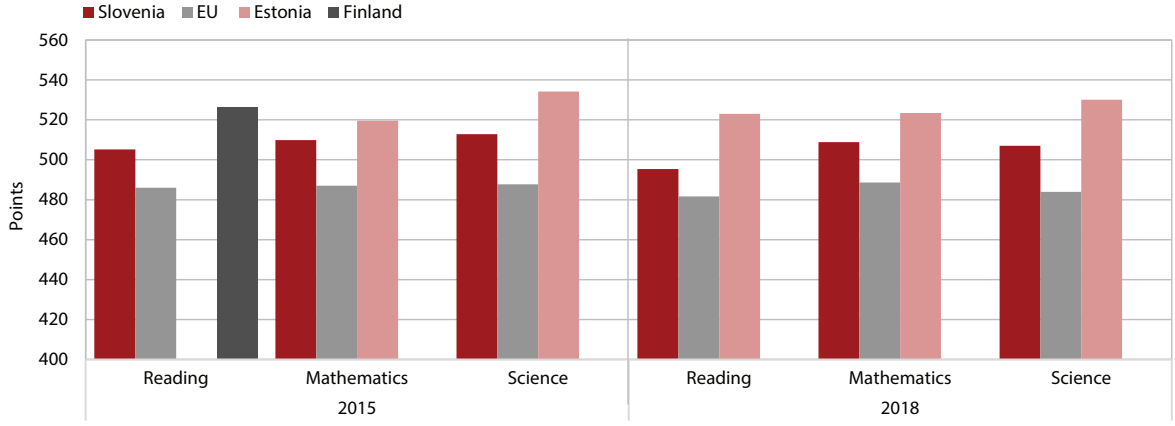
In reading literacy, 15-year-olds from the highest socio-economic backgrounds achieve the best results. Those with the lowest socio-economic status perform the worst. Although between 2015[4] and 2018 the gap between the two groups widened, it remained smaller than on average in the EU. Immigrant pupils achieve worse results in reading literacy on average than their native peers, the difference being greater than on average in the EU.[5]

Table: Slovenia's ranking in science, mathematics and reading among EU Member States

	2006	2009	2012	2015	2018	SDS 2030 target
Mathematics	4	7	9	5	5	Ranking in the top quarter of EU Member States
Reading	11	16	21	6	10	
Science	8	6	7	3	4	

Sources: OECD, PISA (2006, 2009, 2012 and 2015, 2018).
Note: In Slovenia the PISA survey has been carried out since 2006.

Figure: Average performance of 15-year olds in mathematics, science and reading (PISA)



Sources: OECD, PISA 2015 and PISA 2018.
Notes: * For the EU, non-weighted average; ** Of the EU countries, for each type of literacy, the data for the country with the highest scores in the EU is shown.

[1] PISA (Programme for International Student Assessment) is an international survey of reading, mathematical and scientific literacy conducted by the OECD. It covers 15-year-old pupils regardless of the school they attend. Carried out in three-year cycles, the survey is aimed at capturing data on the competencies of pupils that are needed in professional or private life and are important for individuals and society.
[2] In 2018, it was 17.9% in reading, 16.4% in mathematics and 14.6% in science.
[3] Teachers' support in class refers to Slovenian lessons.
[4] For 2018, only data for reading literacy are available.
[5] Data for performance in mathematics and science are not available.

Education expenditure 2.5

Public expenditure on education[1] (as a % of GDP) has declined over the long term and is lower than the international average; private expenditure is comparable.[2] In 2012, public expenditure declined mainly as a consequence of austerity measures and changes in social legislation (see Development Report 2019). In 2018, it increased by 8.5% in real terms due to higher transfers to households/students, which are mainly related to methodological reasons,[3] and due to higher expenditure on educational institutions[4] related to the increase in investment and a higher wage bill. As public expenditure rose more than GDP, its share in GDP increased (the most at the primary level) to 4.66%[5]of GDP in 2018. Despite the increase, this is one of the lowest shares in the longer period. Compared with other countries, in 2016 (the year for which the latest international data are available), public expenditure on education was below the average of those EU countries that are also OECD members (EU-23), the gap being widest at the tertiary level. Private expenditure on education is diminishing. In 2018, it totalled 0.57% of GDP, while according to data for 2016, it was comparable with the EU-23 average.

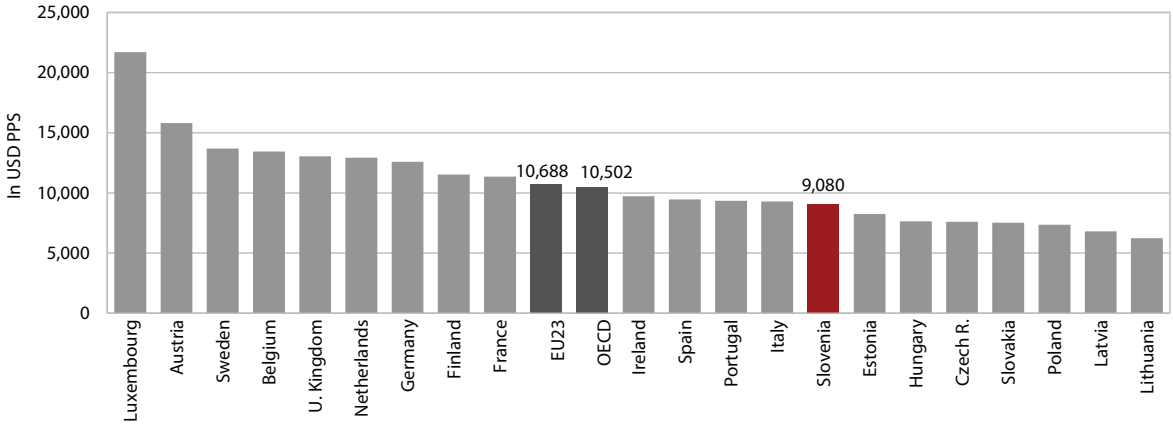
Although expenditure (both public[6] and private) per participant in education increased in the long term, it remained low by international comparison. Except for the second age period of the pre-primary level, it increased at all levels of education in 2016 (the latest international data), the most at the tertiary. At all levels except primary and lower secondary education, it was lower than the EU-23 average despite the increase. The gap was widest at tertiary and upper secondary levels, where the participation of young people in education is high, while public and private expenditure per participant is low, which hampers the potential for improving the quality of education.

Table: Total public expenditure on education as a share of GDP, in %

	2005	2008	2010	2011	2012	2013	2014	2015	2016	2017	2018
Slovenia	5.63	5.11	5.56	5.57	5.33	5.08	4.95	4.61	4.51	4.49	4.66
EU-23	5.37	5.35	5.59	5.62	5.20	5.31	5.22	4.88	4.78	N/A	N/A

Sources: Eurostat, SURS, 2019; calculations by IMAD.
Note: N/A – not available.

Figure: Expenditure (public and private) on educational institutions per participant*, 2016



Source: "Education at a glance 2019", 2019.
Note: * Including primary, lower and upper secondary and tertiary levels of education.

[1] Total public expenditure on education comprises the total budgetary expenditure on formal education of young people and adults at state and local levels. It includes direct public expenditure on educational institutions and transfers to households (scholarships, subsidised meals, travel tickets, accommodation, textbooks, etc.).
[2] Data for public expenditure on education are available for the EU average, while data for private expenditure are available only for those Member States that are also OECD members.
[3] In 2018, public expenditure on transfers to households/students increased by 102.9% in real terms, its share in public expenditure on education amounting to 8.6%. The reason for such an increase is that data on public expenditure on education for 2018 also include some transfers to households that were not taken into account as public expenditure in previous years (i.e. subsidies for transport to pupils and students and subsidies for student meals). These transfers amounted to approximately EUR 91 million in 2018 (SURS, "Expenditure for formal education, Slovenia, 2018", 2019).
[4] Expenditure on educational institutions increased by 3.9% in real terms in 2018.
[5] Excluding the first age group of the pre-primary level of education. According to the International Standard Classification of Education (ISCED) 2011, which also includes this group, public expenditure on education totalled 4.95% of GDP in 2018.
[6] Public expenditure does not include transfers to students/households.

Participation in lifelong learning 2.6

The participation of adults (aged 25–64) in lifelong learning[1] declined over the longer term and is just above the EU average. It has dropped significantly since 2010, when it was at its highest, and totalled 11.4% in 2018 (EU: 11.1%). It was thus lower than the objective of the Strategic Framework for European Cooperation in Education and Training (ET 2020[2]) (15%) and the SDS 2030 target (19%). Particularly problematic is the low participation of low-skilled workers, older people, men and foreigners, as this is diminishing their possibilities for successful inclusion in society and participation in the labour market. From the point of view of regional development, the low participation in some economically weaker regions is unfavourable. In the long term, participation in lifelong learning has declined in all regions and no longer meets the ET 2020 target in any region, not even Osrednjeslovenska, which has the highest participation rate.

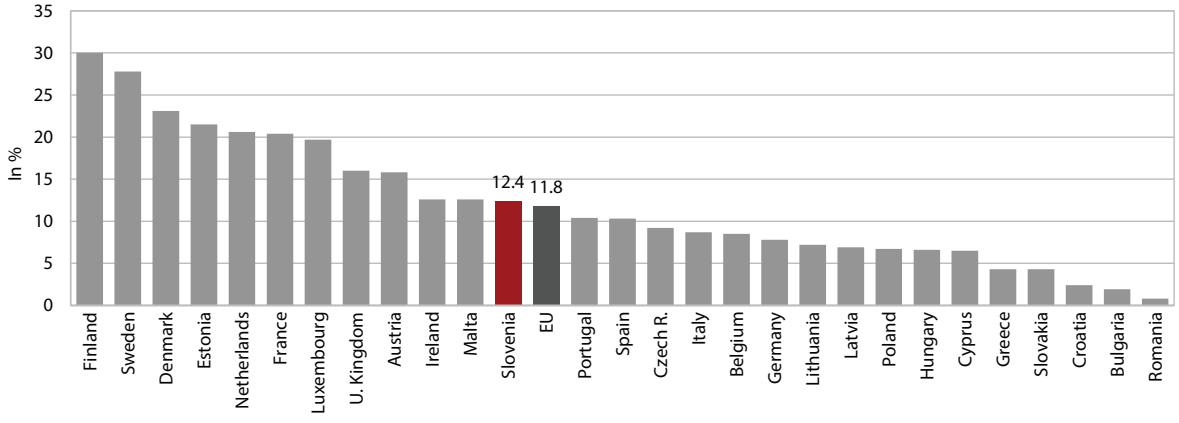
Broken down by activity status, in 2017, participation in lifelong learning was highest among employed people, although it dropped the most in this group over a longer period. The participation of unemployed persons does not lag significantly behind that of the employed. Markedly lower is the participation of inactive persons, which is below the EU average.[3] Differences also exist among the employed – for example, participation in lifelong learning in small enterprises (up to ten employees) is lower than in those with more than ten employees and in the public sector it is higher than in the private sector. Participation in lifelong learning is particularly low in those occupational groups and sectors that have larger shares of people with low education. Broken down by activity status, participation among the employed dropped the most in 2008–2018, the surplus over the EU average thus narrowing sharply. This is unfavourable from the perspective of employee adaptability to changes in the workplace and industry 4.0 and hinders improvement in business sector competitiveness.

Table: Participation of adults aged 25–64 in lifelong learning, in %

	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	SDS 2030 target
Slovenia	15.3	14.3	14.8	16.4	16.0	13.8	12.5	12.1	11.9	11.6	12.0	11.4	19 %
EU	9.6	9.5	9.5	9.3	9.1	9.2	10.7	10.8	10.7	10.8	10.9	11.1	

Source: Eurostat Portal Page – Population and Social Conditions – Education and Training, 2020.

Figure: Participation of employed persons aged 25–64 in lifelong learning, 2018



Source: Eurostat Portal Page – Population and Social Conditions – Education and Training, 2020.

[1] Lifelong learning includes formal and non-formal education.
[2] Education and training.
[3] In 2018 the participation rate in lifelong learning for the employed totalled 12.4% (EU: 11.8%), the participation rate for the unemployed 12.0% (EU: 10.7%) and the participation rate for the non-active population 7.3% (EU: 8.7%).

Attending cultural events 2.7

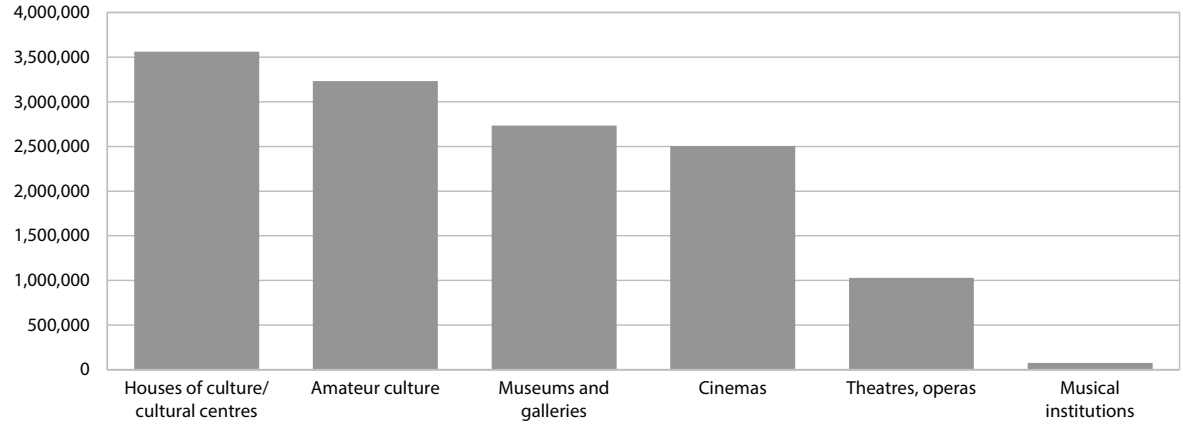
The average attendance at cultural events per inhabitant[1] remained roughly unchanged in the last-four years analysed. It was highest in 2012, owing to the many performances hosted by Maribor, the European Capital of Culture that year. In the remaining three years it was around 5–6 visits per inhabitant, which is far below the SDS 2030 target. With a significant increase in the number of cultural performances, attendance at houses of culture and cultural centres rose the most in 2008–2018. In 2018, they recorded the highest number of visits of all cultural institutions. Higher attendance was also recorded for events performed by cultural associations, whose number and hence supply increased in the period under review.[2] The broadening of cultural associations' activities helps to connect people at the local level and has beneficial social and economic effects. Favourable movements were also recorded for cinema attendance, where the number of visitors to screenings of Slovenian films increased significantly. Theatre and opera attendance also went up with a higher number of theatrical performances in the period analysed. Musical institutions were the only type of institutions where attendance declined.

Table: Average attendance at cultural events per inhabitant

	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	SDS 2030 target
Slovenia	5.0	5.4	5.7	6.0	6.4	9.6	6.2	5.9	6.3	6.2	6.3	6.3	8.0

Sources: SURS, Public Fund for Cultural Activities of the Republic of Slovenia, Slovenian Film Centre, 2020; calculations by IMAD.

Figure: Attendance at cultural events, Slovenia, 2018



Sources: SURS, Public Fund for Cultural Activities of the Republic of Slovenia, Slovenian Film Centre, 2020.

[1] As a result of an extensive revision in the methodology, there was a break in the data series for the following groups in 2016: (i) museums, galleries and exhibition grounds, (ii) theatres, (iii) orchestras and choirs, and (iv) houses of culture. Since 2016, data on cultural performances cover: (i) museums and galleries, (ii) theatres and opera houses, (iii) musical institutions, (iv) cinemas, (v) houses of culture and cultural centres, and (v) amateur culture.

[2] The number of performances carried out by cultural associations increased by 24.2% in 2008–2018, to 24,298 in 2018.

Share of cultural performances held abroad 2.8

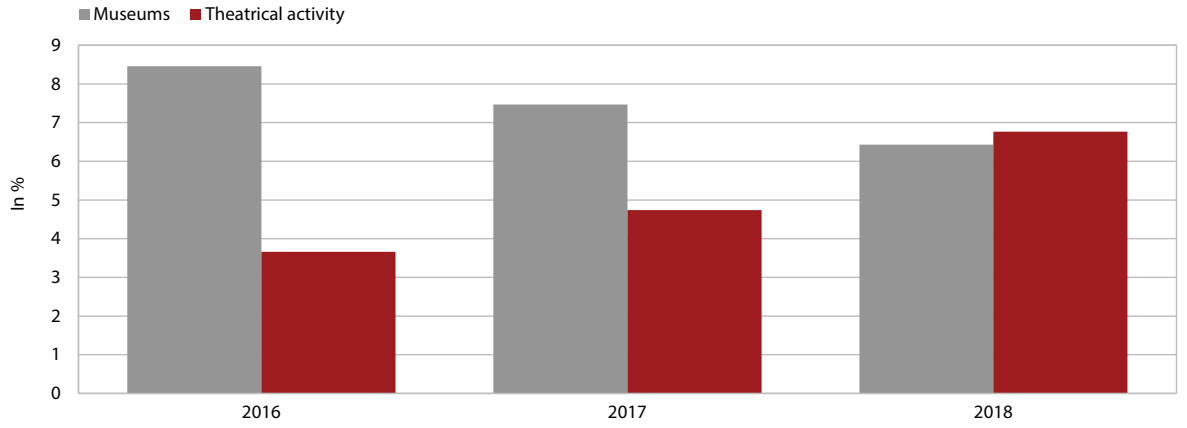
Share of cultural performances held abroad is rising.[1] Touring is an indirect indicator of the quality of cultural production, as invitations to perform abroad generally signify recognition of good work. Developments in this area are difficult to assess because of the short data series, as data are available only for 2015–2018 and the figure for 2015 is SURS' estimate (see note under the table). In 2018, the share of cultural performances held abroad totalled 5.1%. It was higher than in the preceding year and above the SDS target for 2030 for the second year in a row. According to our assessment, the rise in the share reflects the systematic promotion of international cooperation in the field of theatrical activity, which is reflected in a rising share of performances abroad, while in museums, this share has been declining. Among cultural events held abroad, those in the EU accounted for the highest share, more than three-quarters, which indicates the geographical attachment of Slovenian culture to this area.

Table: Share of cultural performances on tours abroad in the total number of cultural performances, in %

	2015	2016	2017	2018	SDS 2030 target
Slovenia	2.8 (estimate)*	3.1	3.91	5.1	3.5

Source: SURS, 2020.
Note: * As a result of the revision of culture statistics, a break in the data series occurred in 2016. Data for 2015 are therefore estimated, i.e. adjusted to the methodology used in the surveys "Activity of Houses of Culture, Theatres, Operas and Professional Orchestras and Choirs" (KU-ODER) and "Activity of Museums and Galleries" (KU-MZ) for 2016. The estimate was made by SURS. Data for houses of culture up to 2015 were not available. The sources of data were the surveys "Activity of Museums, Museum Collections, Special Museums for Art Heritage and Art Exhibition Grounds" (KU-MZ), "Activity of Theatres, Operas and Ballet" (KU-GL), and "Activity of Professional Orchestras and Choirs" (KU-FO).

Figure: Share of cultural performances on tours abroad, Slovenia



Source: SURS, 2020.
Note: Theatrical activity includes: (i) theatres, (ii) professional orchestras and choirs and opera, and (iii) houses of culture, cultural institutions and other cultural performers (cultural associations).

[1] The indicator of the share of performances on tours abroad in the total number of performances is the ratio of performances held outside Slovenia to all performances held by given cultural institutions. Data on cultural performances include data for (i) museums, galleries and exhibition grounds, (ii) theatres, (iii) professional orchestras and choirs and opera, and (iv) houses of culture, cultural institutions and other cultural performers (cultural associations). Owing to a significant change in the methodology, a break in the data series occurred in 2016. The sources of data are the surveys "Activity of Cultural Institutions, Theatres, Operas and Professional Orchestras and Choirs" (KU-ODER) and "Activity of Museums and Galleries" (KU-MZ).

3 An inclusive, healthy, safe and responsible society

A healthy and active life

A decent life for all

An inclusive labour market and high-quality jobs

Healthy life years 3.1

Slovenia's gap with the EU as regards healthy life expectancy at birth[1] and at the age of 65 has widened since 2015. The indicator for 2017 shows that a person born in Slovenia can, on average, expect only 55 years of healthy life (in the EU, slightly less than 64 years). Healthy life expectancy at the age of 65 is only 7.2 years on average in Slovenia, compared with 10 years in the EU. In the last three years under review, the lag increased particularly for women. Since 2015, in Slovenia the number of healthy life years has been higher for men.[2] Increasing the number of healthy life years in the future – which involves higher investment in preventive care – would significantly contribute not only to the extension of individuals' activity, but also to slower growth in health and long-term care expenditure. A SURS and NIJZ analysis has shown that the very low value of the indicator in Slovenia is related to the translation of the survey question and the methodology of the survey, so we expect a correction in the next years, similar to that carried out a few years ago for Sweden and Germany.

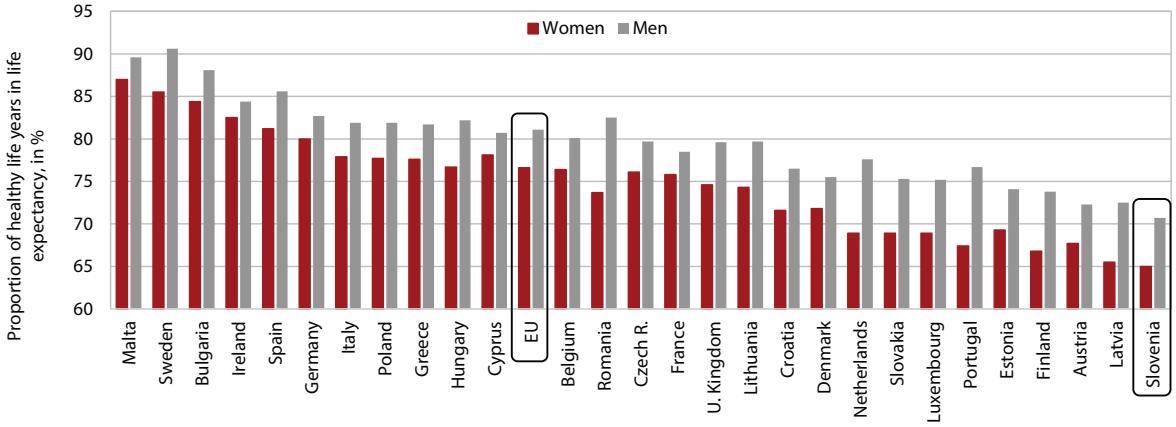
The lag behind the EU in the ratio between healthy life years and life expectancy has also widened further in recent years according to the available data.[3] A worse ratio (a smaller share of years that a person on average spends in a healthy state) means higher pressure on social protection systems because of early retirement and higher demand for health and long-term care services. Following several years of improvement, the ratio deteriorated again in Slovenia in 2014–2017, while improving markedly in the EU as a whole. Slovenia's lag behind the EU average is mainly due to the very low number of healthy life years. In all EU countries the ratio is higher for men than women, though largely on account of their lower life expectancy.

Table: Expected healthy life years at birth and the proportion of healthy life years in life expectancy

	Number of expected healthy life years at birth								Proportion of healthy life years in life expectancy, in %					
	Women				Men				Women			Men		
	2010	2016	2017	SDS 2030 target	2010	2016	2017	SDS 2030 target	2010	2017	SDS 2030 target	2010	2017	SDS 2030 target
Slovenia	54.6	57.9	54.6	64.5	53.4	58.7	55.3	64.5	65.7	65.0	75.0	69.8	70.7	80.0
EU	62.6	64.2	64.0		61.8	63.5	63.5		75.6	76.6		80.3	81.1	

Source: Eurostat Portal Page – Population and Social Conditions – Health – Public Health, 2020.

Figure: Proportion of years lived in good health, 2017



Source: Eurostat Portal Page – Population and Social Conditions – Health – Public Health, 2019.
Note: The countries are ranked according to the average share of life that men and women spend in a healthy state.

[1] The indicator of healthy life years measures the number of remaining years that a person of a specific age is expected to live without disability or activity limitations. This is a composite indicator which combines mortality and health status data. The estimate of disability/activity limitations is based on the Global Activity Limitation Indicator (GALI), which, within the EU-SILC survey, measures self-perceived limitations people have experienced, because of health problems, in carrying out their everyday activities for at least six months. As the translation of the EU-SILC survey question on limitations was corrected for Slovenia in 2010, only the time series from 2010 is in fact comparable.

[2] In 2017, this was also the case in nine other EU Member States.

[3] A decline in the ratio of healthy life years to life expectancy means a deterioration; an increase signifies an improvement.

The Gender Equality Index 3.2

According to the latest[1] calculation, the gender equality index for Slovenia declined slightly, but it is still above the EU average. The gender equality index is a composite index calculated on the basis of 31 indicators within six domains. With a value of 68.3, Slovenia ranks 11th in the EU. An index value of 1 means total inequality and 100 full equality. Slovenia has lagged behind the same Northern European countries (Scandinavian countries, the Benelux countries, the UK and Ireland) and France in all years. Now it has also been outpaced by Spain. In the EU average, the values of all six domains of the gender equality index are the highest thus far. Slovenia has advanced by 7.5 points from the first index calculation in 2005. To meet the SDS 2030 target, it should improve the index value by 10 points in 2019–2030.

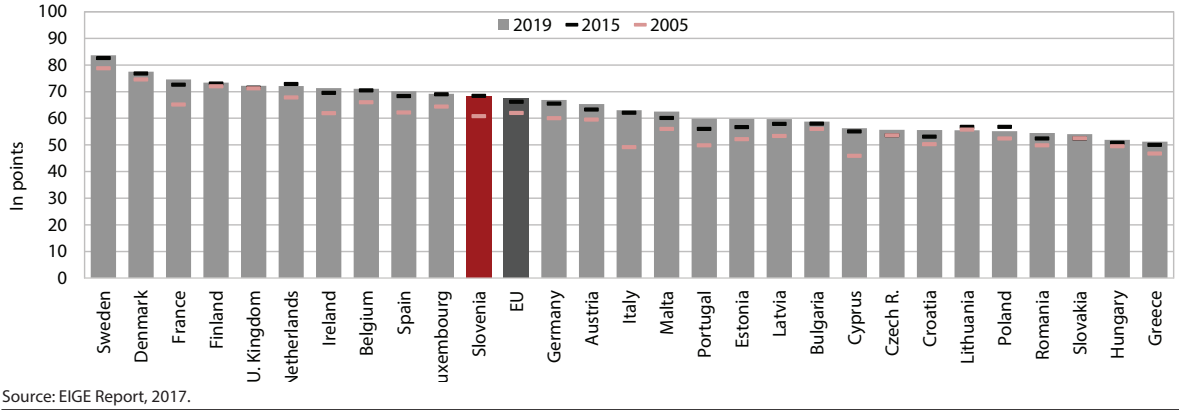
According to the gender equality index, Slovenia is stronger in the domains of health, money and work and weaker in the domains of time,[2] power and knowledge. The deterioration in the (otherwise best) domain of health is related to respondents' worse assessments of access to dental and medical services. Other than that, there have been no significant changes in this domain, while women rate their health somewhat worse than men. The number of healthy life years for women is on average lower than for men (see Indicator 3.1), but women on average live almost six year longer than men (see Indicator 3.3). Meanwhile, Slovenia has made additional headway in the already stronger domains of work and money, which is largely a consequence of the narrowing of the gender gap in the employment rate. Since 2015, it has made the most progress in the domain of power, due to the introduction of gender quotas, i.e. a mandatory share of both genders on candidate lists. The deterioration in this domain in the calculation for 2019 is attributable to a lower share of women in the parliament compared with the previous one.[3] A slight improvement was also observed in knowledge, the only domain where Slovenia scores below the EU average. This can be mainly attributed to a large difference in the share of students enrolled in tertiary education programmes,[4] which is related to persistent stereotypes about the inferiority of women and women's work.

Table: Gender Equality Index

	Slovenia					SDS 2030 target	EU				
	2005	2010	2012	2015	2019		2005	2010	2012	2015	2019
GEI	60.8	62.7	66.1	68.4	68.3	>78	62.0	63.8	65.0	66.2	67.4
Health	86.3	86.8	87.3	87.7	87.1		85.9	87.2	87.2	87.4	88.1
Money	77.7	80.3	81.3	81.6	82.4		73.9	78.4	78.4	79.6	80.4
Work	71.2	71.9	71.3	71.8	73.3		70.0	70.5	71.0	71.5	72.0
Time	73.4	68.3	72.4	72.9	72.9		66.7	66.3	68.9	65.7	65.7
Power	36.5	41.1	51.5	60.6	57.6		38.9	41.9	43.5	48.5	51.9
Knowledge	52.1	55.0	54.9	55.0	56.0		60.8	61.8	62.8	63.4	63.5

Source: EIGE Report, 2017.

Figure: Gender Equality Index (GEI)



Source: EIGE Report, 2017.

[1] The calculation is based on data from 2017 with exceptions, which are not clearly marked: for example, the gap in gender representation in the parliament. Another exception is the domain of time, see the note below. The index was thus far calculated occasionally, since 2019 annually.

[2] Data for the domain of time are from 2015. More recent data will be available in 2021.

[3] The number changes after elections with regard to the number of women elected to parliament and, subsequently, their appointment to positions. In 2006 the share of women in the Slovenian parliament was 13.5%; in 2016 it was 35.6%, the most thus far, while in November 2018 it was 26% (Development Report 2019, 2019).

[4] The domain of knowledge includes the following indicators: the percentage of the population with tertiary education, participation in education and training throughout the course of life, tertiary students in the education, health and welfare, humanities and arts fields.

Life expectancy 3.3

Life expectancy at birth[1] has stopped improving both in Slovenia and in the EU as a whole in recent years. Since 2002 (since data for the EU have been available), life expectancy increased by three months per year in Slovenia and two months per year on average in the EU. The improvement can be attributed to factors such as better socio-economic conditions, better education, healthier lifestyles and advances in medicine.[2] Life expectancy in Slovenia has been higher than the EU average since 2014. After 2011, life expectancy gains slowed, however, and in 2014 they came to a halt, which can be attributed to a slower decline in mortality rates for circulatory diseases, which had been the main reason for life expectancy gains in previous years, increased obesity and a higher prevalence of diabetes.

Life expectancy is higher for women and people with tertiary education. In 2002–2017, the gender gap in Slovenia declined by 2.1 years to 5.8 (in the EU, by 1.2 years to 5.2). Broken down by educational attainment, the gap is widest among people with low education, where women can expect to live 7 years longer than men (75 years).

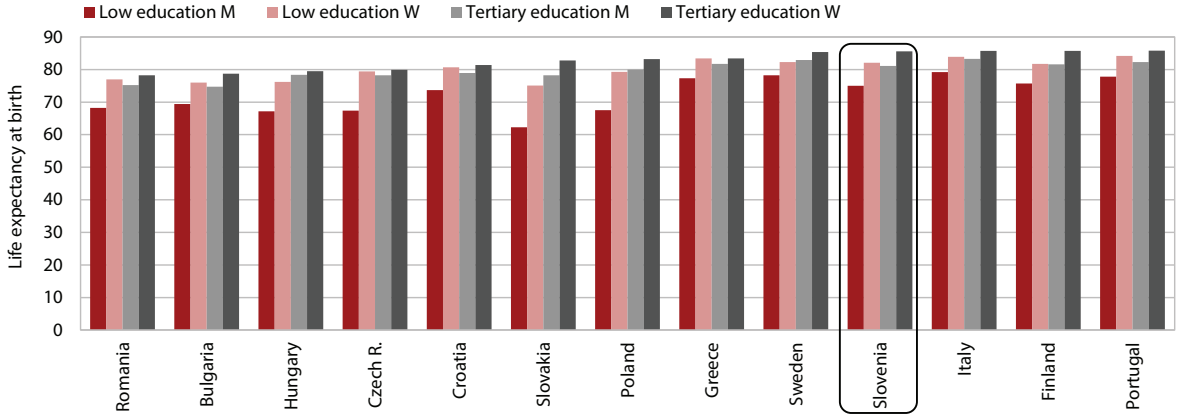
In 2018, life expectancy was higher than in 2011 in all regions.[3] Women in the Osrednjeslovenska region have the highest life expectancy at birth – 84.6 years, which is 2.2 years more than women in Koroška, the region with the lowest life expectancy. Life expectancy for men in the Koroška region is 3.6 years shorter than for women, but it is the longest life expectancy for men among all regions.[4] Regional disparities reflect a number of socio-economic factors (lifestyle, nutrition, educational structure of the population and other), which have a different impact on individual population groups and geographical areas.

Table: Life expectancy at birth, by year

		2000	2005	2008	2010	2011	2012	2013	2014	2015	2016	2017
Slovenia	Life expectancy	76.2	77.5	79.1	79.8	80.1	80.3	80.5	81.2	80.9	81.2	81.2
	Men	72.2	73.9	75.5	76.4	76.8	77.1	77.2	78.2	77.8	78.2	78.2
	Women	79.9	80.9	82.6	83.1	83.3	83.3	83.6	84.1	83.9	84.3	84.0
EU	Life expectancy	N/A	78.5	79.4	79.9	80.2	80.3	80.5	80.9	80.6	81.0	80.9
	Men	N/A	75.4	76.3	76.9	77.3	77.4	77.7	78.1	77.9	78.2	78.3
	Women	N/A	81.5	82.3	82.8	83.1	83.0	83.3	83.6	83.3	83.6	83.5

Source: Eurostat Portal Page – Population and Social Conditions – Population – Demography – Mortality, 2019.
Note: N/A – not available.

Figure: Life expectancy at birth, 2017



Source: Eurostat Portal Page – Population and Social Conditions – Population – Demography – Mortality, 2019.
Note: Countries are ranked with regard to the values for women with tertiary education. The graph only includes countries for which data are available. M – men, W – women.

[1] Life expectancy is the average number of years that a person at a given age can expect to live, under the assumption that age-specific mortality rates remain constant throughout their lifetime (i.e. equal to the values in life tables for the observed year). SURS does not publish data on total life expectancy. Also, its data on life expectancy by gender differ slightly from those published by Eurostat due to the different methodologies used. SURS data for 2018 show a further increase in life expectancy for both genders.
[2] Health at a Glance 2017 (OECD), 2017.
[3] Regional data on life expectancy have been available since 2011.
[4] Life expectancy for men is the shortest in the Pomurska region (76.3 years).

Avoidable mortality 3.4

Avoidable mortality[1] dropped sharply in 2011–2016 but remained above the EU average. The rate of avoidable mortality, i.e. mortality from causes that could be avoided, declined by 17% or 46 persons per 100,000 inhabitants in Slovenia in 2011–2016 (in the EU as a whole only by 9%). Avoidable mortality is divided into (1) preventable and (2) treatable mortality. Slovenia was very successful particularly in reducing treatable mortality, which declined by 26%.

Preventable mortality was slightly above the EU average in 2016, but the share of preventable premature deaths in the population under age 75 was very high compared with the EU as a whole. In Slovenia, in 2016, 184 deaths per 100,000 inhabitants could have been avoided by reducing behavioural risk factors or through primary prevention (in the EU, 161). In 2011–2016, 13% more deaths were prevented than in 2011 (in the EU, 9%). The preventable mortality rate for people under 75 years is nevertheless still high, at 54.5%, the highest among all EU countries. The difference in preventable mortality between men and women is very high in Slovenia, which is a consequence of the significantly higher rates of ischaemic hearth disease, lung cancer, accidents, alcohol-related disorders and suicide in men.[2]

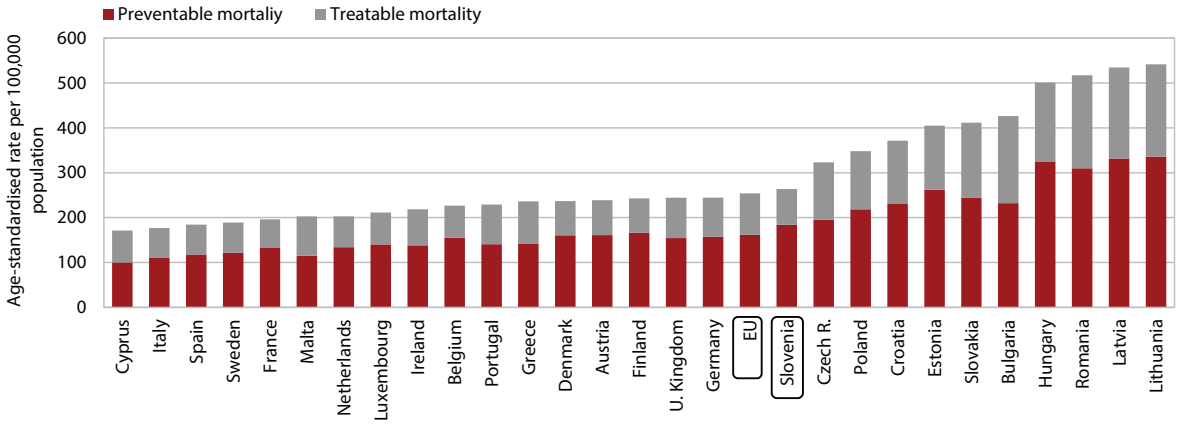
The rate of treatable mortality was already significantly below the EU average in 2016, which indicates relatively effective health care from the aspect of treatment and early detection of diseases. In Slovenia, 80 persons per 100,000 inhabitants died from causes that could have been avoided through timely and effective healthcare (EU: 93 per 100,000). The indicator points to relatively effective health care, particularly with regard to the relatively lower investment in health than in countries that reach comparable results. The countries with mortality rates below 70 persons are Switzerland, France, Norway, Italy, Spain, Sweden and the Netherlands, primarily owing to the very low mortality from cardiovascular diseases, but these countries' investments in health are on average almost 20% higher than the EU average and 45% higher than in Slovenia. In all countries, the indicator is significantly worse for men. In Slovenia, the favourable indicator can be attributed to the relatively good provision of primary care, although the long waiting times at the secondary level remain a major problem.

Table: Avoidable mortality, age-standardised rates per 100,000 population, 2011–2016

	Avoidable mortality			Preventable mortality			Treatable mortality		
	2011	2015	2016	2011	2015	2016	2011	2015	2016
Slovenia	309	285	264	209	193	184	101	92	80
EU	278	260	254	175	165	161	103	95	93

Source: Eurostat Portal Page – Population and Social Conditions – Health – Public Health, 2018.

Figure: Avoidable mortality rates in EU countries, 2016



Source: Eurostat Portal Page – Population and Social Conditions – Health – Public Health, 2019.

[1] In 2019, the methodology for calculating the indicator of *avoidable mortality* was changed. The indicator of avoidable mortality used to assess the performance of the health system consists of two indicators: 1) preventable mortality, i.e. causes of death that can mainly be avoided by reducing behavioural risk factors or through primary prevention measures (before the onset of diseases, to reduce incidence), and 2) *treatable (previously amenable) mortality*, i.e. causes of death that can mainly be avoided through effective health care, including early detection and treatment. The lists of both preventable and treatable causes of mortality were also changed in both indicators. The attribution of causes of death to the preventable or treatable mortality category is based on the criteria of whether these causes of death can be largely prevented through better prevention measures or more effective treatment. In addition, the age threshold used to define premature deaths is now 75 years (previously 65 years). For both indicators, the data series from 2011 to 2016 is available in accordance with the new methodology.

[2] Slovenia: Country Health Profile 2019..

Health expenditure 3.5

Measured by total health expenditure per capita, the gap with the EU average increased in the last period analysed. While Slovenia had been at 85% of the EU average in terms of health expenditure per capita in 2013, it achieved only 83% of the EU average in 2018. In contrast, in terms of economic development measured by per capita GDP, Slovenia narrowed its gap with the EU in this period, from 82% to 87%.

The level of public expenditure on health in Slovenia is closely connected with HIIS revenues, i.e. contributions by insured persons. In 2018, 92% of all public health expenditure was covered by the compulsory health insurance system or the pension insurance fund. In the structure of contributions for compulsory health insurance, contributions for insured persons accounted for 78%, the transfer from the pension insurance fund for 13.5% and the government transfer only for 3.2%.[1] Due to a high share of contributions from labour, HIIS expenditure is strongly exposed to cyclical swings.[2] In the period of the financial crisis (2009–2013), a number of measures were therefore adopted to contain expenditure. Since 2013, HIIS revenues have increased with faster growth in employment and wages, which has enabled stronger expenditure growth.

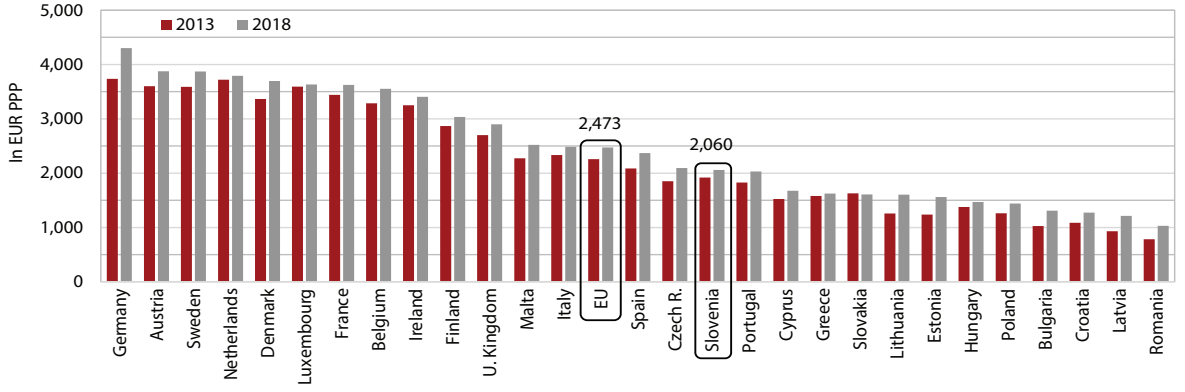
The share of direct budgetary sources for health and transfers from the state budget for financing compulsory health insurance has been very low in Slovenia compared with other countries. The share of direct expenditure from the general and local budgets (excluding transfers) in 2017 was the second lowest in the EU.[3] Moreover, the majority of countries with the Bismarck model of social health insurance (Austria, Belgium, the Czech Republic, France, Luxembourg, the Netherlands and Germany) also have higher indirect funding from the budget through transfers to compulsory social health insurance. In Slovenia, the transfer is lower than in most countries even if the contributions for pensioners from the pension insurance fund are included (in total, 16.7% of total contributions for compulsory health insurance).

Table: Health expenditure[4]

	Health expenditure as a % of GDP				Public health expenditure as % of GDP**				Private health expenditure as a share of current health expenditure, in %			Out-of-pocket expenditure as a share of current health expenditure, in %		
	2005	2017	2018	2019	2005	2017	2018	2019	2005	2018	2019	2005	2017	2018
Slovenia *	8.0	8.2	8.3	8.3	5.9	5.9	5.9	5.9	26.5	29.1	28.2	13.0	12.3	14.0
EU ** (simple average)	7.7	8.3	8.3	N/A	6.0	6.0	6.0	N/A	25.0	27.2	N/A	21.5	22.4	22.0

Sources: OECD Statistics, Eurostat, SI-STAT Data Portal – Health Expenditure and Sources of Funding, 2018. For 2018: HIIS, 2019. Notes: * For Slovenia, in the calculation of the share of GDP, the revision of GDP in September 2019 is taken into account (SURS, National Accounts); the data for 2019 is a preliminary estimate by SURS, February 2020; ** EU is a simple EU average excluding Malta, IMAD calculation; the data for health expenditure in Slovenia for 2018 and 2019 are preliminary estimates (source: SURS; release in the HIIS Business Report for 2019). N/A – data not available.

Figure: Total health expenditure per capita, in EUR PPP, 2013 and 2018



Source: Eurostat, 2019. Note: The figure for the EU is simple (unweighted) average. The OECD publication Health at a Glance: Europe 2018 uses the weighted average for the EU for 2017, which is higher (EUR PPP 2,773), as it to a greater extent reflects the data from large EU countries (Germany, France and the UK) that have relatively high per capita expenditure.

[1] See Economic Issues 2019, Figure 13.
[2] The HIIS must run a balanced budget at the annual level and cannot borrow or adjust its revenue by raising contributions.
[3] Economic Issues 2019, Figure 12.
[4] In 2011, the manual of the System of Health Accounts (OECD, Eurostat and WHO: SHA 2011) was revised, an important change being that the basic indicator of health expenditure now shows only current expenditure on health, excluding capital formation.

Expenditure on long-term care 3.6

Slovenia is widening its gap with the EU average in terms of expenditure on long-term care (LTC). In 2017, total LTC expenditure accounted for 1.21% of GDP in Slovenia, compared with 1.5% of GDP on average in the 24 EU countries for which data are available. Public expenditure declined somewhat in Slovenia – to only 0.89% of GDP in 2017, while the EU average has remained at around 1.3% of GDP for several years. Broken down by source of funding, the share of public expenditure dropped significantly in the ten-year period between 2007 and 2017; broken down by function, the share of expenditure on the health component of LTC (which is mostly financed by public funds) was falling during this period.[1] In 2016, public expenditure on the social component of LTC rose substantially more than in previous years.

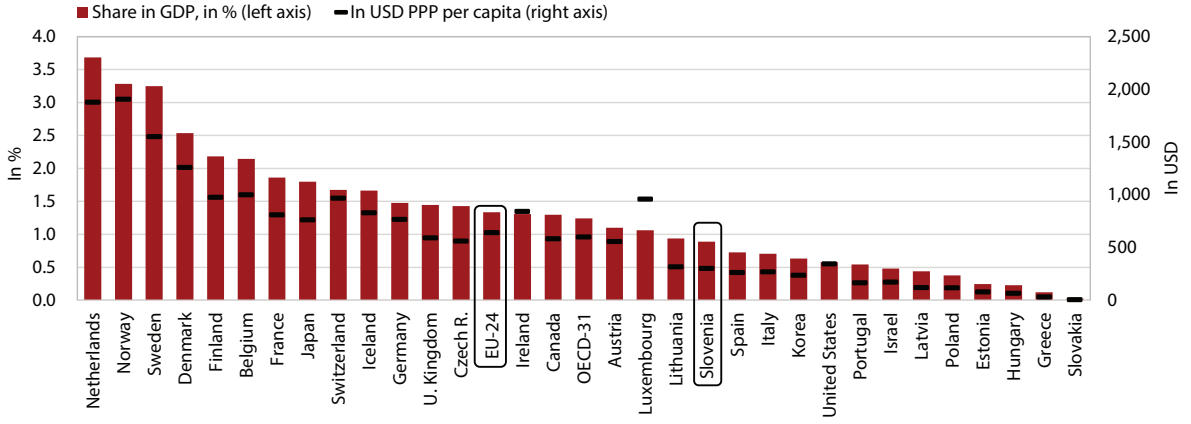
Demand for long-term care is rising faster than for healthcare and a significant share of the needs in this area are already unmet. Public expenditure on LTC grew rapidly only in the period before the crisis, when significant capacity was added to nursing homes. During the crisis, its growth was modest, albeit still stronger than growth in health expenditure, while in 2012 to 2017 it slowed significantly and lagged not only behind the EU average, but also behind health expenditure growth. Particularly the growth of HIIS expenditure on health services in nursing homes and other social institutions and for community nursing was low, which is also one of the reasons for deteriorating care in recent years. At same time, private, out-of-pocket expenditure on LTC has been rising very rapidly. This expenditure, which is the most problematic in terms of affordable care for all, is growing substantially faster than private expenditure on health (see Economic Issues 2019, Figure 29). The need for long-term care can therefore strongly affect the disposable income of individuals and their families and become, over a longer period, a heavy burden on informal caregivers within the family, reduce their productivity and availability on the labour market, lead to early retirement, increase poverty, and cause excessive use of more accessible health services.[2]

Table: LTC expenditure by source of funding and by function

	In EUR million			As a % of GDP			Breakdown in %			Real growth in %	Average annual real growth in %
	2006	2016	2017	2006	2016	2017	2006	2016	2017	2017/2016	2007–2017
Long-term care	349	499	521	0.99	1.24	1.21	100.0	100.0	100.0	1.0	2.5
By source of funding											
Public expenditure	269	368	382	0.77	0.91	0.89	77.2	73.7	73.4	2.3	2.1
Private expenditure	80	131	138	0.23	0.33	0.32	22.8	26.3	26.6	-2.3	4.9
By function											
Health care	239	328	329	0.79	0.84	0.82	73.3	66.9	66.0	-0.3	1.5
Social care	87	162	170	0.29	0.42	0.42	26.7	33.1	34.0	3.8	5.1

Source: SI-STAT Data Portal – Long-Term Care (release: December 2017).
Note: The conversion into constant prices was made using the GDP deflator.

Figure: Public expenditure on long-term care as a share of GDP and in USD PPP, 2017



Source: OECD Statistics, 2018.
Note: The EU-24 and the OECD-13 averages include only those countries that report both health and social components of long-term care.

[1] The majority of public LTC expenditure (86%) at the same time also falls under health expenditure statistically.
[2] Normand, C. (2015), EC(2016), Dominkuš et al. (2014).

Overweight and obesity 3.7

The share of overweight adults declined somewhat in Slovenia in 2007–2014, but it still significantly exceeded the EU average, especially for men. Overweight[1] and obesity, usually a consequence of excessive food intake and insufficient physical activity, are important risk factors for the development of chronic health conditions[2] and premature mortality. Cardiovascular diseases are the main cause of mortality in Slovenia and indeed in most developed countries. Obesity can, moreover, have not only medical but also socioeconomic consequences (social exclusion, lower income, higher unemployment, more working days lost and early retirement). Amid a decline in the share of overweight adults (overweight and obese), income inequalities were also relatively high in this period. The large share of overweight and obese adults in Slovenia can be attributed to bad dietary habits, especially among young people.[3] Slovenia diverges from the EU average particularly in the high prevalence of obesity in men of all levels of education and women with low education. Unlike men, women with higher education tend to be well aware of the importance of a healthy diet, the share of obese women in this group being even significantly lower than in the EU as a whole. The SHARE survey for 2011–2017 shows a slight increase in the share of overweight older (50+) people (from 69% to 70%) particularly in the fifth quintile, while in the first quintile this share declined.

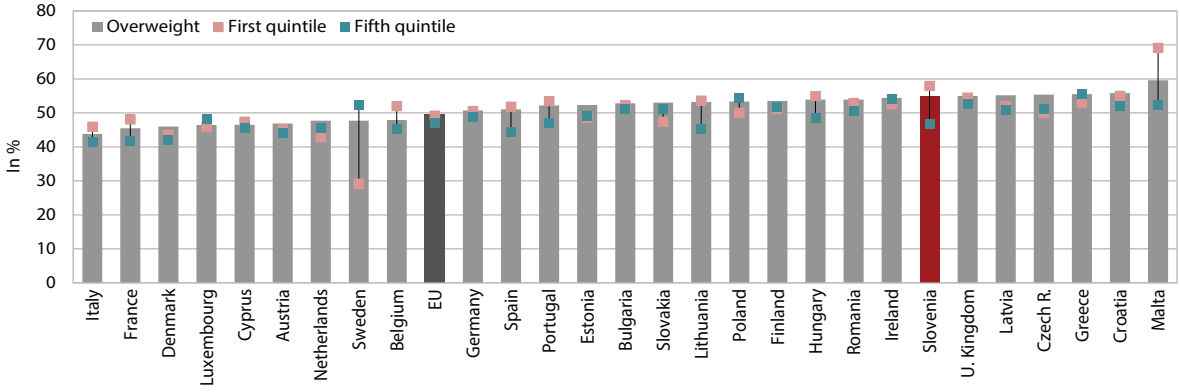
The economic burden of overweight and obesity in Slovenia is slightly below the EU average.[4] OECD calculations take into account the impact of overweight on the employment rate, presenteeism, absenteeism and early retirement. In the EU as a whole, individuals with at least one chronic disease which is a consequence of overweight are 8% more likely not to be in the labour force than those with the same age and level of education and normal weight; if employed, these individuals have a 1.5% higher absenteeism rate and are 20% more likely to retire early. As almost 50% of the adult population in the EU is overweight (more than 15% being obese), these numbers have very serious economic implications. According to the OECD model calculations, GDP will be 3.3% lower each year in the EU on average in 2020 to 2050 due to the impact of overweight (in Slovenia 3.1% lower). Reducing overweight will require more targeted and restrictive measures than in the past.

Table: Overweight and obesity, by sex and educational level, Slovenia and the EU average, 2007 and 2014

		Overweight, in %						Obesity, in %					
		Total		Women		Men		Total		Women		Men	
		2007	2014	2007	2014	2007	2014	2007	2014	2007	2014	2007	2014
Slovenia	Adults	39.8	36.5	30.7	30.3	49.0	42.7	16.8	18.6	16.3	17.0	17.3	20.3
EU	Adults	N/A	34.8	N/A	28.4	N/A	41.7	N/A	15.4	N/A	15.3	N/A	15.6

Source: Eurostat Portal Page – Population and Social Conditions – Health – Public Health, 2018. Notes: Data according to EHIS; N/A – not available. For 2007, comparable data according to the EHIS are available only for 18 EU Member States. The averages are therefore not calculated.

Figure: Share of overweight and obese adults by income, 2014



Source: Eurostat Database – Health, 2020. Note: According to the European Health Interview Survey (EHIS). Data for 2014 are the latest available data.

[1] Adults with a body mass index (BMI) from 25.0 to 29.9 kg/m2 are defined as overweight and those with a BMI of 30 kg/m2 or over as obese. The BMI is a ratio of an individual's weight to the square of his or her height. This is a criterion according to the World Health Organisation (WHO, 2003). The BMI is a good indicator of the amount of body fat, but it has the major limitation that it says nothing about the distribution of body fat or functional muscle mass.

[2] The burden of non-communicable chronic diseases such as hypertension, diabetes and cardiovascular diseases is rapidly rising.

[3] According to the EHIS, fewer than one in three 15-year-olds regularly ate fruit or vegetables in 2014, more than one in three regularly drank sugary drinks, only 14% were physically active every day and every second did not eat breakfast regularly. Slovenians also consume significantly more salt than the EU average. Slovenia lags behind the EU average according to all these indicators.

[4] Data are for the 23 Member States that are also OECD members.

Unpaid voluntary work 3.8

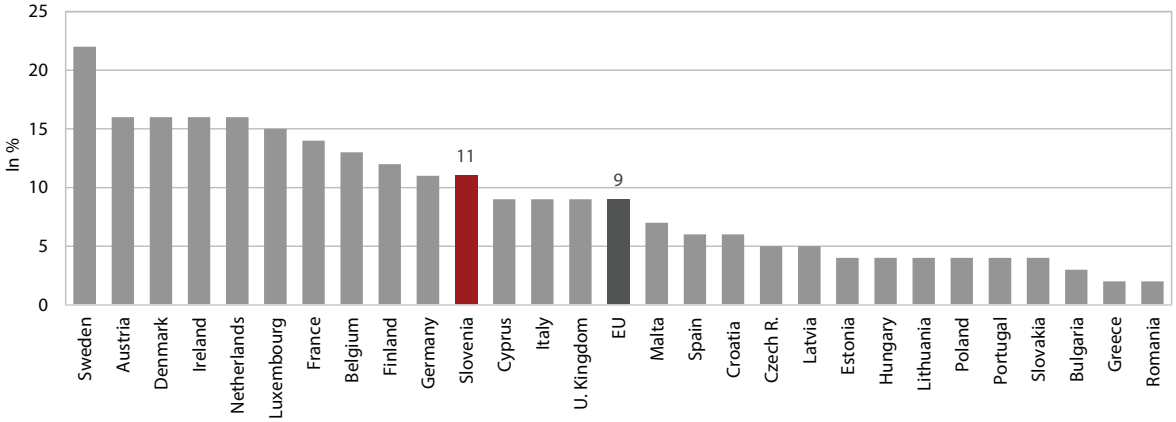
The proportion of people who carry out unpaid voluntary work on a regular basis is slightly above the EU average in Slovenia.[1] The proportion of volunteers engaged in unpaid voluntary work occasionally and the proportion of those doing it regularly or at least once a month increased in 2016 (the latest available data) relative to 2012. In Slovenia, 34% of respondents carried out some type of unpaid voluntary work, of which 12% on a regular basis. The most volunteers were involved in regular unpaid voluntary work through educational, cultural, sports or professional associations (11.3%) and other voluntary organisations (5.6%), more than in 2012 and more than on average in the EU. The proportion of volunteers was the highest among young people (18–24 years) and more voluntary work was carried out by men. The proportions of respondents doing voluntary work at least once a month in community and social services[2] (3.9%), social movements[3] (2.4%), and political parties and trade unions (1.1%) were lower (and also lower than the EU average). The proportion of respondents doing voluntary work in community and social services, political parties and trade unions was the highest in the 25–34 age group; it was slightly higher for men. Women performed more voluntary work through social movements, the proportion of those involved in regular voluntary activity being the highest in the 65+ age group.

Table: Proportion of people doing unpaid voluntary work, in %

		2012	2016
Regular participation in voluntary work	Slovenia	9	12
	EU	11	10
Occasional participation in voluntary work	Slovenia	18	22
	EU	21	22

Source: Eurofound, European Quality of Life Surveys 2011/2012 and 2016.

Figure: Proportion of people doing unpaid voluntary work through educational, cultural, sports or professional associations, 2016



Source: Eurofound, European Quality of Life Surveys 2011/2012 and 2016.

[1] Eurofound, European Quality of Life Surveys 2011/2012 and 2016. Data are based on answers to the survey question "How often did you do unpaid voluntary work through the following organisations in the last 12 months?" "Regularly/at least once a month" encompasses the answer categories "every week" and "every month".
[2] I.e. organisations assisting older, young, disabled or other people who need help.
[3] Social movements (such as environmental movements and human rights movements) or charities (for example fundraising or charity campaigns).

At-risk-of-social-exclusion rate 3.9

In 2018, the rate of the risk of social exclusion[1] was the lowest thus far and among the lowest in the EU. In 2014–2018, the rate of the risk of social exclusion declined, to reach 16.2% at the end of the period, which is less than before the economic and financial crisis. A total of 326,000 persons were still at risk of social exclusion in 2018, which is 19,000 fewer than in 2017 and 34,000 fewer than in 2008. Slovenia has thus come very close to its target under the Europe 2020 strategy, i.e. to reduce the number of people at risk of social exclusion to 320,000 by 2020.[2]

Of the three components of the risk-of-social-exclusion rate, in 2018, only the at-risk-of-poverty rate was still higher than before the financial and economic crisis.[3] The second component, the share of persons living in households with very low work intensity, had declined by 1.8 pps to 5.4% and the third, the severe material deprivation rate, by 3.1 pps to 3.7% in comparison with 2008. Both were the lowest thus far. The at-risk-of-poverty rate in 2018, at 13.3%, was at the same level as in 2017 but still 1 percentage point higher than in 2008. The at-risk-of-poverty threshold for a single-person household was set at EUR 662[4] per month in 2018, 26 euros more than in 2017. A total of 268,000 persons lived below the poverty threshold in 2018, which is 27,000 more than in 2008.

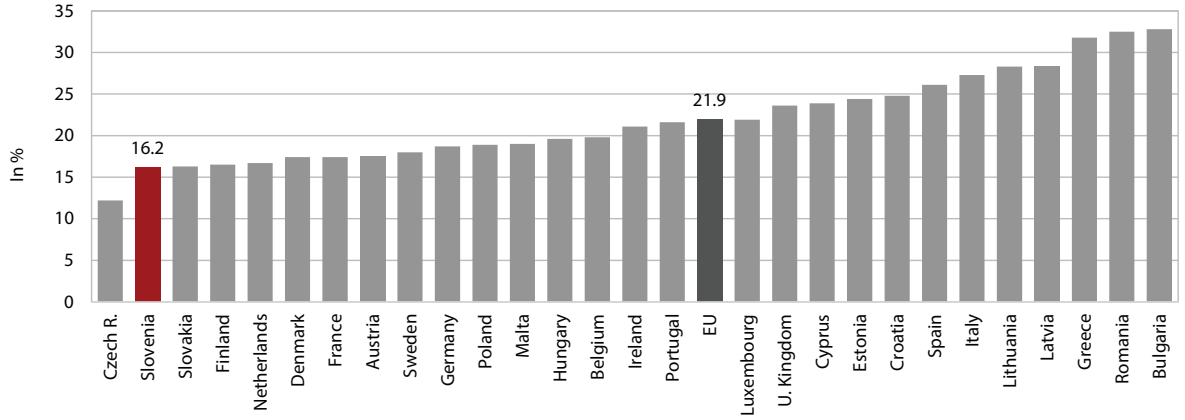
The rate of the risk of social exclusion did not fall in all regions in 2008–2018, however. In 2018, it rose relative to 2008 in Primorsko-notranjska, Goriška and Zasavska. This was mainly due to the rising at-risk-of-poverty rates in these regions, as these regions, especially Zasavska, also have relatively low disposable income per capita, which increased the least among all regions after 2008.

Table: The at-risk of-social-exclusion rate, in %

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	SDS 2030 target
Slovenia	18.5	17.1	17.1	18.5	17.1	18.3	19.3	19.6	20.4	20.4	19.2	18.4	17.1	16.2	< 16
EU	25.7	25.3	24.4	23.8	23.3	23.7	24.3	24.7	24.5	24.4	23.8	23.5	22.5	21.9	

Source: Eurostat Portal Page – Population and Social Conditions – Living Conditions and Welfare – Income and Living Conditions, 2019.

Figure: The at-the-risk-of-social exclusion rate, EU countries, 2018



Source: Eurostat Portal Page – Population and Social Conditions – Living Conditions and Welfare – Income and Living Conditions, 2019.

[1] The rate of the risk of social exclusion is one of the six key performance indicators of the SDS 2030. It is a composite indicator comprising three components: the at-risk-of-poverty rate, the severe material deprivation rate and the proportion of persons living in households with very low work intensity (i.e. less than 20% of a household's total work potential). Persons included in more than one component are only counted once.

[2] In Slovenia this target was adopted with the National Reform Programme, November 2010. The target for Slovenia is a reduction in the number of persons at risk of poverty or social exclusion from 361,000 in 2008 to 320,000 in 2020.

[3] The at-risk-of-poverty threshold is calculated as 60% of the median equivalised disposable income. The calculation for 2017 is based on income from 2016 recalculated according to the OECD modified equivalence scale, which assigns a value of 1 to the first adult, 0.5 to any other person aged 14 or older and 0.3 to each child younger than 14. It thus measures the income poverty risk.

[4] The at-risk-of-poverty-rate is calculated on the basis of income from the previous year, so in 2018 based on income from 2017.

Inequality of income distribution 3.10

Slovenia has been among the countries with the lowest income inequality for many years. This is attributable mainly to the progressive personal income taxation and, to some extent, to social transfers.[1] The top 20% of households received 3.4 times as much income as the bottom 20%, which is within the SDS target. In the EU as a whole, this gap was 5.2-fold and had widened somewhat since the crisis, while in Slovenia it had narrowed. A further breakdown of income distribution[2] in Slovenia shows that the gap between the fifth quintile and the third quintile, which includes the median, is 1.79 (2018). It is somewhat smaller than the gap between the third and the first quintile (1.89 in 2018).[3] The poorest fifth of households account for around a tenth of total disposable income, while the wealthiest fifth account for a third.

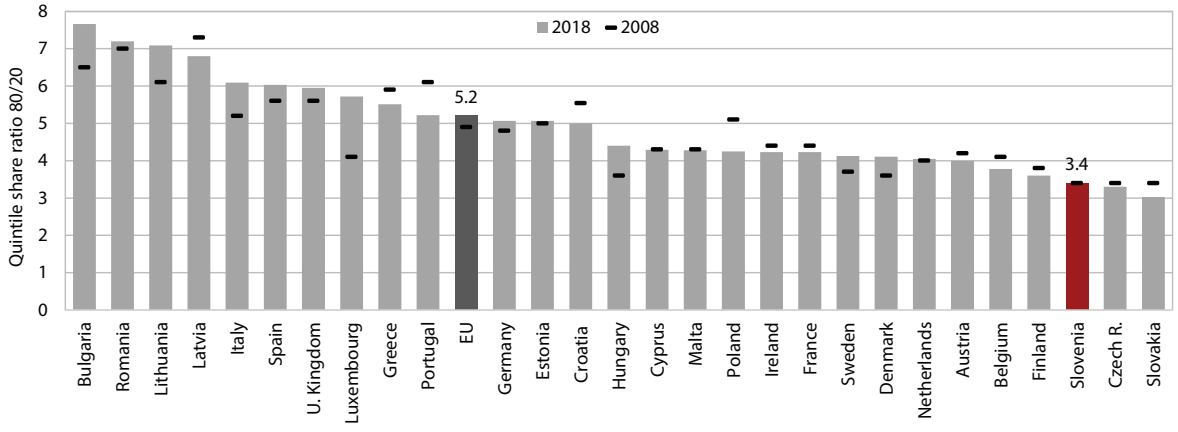
In 2008–2018, inequality of income distribution changed only marginally. The quintile share ratio (80/20) in Slovenia was equal to that in 2008 according to the latest available data. It increased the most in Luxembourg and fell the most in Poland and Portugal. In Slovenia, inequality of income distribution increased slightly in 2009–2014, mainly due to the beginning of the economic crisis and the adoption of austerity measures. In 2014, it started to decline again with rapid economic growth and the phasing out of austerity measures. Similar movements for Slovenia are also indicated by the most commonly used measure of economic inequality, the Gini coefficient. In 2018, the Gini coefficient was 0.234, equal to that in 2008, having been declining since reaching its highest level in 2014.

Table: Inequalities of equivalised disposable income distribution, quintile share ratio 80/20

	2000	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	SDS 2030 target
Slovenia	3.2	3.4	3.4	3.2	3.4	3.5	3.4	3.6	3.7	3.6	3.6	3.4	3.4	< 3.5
EU	N/A	N/A	N/A	N/A	4.9	5.0	5.0	5.0	5.2	5.2	5.2	5.1	5.2	

Source: Eurostat Portal Page – Population and Social Conditions – Living Conditions and Welfare – Income and Living Conditions, 2018.
Note: N/A – not available.

Figure: Inequalities of equivalised disposable income distribution, quintile share ratio 80/20



Source: Eurostat Portal Page – Population and Social Conditions – Living Conditions and Welfare – Income and Living Conditions, 2019.
Note: For the EU and Croatia, data from 2010 are used for 2008.

[1] "Executive summary: Income redistribution through taxes and transfers across OECD countries" (OECD), 2017.
[2] SURS – Demography and Social Statistics – Level of Living – Poverty and Social Exclusion Indicators (SILC), 2019; calculations by IMAD.
[3] The ratio of the fifth to the third quintile in the EU is 2.21 on average and the ratio of the third to the first quintile is 2.27.

Experience of discrimination 3.11

The share of people who have experienced discrimination or harassment[1] declined in Slovenia in the last ten-year period and is within the SDS target. Overall, 9% of respondents felt discriminated against or harassed in 2019, which is significantly less than the EU average (17%) and one of the lowest shares in the EU. Lower shares were recorded only in Malta (8%), Greece (7%) and Portugal (6%). The most frequently mentioned reasons for discrimination were gender, age, religion or beliefs, and general physical appearance (2%).[2] Discrimination on the grounds of disability, ethnic origin, sexual orientation, social class, political opinions, skin colour or being of Roma origin was experienced by 1% of respondents. Except discrimination on the basis of sexual orientation, religion or beliefs, and being Roma, which was equally frequent, discrimination for other personal reasons was less frequent than in the EU as a whole. In Slovenia and the EU overall, the share of respondents discriminated against on the basis of age declined the most compared with 2015. Experience of discrimination was more frequently mentioned by individuals who considered themselves being part of a minority group.[3]

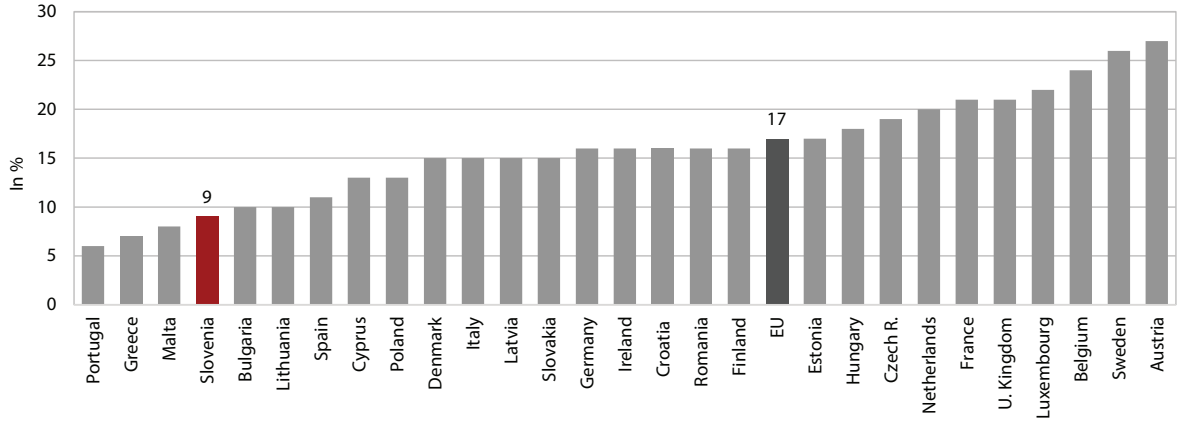
In Slovenia, the most frequently reported form of discrimination is discrimination at work.[4] The share of respondents who felt discriminated against at work totalled 33% in 2019, which is the highest share among all EU countries and significantly above the EU average (21%). It is followed by the share of those discriminated against in a public place (17%), a restaurant or a night club (13%), or when looking for a job (12%). Only 1% of respondents felt discriminated against by health care personnel, which is the least among EU countries. To stop all forms of discrimination, it is important for the country to step up efforts in this area and inform people about their rights in the event of discrimination. The share of those who consider the efforts made in the country to fight discrimination to be effective increased in Slovenia, while the share of individuals who have themselves taken action to fight discrimination remains low.[5]

Total share of those who have experienced some form of discrimination or harassment, in %

	2008	2009	2012	2015	2017	2019	SDS 2030 target
Slovenia	15	16	12	13	10	9	< 10
EU	15	16	16	21	16	17	

Source: Special Eurobarometer (2008, 2009, 2012, 2015, 2017 and 2019).
Note: Data for the EU for 2008, 2009 and 2012 are for the EU-27, while data for 2015, 2017 and 2019 are for the EU-28.

Figure: Experience of discrimination, 2019



Source: Special Eurobarometer 493, 2019.

[1] The source of the data is Special Eurobarometer (2008, 2009, 2012, 2015, 2017 and 2019), which is based on public opinion polls on the following question: "In the past 12 months have you personally felt discriminated against or harassed on one or more of the following grounds – for ethnic origin, gender, sexual orientation, being over 55, being under 30 years old, religion or beliefs, disability, gender identity, or another reason?" (in the 2017 survey also for social class, political opinions and place of residence and in the 2019 survey for skin colour, for being Roma or for general physical appearance).

[2] In the EU, the most frequently given reasons for harassment or discrimination were gender and age (both 4%).

[3] In Slovenia, 11% of respondents considered themselves being part of a minority group (in the EU, 12%); 50% of respondents who considered themselves being part of a sexual minority said that they felt discriminated against or harassed in the last 12 months, 40% of those belonging to a religious minority, 32% of those belonging to an ethnic minority, 28% of disabled persons and 16% of Roma respondents, compared with 6% of those who did not see themselves as part of any minority group.

[4] In 2019, the respondents who experienced discrimination were also asked under what conditions (where and when) they felt discriminated against.

[5] In 2019, 28% of respondents perceived the efforts made in Slovenia to fight all forms of discrimination as effective, while 38% considered them moderately effective, which is more than in 2015 and slightly above the EU average. Defending victims of discrimination in public (10%) was the most common step taken by individuals to fight discrimination, followed by sharing content about incidents of discriminatory behaviour on social networks (6%), publicly raising the issue of discrimination in the workplace (5%), and joining an association or campaigns protecting people from discrimination (3%). All these values were below the EU average.

Median equivalised disposable income 3.12

After its growth had been interrupted by the economic and financial crisis, median equivalised disposable income increased again with the rebound in economic activity in 2014–2018. The strong growth in 2006–2009 was followed by a period of negative or low growth (2010–2013) as a consequence of the crisis and austerity measures. Since 2014, median equivalised disposable income (expressed in euros) has again been rising, which indicates improvement in the living standard of the population. In 2018, it came close to the real values from 2009, when it was the highest in the entire period. The movements of the median equivalised disposable income in the EU as a whole were comparable to those in Slovenia, but the increases and decreases in growth rates were less pronounced, meaning that it already exceeded the 2009 level in real terms in 2016.

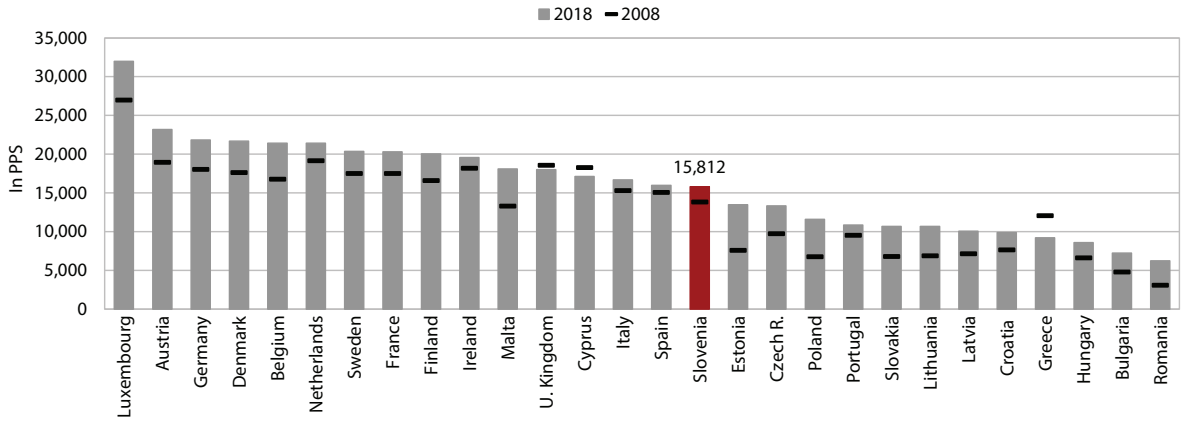
In comparison with the EU average, the relatively low levels of the median equivalised disposable income of people over 65 years of age and those with higher education stand out in Slovenia and the gaps have widened since the crisis. After widening during the crisis, the gap in the median equivalised disposable income (expressed in euros) with the EU average narrowed and reached 23.8% in 2018.[1] The movement and the gap of the median equivalised disposable income for employed people in the 18–46 age group, which has the highest values both in Slovenia and in the EU, were also similar, as expected. The median equivalised disposable income of the age group of 18 and under is similar to the total median equivalised income, which is mainly a result of policies for protecting the material well-being of children and young people in Slovenia. On the other hand, the lag of the median equivalised disposable income of people over 65 years of age behind the total median equivalised disposable income had doubled by 2018 with regard to the EU average, which is mainly a consequence of modest growth in the average pension in Slovenia due to the restrictive indexation policy during the crisis. Significant differences were also observed for the median equivalised disposable income of the population with tertiary education, where in 2013 and 2014 the gap with the EU widened further, partly due to the progressive reduction of public servants' wages, although Slovenia's lag decreased somewhat in the last two years of the period analysed.[2]

Table: Median equivalised disposable income, Slovenia and the EU average

	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Amount in EUR – Slovenia	8,797	10,893	11,864	11,736	11,999	12,122	11,852	11,909	12,332	12,327	12,713	13,244
Real growth (%) – Slovenia		4.2	8.0	-3.1	0.1	-1.7	-4.1	0.1	4.4	0.2	1.5	2.2
Amount in EUR – EU	N/A	14,623	14,775	14,841	14,960	15,456	15,433	15,790	16,138	16,529	16,909	17,383
Real growth (%) – EU			0.0	–1.6	–2.2	0.7	–1.6	1.7	2.1	2.2	0.6	1.0

Sources: Eurostat Portal Page – Population and Social Conditions – Living Conditions and Welfare – Income and Living Conditions, 2018; Eurostat – HICP; calculations by IMAD. Note: N/A – not available.

Figure: Median equivalised disposable income



Source: Eurostat Portal Page – Population and Social Conditions – Living Conditions and Welfare – Income and Living Conditions, 2018.
Note: For Croatia, data from 2010 are used for 2008.

[1] In 2009, it was 19.7%.

[2] In 2005–2018, the median net equivalised income in euros for people with lower education increased by 44.3% in nominal terms, for those with upper secondary education by 39.1% and for those with tertiary education only by 19.4%. In 2018 Slovenia's lag behind the EU average in lower education was 20.5%, in upper secondary education 23.2% and in tertiary education 29.1%.

Life satisfaction 3.13

In 2019, life satisfaction[1] in Slovenia and the EU reached the highest levels thus far and was above the EU average in Slovenia. With 92% of people satisfied with life, Slovenia was, together with Germany, in 7th place in the EU in 2019 (four places higher than in 2018) according to the Eurobarometer survey. The highest levels of satisfaction were recorded in the northern EU (Denmark, Sweden, the Netherlands, Finland, Luxembourg, Ireland and Germany). In 2019, satisfaction of Slovenian respondents with the economic and employment situation in the country[2] declined, while their satisfaction with the financial situation of their own household and personal employment situation remained high. Their expectations for the next 12 months moved in a similar way – the share of respondents who expected an improvement in the employment and economic situation at the country level declined, while the corresponding share at the personal level remained almost unchanged.

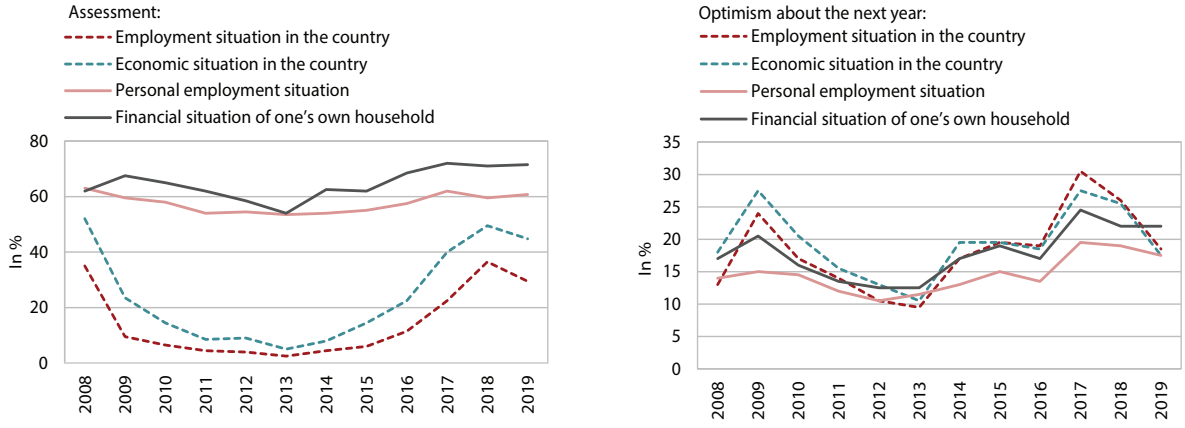
In autumn 2019, Slovenian respondents for the first time pointed to climate change as one of their main concerns at the EU level, while at the personal and the country level they did not yet perceive it as a main problem. When asked to identify two main issues[3] at the EU level, Slovenian respondents again pointed to immigration (53%) as the most important problem by far, followed, for the first time, by climate change (18%), while in the previous year terrorism had been one of their two main concerns. The third most frequently mentioned issue was the economic situation (13%), which, after being of lesser concern in the previous three years, was perceived as more problematic again according to the most recent (autumn 2019) measurement. At the country level, Slovenian respondents otherwise most frequently cited social and health security as the main problem (38%), albeit 9 percentage points less frequently than in the spring. Fewer respondents than in the spring were also concerned about immigration, unemployment, inflation and the cost of living, while more of them were again worried about the economic situation and housing. At the personal level, their main concerns in 2019 were social and health security (21%), pensions (18%) and working (17%) and living (16%) conditions. Since the spring, the shares of respondents who perceive these areas as a problem at the personal level increased, except in the case of pensions, where the share declined.

Table: Life satisfaction, in %

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Slovenia	90	89	88	89	87	86	85	83	85	82	83	84	89	92	91	92
EU	81	81	82	80	77	78	78	77	77	75	80	76	81	82	83	84

Source: Standard Eurobarometer, several issues.

Figure: Assessment of the situation and optimism* for the next 12 months by four life-satisfaction indicators, Slovenia



Source: Eurobarometer, SB90, 2018.
Note: The annual average is IMAD's calculation based on half-yearly measurements. Note: * The share of those expecting improvement.

[1] The Eurobarometer survey measures life satisfaction with the following question: "All things considered, how satisfied would you say you are with your life these days?" In our analysis, the category of satisfied people includes very satisfied and satisfied people.
[2] Expectations for the next 12 months and perceptions of the situation at the country level tend to be more dependent on the presentation of reality in the media than those at the personal level that reflect one's personal situation.
[3] Respondents are asked to identify two areas (of those listed) they perceive as their greatest concerns at the personal level and at the level of the country and the EU.

Social protection expenditure 3.14

In 2008–2017, social protection expenditure was rising somewhat faster in Slovenia than the EU average. In Slovenia, it increased by 2.3% per year in nominal terms, in the EU as a whole by 2.7%. During the crisis, expenditure on unemployment benefits increased the most, albeit significantly more in Slovenia than on average in the EU. During the crisis, the movement of social protection expenditure in Slovenia was marked not only by an increase in expenditure on unemployment, which otherwise accounts for a smaller share of total expenditure, but also by a decline in expenditure due to the adoption of austerity measures[1] and the implementation of new social legislation.[2] The main expenditure categories are expenditure on sickness/health care and expenditure on old age (75% of total expenditure); expenditure on the sickness category increased particularly in the last three years as a consequence of higher expenditure on sickness benefits, while expenditure on old age rose due to the resumed pension indexations in 2016 and 2017,[3] the introduction of a guaranteed pension in 2017, higher pensions for new pensioners and growth in the number of beneficiaries, which is otherwise moderate. Slovenia allocated 12.6% more for social protection in real terms in 2017 than in 2008.

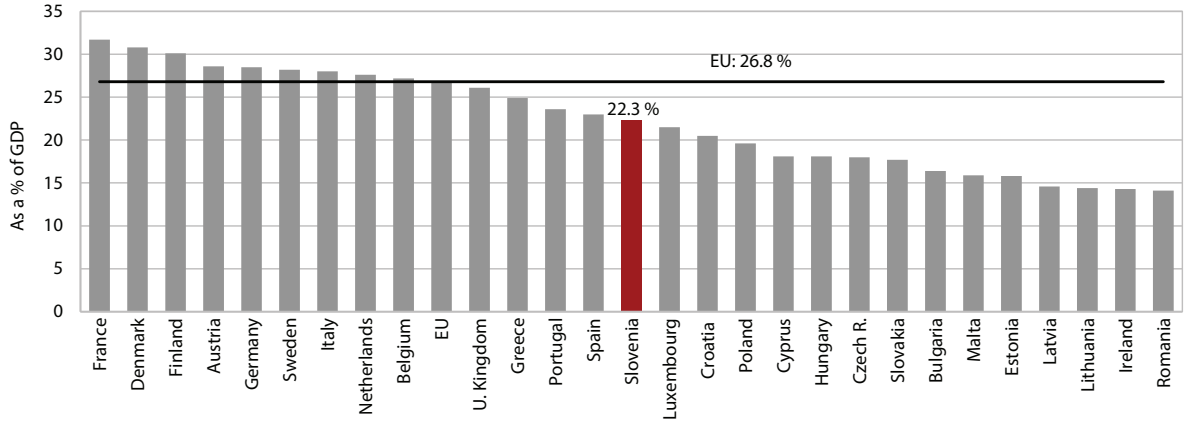
Slovenia lagged behind the EU average in terms of social protection expenditure as a share of GDP throughout the period, allocating less than the EU average for the areas of disability, unemployment and housing and more for the area of health care. It has the widest gap with the EU average in the area of unemployment, mainly owing to the small share of unemployment benefit beneficiaries among the unemployed compared with other EU Member States. The share of expenditure on disability has been declining for a longer period mainly due to a lower number of beneficiaries of disability pensions. The relatively low expenditure on housing (0.1%; EU: 1.9%) is to a great extent attributable to the very high share of owner-occupied dwellings and the relatively poorly developed rental housing market.

Table: Social protection expenditure, as a % of GDP

	2000	2005	2008	2010	2011	2012	2013	2014	2015	2016	2017
Slovenia	23.8	22.7	21.0	24.4	24.4	24.7	24.6	23.9	23.8	23.3	22.6
EU	N/A	N/A	26.0	28.6	28.3	28.7	28.9	28.6	28.3	28.0	27.9

Source: Eurostat Portal Page – Population and Social Conditions – Social Protection, 2019.
Note: N/A – not available.

Figure: Social protection expenditure, as a % of GDP, 2017



Source: Eurostat Portal Page – Population and Social Conditions – Social Protection, 2019.

[1] The adoption of the Fiscal Balance Act, which limited or froze the payment of certain family receipts and parental compensation.
[2] The Exercise of Rights from Public Funds Act, which redefined the eligibility criteria for social benefits and family receipts in order to improve their targeting.
[3] Before that, pensions had not been adjusted since 2011 (with the exception of a 0.1% adjustment in 2013).

Housing deprivation rate 3.15

Slovenia is among EU countries with the highest housing deprivation rates.[1] In 2018, more than a fifth of its population lived in poor housing conditions. Since 2011, however, this share has declined more than on average in the EU. Regional disparities increased during this period. In 2017, 37% of households lived in poor housing conditions in the Goriška region and only 14% in the Koroška region. The high regional disparities in housing deprivation are largely attributable to the more intense construction of flats in some municipalities in the Osrednjeslovenska (Ljubljana) and Podravska regions (Maribor).[2]

One of the reasons for the high housing deprivation rate is the relatively old and poorly maintained housing stock. More than 80% of dwellings were built before 1990, the most (almost 15,000 per year) between 1971 and 1980.[3] Their renovation represents a great potential for improving the quality of housing, reducing environmental impacts and lowering household energy costs, but it is being hampered by a relatively high share of households with low income living in dwellings that are in need of renovation (Environmental Indicators, 2019). In 2018, more than 30% of households below the poverty threshold lived in dwellings exhibiting at least one of the housing deprivation measures. The housing cost overburden rate is also the highest among persons with the lowest income. Almost a quarter of persons overburdened with housing costs live in households with income below the poverty risk threshold, which is nevertheless significantly less than on average in the EU (38.5%). With the construction of new dwellings, the quality of the housing stock is improving only slowly.[4]

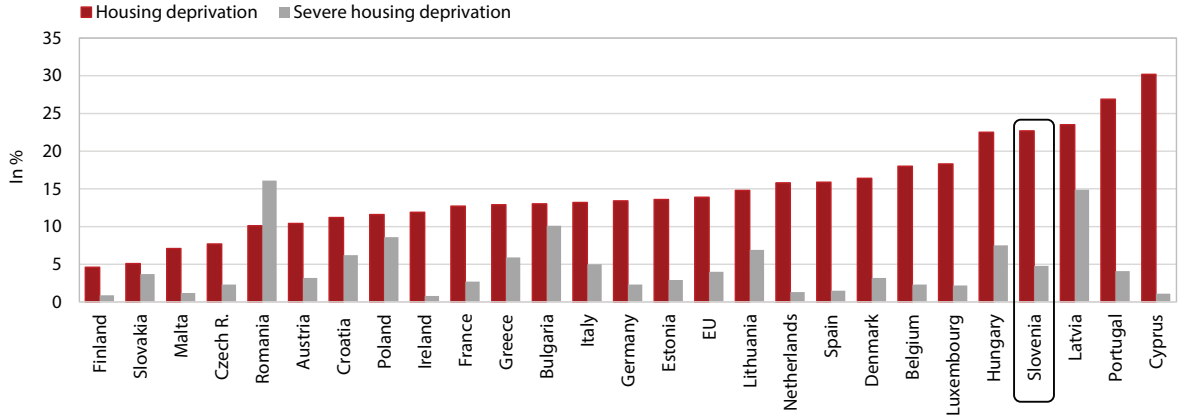
In Slovenia, 4.8% of the population faced severe housing deprivation in 2018. In measuring the severe housing deprivation rate, the overcrowding rate is taken into account in addition to at least one of the deprivation elements. The overcrowding rate is below the EU average, as in the past, housing policy in Slovenia was geared towards building a larger number of smaller units with a larger number of rooms (Sendi, 2013). The severe housing deprivation rate had also declined since 2011, but in 2018 it rose to slightly above the EU average again.

Table: Housing deprivation (HD) rate and severe housing deprivation (SHD) rate. in %

	2012		2013		2014		2015		2016		2017		2018	
	HD	SHD	HD	SHD	HD	SHD	HD	SHD	HD	SHD	HD	SHD	HD	SHD
Slovenia	31.5	8.1	27.0	6.5	29.9	6.5	26.9	5.6	23.8	4.5	22.0	4.4	22.7	4.8
EU	15.1	5.0	15.6	5.1	15.7	5.0	15.2	4.9	15.4	4.8	13.3	4.0	13.9	4.0

Source: Eurostat Portal Page – Population and Social Conditions – Living Conditions and Welfare – Income and Living Conditions, 2019.
Note: Estimate for the EU for 2018.

Figure: Housing deprivation rate and severe housing deprivations rate, 2018



Source: Eurostat Portal Page – Population and Social Conditions – Living Conditions and Welfare – Income and Living Conditions, 2019.
Note: Data for Ireland and the UK not available.

[1] The housing deprivation can be measured by four elements of deprivation. Here we take into account the percentage of the population living in a dwelling with certain deficiencies such as a leaking roof, damp walls/foundation/floors or rot in window frames/floor (SI-STAT Data Portal, 2019).
[2] The housing deprivation rates in the Osrednjeslovenska and Podravska regions were around 20%.
[3] Around 3,000 new flats per year have been built in recent years (SI-STAT Data Portal, 2019).
[4] The "administrative" improvement in the quality of housing stock in 2015 was due to old and unusable flats being eliminated from the housing stock. More specifically, after the publication of informative calculations of property tax in 2014, a large number of owners amended data on their properties in the Real Estate Register, so that around 5,000 flats were removed from the housing stock, while 10,000 were classified as "unsuitable for habitation" (Miklič, 2016).

Material and income deprivation 3.16

In Slovenia and the EU as a whole, the material deprivation rate[1] was rapidly falling in 2014–2018; in 2018, it was the lowest thus far. In the four years the material deprivation rate declined by as much as 6.8 percentage points, to 10.4% in 2018. In 2018, Slovenia was in 11th place in the EU and above the EU average, as in all previous years. Its ranking improved significantly in comparison with that before the crisis (17th place in 2008). At the EU level, we can say that the trends in material deprivation rates converged, as the differences between countries are much smaller than they were in 2008. The convergence has been a consequence of a decline in material deprivation rates in countries with the highest rates, but also an increase in material deprivation rates in countries such as Luxembourg, the Netherlands and Denmark, which in 2008, for example, had the lowest rates.

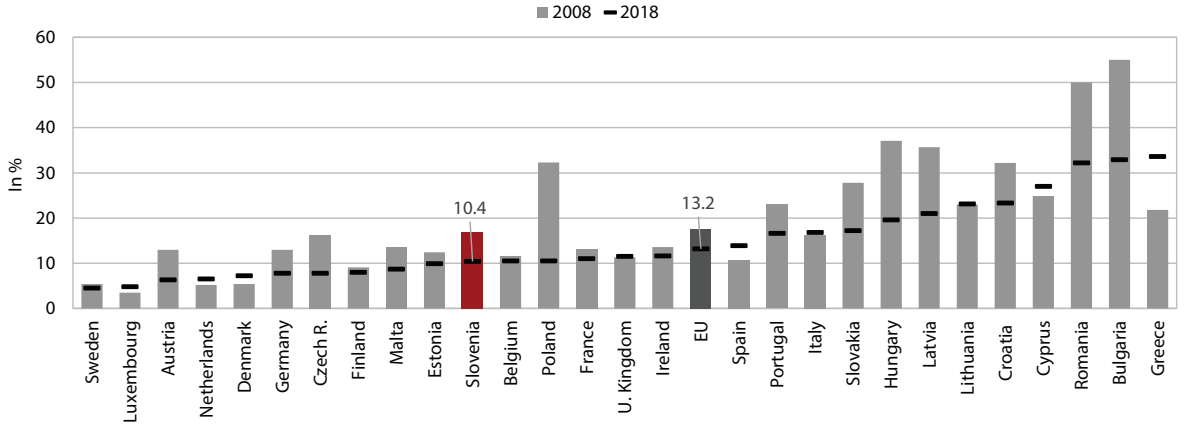
In 2018, the material deprivation rate was the highest for men in the 18–64 age group below the at-risk-of-poverty threshold and the lowest for children. Relative to 2017, it declined for all socio-demographic groups, including those living below the poverty threshold, except for men below the poverty threshold aged 18 to 64 years. In 2018, in Slovenia, the material deprivation rate was 10.7% for women and 10.1% for men, the gender gap being one the smallest in 14 years. Broken down by age, children were the least materially deprived group in all years under review. Throughout the period, the material deprivation rate was the highest among people over 65 years of age. Of all socio-demographic groups, women over 65 years of age were the most materially deprived group in all years (14.4% in 2018). The trends in material deprivation rates for people below the poverty line are somewhat different, both by gender and age. For women older than 65 years living below the poverty threshold, the material deprivation rate was the same as for their male peers (34%). Among all socio-demographic groups below the poverty threshold, the material deprivation rate was the highest for men in the 18–64 age group (34.6%); for women in this age group, it was somewhat lower (32.2%). The material deprivation rate in 2018 was on average nevertheless also the lowest thus far for people below the poverty threshold (31.6%; in 2017: 34.7%). The share of households able to handle unexpected expenses in the amount of EUR 600[2] was also the highest since measurements began.[3] Meanwhile, the share of households making ends meet only with great difficulty (7%) was still higher in 2018 than before the crisis (6% in 2007).

Table: Material-deprivation rate, in %

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Slovenia	14.7	14.4	14.3	16.9	16.2	15.8	17.2	16.9	17.0	17.2	14.7	13.5	12.1	10.4
EU	20.0	19.2	18.1	17.5	17.3	17.8	18.5	19.8	19.5	18.5	17.0	15.7	14.7	13.2

Source: Eurostat Portal Page – Population and Social Conditions – Living Conditions and Welfare – Income and Living Conditions. 2019.

Figure: Material-deprivation rate, in the EU



Source: Eurostat Portal Page – Population and Social Conditions – Living Conditions and Welfare – Income and Living Conditions, 2019.

[1] I.e. deprivation in at least three of the following nine material deprivation items: (1) ability to deal with unexpected expenses; (2) ability to afford a one-week annual holiday away from home; (3) ability to afford adequate meals; (4) ability to pay for arrears (mortgage or rent, utility bills or hire-purchase instalments); (5) ability to keep one's home adequately warm, (6) ability to afford a washing machine, (7) ability to afford a colour TV; (8) ability to afford a telephone/mobile; (9) ability to afford a personal car. Severe material deprivation is deprivation in at least four out of these nine material deprivation items.

[2] The amount taken into account from 2011 onwards.

[3] In 2018, it was 64% (in 2017, 59%).

Employment rate 3.17

After several years of increase, the employment rate (20–64 years) significantly exceeded the pre-crisis level in 2019 and was in line with the SDS target. In the second quarter of 2019, it was 77.1% (EU average: 73.9%). In recent years its increase was also influenced by demographic trends, in addition to economic growth and stronger demand for labour. The employment rate is rising particularly fast among young (20–29 years) and older people (55–64), who belong to more vulnerable groups on the labour market. The improvement in the labour market situation of young people, who were strongly hit by the crisis owing to their high exposure to temporary employment forms and a decline in the volume of student work, reflects not only high labour demand and labour shortages in recent years, but also demographic trends (smaller generations) and active employment policy measures. Meanwhile, the employment rate of older people, which in fact also rose further during the crisis, remains among the lowest in the EU and approximately 10 percentage points below the EU average.

In the period of economic growth (2014–2019), the employment rate increased in all education groups, the most among people with secondary and upper secondary education. After low-skilled people had been affected the most by the economic and financial crisis in 2008 (a markedly greater decline in employment, also in comparison with the EU average), their employment rate increased the most in 2014 and 2015, which is related to the structure of economic recovery and the hiring in sectors that employ such workforce (construction and manufacturing). In recent years, the employment rate has also been markedly rising for people with secondary, upper secondary and higher education. In those with higher education, it remained above the EU average also during the crisis. In the second quarter of 2019, it was the highest in the EU.

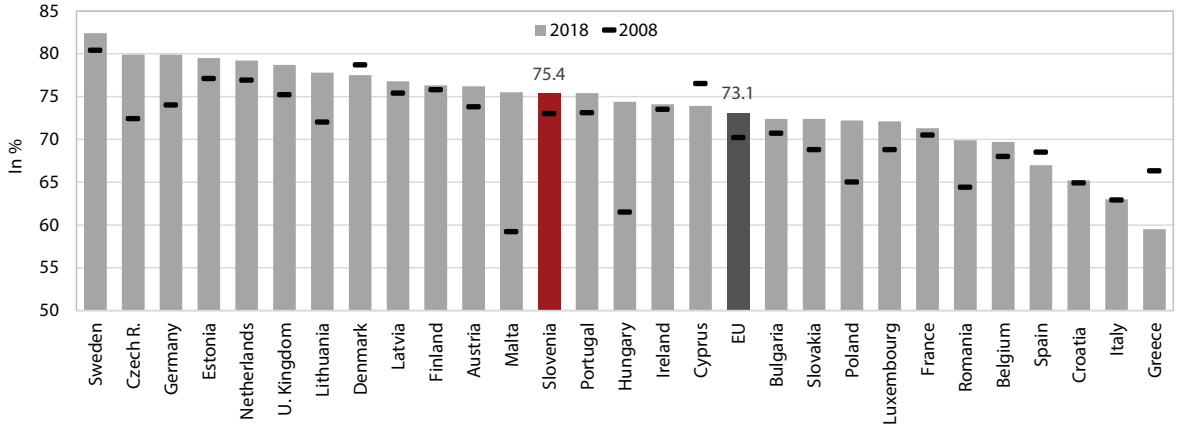
In 2008–2011, the decline in employment was comparable in both cohesion regions, while in 2014–2018, the cohesion region Vzhodna Slovenija recorded faster growth. In 2018[1] employment growth exceeded the pre-crisis level in all regions except Pomurska, where it remained at almost the same level (due to bankruptcies of large companies), and Primorsko-notranjska, where is was well above the average before the crisis. It was the strongest in the Gorenjska region (78.7%), which also exceeded the Slovenian average in economic growth. After 2014, the cohesion region Vzhodna Slovenia recorded stronger growth, with Zasavska and Posavska standing out with their high shares of manufacturing activities and construction in the structure of the economy. The region with the most modest employment growth after 2014 is Primorsko-notranjska, where labour migrations to neighbouring regions are on a rise.

Table: Employment rate (20–64 age group), in %

	2000	2005	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	SDS 2030 target
Slovenia	68.5	71.4	73.1	72.9	72.1	70.7	68.6	68.1	67.1	68.4	69.4	70.6	73.4	75.5	77.1	>75.0
EU	N/A	67.9	69.8	70.4	69.1	68.7	68.8	68.6	68.4	69.2	69.9	71.1	72.3	73.2	73.9	

Source: Eurostat Portal Page – Population and Social Conditions – Labour Market, 2019.
N/A – data not available; data for individual years refer to the second quarter.

Figure: Employment rate (the 20–64 age group)



Source: Eurostat Portal Page – Population and Social Conditions – Labour market, 2019

[1] The most recent data at the regional level.

In-work at-risk-of-poverty rate 3.18

In Slovenia, the rate of in-work poverty risk has been below the EU average since measurements began, despite significant fluctuations. According to this indicator, Slovenia has been in the first third of countries in all years, being outpaced by only two countries in comparison with 2008. In 2018, the at-risk-of-poverty rate of employed persons aged 18 years or more was higher than before the crisis but lower than in 2013, when it had been the highest. The at-risk-of-poverty-rate of employed persons differs significantly between women and men: the already lower rate for women (4.2%, 1 pp less than in 2017) declined faster. Slovenia thus belongs to the countries with the lowest in-work at-risk-of-poverty rates for women. The in-work at-risk-of-poverty rate for men was significantly higher (7.6%) and declined only by 0.1 pps compared with the previous year, Slovenia thus being ranked in the middle third of EU countries in terms of the in-work poverty risk for men. In 2018, this rate for men was nevertheless lower than in 2013, when it was the highest (8.4%).[1]

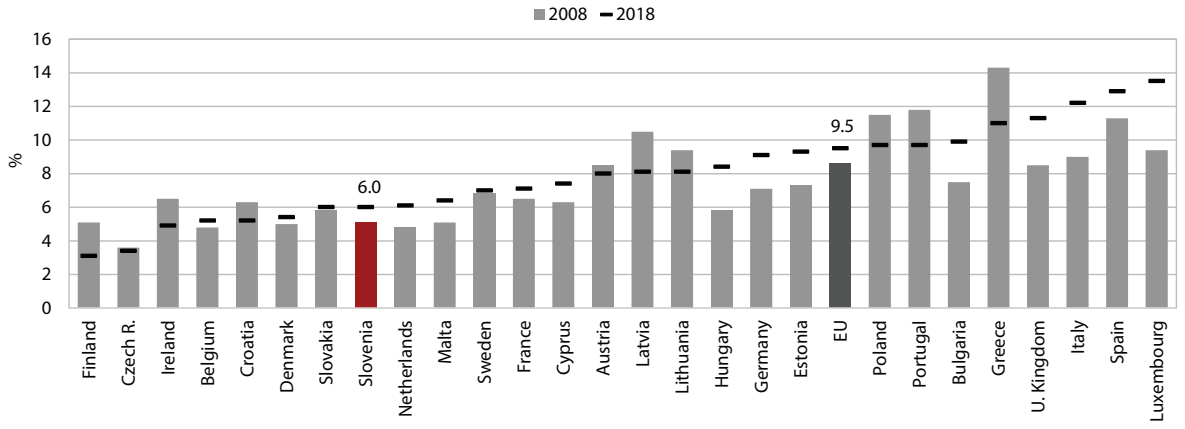
In 2018, the at-risk-of-poverty rate of persons in employment and self-employed persons was still higher than before the crisis in 2008. In 2018, the at-risk-of-poverty rate for *persons in employment* (4%) was 0.6 percentage points lower than in 2013, when it was the highest. The at-risk-of poverty rate for those on *permanent employment contracts* (3.4%) was still higher than before the crisis.[2] Similar held for persons on *temporary employment contracts*[3] and *part time workers*.[4] In 2018, Slovenia performed better than the EU average in all these categories and in the rates for both women and men, with the exception of the self-employed. In 2018, the at-risk-of-poverty rate for *self-employed persons*, at 23.9%, was 2.7 percentage points lower than in 2017, but still higher than before the crisis.[4] Among the self-employed, the situation is reversed in terms of gender and ranking in the EU: in 2018, Slovenia was among the four worst performing EU countries in terms of the at-risk-of-poverty rate for self-employed women, lower rates being observed only in Romania, Latvia and Poland, and in the bottom third of EU countries in terms of the at-risk-of-poverty rate for self-employed men.

Table: At-risk-of-poverty rate of employed persons aged 18 years or more, in %

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	SDS 2030 target
Slovenia	4.6	4.8	4.7	5.1	4.8	5.3	6.0	6.5	7.1	6.4	6.7	6.1	6.6	6.0	< 5
EU	8.2	8.1	8.3	8.6	8.4	8.3	8.8	8.9	9.0	9.5	9.5	9.6	9.6	9.5	

Source: Eurostat Portal Page – Population and Social Conditions – Living Conditions and Welfare, 2019.

Figure: At-risk-of-poverty rate of employed persons aged 18 years or more



Source: Eurostat Portal Page – Population and Social Conditions – Living Conditions and Welfare, 2019.

[1] At 16th, Slovenia was in the bottom half of the EU.
[2] 3.3% in 2008. The at-risk-of-poverty rate for women in permanent employment is 2.2% lower than for their male peers (4.5%). The rate for women declined by 0.7 pps year on year, while the rate for men increased by 0.3 pps.
[3] In 2018, 8.2%, which is somewhat less than before the crisis.
[4] In 2018, 10.9%, which is more than in 2008 (8.1%).
[5] In 2018, the at-risk-of-poverty rate for self-employed women (27.4%) was higher than that for self-employed men (22.3%).

Unemployment and long-term unemployment rates 3.19

After several years of decline, the unemployment rate came very close to the pre-crisis level in the second quarter of 2019. By the second quarter of 2019, it had fallen to 4.2%, reflecting several years of vigorous economic growth and thus stronger hiring. Since 2013, the unemployment rates of women and men have been falling with similar dynamics. In 2019, the unemployment rate for men was just under one percentage point lower than the rate for women, but the latter was the lowest on record (4.7% in 2019). After the crisis, unemployment declined the most among people with low, secondary and upper secondary education, which is in line with the structure of the recovery of economic activity. The economic and financial crisis was especially hard on young people[1] (15–24 years) – by 2013, the unemployment rate for young people had risen to 24.1% and exceeded the EU average, while since then it has been rapidly falling. In the second quarter of 2019, it was 6.5% (EU: 14.2%). The decline can be attributed to the increased volume of student work and active employment policy programmes specifically targeting young people (such as the Youth Guarantee Scheme). It is, however, also due to demographic factors, the number of young people already falling for quite a long period.

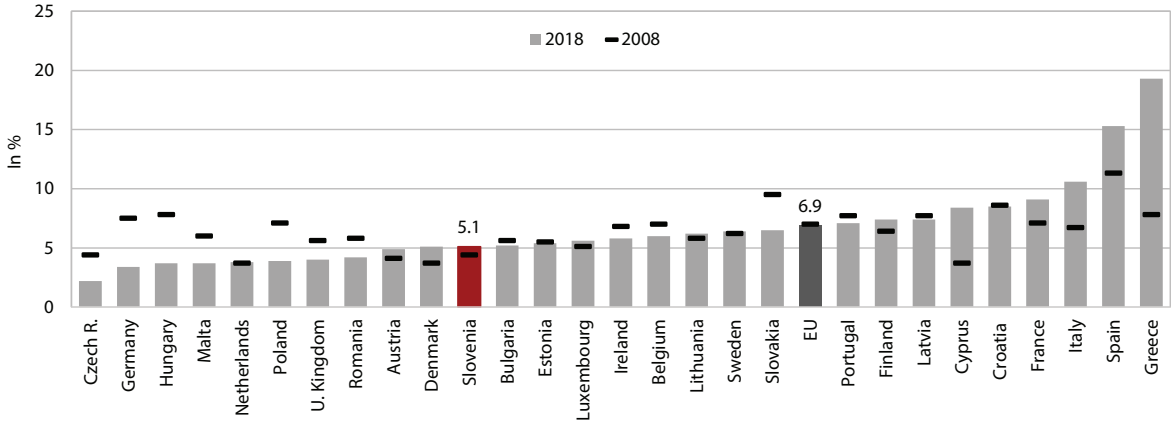
The long-term unemployment rate, which since 2014 has been dropping, has been below the EU average again since 2017. In 2009–2014, it rose sharply as a result of weak demand for labour. During the period of economic growth, the situation first improved only for those who were out of work for a shorter period, while since 2015 the number of the long-term unemployed has also been falling thanks to active employment policies and high demand for labour in circumstances of a lack thereof. The share of the long-term unemployed among all unemployed also decreased sharply in the last three years analysed, being similar to the EU average in the second quarter of 2019.

Table: Unemployment and long-term unemployment rates (15–74 years), in %*

	2000	2005	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Unemployment rate															
Slovenia	6.9	5.8	4.6	4.1	5.6	7.1	7.7	8.2	10.4	9.3	9.2	7.8	6.4	5.2	4.2
EU	N/A	8.9	7.1	6.8	8.8	9.5	9.3	10.3	10.8	10.2	9.5	8.6	7.6	6.8	6.2
Long-term unemployment rate															
Slovenia	4.4	2.9	2.2	1.9	1.7	3.2	3.5	3.9	5.1	5.3	4.7	4.3	3.3	2.3	1.8
EU	N/A.	4.1	3.1	2.6	2.8	3.8	4.0	4.5	5.1	5.0	4.6	4.0	3.4	3.0	2.5

Source: Eurostat Portal Page – Population and Social Conditions – Labour market, 2019
Notes: Data for individual years refer to the second quarter; N/A – data not available.

Figure: Unemployment rate, annual average



Source: Eurostat Portal Page – Population and Social Conditions – Labour Market, 2019.

[1] This was a consequence of the high prevalence of temporary forms of employment in this group (during the crisis enterprises were not renewing fixed-term employment contracts and also reduced the extent of student work).

Precarious and temporary employment 3.20

Following a significant fall in 2018 (the most recent data), the share of precarious employment,[1] one of the indicators of the quality of employment, was similar to that ten years before. In 2018, the share of precarious jobs among women totalled 4.2% in Slovenia (EU: 2.1%) and among men 3.3% (EU: 2.1%). The higher share than the EU average can be attributed to the existence of student work in Slovenia and the greater importance of agriculture,[2] where these forms of employment are the most common due to the seasonal nature of the work. According to the analysis of the European Commission,[3] women, young people and low-skilled workers are most likely to work in precarious jobs. Given the high share of temporary employment among young people in Slovenia, we can conclude that the share of precarious jobs is also high in this population group. The decline in the share of precarious employment in Slovenia in 2018 was due to a decline in the volume of student work and to labour shortages, because of which more people were hired for an indefinite period of time.

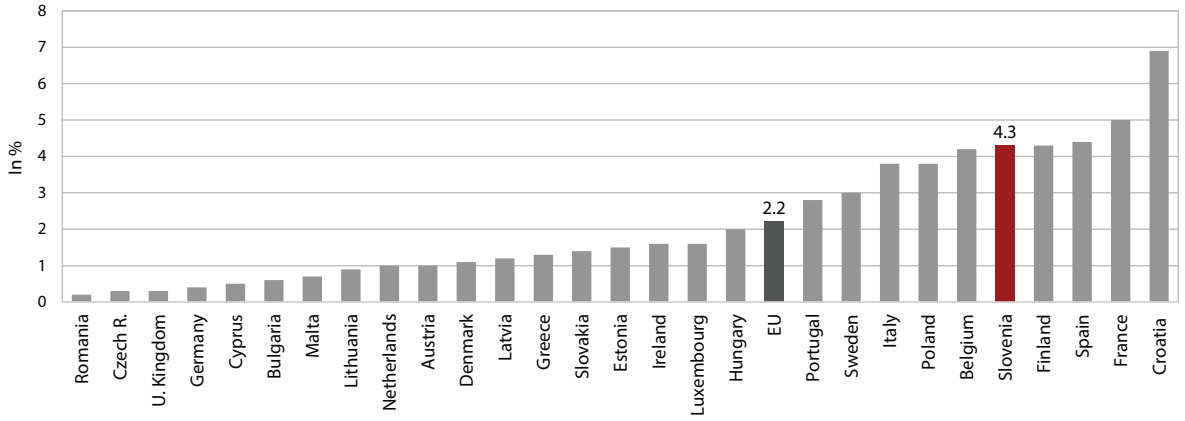
In 2018, the share of temporary jobs, which had declined in the previous three years, was lower than at the beginning of the crisis. In the 20–64 age group, it was 16.2% among women in 2018 (EU: 13.8%) and 15.3% among men (EU: 12.8%). In Slovenia, temporary jobs are most common among young people, largely on account of the prevalence of student work, the most flexible form of employment for employers, which is not known in this form elsewhere in the EU. In the last three years analysed, particularly in 2018, the share of temporary jobs fell sharply particularly for young people.[4] With several years of stable economic growth and a lack of workers, the share of new permanent contracts increased, but the share of new fixed-term contracts nevertheless remained high.

Table: Share of precarious and temporary employment in total employment (20–64 years), in %

	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Share of precarious employment												
Slovenia	4.6	3.9	4.1	4.3	4.8	4.4	3.9	4.1	4.6	4.2	4.5	3.7
EU	2.3	2.0	1.9	2.0	2.2	2.1	2.0	2.2	2.2	2.2	2.2	2.1
Share of temporary employment												
Slovenia	16.1	15.9	16.1	16.2	17.2	16.5	15.8	16.0	17.1	16.4	16.8	14.8
EU	12.8	13.0	12.5	12.9	13.1	12.8	12.7	13.0	13.2	13.3	13.4	13.2

Source: Eurostat Portal Page – Population and Social Conditions – Labour Market, 2019

Figure: Share of precarious employment in the 20–64 age group, 2018



Source: Eurostat Portal Page – Population and Social Conditions – Labour Market, 2019

[1] Precarious work, which is characterised by low job and income security, does not have a universally accepted definition. According to Eurostat, the term precarious work covers all forms of employment with contract duration of less than three months.
[2] The share of people working in agriculture in Slovenia is above the EU average.
[3] Employment and Social Developments in Europe 2017.
[4] In 2018, the share of temporary employment in the 15–24 age group was 67%, which is 8.5 pps less than in 2015.

Absence from work due to illness 3.21

Since 2014, absence from work[1] has been rising at an ever faster rate. After a decline in the period of the economic and financial crisis, absence from work due to illness has been rapidly rising in Slovenia since 2014. Among the main reasons we can cite the growth of employment in recent years, later retirement, prolongation of waiting times, increased participation of children in kindergartens and the ageing of the working-age population. Absence from work due to illness is significantly higher among women than men and the gap is widening every year, which can be partly explained by the increasing participation of children in kindergartens, full-time employment of women and their absence to care for parents due to the poorly functioning system of long-term care (informal caregivers being mostly women). According to NIJZ data, in 2018, employed persons were on average absent from work for 16.5 calendar days,[2] the share of sick leave from work averaging 4.5%; this is already more than before the crisis in 2008 (NIJZ, 2020). According to HIIS data, the number of long-term absences in particular has surged in recent years, which is related to the ageing of the active population, changes to pension legislation and the unlimited duration of entitlement to sickness benefits.[3]

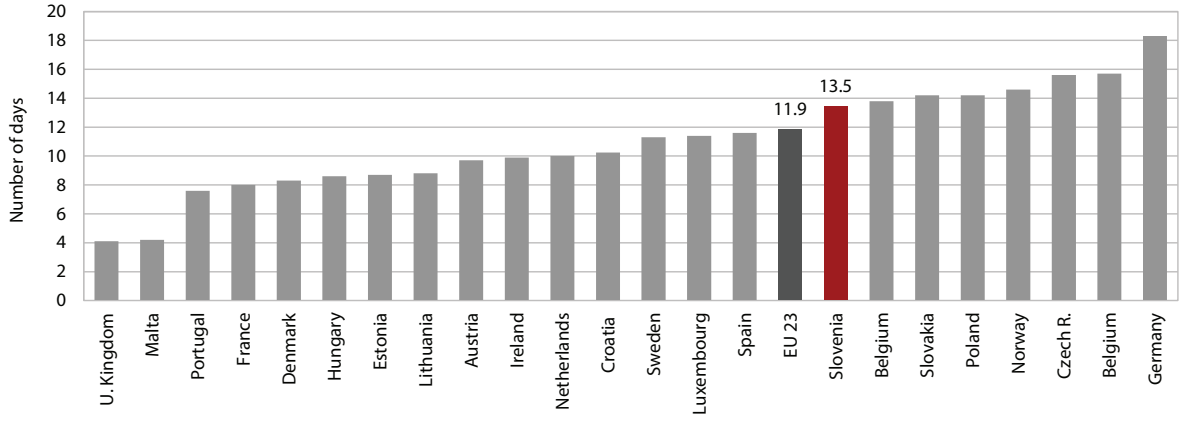
In terms of working days lost, Slovenia increasingly exceeds the EU average. The number of working days lost per employed person due to illness, as reported to international databases (excluding the first day of absence and absence to care for a family member), has also risen in recent years. In 2018, the average number of compensated work days lost per year due to illness already totalled 13.5 in Slovenia (in the 23 EU Member States for which comparable data are available, 11.0). However, the international comparability of this indicator is limited because of methodological differences in data capture and differences in the health and social care systems and in eligibility criteria for sickness benefits.

Table: Absence from work due to illness

		2008	2012	2013	2014	2015	2016	2017	2018
Absence rate (percentage of calendar days lost per full-time worker, in %)	Total	4.25	4.23	4.08	3.75	3.97	3.96	4.20	4.51
	M	3.60	3.63	3.46	3.12	3.29	3.24	3.41	3.62
	Woman	5.10	4.97	4.84	4.52	4.80	4.83	5.16	5.60
Number of calendar days lost per worker	Total	15.52	15.44	14.90	13.67	14.48	14.45	15.33	16.45
	M	13.15	13.25	12.63	11.39	11.99	11.84	12.43	13.21
	Woman	18.60	18.12	17.68	16.48	17.51	17.63	18.83	20.42
Number of working days lost per worker	Slovenia	11.5	12.2	11.6	11.3	12.0	12.2		
	EU	11.42	11.74	11.85	11.8	11.7	11.9	N/A	N/A.

Sources: NIJZ – http://www.nijz.si/sl/podatki/bolniski-stalez; WHO HFADB, 2017.
Notes: The data for the EU are WHO estimates for the EU-28; N/A – data not available.

Figure: Number of working days lost per worker, 2018



Sources: OECD Statistics database – Health – Health Status; WHO HFADB.
Notes: The indicator is published by the OECD, WHO and Eurostat. The EU-28 average is a WHO estimate.

[1] Temporary absence from work for justified medical reasons, also referred to as sick leave, is one of the indicators for monitoring the health status of the employed (NIJZ, 2016).
[2] The percentage of calendar days of incapacity for work per person employed full-time.
[3] HIIS Business Report for 2018.

4 A well-preserved and healthy natural environment

A low-carbon circular economy

4.1 Emission productivity

4.2 Energy efficiency

4.3 Share of renewable energy sources

4.4 Modal split of transport

4.5 Resource productivity

4.6 Waste

4.7 Environmental taxes

Sustainable natural resource management

4.8 Ecological footprint

4.9 Utilised agricultural area

4.10 Agricultural intensity

4.11 Intensity of tree felling

4.12 Quality of watercourses

4.13 Air quality

4.14 Functionally derelict areas

Emission productivity 4.1

The emission productivity of the economy is rising but remains lower than the EU average, which is the target set in the SDS. Emission productivity, measured by the ratio of GDP to greenhouse gas (GHG) emissions,[1] remained almost unchanged in the first years of the crisis after increasing owing to faster growth in GDP than emissions in times of economic growth. As the EU average continued to increase during the crisis, Slovenia's gap with the EU widened. It also remained wide after the crisis, when productivity growth again accelerated. Per unit of GHG emissions, 12.5% less GDP was generated in Slovenia in 2017 than on average in the EU.

Greenhouse gas emissions have increased again in the period of economic growth. After dropping in the period of lower activity and a concurrent shutdown of one of the thermal power plants and being around a quarter lower in 2014 than their peak in 2008, emissions have returned to their previous upward trajectory in recent years. In 2018, they were 6% higher than in 2014 according to preliminary estimates, largely owing to energy-related and transport emissions. Around two-thirds of total emissions derived from sectors that are not included in the EU Emissions Trading System (EU non-ETS or EDS) and one-third from those that are (EU ETS) and whose cost effectiveness is consequently dependent on the volume of obligatory purchases of emission allowances. Emissions have increased at roughly the same rate in both in the period since 2014.

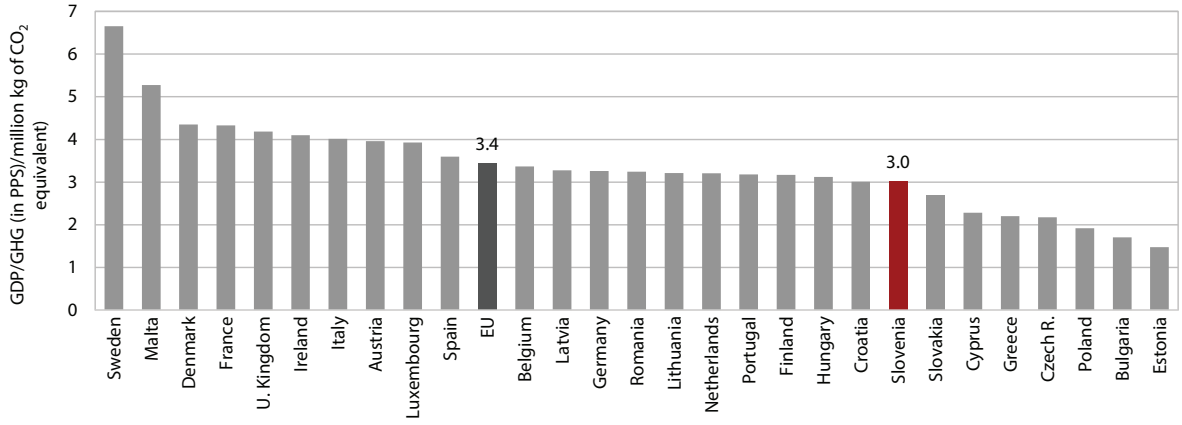
Over the longer term, emissions have been falling across all sectors but transportation. Since 1990, emissions from transport have more than doubled, to a great extent owing to stronger international trade flows through Slovenia and the advantages granted through tax policies (for example the refunding of excise duties). Emissions from all other sectors declined, especially emissions from fuel consumption in industry and from waste. The most, around six-tenths of total emissions, derive from the transportation and energy sectors, with one-tenth each from agriculture and fuel consumption in industry and households. Somewhat less emissions are generated in industrial processes, while the share of other sectors is relatively modest.

Table: Greenhouse gas emissions and emission productivity

	2000	2005	2008	2010	2012	2013	2014	2015	2016	2017	2018	SDS 2030 target
Emission productivity in PPS/million kg of CO2 equivalent												
Slovenia	1.6	2.0	2.2	2.2	2.4	2.5	2.8	2.9	2.8	3.0	3.2	to reach the EU average in 2030
EU	1.8	2.2	2.5	2.6	2.9	3.0	3.2	3.3	3.4	3.4	N/A	
Slovenia/EU. index	89.7	91.1	86.6	84.8	82.2	83.3	88.5	87.4	83.7	87.5	.	
GHG emissions, index 1990=100												
Slovenia	102.4	110.1	116.0	105.4	102.4	98.6	89.4	90.4	94.7	93.8	94.4	
EU	92.4	93.7	90.7	85.9	82.1	80.5	77.5	78.1	77.8	78.3	N/A	

Sources: Eurostat Portal Page – Environment and Energy, 2020; Eurostat Portal Page – Economy and Finance, 2020; for 2018 preliminary data by ARSO; calculations by IMAD. Notes: A meaningful comparison in PPS with the EU average can only be made for individual years and not for a longer time period; N/A – data not available.

Figure: Emission productivity, 2017



Sources: Eurostat Portal Page – Environment and Energy, 2020; Eurostat Portal Page – Economy and Finance, 2020; calculations by IMAD.

[1] The records of GHG emissions cover carbon dioxide (CO_2), methane (CH_4), dinitrogen monoxide (N_2O) in and fluorinated gases (F-gases).

Energy efficiency 4.2

Primary energy consumption declined in post-crisis years as a result of reduced coal consumption, while the renewed growth in recent years has mainly come from continued higher energy consumption in transport. Following a period of moderate economic activity, changes in thermal power generation[1] and lower demand for heating in some of the years, developments in the subsequent years were affected not only by rising energy consumption in transport, but also by certain other factors (such as annual river level fluctuations and the schedule of regular overhauls in the nuclear power plant).[2] In 2017, the year when there was no overhaul, nuclear energy consumption increased, before dropping slightly in 2018 due to the reverse effect. For 2019, we estimate that, with lower consumption of solid and liquid fuels, total primary energy consumption declined further. Regarding the improvement in *energy efficiency*, which means reduced energy consumption compared with that projected under the no-policy-change scenario, Slovenia is still on track to meeting its Europe 2020 Strategy target.[3]

Over the long term, energy productivity has been rising at roughly the same pace as in the EU as a whole. The growth of energy productivity (defined as the ratio of GDP[4] to total energy consumption) came to a halt only in the first years of the crisis. In 2011, it was thus almost a fifth lower than the EU average. In 2018, it increased much more than in the EU on average due to higher growth in GDP in Slovenia. Slovenia's gap in this comparison thus decreased to less than 15% and was the smallest since 2007.

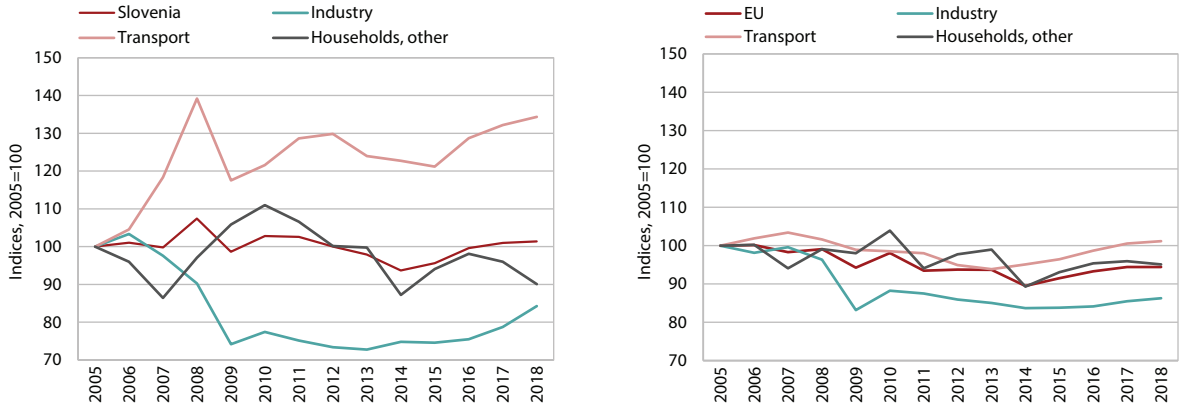
In recent years, the growth of final energy consumption has, in addition to transport, also been affected by industry. After falling from 2008, final energy consumption[5] has risen again in recent years, approximately to pre-crisis levels. Broken down by sector, energy consumption in industry fell considerably, particularly due to the modernisation of aluminium production, but in recent years it has again been rising due to stronger domestic economic growth. Energy consumption is also high in transport, having strengthened owing to increased transit following EU enlargements[6] and then fluctuated for several years. On the other hand, energy consumption in households declined, this as a consequence of some periods of higher temperatures during the heating season, heat cost allocators, more efficient heating appliances and energy renovation of buildings. In recent years, total energy consumption has also risen in the EU but remained lower than before the crisis.

Table: Primary energy consumption, index, 2005=100

	2000	2005	2008	2010	2011	2012	2013	2014	2015	2016	2017	2018	Europe 2020 target
Slovenia	88.5	100.0	106.8	99.9	100.9	97.0	94.6	90.8	90.1	93.3	95.9	95.2	104.3
EU	94.2	100.0	98.8	96.7	93.2	92.6	91.6	87.9	89.3	89.7	90.8	90.2	86.6

Sources: Eurostat Portal Page – Europe 2020 indicators, 2019; EC Energy Efficiency, Reporting Targets; calculations by IMAD.

Figure: Final energy consumption by sector of consumption, Slovenia and the EU average



Source: Eurostat Portal Page – Environment and Energy, 2019; calculations by IMAD.

[1] The Šoštanj thermal power plant was technologically modernised (so that it uses significantly less lignite to generate the same amount of electricity), while the Trbovlje thermal power plant was shut down.
[2] Every third year there is no regular (monthly) overhaul, which means 10% more nuclear power generated (2 pps higher primary consumption).
[3] One of the three environmental targets of EU Member States for 2020 is improving energy efficiency, i.e. reaching a 20% reduction in energy consumption with regard to consumption projected under the baseline scenario with no additional measures. Most EU countries thus have to reduce their energy consumption by 2020, while some, including Slovenia, are only required to limit its growth.
[4] In comparisons over time, we use GDP at fixed prices, while in comparisons between countries in individual years, GDP in purchasing power standards is used.
[5] Final energy consumption is primary consumption of energy excluding energy used by energy transformation processes, by the energy sector itself and losses.
[6] See also Indicator 4.5. Energy consumption in road transport accounts for 39% of final energy consumption in Slovenia (in the EU, 29%).

Share of renewable energy sources 4.3

The share of renewable energy sources (RES) in final energy consumption remained almost unchanged in the last ten-year period analysed. It rose markedly only in 2009, when final energy consumption fell by 8% because of the crisis and RES consumption increased by almost a quarter.[1] Up to 2018, the share had grown only marginally, fluctuating between the years with regard to RES consumption for heating (the impact of milder winters) and the use of hydropower (the impact of annual river flows). Between 2004[2] and 2018, total RES consumption rose by 36% in Slovenia while more than doubling in the EU as a whole. Slovenia is one of the five EU countries where in 2018 the share was below the trajectory determined in the action plan for meeting the 2020 target (25%) and also distant from the SDS 2030 target (27%).[3]

Slovenia has a high share of traditional and a significantly lower share of other renewable sources in total RES consumption. Traditional RES (solid biomass and hydropower) still account for around 84% of total RES consumption in Slovenia, compared with less than 59% in the EU overall. The extensive use of biomass for heating is generally desirable, but it can also be unfavourable from the aspect of particle pollution if biomass is not properly managed. The share of other RES (wind, solar and geothermal energy, biofuels, heat pumps, and biogas), however, is among the lowest in the EU. The gap is widest in the use of wind farms and heat pumps.

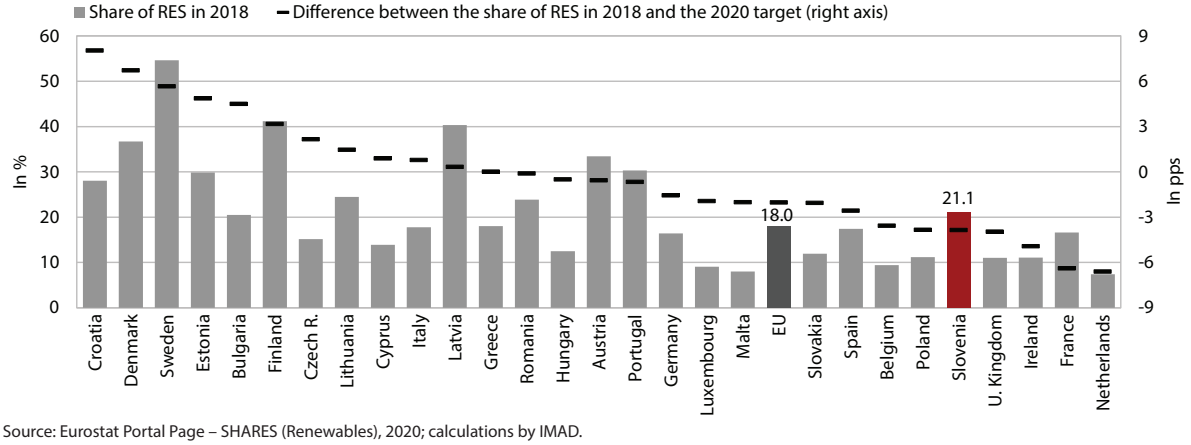
Within the support scheme[4] for electricity generation from RES, support for solar power plants predominated in the last five-year period. Such support accounted for 59% of all support in 2018, which is significantly more than solar plants contributed to electricity production. In 2018 and 2019, the total amount of support declined (in 2019 to around EUR 96 million according to data for the first three quarters of the year). With the inclusion of solar plants into the scheme, the total amount of support per unit of electricity generated rose significantly.

Table: Share of RES in gross final energy consumption, in %

		2005	2008	2010	2012	2013	2014	2015	2016	2017	2018	Europe 2020 target	SDS 2030 target
RES, total	Slovenia	16.0	15.0	20.4	20.8	22.4	21.5	21.9	21.3	21.0	21.1	25.0	27.0
	EU	9.1	11.4	13.2	14.7	15.4	16.2	16.7	17.0	17.5	18.0	20.0	
In electricity	Slovenia	28.7	30.0	32.2	31.6	33.1	33.9	32.7	32.1	32.4	32.3		
	EU	14.8	16.9	19.7	23.5	25.3	27.4	28.8	29.5	30.7	32.0		
In transport	Slovenia	0.8	1.8	3.1	3.3	3.8	2.9	2.2	1.6	2.6	5.5	10.0	
	EU	1.8	3.9	5.2	5.2	5.5	5.9	6.5	6.9	7.1	8.0	10.0	
In heating	Slovenia	18.9	19.2	28.1	31.5	33.4	32.4	33.9	34.0	33.2	31.6		
	EU	11.1	13.9	15.5	17.1	17.5	18.5	18.9	19.1	19.5	19.7		

Source: Eurostat Portal Page – SHARES (Renewables), 2018.

Figure: Share of RES in final energy consumption, 2018



Source: Eurostat Portal Page – SHARES (Renewables), 2020; calculations by IMAD.

[1] Also as significantly more statistical data were captured that year.
[2] The Eurostat data calculated according to the same methodology SHARES (Renewables) available for all EU Member States start with the year 2004.
[3] Individual national RES targets for 2030 have yet to be determined. For Slovenia, the SDS took into account the target that at the time of the SDS adoption applied to the entire EU. Since then the target for the EU has been raised to 32%.
[4] The support scheme includes several thousands of production facilities. Support is paid by the Centre for Support within the Borzen framework. The support scheme is an instrument of government aid; through higher purchase prices, it enables investment in environmentally friendly sources of electricity production. Support is provided for the generation of electricity from solar energy, wind energy, biogas, biomass and hydro energy.

Modal split of transport 4.4

Owing to its transit location, Slovenia has relatively high freight traffic density on roads, but as a large share of freight is also transported by rail, the share of road transport in total transport is lower than in the EU as a whole. Over a longer period, the share of road transport declined slightly, to around two-thirds, which is less than the EU average[1] (around three-quarters). In 2017, the last year for which data are available, road freight transport increased around 11 pps less than freight transport by rail, which is desirable from the environmental perspective. The volume of total freight transport per inhabitant is very high in Slovenia because of its transit location; it is higher only in five other EU Member States. Transport by road is a quarter higher than the EU average and rail transport three times as high. A large part of railway transport is linked to the transhipment of goods in the Port of Koper, meaning that with the planned modernisation of the Divača–Koper railway line, railway transport will increase further and partially alleviate the adverse environmental impacts of transport.

Slovenian hauliers perform almost nine-tenths of their journeys abroad, while their share in journeys performed by all hauliers in Slovenia totals one-quarter. This is related to Slovenia's small size and its transit location, but also to the common transport market in the EU, which enables competition of hauliers from different Member States. Slovenian hauliers are among the most important foreign hauliers in Austria and Italy (performing almost half more journeys in each than in Slovenia) and also in Croatia and Greece. In Slovenia, Slovenian hauliers carry out 25% of journeys (a smaller share than domestic hauliers in their countries in the EU on average, which is 68%), followed by Hungarian, Croatian and Romanian hauliers with 19%, 15% and 12% shares.

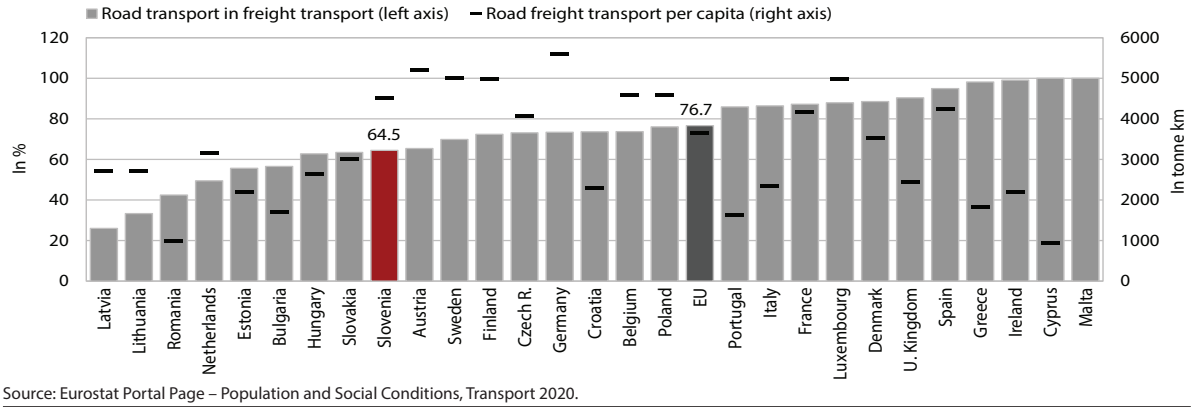
Transport by passenger car is the predominant mode of passenger transport in all EU Member States, but Slovenia has one of the highest shares. This is in part attributable to the diversity of its landscape and its dispersed settlements,[2] which – in spite of subsidies – makes it difficult to extend the public transport network appropriately and make public passenger transport more profitable. More people have difficulty in accessing public transport than in the EU overall (in 2012, one-quarter in Slovenia against one-fifth on average in the EU).[3] With such a passenger transport structure (where public transport is relatively little used in comparison with transport by car), passenger transport is generally also more expensive. The share of transportation expenditure in total household expenditure in Slovenia is the highest among all EU Member States, at around 17% (the EU average being 13%). Within that, a particularly high share of spending goes to maintain and operate personal vehicles, while the share spent on transport services is relatively low.

Table: Road transport in freight transport and car transport in passenger transport*, in %

		2005	2008	2010	2011	2012	2013	2014	2015	2016	2017
Freight	Slovenia	68.9	70.3	68.2	66.0	67.2	65.2	64.0	65.0	66.7	64.5
	EU	75.6	75.4	75.7	75.0	74.6	74.8	74.8	75.3	76.2	76.7
Passenger	Slovenia	85.6	86.4	86.8	86.6	86.7	86.3	86.3	86.1	86.3	86.5
	EU	83.4	82.9	83.5	83.2	82.8	82.4	82.6	82.9	83.2	83.3

Source: Eurostat Portal Page – Transport, 2020. Note: * Freight transport comprises transport by road (lorries), rail and inland waterways (in tonne km); passenger transport includes transport by car, bus and train (in passenger km).

Figure: Road freight transport, 2017



Source: Eurostat Portal Page – Population and Social Conditions, Transport 2020.

[1] Using a new methodology for road freight transport, Eurostat recalculated transport performance according to the nationality of the haulier into transport performance on the basis of where the transport was carried out. These data are completely comparable with data for rail and inland waterways transport.

[2] Slovenia has a relatively low share of the population living in cities and a relatively large share of the population living in rural areas (19% and 46% respectively; in the EU, 42% and 27%; source: Eurostat, for 2018).

[3] Sustainable Development in the European Union – Monitoring Report (Eurostat), 2018.

Resource productivity 4.5

Resource productivity, which in Slovenia is strongly dependent on activity in construction, has declined in the last few years with the rebound in this activity and hence greater material consumption. *Resource productivity*, expressed as the ratio of GDP to material consumption, had been rising in Slovenia amid lower construction activity in 2007–2012, then followed its fluctuations. In the period of intense motorway construction, the consumption of non-metallic mineral products,[1] which is the main determinant of total material consumption, accounted for more than two-thirds of total consumption, then fell to a half in the next few years before rising again to around 60% by 2018. With strong growth in GDP, in 2018 construction activity increased even more, contributing significantly to a more than one-tenth increase in material consumption and a decline in resource productivity. The lag behind the average productivity in the EU increased to 17%. In 2019, growth in construction was lower, so we expect no major negative impact of this activity on resource productivity. On the other hand, *material consumption per capita* is comparable with the EU average (in 2018, in Slovenia 14.4 tonnes and in the EU 13.8 tonnes). In the breakdown of domestic extracted resources, around 60% is sand, gravel, limestone and gypsum, 16% crop residues, and around one-tenth each lignite and wood. The proportion of biomass is slightly lower and the proportion of non-metallic minerals slightly higher than in the EU as a whole. Total material consumption excluding non-metallic mineral products has not changed notably over the longer period, with only coal consumption dropping considerably due to changes in thermal power generation.

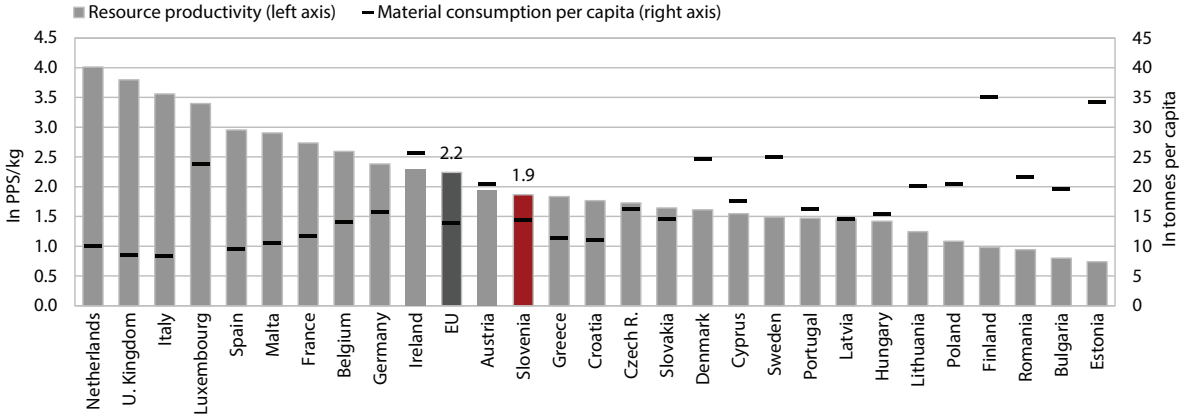
Slovenia's self-sufficiency for materials is somewhat higher than the EU average. Slovenia's *net imports* account for around 13% of total material consumption, which is three percentage points less than the EU average. In the period until 2014, net imports had declined to less than a tenth of consumption, then rose slightly with economic growth. In 2018, the bulk of net imports were petroleum products, sand, gravel, iron and gas. In net exports, only *net exports* of wood, particularly sawlogs and veneer logs, have been relatively high after the ice glaze damage in 2014. With regard to the impact on material consumption, this is favourable, though it is less desirable from the point of view of efficient use of domestic resources, as it means untapped potential for creating higher value added in the domestic manufacturing industry.

Table: Resource productivity, in PPS/kg

	2000	2005	2008	2010	2011	2012	2013	2014	2015	2016	2017	2018	SDS 2030 target
Slovenia	0.92	1.10	1.13	1.33	1.52	1.76	1.80	1.73	1.79	1.88	1.95	1.86	3.5
EU	1.28	1.47	1.60	1.85	1.82	2.00	2.06	2.10	2.21	2.24	2.25	2.24	
Slovenia / EU, index	71.9	74.9	70.2	72.0	83.5	87.8	87.4	82.4	80.7	84.0	86.7	83.1	

Sources: SI-STAT Data Portal – Environment, 2020; Eurostat Portal Page – Environment and Energy, 2020; Eurostat Portal Page – Economy and Finance, 2020; calculations by IMAD. Note: a meaningful comparison in PPS between countries or with the EU average can only be made for individual years and not over a longer time period.

Figure: Resource productivity and material consumption per capita, 2018



Source: Eurostat Portal Page – Population and Social Conditions, Environment and Energy, 2020.

[1] Sand and and gravel accounted for 46%, which was one of the highest shares in the EU. A close relationship between the consumption of non-metallic minerals and construction activity is corroborated by the analysis of the Geological Survey of Slovenia made on the basis of data for 2014, when three-quarters of non-metallic minerals were used as raw materials in construction, a further 17% as raw materials for the building materials industry and only 7% in manufacturing.

Waste 4.6

The quantity of generated waste, having declined during the crisis, has again been rising following it. In 2018, it increased for the sixth consecutive year: by 36% in 2018 alone and by 88% in the 2012–2018 period.[1] The main reason is a significant increase in mineral, i.e. construction, waste, as the quantity of waste without mineral waste declined during this period, by around 8%. Total waste from *production and service activities* almost doubled, accounting for around nine-tenths of the total quantity in 2018. *Municipal waste*,[2] which accounts for the remaining tenth, rose too, albeit less (by around a third in the period analysed). Among total waste, the majority is construction waste (because of its high specific weight), followed by waste from thermal processes and municipal waste. Hazardous waste,[3] which increased over the longer term, accounts for 2%.

The share of recovered waste is increasing while the share of landfilled waste is being reduced, but storing the increasing amount of waste in landfills poses a greater and greater problem. In 2018, the total amount of *recovered* waste increased by 42%; in the six-year period it increased by 81%. Recycling, a very desirable form of recovery from an environmental perspective, rose by 12% in 2018, but the quantity of recycled waste was still significantly lower than in the first years of the economic crisis. *Landfilling*, which is the least favoured option in the waste-management hierarchy, continued to be successfully reduced. Having been rising until the crisis, the amount of landfilled waste then dropped sharply and accounted for only 2% of the total recovery in 2018. Within that, the share of landfilled municipal waste also decreased further, to around 6% of generated waste. Around 70% of generated municipal waste was collected separately, but the problems related particularly to the growing amount of packaging waste are becoming ever more acute.

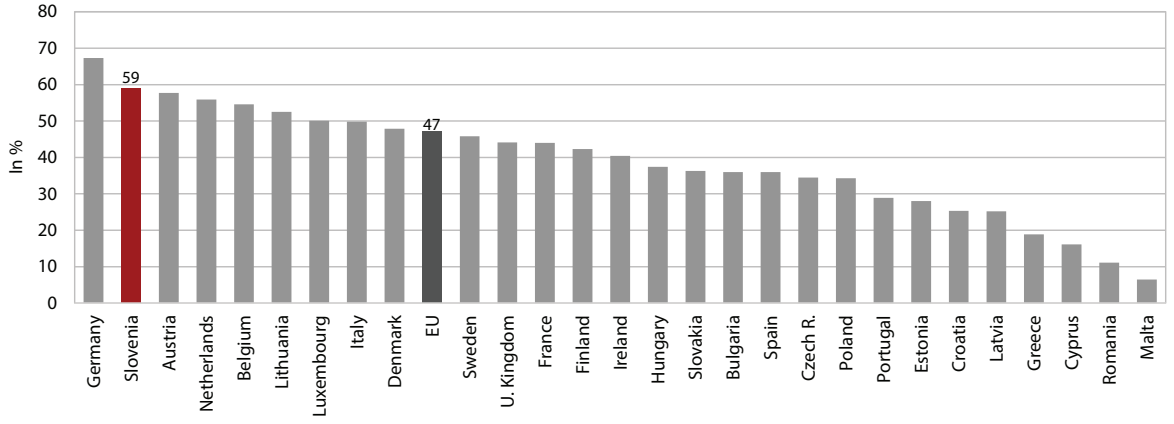
Slovenia performs better than the EU as a whole regarding municipal waste, despite a relatively rapid increase in the amount of generated waste. The quantity of municipal waste generated per person was lower than in the EU as a whole in the entire period observed, although it has come very close to the EU average with relatively rapid growth in the last few years (in 2018, in Slovenia 486 kg per capita and in the EU as a whole 448 kg). Furthermore, the structure of municipal waste management is more environmentally friendly than on average in the EU: according to the municipal waste recycling rate, Slovenia ranks 2nd in the EU.

Table: Municipal waste generated per person, 2005=100

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Slovenia	102	104	107	106	100	83	86	98	103	107	110	113	117
EU	101	102	101	99	98	97	94	93	93	93	94	95	N/A

Source: Eurostat Portal Page – Environment and Energy, 2019; calculations by IMAD.

Figure: Share of municipal waste recycled, 2018



Source: Eurostat Portal Page – Tables on EU policy, 2020.
Note: Data for Ireland, Greece and Cyprus are for 2017.

[1] In 2012, when the quantity of generated waste was the lowest in the period analysed, it declined by around a quarter. The decline was, in addition to a reduction in construction waste, also due to methodological changes (some waste categories were reclassified as by-products).
[2] I.e. waste from households and similar waste managed by the providers of municipal environmental protection public services.
[3] Among hazardous waste, chemical waste predominates: waste oils, salts, acids, waste from organic solvents, paints, varnishes, resins, etc.

Environmental taxes 4.7

Nominal growth in revenue from environmental taxes, having been relatively strong over a longer period, eased in 2018. In Slovenia, this revenue has risen by 5.3% per year on average in nominal terms since 2000, in 2018 alone by 0.5%.[1] Long-term revenue growth is mainly a consequence of the dynamics of *fuel consumption in transport* and revenue from *excise duties on motor fuels*,[2] which increased significantly during the crisis. The lower growth in revenue from environmental taxes in 2018 is related to the reduction in excise duties on unleaded petrol and diesel to neutralise the pressure from high crude oil prices and the appreciation of the euro against the US dollar. According to preliminary state budget data, in 2019 revenues from excise duties on energy and electricity continued to fall, but less rapidly. Revenue from *taxes on transport* (i.e. ownership and the use of transport means) has increased significantly less since 2005, while the already modest share of revenue from *taxes on pollution and the use of natural resources* decreased during the period observed. From the environmental perspective, such movements are not encouraging, as by correcting price signals environmental taxes significantly contribute to the achievement of environmental goals related to pollution control, waste management and efficient use of natural resources. Moreover, Slovenia has also retained some tax incentives (tax reliefs and subsidies) that do not help reduce environmental harm.[3] In order to achieve environmental goals, tax policies will therefore have to be complemented with other national policies (for example with a faster development of public transport infrastructure) and coordinated with neighbouring countries' policies.

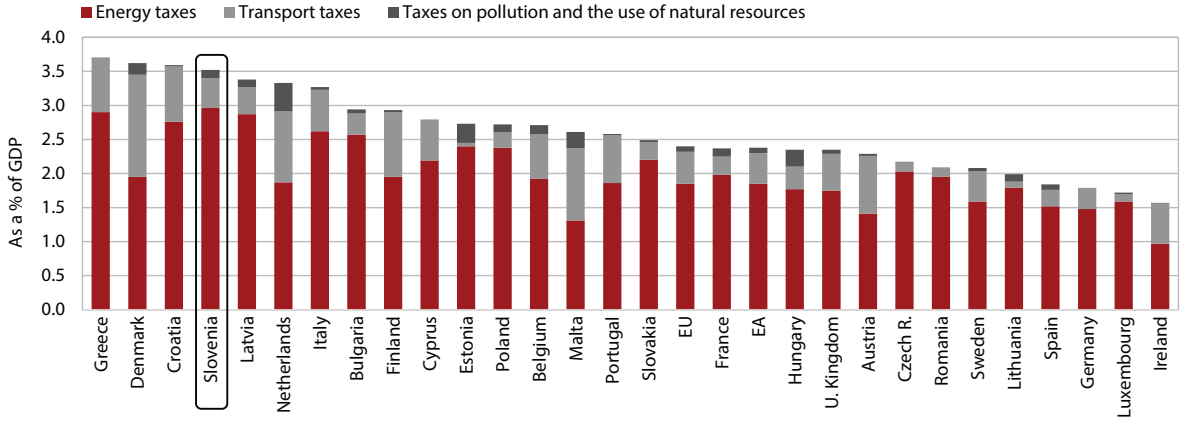
Revenue from environmental taxes as a share of GDP is above the EU average in Slovenia; in 2018 it was higher in only three Member States. In 2005–2015, the share of environmental taxes in GDP expanded due to the increase in taxes on energy; it then declined in the next three years, reaching 3.52% in 2018. It was considerably higher than the EU average, in 2018 by 1.12 pps. The gap arises from energy taxes, which accounted for 84% of all environmental taxes in Slovenia in 2018. The high value is a consequence of relatively high energy purchases and consumption, which is related not only to extensive transit traffic and the strong transport sector in Slovenia, but also to its dispersed settlement and poorly developed public transport infrastructure.

Table: Revenue from environmental taxes, as a % of GDP

	2000	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Slovenia	2.88	3.15	2.95	3.49	3.62	3.46	3.85	3.94	3.86	3.88	3.87	3.73	3.52
EU	N/A	2.49	2.28	2.36	2.38	2.41	2.44	2.46	2.46	2.44	2.45	2.41	2.40

Source: Eurostat Portal Page – Environment and Energy, Environmental taxes, 2019.
Note: N/A – not available.

Figure: Revenue from environmental taxes, 2018



Source: Eurostat Portal Page – Environment and Energy, 2020.

[1] Environmental taxes include energy taxes, transport taxes, and taxes on pollution and the use of natural resources.
[2] Of EU countries, the contribution of fuel consumption in road transport to energy intensity was higher only in Luxembourg, Malta and Cyprus. The rates of the tax on motor fuels are typically higher than in other energy sources; revenue thus also depends on the structure of the tax base in addition to its size.
[3] "Green Budget Reform – Environmental and Fiscal Incentives in Slovenia", 2018.

Ecological footprint 4.8

The ecological footprint, a composite indicator of environmental development, is relatively high in Slovenia, much as in the EU as a whole, and has been rising in the last years of the calculation.[1] It is expressed in standardised units of biologically productive area, global hectares (gha). The biologically productive area is the fertile area needed to satisfy human needs for food and a particular lifestyle and to absorb or dispose of the wastes generated in the process. The largest component of the ecological footprint is (i) the carbon footprint, as a result of high carbon dioxide and other GHG emissions, followed by (ii) the biological footprint, i.e. the footprint of cropland, forestland, grazing land and other fertile areas, and (iii) the footprint of built-up land (i.e. infrastructure). During the recession, Slovenia's ecological footprint declined, then – unlike the EU average – increased for two consecutive years, reaching 5.1 gha/person. Its level was the same as in 2011, 0.6 pps higher than the EU average and higher than in most neighbouring countries. This indicates economic development with a relatively high level of natural resource use and environmental pollution.

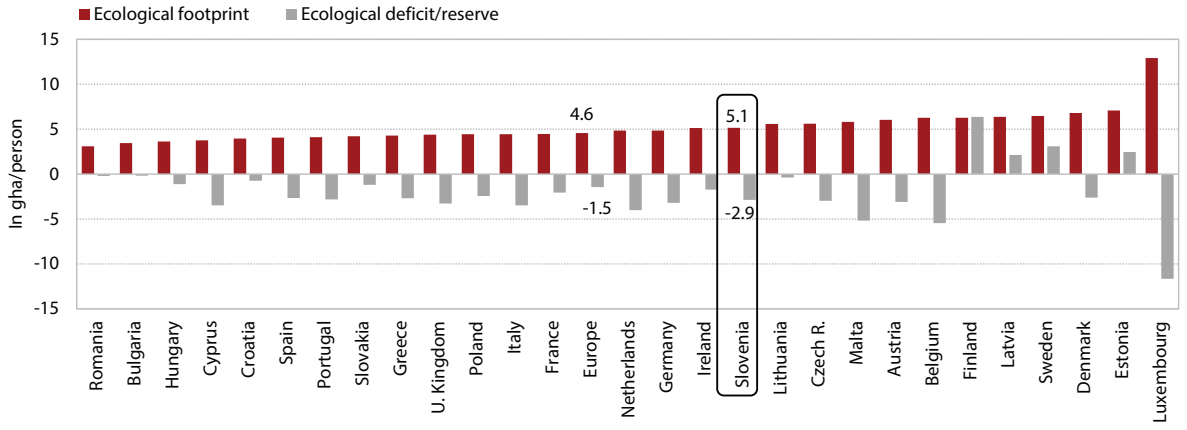
With the increase in the ecological footprint, the ecological deficit, i.e. the negative difference between the ecological footprint and biological capacity, is again rising. *Biological capacity or biocapacity* refers to biologically productive areas that are capable of self-regeneration. Like the ecological footprint, they are expressed in global hectares.[2] Each global hectare produces the same quantity of biological materials, its productivity thus equalling the average productivity of the total biologically productive area. Biocapacity is significantly more stable than ecological footprint and does not change significantly from year to year. The bulk of Slovenia's biocapacity is accounted for by forests, but, despite their large surface area, they do not suffice to absorb carbon dioxide emissions, the largest contributor to the ecological footprint. The share of other land-use types, particularly cropland and fishing grounds, is relatively modest compared with the EU average. According to the latest calculations, Slovenia's ecological footprint is more than twice as high as the capacity of its nature to regenerate. The *ecological deficit* in Slovenia is higher than the EU average and the global average. In the EU, only some Northern countries with sustainable economies and relatively extensive fishing grounds have an ecological reserve.

Table: Ecological footprint in gha/person

	2000	2005	2008	2010	2011	2012	2013	2014	2015	2016	SDS 2030 target
Slovenia	4.8	5.4	5.8	5.1	5.1	4.7	4.6	4.7	4.9	5.1	3.8
Europe	5.0	5.2	5.4	5.0	5.1	4.8	4.8	4.7	4.6	4.6	
World	2.6	2.7	2.8	2.8	2.9	2.8	2.9	2.8	2.8	2.8	
Slovenia / EU, indeks	97.0	103.6	106.7	102.0	101.4	99.2	96.7	99.1	107.9	112.5	

Source: National Footprint Accounts (Global Footprint Network), 2018.

Figure: Ecological footprint and the ecological deficit/reserve, 2016



Source: National Footprint Accounts (Global Footprint Network), 2019.

[1] The ecological footprint is measured by the Global Footprint Network. The results of its calculations are available for around 150 countries for individual years in the 1961–2016 period.

[2] The total biologically productive area accounts for approximately a quarter of the Earth's surface, excluding ice masses, deserts and oceans, where renewable resources are not concentrated enough to have a significant impact.

Utilised agricultural area 4.9

Utilised agricultural area (UAA) in Slovenia accounts for less than one-quarter of total land, which is significantly below the EU average. The share of total utilised area,[1] which was decreasing relatively rapidly over a longer period due to the abandoning of agriculture and the overgrowth of land by trees and shrubs, has been relatively stable since 2012 (somewhat less than 24% of total land, which is lower than the SDS target). Most of the land, around two-thirds, is covered by forests, which places Slovenia among the most forested countries in the EU. The share of other types of land, which is typically high particularly in countries with a lot of non-fertile land or with high population density, is relatively low in Slovenia. In the EU as a whole, utilised agricultural area covers around 41% of land. In the last decade it declined by 2% (in Slovenia by 3%).

In the structure of agricultural land, which does not change significantly, permanent grassland (meadows and pastures) predominates, there being relatively little arable land. *Permanent grassland* constitutes around six-tenths of the total agricultural area, which is a consequence of natural conditions. The large production of fodder crops is, in turn, reflected in a relatively large share of livestock breeding in Slovenia's agriculture. In terms of *arable land*, which is the most important type of land from the aspect of food security, Slovenia is one of the last four countries in the EU. Arable land per person in Slovenia totals around 8 ares (the EU average being around 2.5 times as high). And within that, a relatively small share is dedicated to the growing of vegetables, as a large share of fields is used to grow fodder crops. The area taken up by *permanent crops*, where vineyards predominate, increased somewhat in the last decade (to around 6% of agricultural area).

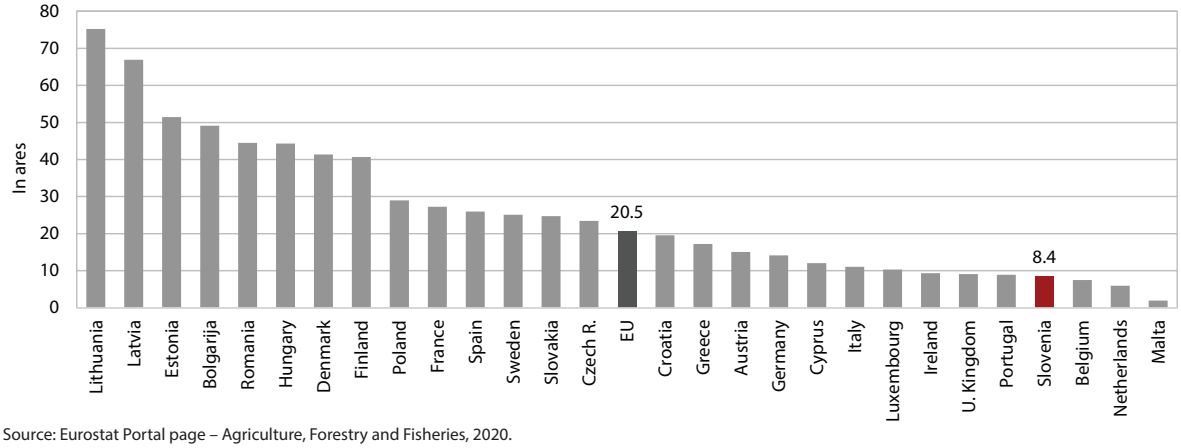
Organic farming, the best form of agricultural production from the environmental perspective, is more widespread in Slovenia than in the EU as a whole and is increasing. One-tenth of all agricultural holdings were involved in controlled organic farming in 2018. Permanent meadows and pastures dedicated to the production of fodder account for the largest share of this land too, while the shares of other land types are relatively low. This is, however, not in line with demand, which is greatest for ecologically produced fresh fruit and vegetables and vegetarian processed foods. There remains significant scope for the further development of organic farming in Slovenia given its natural conditions, i.e. the high share of farms in mountainous and other remote areas where intensive conventional farming is not possible.

Table: Utilised agricultural area (UAA) and share of organic farming

	2005	2008	2010	2011	2012	2013	2014	2015	2016	2017	2018	SDS 2030 target
UAA, share in total area, in %												
Slovenia	25.1	24.3	23.8	22.6	23.7	23.6	23.8	23.5	23.6	23.7	23.6	>24.0
EU	N/A	41.8	41.2	41.1	40.8	40.8	40.8	41.0	40.9	40.9	40.9	
UAA under organic farming, share, in %												
Slovenia	4.6	6.1	6.4	7.0	7.3	8.1	8.6	8.9	9.1	9.6	10.0	
EU	N/A	N/A	N/A	N/A	5.6	5.7	5.8	6.2	6.7	7.0	7.5	

Source: Eurostat Portal page – Agriculture, Forestry and Fisheries, 2020; calculations by IMAD. Note: N/A – not available.

Figure: Arable land per person, 2018



Source: Eurostat Portal page – Agriculture, Forestry and Fisheries, 2020.

[1] Utilised agricultural area is the total area taken up by arable land, kitchen gardens, permanent grassland, intensive and extensive orchards, olive plantations, vineyards, nurseries, and vine and root-stock nurseries used by the holding, regardless of the type of tenure and excluding shared pastures and meadows.

Agricultural intensity 4.10

Slovenia is not among the countries with high farming intensity, according to its moderate average yields and the number of animals per unit of agricultural area. A comparison with the EU average in *crop production* does not paint a uniform picture, which is evident from the average yields for Slovenia's two most important crops, wheat and maize: for wheat the yield per hectare tends to be lower than the EU average while for maize it tends to be higher. Under the impact of weather conditions, the yields of all crops fluctuate significantly from year to year, but they are rising in the long term with improvements in technology. As long as they are not too high, this means better exploitation of natural resources than in previous years. The environmental burden of *livestock production*, as measured by the number of animals per unit of agricultural area, is relatively high, partly as a result of natural conditions. In contrast, the average milk yield per animal is relatively low, though it is rising in the long term, which is favourable from the perspective of the environmental impact per unit of product. Besides increased agricultural intensification, which is related to a decline in the number of agricultural holdings and thus greater concentration of crop and animal production, Slovenia is also seeing an increase in organic farming, which takes place in harmony with nature and is the most desirable from the environmental perspective.

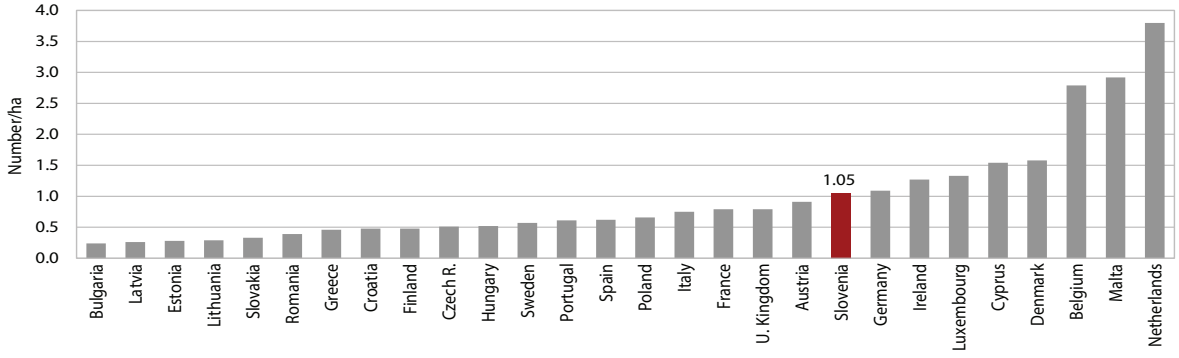
The decline in the consumption of mineral fertilisers achieved in the previous decade stopped, while the consumption of pesticides has already been rising for several years. After declining relatively rapidly until the end of the previous decade, the consumption of main macronutrients from *mineral fertilisers* (nitrogen, phosphorus and potassium, i.e. NPK fertilisers) per unit of utilised agricultural area has remained roughly unchanged. The use of *pesticides*, measured in terms of the total quantity of active ingredients sold, was also falling in the previous decade.[1] Pesticide sales depend on weather conditions and consequent plant disease and pest control, but since 2013 they have been rising. In 2018, they were at approximately the same level as ten years before. The total increase is a consequence of greater consumption of fungicides, which account for the largest share in total pesticides sold. The consumption of both agricultural inputs is above the EU average, but particularly for pesticides it is difficult to measure, because the figures are the sum of active ingredients with different toxicity levels.

Table: Average yields of the main crops and consumption of NPK fertilisers and pesticides

		2005	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Average yields of wheat, maize and milk, in tonnes/ha or tonnes/cow												
Wheat	Slovenia	4.7	4.8	5.2	5.4	4.4	5.2	5.1	5.2	5.0	4.4	5.2
	EU	N/A	5.3	5.3	5.2	5.6	5.9	5.7	5.3	5.8	5.4	N/A
Maize for grain	Slovenia	8.3	8.5	8.7	7.1	5.4	9.2	9.0	9.5	7.1	9.5	8.9
	EU	N/A	7.1	7.6	6.0	6.8	8.1	6.4	7.3	7.8	8.3	7.7
Milk yield	Slovenia	5.5	5.5	5.5	5.6	5.4	5.7	5.6	6.0	6.0	6.1	N/A
	EU	N/A	N/A	N/A	N/A	6.8	7.0	7.1	7.2	7.3	7.5	N/A
Fertilisers and pesticides, Slovenia, growth, 2005=0												
NPK fertilisers, consumption per unit of utilised agricultural area		0.0	–10.8	–9.7	–16.8	–14.8	–12.9	–10.4	–13.5	–14.8	–13.5	N/A
Pesticides sales, in tonnes of active ingredients		0.0	–19.8	–20.7	–28.1	–35.1	–28.6	–26.0	–18.2	–23.1	–17.1	N/A

Source: Eurostat Portal page – Agriculture, Forestry and Fisheries, 2020; calculations by IMAD.

Figure: Number of livestock units* per unit of utilised agricultural area, 2016



Source: Eurostat Portal Page – Tables on EU policy, 2020. Note: * A livestock unit is a reference unit which facilitates the aggregation of different livestock categories.

[1] Around two-thirds of pesticides are estimated to be used in agriculture. The rest is applied on non-agricultural land such as railway tracks, roads, parks and other green areas, and golf courses and other sports fields.

Intensity of tree felling 4.11

Tree felling, having already been rising in the long term before the 2014 glaze ice damage, is still high as a result of sanitary felling. In the five-year period following the glaze ice, which severely damaged Slovenian forests, approximately half more wood mass was cut per year than in 2013. The relatively low recorded annual tree felling thus came close to the maximum felling level allowed.[1] *Tree felling intensity*, expressed as the ratio of annual felling to annual increment, rose to 69% and approached the goal determined in the action plan with a view to ensuring sustainable development (75%).[2] However, the structure of cut wood changed significantly: felling for tree-tending purposes, which normally accounts for the largest share and was on the rise before the ice damage, declined, while the scope of sanitary felling increased, its share in total felling being around two-thirds. The severe tree damage caused by the glaze ice was, as expected, exacerbated by the rapid spread of the spruce bark beetle in subsequent years, while in 2017 and 2018 forests were additionally damaged by strong windstorms. As a result of the additional damage, sanitary removal also continued in 2019.

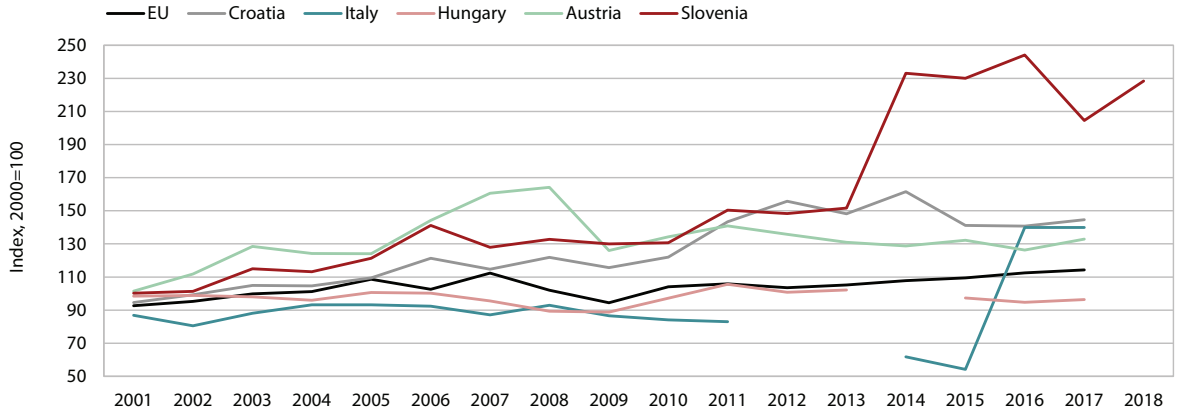
Increased removal was reflected in increased raw wood production, but also higher exports of the highest-quality wood, which is an untapped development potential. The *growth of wood production* is high, though somewhat lower than the growth of removal. The utilisation rate of felled wood, as measured by the ratio between the production of raw wood categories and felled wood, had fallen after the ice glaze damage, meaning that in 2018 it was among the lowest in a longer period.[3] After the glaze ice damage, production increased for all wood categories, particularly pulpwood, but also sawlogs and veneer logs, which is the highest-quality wood and generates the highest value added. However, *external trade in unprocessed wood* increased more than total production. With imports dropping by around a sixth, total exports increased by around 80% in the period after the ice damage, exports of coniferous logs alone by 140%. In 2018, exports of this wood category accounted for 56% of its production and around two-thirds of total industrial wood exports. The high exports of this high-quality raw material, however, represent a lost opportunity for Slovenia to increase employment and achieve higher value added in other sectors up the forest–wood chain.

Table: Forests and their economic yield, Slovenia

	2000	2010	2011	2012	2013	2014	2015	2016	2017	2018
Forest area (thousand ha)	1,134.2	1,185.2	1,184.4	1,184.5	1,183.4	1,181.9	1,182.0	1,182.3	1,180.3	1,177.2
Growing stock (in million m³)	262.8	331.0	334.1	337.8	342.4	346.1	348.2	350.4	352.9	355.3
Annual wood increment (in million m³)	6.9	8.1	8.3	8.4	8.5	8.6	8.6	8.7	8.7	8.8
Removals (in million m³)	2.6	3.4	3.9	3.9	3.9	6.3	6.0	6.1	5.0	6.1
Tree felling intensity	38.0	41.6	47.1	46.4	46.2	74.0	70.1	70.4	57.3	68.9

Source: SI-STAT Data Portal – Environment and Natural Resources – Forestry and Hunting, 2020; calculations by IMAD.

Figure: Round wood production



Source: Eurostat Portal page – Agriculture, Forestry and Fisheries, SURS, 2020.

[1] The potential (or allowable) felling is determined with a view to ensuring sustainable development, i.e. the long-term stability of all forests and their habitats irrespective of ownership. In 2018, the recorded tree felling accounted for three-quarters of that allowed under forest management plans.
[2] Action Plan to Increase the Competitiveness of the Forest–Wood Chain in Slovenia by 2020, 2012.
[3] The utilisation rate of felled wood also depends on the structure of raw wood categories and the types of trees felled. In 2017 it amounted to 92% and in 2018 to 85% of the volume cut.

Quality of watercourses 4.12

After the significant improvement in the quality of Slovenian watercourses in previous years, the further improvement set in the SDS has come to a halt. The quality of watercourses, as measured by biochemical oxygen demand,[1] which was similar to the EU average at the beginning of the previous decade, has improved significantly in Slovenia since 2005 and was the highest among all EU countries according to the most recent data. The decline in organic pollution, which is usually caused by municipal and industrial wastewater discharges and runoff from agricultural land,[2] is a consequence of a significant improvement in wastewater treatment and the abandoning of certain economic activities which were polluting watercourses with wastewaters in previous years. The concentrations of nitrates in groundwater and phosphates in rivers have also declined in the long term and are below the EU average.

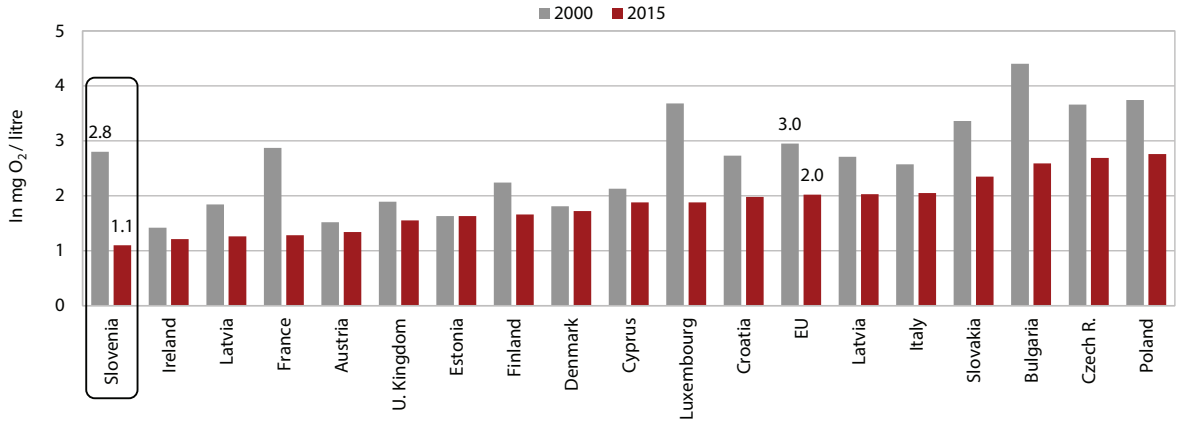
The majority of water is abstracted from surface water sources; around one-fifth of wastewater is treated before discharge. In Slovenia, which is fairly rich in water resources owing to its diverse natural conditions and has a relatively high amount of freshwater resources available per capita, around 960 million m^3 of water in total was *abstracted* in 2018, 7% more than five years before. Four-fifths of water was abstracted from surface waters and used primarily in industry. The remainder was from groundwater resources. This water is mostly intended for the public water supply system, i.e. final consumers such as households, kindergartens and schools. Around 1,000 million m^3 of wastewater was discharged into the environment.[3] The share of water treated before discharge doubled in the last five-year period, to around one-fifth. The remaining majority of water remained untreated, but it was mostly polluted only by heat, mainly as it was used as a coolant in thermal power plants.

Table: Water quality indicators

	2000	2005	2008	2010	2012	2013	2014	2015	2016	2017	2018	SDS 2030 target
Biochemical oxygen demand in rivers, in mg O_2/l												
Slovenia	2.8	2.5	1.1	1.3	1.5	1.2	1.2	1.1	1.0	1.1	1.1	< 1
EU	3.0	2.3	2.1	2.1	2.1	2.0	2.0	2.0	N/A	N/A	N/A	
Nitrates in groundwater, in mg NO_3/l												
Slovenia	N/A	15.2	13.0	11.8	11.3	11.7	11.7	11.8	11.4	12.0	11.9	
EU	18.6	19.0	18.9	18.8	18.4	18.6	18.3	18.3	N/A	N/A	N/A	
Phosphates in rivers, in mg PO_4/l												
Slovenia	0.06	0.05	0.03	0.04	0.06	0.05	0.04	0.06	0.04	0.04	0.03	
EU	0.10	0.09	0.08	0.07	0.07	0.07	0.06	0.06	N/A	N/A	N/A	

Source: Eurostat Portal Page – Tables on EU policy, 2018.
Note: N/A – not available.

Figure: Biochemical oxygen demand in rivers



Sources: Eurostat Portal Page – Tables on EU policy, 2020; SURS – SDG indicators. Note: Data for other EU countries not available.

[1] Biochemical oxygen demand (BOD) measures the amount of oxygen needed by microorganisms to decompose organic mater in water. The lower the BOD value, the higher the water quality.
[2] Environmental indicators, ARSO.
[3] Wastewater is not only water that is released back to the environment after use, but also runoff rainwater that flows back to the environment through the sewerage system or is captured and then discharged directly to rivers, streams or soil.

Air quality 4.13

The quality of ambient air in Slovenia is strongly related to excessive particulate matter (PM) pollution,[1] which reflects inappropriate burning of wood biomass and poor ventilation of some areas. The majority of particle pollution is due to emissions from *small combustion sources*, largely owing to households' outdated wood biomass furnaces and the often unfavourable weather conditions in poorly ventilated basins and valleys of the continental part of Slovenia. Owing to pronounced temperature inversions, even a relatively low density of emissions can cause excessive air pollution. As these problems do not occur in the warm half of the year, data on the average annual values show a better picture than those on the number of days with exceeded daily limit value typical of the cold part of the year. Another major source of particle pollution is *road transport*, particularly emissions from diesel-fuelled vehicles, followed by emissions from *energy use in industry*. The general average exposure of the urban population to particle pollution has been declining in recent years, particularly as a result of milder winters, but has remained higher than the EU average.

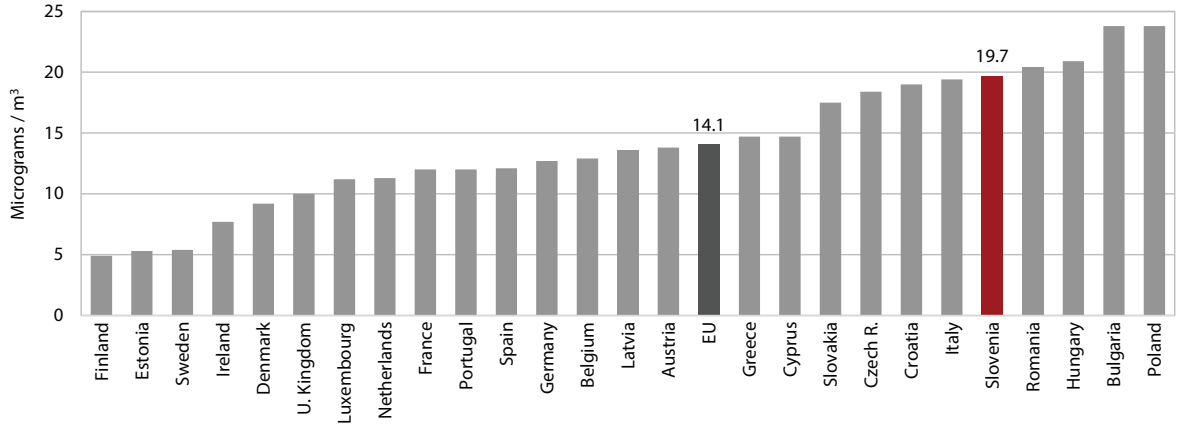
Another problem is the locally high presence of ground-level ozone. As the formation of ozone requires sufficient sunlight, the excessive concentrations of ozone – in contrast to particulate matter – mainly occur during the summer months. They are primarily the result of road traffic, the main source of ground-level ozone precursors. The ambient concentration of ozone in Slovenia (which is significantly affected by transboundary air pollution and hence highly dependent on winds from the west) is the highest in the Primorska region. Ozone concentration being strongly dependent on weather conditions, the multi-annual series of data does not indicate a clear trend, but the urban population's exposure to ozone is higher than the EU average.

Table: Urban population exposure to particulate matter and ozone*, in micrograms per m³

	2000	2005	2008	2010	2011	2012	2013	2014	2015	2016	2017
PM_{10}											
Slovenia	N/A	36.8	29.1	28.2	31.0	25.4	24.9	22.5	27.7	25.6	24.8
EU	28.8	28.4	26.4	26.3	27.2	24.9	24.1	22.5	22.7	21.2	21.6
$PM_{2.5}$											
Slovenia	N/A	N/A	23.9	21.8	24.1	20.4	20.1	17.5	21.6	21.6	19.7
EU	14.4	15.5	17.5	18.1	18.4	16.8	15.7	15.2	14.6	13.8	14.1
Ozone											
Slovenia	6,806	6,017	5,838	4,497	6,615	6,699	5,528	3,812	N/A	N/A	N/A
EU	3,000	3,669	3,609	3,432	3,749	3,530	3,373	3,243	N/A	N/A	N/A

Source: Eurostat Portal Page – Environment and Energy, 2020.
Notes: * Average annual particulate matter/ozone concentrations in urban background locations. N/A – not available.

Figure: Urban population exposure to $PM_{2.5}$, 2017



Source: Eurostat Portal Page – Environment and Energy, 2019.
Note: Data for Greece is for 2016; data for Lithuania and Malta not available

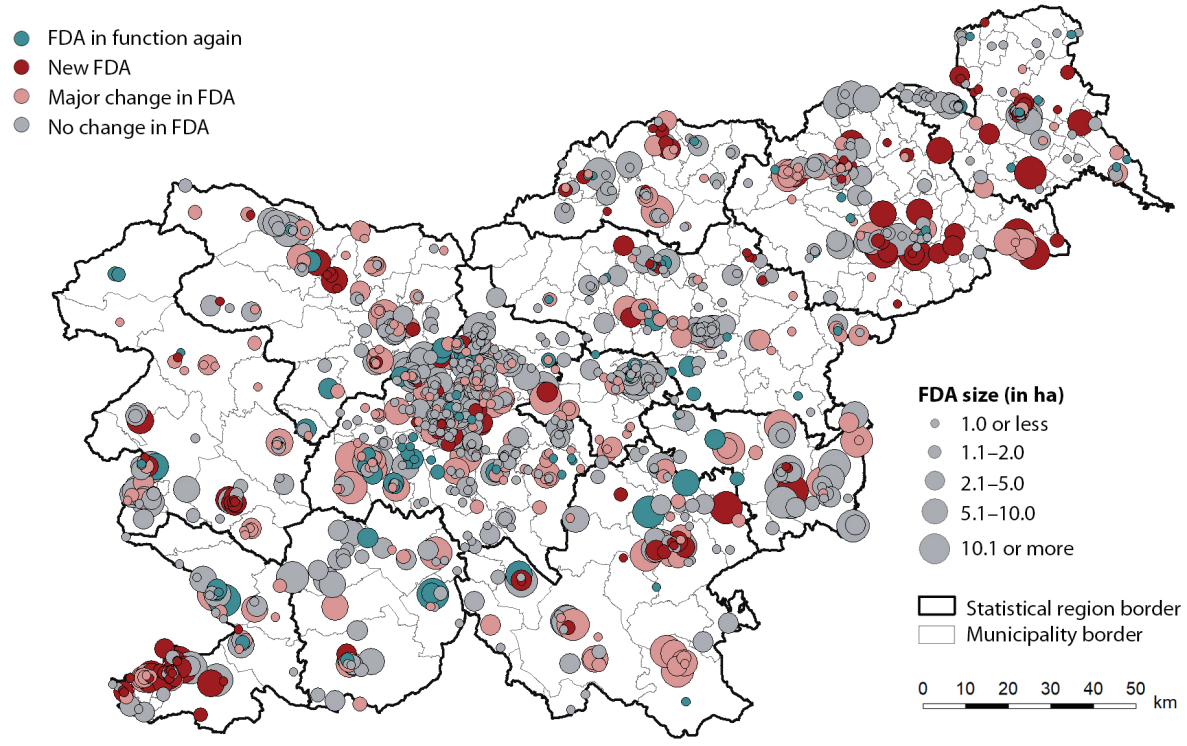
[1] The most frequently measured particles are those sized 10 µm or less (PM10) and 2.5 µm or less (PM2.5). These are the most damaging for health, causing increased morbidity and mortality due to respiratory and cardiovascular diseases. The PM10 daily concentration limit (40 µg/m3) should not to be exceeded on more than 35 days per calendar year. The annual limit value for the protection of human health over the long term is 20 µg/m3 (Decree on sulphur dioxide, nitrogen oxides, particulate matter and lead in ambient air, Official Gazette of the Republic of Slovenia, No. 52/2002).

Functionally derelict areas 4.14

Functionally derelict areas (FDAs) have increased with the strengthening of economic activity in recent years. Overall 1,132 FDAs (with a total area of 3,695 ha) were identified in the survey of functionally derelict areas in 2020.[1] Between the surveys in 2017 and 2020, their number increased by 51 and their total area by 273 ha. Their average size rose slightly, amounting to around 3 ha. A total of 159 FDAs were identified anew, while 108 sites are no longer derelict as a new activity has been established there. The majority, around one-fifth by number or one-third by surface area, are sites degraded by former industrial and commercial activities. These are relatively large on average (around 5 ha). The smallest are FDAs for housing (around 1 ha).

The changes in the spatial distribution indicate great dynamics of FDA creation and revitalisation. On around two-thirds of the sites and on more than half of their surface area (681 FDAs on 2,060 ha), no changes occurred in the time between the surveys. The main reasons for inactivity are ownership problems, lack of owners' interest in returning degraded areas to beneficial use and financial problems. In terms of changes, the remaining areas can be divided into three groups: (i) 292 FDAs (1,074 ha) experienced greater changes; some of these were positive – the beginning of rehabilitation processes and a revival of abandoned construction sites and some areas of industrial and service activities –, while others were negative – some FDAs are in an even worse physical condition, buildings are decaying and the state of degradation has worsened; (ii) 159 FDAs (on 561 ha) were additionally recorded or created anew; these are mostly a result of stranded investments, lengthy bankruptcy proceedings or illegal land use changes; (iii) 108 FDAs (208 ha) were rehabilitated successfully and a new function of the area was established. FDAs can be found in all regions, but the most are in the Osrednjeslovenska region. Their number declined in four regions: Osrednjeslovenska (by 21), Promorsko-Notranjska (by 3) and Savinjska and Zasavska (by 2 in each). The regions where it increased the most are Obalno-kraška and Podravska (by 25 and 17 respectively). If such trends continue, we can expect further revitalisation and establishing of new activities in functionally derelict areas, as the number of rehabilitation plans for FDAs has increased by around one-fifth compared to the previous recording.

Map: FDAs in Slovenia, changes 2017–2020



Source: Lampič, B., et al., 2020. As at 1 March 2020.

[1] Lampič, B. et al., 2020.

5 A high level of cooperation, training and governance efficiency

Efficient governance and high-quality public service

5.1 **Trust in institutions**

5.2 **Executive capacity**

A trustworthy legal system

5.3 **The Rule of Law Index**

5.4 **Expected time needed to resolve civil litigious and commercial cases**

5.5 **The Corruption Perception Index**

A safe and globally responsible Slovenia

5.6 **The Global Peace Index**

5.7 **Share of households reporting crime, vandalism or violence in the local area**

5.8 **Expenditure on official development assistance**

Trust in institutions 5.1

Trust in institutions[1] has increased since 2013 but remains below the EU average. It was highest and above the EU average in 2006 but has dropped significantly since then, particularly during the crisis. In most institutions, it was lowest at the end of the crisis, while in recent years it has increased under the influence of an improvement in macroeconomic indicators and lower dissatisfaction of respondents with the current economic and general situation in Slovenia.[2] An exception is trust in political parties, which improved slightly only in 2017. At the end of 2019, trust in the government, parliament and political parties increased further compared with the preceding year. Local authorities are trusted the most and political parties the least.

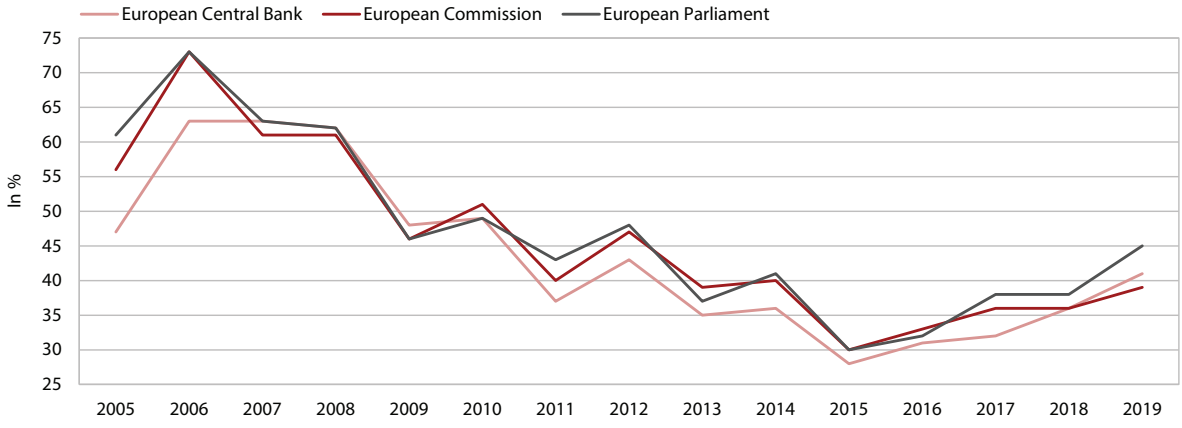
Trust in the EU and its institutions has increased since 2015. It was highest in 2006, but from 2008 it fell sharply to reach its lowest level in 2015. Since then it has been rising, which can be attributed to the increased reputation of the EU among Slovenian citizens.[3] In 2019, trust in the EU increased significantly in comparison with the preceding year. People also had more trust in European institutions. In Slovenia, 46% of respondents trust the EU, which is more than the EU average; 45% of respondents trust the European Parliament and slightly fewer trust the European Central Bank (41%) and the European Commission (39%), all these shares being below the EU average.

Table: Trust in institutions, in %

		2005	2006	2007	2008	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	SDS 2030 target
Parliament	Slovenia	33	42	31	34	23	10	12	6	9	11	14	17	22	26	At least half of the population trust public institutions (average of the last three years)
	EU	35	33	35	34	31	27	28	25	30	28	32	35	35	34	
Government	Slovenia	39	43	32	36	27	12	15	10	13	16	17	17	23	31	
	EU	31	30	34	34	29	24	27	23	29	27	31	36	35	34	
Local authorities	Slovenia	N/A	N/A	N/A	39	39	36	34	29	31	27	38	43	40	46	
	EU	N/A	N/A	N/A	50	47	45	43	44	43	42	47	51	54	53	
Political parties	Slovenia	14	20	13	17	11	7	9	6	6	6	6	8	10	14	
	EU	17	17	18	20	18	14	15	14	14	15	16	18	18	19	
EU	Slovenia	55	70	65	60	47	38	39	37	40	30	37	38	37	46	
	EU	45	45	48	47	42	34	33	31	37	32	36	41	42	43	

Source: Eurobarometer.
Notes: The figures for individual years are the latest available data for that year (autumn measurements). For the EU, the figures for 2005 and 2006 are for the EU-25, the figures from 2007 to 2012 are for the EU-27, and the figures for 2013 to 2019 are for the EU-28; N/A – data not available.

Figure: Trust in EU institutions, Slovenia



Source: Eurobarometer.
Note: The figures for individual years are the latest available data for that year (autumn measurements).

[1] The source of data is Eurobarometer, which is based on a public opinion poll on the level of trust in selected institutions, the possible answers being "tend to trust", "tend not to trust" and "don't know".
[2] The share of those assessing the economic and employment situation in the country as good is rising.
[3] At the end of 2015, one-third of respondents (33%) in Slovenia held a positive image of the EU; in 2018, the share was 38%. At the end of 2019, which was also the year of European Parliament elections, this share increased to 44%, which exceeds both the EU average (42%) and the share of those having a neutral view of the EU (39%).

Executive capacity 5.2

The executive capacity indicator, which measures strategic governance of public institutions, is improving gradually in Slovenia but remains low compared with other EU countries. The executive capacity indicator is a sustainable governance indicator measuring government and institutional performance in eight dimensions: strategic capacity, inter-ministerial cooperation, regulatory impact assessment, societal consultation, policy communication, implementation of set measures, adaptability and the capacity for reforming public administration.[1] In the last few years, the indicator value has improved only marginally. Although it has improved its ranking slightly, Slovenia still lags markedly behind the EU average and is in the second half of EU Member States (in 22nd place). Its low executive capacity score is primarily a consequence of the low values of government and institutional performance indicators.

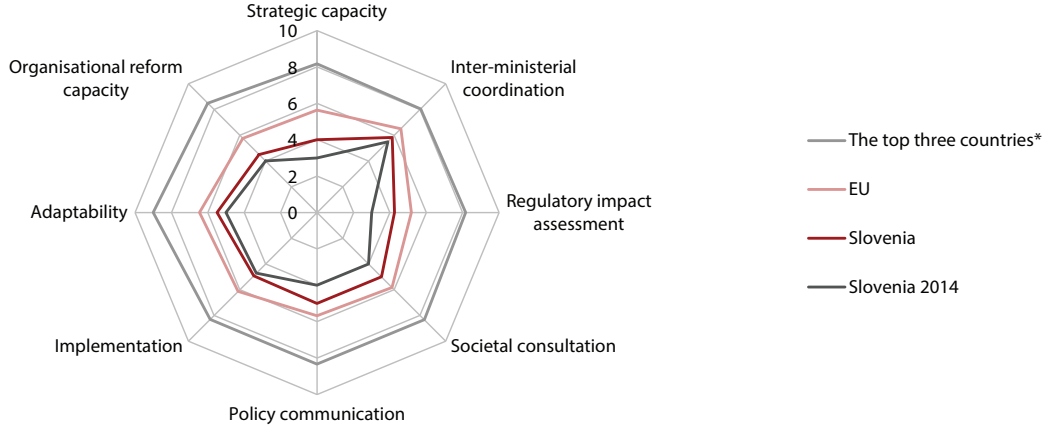
Despite the improvement in individual dimensions, Slovenia still lags behind the EU average in all indicator components. The score is strongly affected by the absence of effective strategic planning and the low participation of various expert groups in government decision-making processes. Major shortcomings were also observed in inter-ministerial cooperation. Although line ministries are required to use tools such as regulatory impact assessment (RIA) and stakeholder engagement when developing laws and regulations, challenges remain in ensuring that they implement these tools effectively. Moreover, new legislation is still not subject to a systematic and comprehensive assessment of the potential impacts of proposed regulations on public finances, the economy and society (RIA). The implementation of policy measures at various government levels is assessed as significantly worse than in other EU countries, in particular owing to excessive political interference in recruiting in the state administration, even at expert levels.

Table: Indicator of executive capacity, Slovenia and the EU

	2014	2015	2016	2017	2018	2019	SDS 2030 target
Slovenia*	4.37	4.55	4.72	4.67	4.71	4.91	EU average in 2030
EU	6.07	6.09	6.11	6.10	6.10	6.00	

Source: Sustainable governance indicators 2019, 2019; calculations by IMAD.
Note: Scores are between 1 and 10, a higher score being better; * for Slovenia, the indicator was calculated for the first time in 2014.

Figure: Indicator of executive capacity by dimension, 2019



Source: Sustainable governance indicators 2019, 2019; calculations by IMAD.
Note: The top three countries are Sweden, Finland and Denmark. A higher score is better, the highest being 10.

[1] The main limitation of sustainable governance indicators (SGIs) is the small size of the sample of experts included in the survey in individual countries.

The Rule of Law Index 5.3

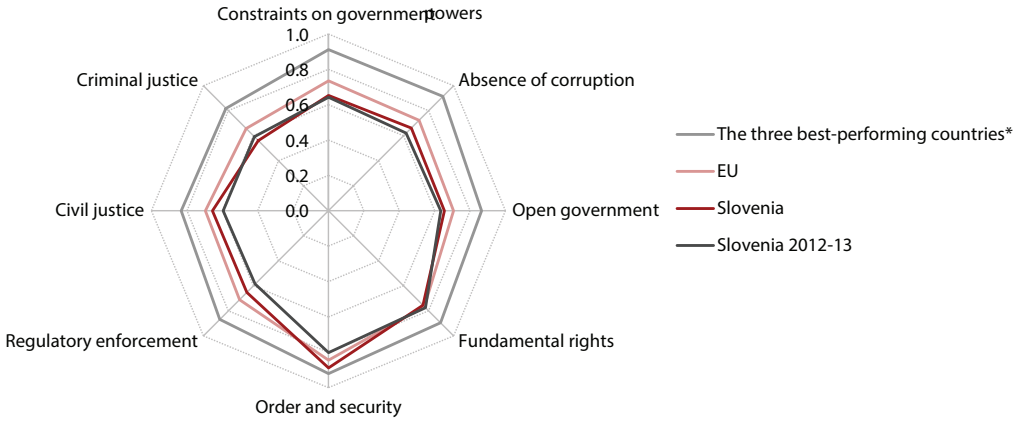
Slovenia ranks in the lower half of EU countries on the Rule of Law Index; its ranking has not changed significantly since 2012. The rule of law highlights the principle of equality before the law and emphasises the inviolability of the authority of law and rules. This means that the government itself respects the law, that the functioning of government bodies is bound by law, and that fundamental human rights and freedoms are ensured. By being ranked in the lower half of EU countries on the Rule of Law Index, Slovenia lags behind the SDS target. Its ranking points to weaknesses in the adherence to the rule of law. Slovenia scores best in the category of order and safety, where it is close to the top-ranking Scandinavian countries. The only other category where it also ranks close the EU average is fundamental rights, where it scores well on the indicators of right to life, security and labour rights. On the other hand, it lags significantly behind the EU average in criminal justice, the indicators in this area reflecting mistrust in the justice system, especially in its independence. The weaknesses in the adherence to the rule of law are also indicated by the low indicator values in the areas of constraints on government powers (for example the sanctions for official misconduct indicator) and absence of corruption (for example the risk of corruption in the executive branch and in the legislature).

Table: Rule of Law Index, Slovenia and the EU

	2012–2013	2014	2015	2016	2017	2018	2019	SDS 2030 target
Ranking among 21 EU Member States								
Slovenia	15	15	15	15	15	14	14	Ranking in the top half of EU countries
Scores								
Slovenia	0.66	0.65	0.66	0.67	0.67	0.67	0.69	
EU*	0.72	0.72	0.72	0.73	0.73	0.73	0.73	

Source: WJP Rule of Law Index 2020, 2020.
Notes: Scores are between 0 and 10, higher meaning better; data for the overall index are available from 2012 onwards; * data available only for 21 EU Member States.

Figure: Rule of Law Index by sub-components, 2019



Source: WJP Rule of Law Index 2020, 2020.
Notes: Scores are between 0 and 1, higher meaning better; data are for 21 EU Member States; the three best performing countries are Denmark, Finland and Sweden.

Time needed to resolve litigious civil and commercial cases 5.4

The expected time needed to resolve litigious civil and commercial cases[1] lengthened somewhat in 2014–2017, meaning that the gap with the EU average widened. By implementing the Lukenda Project and other structural reforms (such as new solvency legislation), Slovenia shortened the expected duration of litigious civil and commercial cases by more than 40% in 2008–2014. Since 2014, however, the time needed to resolve a case has lengthened slightly (to 292 days in 2017), being longest for court proceedings related to money laundering. Despite the shortening of the length of proceedings in the previous decade, Slovenia still lags behind the EU average and its gap with the EU is widening. This can be attributed mainly to new competences given to the courts and a larger number of major cases. Meanwhile, the expected length of second- and third-instance proceedings – where Slovenia performs better than the EU average – is shortening. However, owing to the different methodology and data used in the calculation, the expected disposition time differs from the time actually taken to resolve a case.

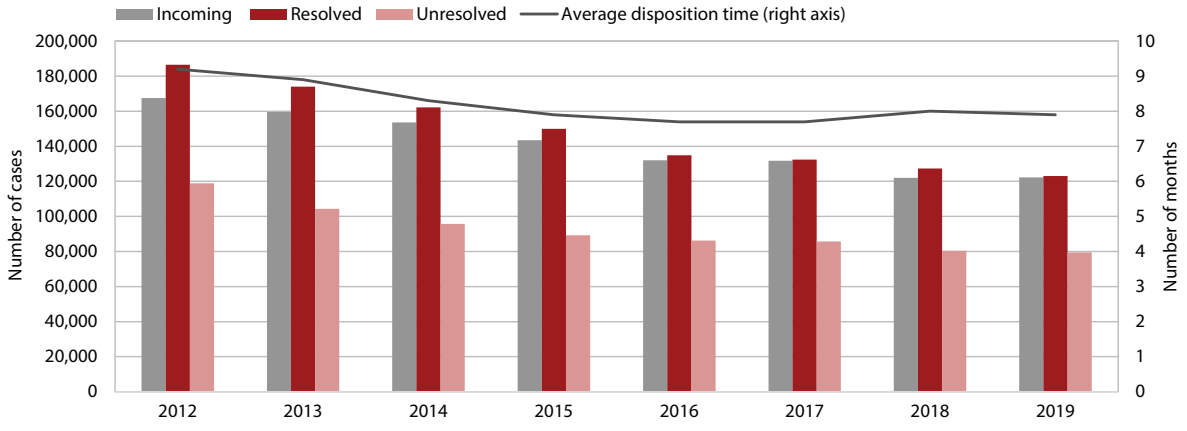
The average actual disposition time for major cases[2] has not changed significantly in the last four years; in 2018, it was 7.9 months. Up to 2016, the time needed to resolve a major case was rapidly decreasing, largely as a consequence of a smaller incoming caseload and greater efficiency on the part of the courts. The clearance rate for major cases[3] exceeds 100%, meaning that the courts resolved more cases than come in. Since 2016, the time needed to resolve major cases has no longer been decreasing, which can be attributed both to the larger number of more demanding proceedings and to new competences given to the courts through changes to legislation. The share of pending major cases in total unresolved cases is therefore increasing (45% in 2016; 60% in 2019). The average time needed to resolve a case more than halved in the last four years, to 1.4 months in 2019.

Table: Time needed to resolve litigious civil and commercial cases at first instance, in days

	2008	2010	2012	2013	2014	2015	2016	2017	SDS 2030 target
Slovenia	460	315	318	301	270	277	280	292	200 days
EU	299	288	278	300	253	244	244	215	

Source: The 2019 EU Justice Scoreboard (EC), 2019.

Figure: Major cases at courts, Slovenia



Source: Opening of the Judicial Year 2020 (Supreme Court), 2020.

[1] The expected length of proceedings indicates the estimated time (in days) needed to resolve a case in court, i.e. the time taken by the court to reach a decision at first instance.

[2] Major cases, which account for around 15% of the total caseload, are all cases defined as such in the methodology for recording statistical data, which is published at: http://www.mp.gov.si/si/obrazci_evidence_mnenja_storitve/uporabni_seznami_imeniki_in_evidence/sodna_statistika/

[3] The clearance rate is the ratio of the number of resolved cases to the number of incoming cases in the last 12 months expressed in %.

The Corruption Perception Index 5.5

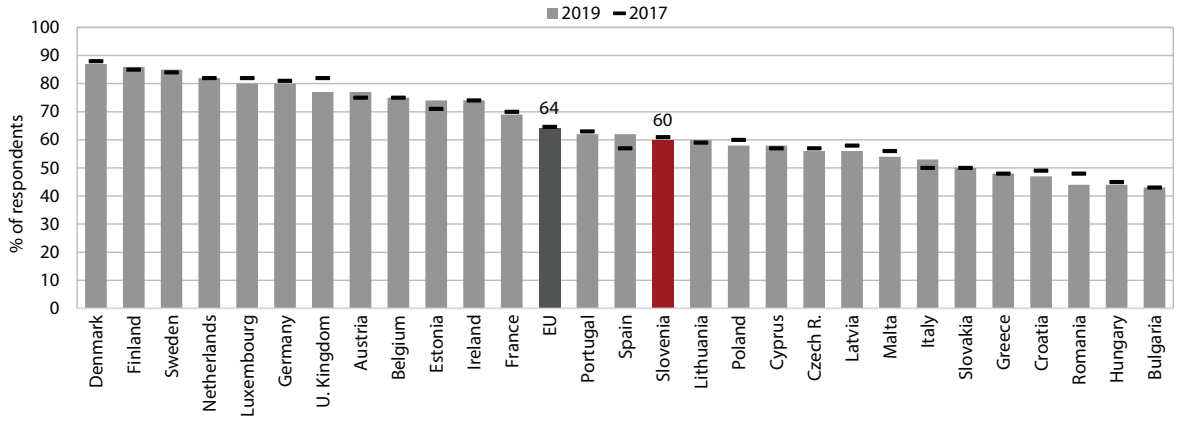
The perception of corruption has not changed significantly in the last eight years and remains higher than the EU average. The Corruption Perception Index (CPI) is based on the rate of public sector corruption as perceived by businesspeople, experts and analysts. After 2011, the number of reports of suspected corruption increased significantly, which in part can be attributed to a more visible role of the Commission for the Prevention of Corruption and hence greater awareness of corruption and more corruption cases reported. The Commission meanwhile finds that the most corruption in the public sector is perceived to exist in public procurement (around 15% of all incidences reported), in administrative procedures, in circumstances that represent a conflict of interest, in procedures regarding the disposal of physical assets owned by the government or municipalities, and in health care and pharmacy. The perceptions of corruption have not changed significantly over the last few years, as, according to Transparency International, there have been no key systemic changes towards improving the prevention and prosecution of corruption. According to Eurobarometer, 89% of persons asked think that corruption is widespread in Slovenia, but at the same time, a large majority of respondents have no personal experience of corruption.[1] The high perception of corruption in Slovenia can to a great extent be attributed to respondents believing that high-profile and major cases of corruption are not adequately sanctioned.

Table: Corruption Perception Index

	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Slovenia	61	67	66	64 (13)	59 (16)	61 (16)	57 (17)	58 (17)	60 (16)	61 (15)	61 (14)	60 (15)	60 (15)
EU	62	64	63	62	62	63	63	64	66	**65**	**65**	65	64

Source: Corruption Perception Index 2019 (Transparency International), 2020.
Notes: The index scale ranges from 0 to 100, where 0 means that a country is perceived to be highly corrupt and 100 means that a country is perceived to be "very clean". The figure in brackets shows Slovenia's rank among EU Member States.

Figure: Comparison of Corruption Perception Index scores between years



Source: Corruption Perception Index 2019 (Transparency International), 2020. Notes: The index scale ranges from 0 to 100, where 0 means that a country is perceived to be highly corrupt and 100 means that a country is perceived to be "very clean". The figure in brackets shows Slovenia's rank among EU Member States.

[1] In Slovenia, fewer than 10% of respondents have experienced

The Global Peace Index 5.6

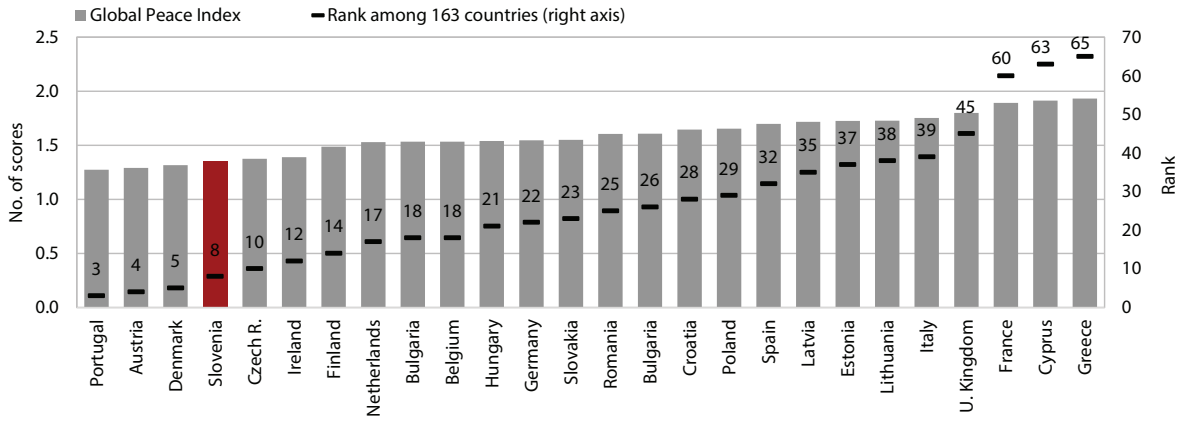
Slovenia is ranked among the most peaceful countries in the world. Since 2016, it has been among the ten most peaceful countries in the world according to the Global Peace Index.[1] In 2019, it was 8th among 163 countries in the world and 4th among EU Member States, but the value of the index was the lowest in the last 12 years. While Slovenia is among the ten best performing countries in the area of militarisation (3rd) and societal safety and security (8th), it scores lower in the area of domestic and international conflict (60th), which is mainly due to the slightly worse assessment of relations with neighbouring countries and the intensity of internal conflict. In all three categories Slovenia still ranks higher than in the previous year. Since 2008, it has also scored slightly worse on the indicators of the number of internal security officers and police per 100,000 people, the level of perceived criminality in society, and the likelihood of violent demonstrations.[2] Compared with other countries, Slovenia nevertheless ranks relatively high in these areas too, the slightly lower scores pointing only to certain weaknesses that do not jeopardise peace in the country. According to the Global Peace Index, Europe remains the most peaceful region in the world, with six European countries among the ten most peaceful in the world (five of which are EU Member States). The Middle East and North Africa remain the least peaceful regions. The most peaceful country in the world remains Iceland, while Afghanistan replaced Syria as the least peaceful country in the world. The results of the Global Peace Index otherwise deteriorated over the last decade, primarily owing to the intensifying of conflicts in the Middle East and terrorism.

Table: Global Peace Index, Slovenia

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	SDS 2030 target
Ranking among 163 countries													To be ranked among the top 10 countries in the world and the top 5 in the EU.
Global Peace Index	12	7	6	6	11	11	14	13	10	9	10	8	
Number of scores													
Global Peace Index	1.390	1.388	1.387	1.388	1.438	1.434	1.430	1.421	1.390	1.373	1.390	1.355	
Militarisation	1.2	1.2	1.2	1.2	1.4	1.4	1.4	1.4	1.3	1.2	1.3	1.2	
Societal security and safety	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	
Domestic and international conflict	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.4	

Source: 2019 Global Peace Index (Institute for Economics and Peace), 2019.
Note: Number of scores from 1 to 5; a lower score is better.

Figure: Global Peace Index, EU Member States, 2019



Source: 2019 Global Peace Index (Institute for Economics and Peace), 2019.
Note: Data for 26 EU Member States (data for Malta and Luxembourg not available); number of scores from 1 to 5, a lower score being better.

[1] The Global Peace Index, produced each year by the Institute for Economics and Peace (IEP) in cooperation with the Economist Intelligence Unit (EIU), evaluates countries according to their levels of peacefulness. It includes 23 qualitative and quantitative indicators on a scale of 1–5, grouped in three thematic domains: militarisation (7 indicators), societal safety and security (10 indicators), and ongoing domestic and international conflict (6 indicators).

[2] All three indicators fall under the area of societal safety and security.

Share of households reporting problems with crime, vandalism or violence in the local area 5.7

The share of households[1] reporting problems with crime, vandalism or violence in the local area has declined for the fourth consecutive year and remains below the EU average. In 2018, it was 7.9% in Slovenia, the lowest in the last ten-year period and in line with the SDS target. The incidence of crime is significantly affected by socio-economic factors, which is also evident from differences between the statistical regions. More crime problems are reported in urban areas and, broken down by region, in the more developed western part of Slovenia (the cohesion region Zahodna Slovenija), where only the Gorenjska region did not exceed the Slovenian and EU averages according to this indicator. In the eastern part of Slovenia (the cohesion region Vzhodna Slovenija), the most developed region, Jugovzhodna Slovenija, stands out, exceeding both the Slovenian and the EU average. Problems with crime, violence or vandalism in the neighbourhood were most frequently reported by households of two adults where at least one is older than 65 years (9.6%) and households of two adults and two children (9%). Both shares were lower than the EU average.

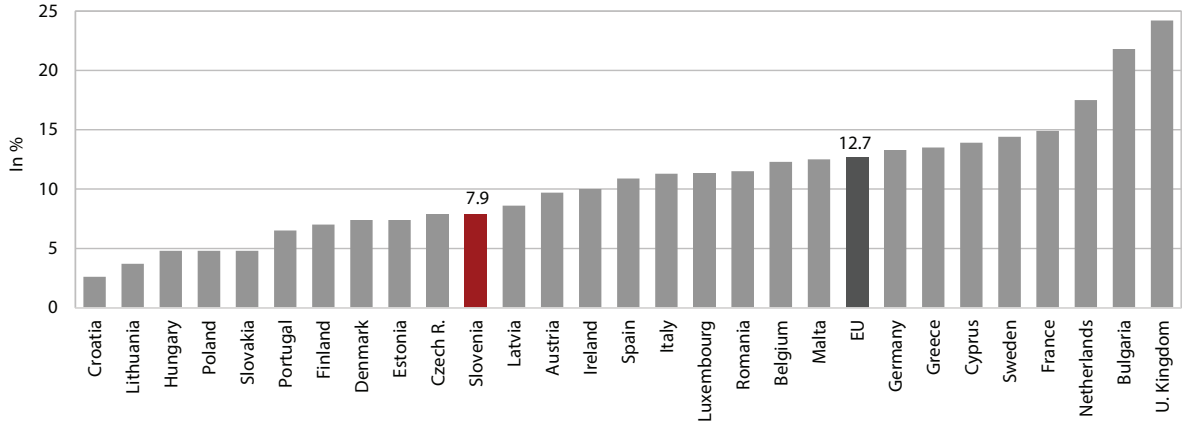
Slovenia remains a safe country compared with other EU countries, which has a positive impact on the quality of life. The results of the European Social Survey indicate that 11% of respondents had a personal experience with burglary or physical assault in 2018, which is similar to previous years and lower than the average for countries included in the survey.[2] Besides by the actual situation, assessment of quality of life is also affected by the feeling of being threatened in the immediate environment, but the share of individuals feeling unsafe remains low.[3] In 2017, 97% of Slovenian respondents said that their immediate neighbourhood was a secure place to live in and 95% of them said that their country was a secure place to live in, which is more than in 2015 and more than on average in the EU.[4]

Table: Crime, vandalism or violence in the local area, in %

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	SDS 2030 target
Slovenia	10.5	9.5	10.2	8.7	12.5	9.3	8.6	8.1	9.1	10.1	9.2	8.5	8.0	7.9	< 10 %
EU	N/A	N/A	15.9	14.7	16.0	14.4	14.1	13.6	14.5	14.0	13.6	13.0	12.0	12.7	

Source: Eurostat, EU-SILC, 2020.
Notes: Data for the EU from 2007 to 2009 are for the EU-27, from 2010 onwards for the EU-28; N/A – not available.

Figure: Crime, vandalism or violence in the local area, EU Member States, 2018



Source: Eurostat, EU-SILC, 2020.

[1] The sampling unit described in the Survey of Living Conditions (Eurostat, EU-SILC) is private households or individuals living in these households in Slovenia (the share of households having problems with crime, violence or vandalism in the neighbourhood where they live).
[2] Since 2008, the share of respondents with a personal experience with burglary or physical assault has been hovering between 9% and 11%. The survey for the group of EU countries shows the average result for selected countries regardless of the size of national samples or country size. The selected countries are countries for which data were available at the time of the survey (Belgium, Germany, Finland, France, the UK, Ireland, Netherlands, Poland, Sweden and Slovenia).
[3] In 2018, 94% of respondents felt safe walking alone in their neighbourhood at night (European Social Survey, 2018).
[4] Special Eurobarometer 464b: Europeans' attitudes towards security, 2017.

Expenditure on official development assistance 5.8

Expenditure on official development assistance remains significantly lower than international commitments. Official development assistance is defined as aid provided by advanced countries in support of sustainable development in developing countries.[1] Slovenia allocated EUR 70.76 million for development assistance in 2018, 5% more than in 2017, thus retaining the share of GNI dedicated for this purpose, which remained significantly below the EU average[2] (the gap with the EU average being wider than a decade before). Expenditure on official development assistance (0.16% of GNI) falls considerably short of international commitments, according to which Slovenia should strive to increase the share of GNI for this purpose to 0.33% by 2030.

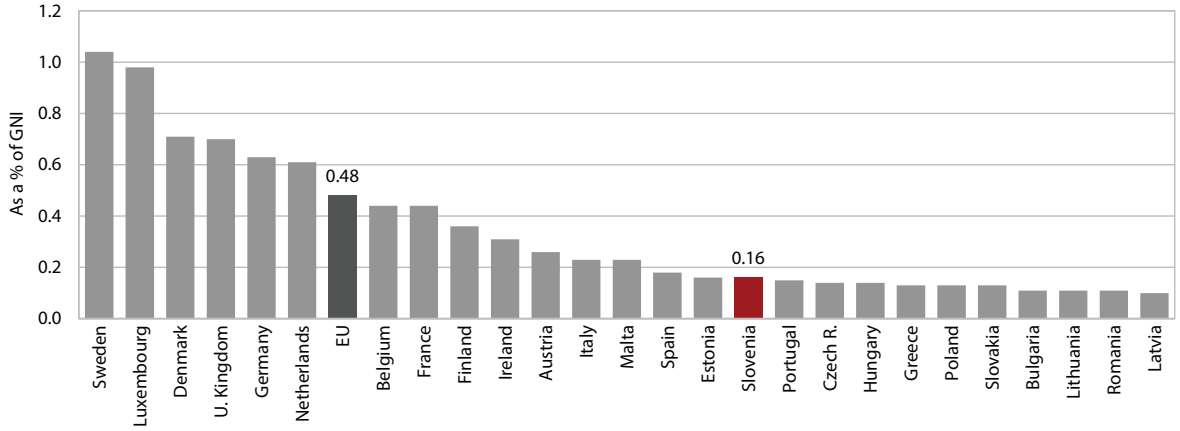
In 2018, the structure of assistance was affected by migration developments, as in previous years. The costs of caring for refugees and migrants in Slovenia increased again, but these were significantly lower than in 2015 and 2016. Migration developments related to the Middle East situation had a significant impact on the change in the structure of assistance in 2015 and 2016, particularly on account of increased costs of assisting refugees and migrants in Slovenia. In 2017, these costs fell significantly. Together with assistance focused on specific projects, this made the greatest contribution to the increase in funds for official development assistance in 2018.[3] Development assistance is the sum of multilateral assistance (funding provided for regular development activities of international organisations) and bilateral assistance.[4] In 2018, Slovenia again dedicated the most of its bilateral aid[5] to Western Balkan countries, 68% in total, which is more than on average in the last five years (61%). Most of this aid was allocated for projects in the area of education (funds for paying tuition fees and scholarships for citizens from partner countries studying in Slovenia). Expenditure on multilateral assistance, most of which is dedicated to EU development cooperation programmes, also increased last year.

Table: Official development assistance as a % of GNI

	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Slovenia	0.11	0.13	0.15	0.13	0.13	0.13	0.13	0.13	0.15	0.19	0.16	0.16
EU	0.42	0.40	0.42	0.44	0.42	0.39	0.41	0.41	0.46	0.53	0.50	0.48

Source: Eurostat Portal Page – Sustainable Development Indicators, 2020.

Figure: Official development assistance as a % of GNI in EU Member States in 2018



Source: Eurostat Portal Page – Sustainable Development Indicators, 2020.
Note: Data for Cyprus and Croatia not available.

[1] In 2018, the legal and strategic framework for international development cooperation was renewed. In April 2018, Slovenia adopted a new International Development Cooperation and Humanitarian Aid of the Republic of Slovenia Act; in November, the Decree on the Implementation of the International Development Cooperation and Humanitarian Aid of the Republic of Slovenia; and in December, the Strategy of International Development Cooperation and Humanitarian Assistance of the Republic of Slovenia Until the Year 2030.

[2] In most EU countries, the share of GNI for official development assistance declined in 2018 or remained unchanged. Slovenia otherwise allocates a higher share of gross national income for this purpose than most countries that acceded to the EU in 2004 or later.

[3] These two categories of aid rose by more than one million euros each. Scholarships for citizens from partner countries studying in Slovenia and funds for raising awareness of the importance of international development cooperation also increased significantly.

[4] For bilateral assistance, EUR 24.81 million was allocated in 2018. Bilateral assistance is the sum of disposable bilateral assistance (EUR 21.67 million) and administrative costs (EUR 3.14 million).

[5] The priority development regions being (i) the Western Balkans (Bosnia and Herzegovina, North Macedonia, Serbia, Montenegro, Kosovo, and Albania), (ii) the European neighbourhood, and (iii) Sub-Saharan Africa.

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Abbreviations

LFS	Labour Force Survey
ARSO	Slovenian Environment Agency
GDP	gross domestic product
GERD	Gross domestic expenditure on R&D
GNP	gross national product
CAF	Common Assesment Framework
CEPEJ	European Commission for the Efficiency of Justice)
CH_4	methane
CO_2	carbon dioxide
CPI	Consumer Price Index
DARS	Motorway Company of the Republic of Slovenia
VAT	value added tax
DESI	Digital Economy and Society Index
DRSI	Slovenian Infrastructure Agency
BAMC	Bank Assets Management Company.
ECB	European Central Bank
EFQM	European Foundation for Quality Management
EII	European Innovation Index
EIPA	European Institute for Public Administration
EC	European Commission
EMMS	common methodology for measuring administrative costs
EMU	Economic and Monetary Union
EPO	European Patent Office
ECHR	European Court of Human Rights
ESC	Economic and Social Council
ET 2020	Education and Training 2020
ETS	Emission Trading System
EU	European Union
EUIPO	European Union Intellectual Property Office
EUR	euro
EUROAC	The Academic Profession in Europe: Responsens to Societal Challanges
EUROSTAT	The Statistical Office of the European Union
FDA	functionally derelict areas
FURS	Financial Administration of the Republic of Slovenia
GDPR	General Data Protection Regulation
GEM	Global Entrepreneurship Monitor
GFN	Global Footprint Network
Gg	gigagram (1000 tonnes)
GRECO	The Group of States against Corruption

SMARS	Surveying and Mapping Authority of the Republic of Slovenia
ha	hectare
IAEs	innovation-active enterprises
ICTWSS	Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts
IDEA	International Institute for Democracy and Electoral Assistance
ITR	implicit tax rate (on labour, capital, consumption and energy)
IER	Institute for Economic Research
ICT	information and communication technology
IMD	Institute for Management Development
IMF	Internatinal Monetary Fund
ISCO	International Standard Classification of Occupations
CPC	Commission for the Prevention of Corruption
UAA	utilised agricultural area
MGRT	Ministry of Economic Development and Technology
MJU	Ministry of the Interior
MKGP	Ministry of Agriculture, Forestry and Food
MNZ	Ministrstvo za notranje zadeve
MRA	Master Restructuring Agreement
SMEs	small and medium-sized enterprises
MZZ	Ministry of Foreign Affairs
N_2O	nitrous oxide
NATO	North Atlantic Treaty Organization
NKMB	Nova kreditna banka Maribor
NLB	Nova ljubljanska banka
NPK fertilizers	mineral fertilisers containing nitrogen, phosphorus and potassium
FDI	foreign direct investment
NUTS	The Nomenclature of Territorial Units for Statistics
pp	percentage point
OECD	Organisation for Economic Cooperation in Development
OHIM	Office for Harmonization in the Internal Market
OP ETID	the OECD's Programme for the International Assessment of Adult Competences
RES	renewable energy sources
UN	United Nations
PIAAC	OECD Programme for the International Assessment of Adult Competences
PISA	Programme for international student assessment
PPP	purchasing power parity
PM	particulate matter
PMR	product market regulation
PPS	purhaching power standard
PTŽ	life expectancy
REER ULC	real effective exchange rate based on unit labour cost

RIA	Regulatory Impact Assesment
RISS	Research and Innovation Strategy of Slovenia
ROE	return on equity
R&D	research and development activity
RS	Republic of Slovenia
RULC	real unit labour costs
S4	Slovenia's Smart Specialisation Strategy
SSH	Slovenian Sovereign Holding
SHA	System of Health Accounts
SHARE	Survey of Health, Ageing and Retirement in Europe
SID	Slovenian Export Corporation
SKD	Standard Classification of Activities
PPS	purchasing power standard
SPIRIT	Public Agency for Entrepreneurship, Internationalisation, Foreign Investments and Technology
SEF	the Slovene Enterprise Fund
SRIPs	Strategic Research and Innovation Partnerships
SDS	Slovenia's Development Strategy
SURS	Statistical Office of the Republic of Slovenia
TAXUD	Taxation and Customs Union Directorate
TEA	Total early-stage Entrepreneurial Activity
TEŠ	the Šoštanj Thermal Power Plant
TFP	Total factor productivity
GHG	greenhouse gases
tkm	tonne-kilometre
SIPO	Slovenian Intellectual Property Office
IMAD	Institute of Macroeconomic Analysis and Development
USD	US Dollar
WEF	the World Economic Forum
WIPO	World Intellectual Property Organization
ZGD	Companies Act
ZPIZ	Pension and Disability Insurance Institute of Slovenia
ZUJF	Fiscal Balance Act

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