

development report 2018

Development Report 2018

Published by: IMAD, Ljubljana, Gregorčičeva 27

Responsible Person: Boštjan Vasle, MSc, Acting Director

Editor: Rotija Kmet Zupančič, MSc

Assistant Editor: Matevž Hribernik, MSc

Authors of the Development Report 2018:

Marijana Bednaš, MSc, Tanja Čelebič, MSc, Lejla Fajić, Barbara Bratuž Ferk, MSc
Marko Glažar, PhD, Tina Golob Šušteršič, PhD, Marjan Hafner, MSc, Matevž Hribernik, MSc,
Katarina Ivas, MSc., Alenka Kajzer, PhD, Rotija Kmet Zupančič, MSc, Mojca Koprivnikar
Šušteršič, Tanja Kosi Antolič, PhD, Mateja Kovač, MSc, Valerija Korošec, PhD,
Janez Kušar, MSc, Jože Markič, PhD, Helena Mervic, Ana Murn, PhD, Tina Nenadič, MSc
Janja Pečar, Mitja Perko, Jure Povšnar, Andraž Rangus, PhD, Matija Rojec, PhD, Urška Sodja,
Metka Stare, PhD, Dragica Šuc, MSc, Branka Tavčar, Ana Vidrih, MSc, Eva Zver, MSc.

Editorial board: Marijana Bednaš, MSc, Lejla Fajić, Matevž Hribernik, MSc

Alenka Kajzer, PhD, Mateja Kovač, MSc, Janez Kušar, MSc, Andraž Rangus, PhD

Metka Stare, PhD, Boštjan Vasle, MSc

Translation: Sebastijan Razboršek Maček, Marija Kavčič

Language Editing: Amidas d.o.o.

DTP: Bibijana Cirman Naglič, Ema Bertina Kopitar

Figures: Bibijana Cirman Naglič

Print: Eurograf d.o.o.

Circulation: 135 copies

Ljubljana, June 2018

ISSN 1581-6907 (print)

ISSN 2464-0506 (pdf)

© The contents of this publication may be reproduced in whole or in part
provided that the source is acknowledged.

Table of contents

Summary	7
Key findings and recommendations	7
Overview of development baselines according to the strategic orientations of the SDS	8
Introductory remarks	10
1 A highly productive economy creating value added for all	11
1.1 Economic stability	12
1.2 A competitive and socially responsible business and research sector	17
1.2.1 Competitiveness of the business sector	17
1.2.2 Research, innovation and digital capabilities	21
2 Lifelong learning	25
2.1 Knowledge and skills for a high quality of life and work	26
2.2 Culture and language as main factors of national identity	29
3 An inclusive, healthy, safe and responsible	31
3.1 A decent life for all	32
3.1.1 Impact of material conditions	32
3.2.2 Impact of demographic change	34
3.2 An inclusive labour market and high-quality jobs	37
3.3 A healthy and active life	40
4 A preserved healthy natural environment	43
4.1 A low-carbon circular economy	44
4.2 Sustainable natural resource management	48
5 A high level of cooperation, training and effective governance	53
5.1 Efficient governance and high-quality public service	54
5.1.1 Performance of public administration and provision of public services	55
5.1.2 Impact of public institutions on the economy and business sector	56
5.2 A trustworthy legal system	59
5.3 A safe and globally responsible Slovenia	62
5.3.1 Safety	62
5.3.2 Global responsibility	63
Appendix – Indicators of Slovenia's development	65
1 A highly productive economy creating value added for all	67
1.1 Gross domestic product per capita in purchasing power standards	69
1.2 General government debt	70
1.3 Real GDP growth	71
1.4 General government balance	73
1.5 Current account of the balance of payments and net international investment position	75
1.6 Financial system development	74
1.7 Regional variation in GDP per capita	75
1.8 The development risk index by region	76
1.9 Productivity	77
1.10 The European Innovation Index	78
1.11 The Digital Economy and Society Index	79
1.12 Export market share	80
1.13 Unit labour costs	81
1.14 Exports of high-technology goods and knowledge-intensive services	82
1.15 Foreign direct investment	83
1.16 R&D expenditure and the number of researchers	84
1.17 Innovation activity of enterprises	85

1.18	Intellectual property.....	86
1.19	Corporate environmental responsibility	87
2	Lifelong learning	89
2.1	Share of the population with tertiary education	91
2.2	Participation in lifelong learning	92
2.3	Performance in reading, mathematics and science (PISA)	93
2.4	Enrolment in upper secondary and tertiary education	94
2.5	Graduates from tertiary education	95
2.6	Education expenditure	96
2.7	Attending cultural events.....	97
2.8	Share of cultural performances held abroad	98
3	An inclusive, healthy, safe and responsible society	99
3.1	Social exclusion rate	101
3.2	Inequality of income distribution	102
3.3	Experience of discrimination	103
3.4	Median equivalised disposable income.....	104
3.5	Life satisfaction.....	105
3.6	Social protection expenditure.....	106
3.7	Housing deprivation rate.....	107
3.8	Housing cost overburden rate.....	108
3.9	Material deprivation rate.....	109
3.10	Employment rate.....	110
3.11	At-risk-of-poverty rate of employed persons	111
3.12	Unemployment rate and long-term unemployment	112
3.13	Young people not in employment, education or training.....	113
3.14	Precarious and temporary employment.....	114
3.15	Absence from work due to illness.....	115
3.16	Accidents at work and other work-related health problems	116
3.17	Healthy life years.....	117
3.18	Gender Equality Index	118
3.19	Amenable mortality.....	119
3.20	Health expenditure	120
3.21	Expenditure on long-term care.....	121
3.22	Overweight and obesity in adults.....	122
3.23	Life expectancy	123
3.24	Unpaid voluntary work.....	124
4	A preserved healthy natural environment	125
4.1	Resource productivity.....	127
4.2	Share of renewable energy sources in final energy consumption.....	128
4.3	Emission productivity	129
4.4	Energy efficiency	130
4.5	Modal split of transport	131
4.6	Waste.....	132
4.7	Environmental taxes.....	133
4.8	Utilised agricultural area.....	134
4.9	Quality of watercourses	135
4.10	Ecological footprint.....	136
4.11	Air quality	137
4.12	Agricultural intensity.....	138
4.13	Intensity of tree felling	139
4.14	Functionally derelict areas.....	140
5	A high level of cooperation, training and effective governance	141
5.1	Trust in institutions	143
5.2	Executive capacity	144
5.3	Rule of law index.....	145
5.4	Expected time needed to resolve civil litigious and commercial cases.....	146
5.5	Corruption Perception Index	147

5.6	Share of households reporting crime, vandalism or violence in the local area	148
5.7	Global Peace Index	149
5.8	Expenditure on official development assistance	150
	Bibliography and sources	151
	List of acronyms and abbreviations	159

Index of figures

Figure:	SDS 2030 performance indicators at the level of strategic orientations, standardised indicator values	9
Figure 1:	Primary objective and strategic orientations of the Slovenian Development Strategy 2030	10
Figure 2:	Structure of GDP growth, Slovenia	12
Figure 3:	Beveridge curve, Slovenia	13
Figure 4:	Annual growth of loans to domestic non-banking sectors and share of claims overdue by more than 90 days, Slovenia	14
Figure 5:	Balance and structural balance of the general government sector, Slovenia	14
Figure 6:	Change in general government revenue and expenditure in different periods, Slovenia	15
Figure 7:	Productivity (value added per employee) of tradable and non-tradable sectors	17
Figure 8:	Unit labour costs and Slovenia's market share on foreign markets	18
Figure 9:	Share of export of value added in total value added	19
Figure 10:	Domestic value added in foreign exports as a share of domestic exports (forward linkages in GVC)	19
Figure 11:	Slovenia's innovation performance by EII sub-areas compared to the EU (2010=100) ..	21
Figure 12:	Investment in R&D, Slovenia	22
Figure 13:	Participation of adults (25–64) in lifelong learning, by education and age, 2016, in % ..	27
Figure 14:	Share of employed people aged 25–34 with tertiary education overqualified for their job, 2016	27
Figure 15:	Number of published books (works), first issues and reprints	30
Figure 16:	Real growth in disposable income per household member in selected income brackets	32
Figure 17:	Scenarios of changes in the size of the working age population, labour force and active population	34
Figure 18:	Share of temporary employment among youths (15–24)	38
Figure 19:	GDP growth compared to growth of energy, material and water consumption and greenhouse gas emissions	44
Figure 20:	Domestic material consumption and relative resource productivity, Slovenia	44
Figure 21:	Energy productivity in Slovenia and in manufacturing; share of road transport in final energy consumption	45
Figure 22:	Greenhouse gas emissions and emission productivity	46
Figure 23:	Share of rail transport in overall passenger transport, in passenger kilometres	46
Figure 24:	Generation of waste excluding major mineral wastes per GDP, 2014	47
Figure 25:	Ecological footprint	48
Figure 26:	Biocapacity and structure, 2014	48
Figure 27:	Share of protected area, 2016	49
Figure 28:	Degree of self-sufficiency in basic agricultural products, Slovenia	50
Figure 29:	Water productivity, 2015 or latest data available	50
Figure 30:	Number of days with exceeded daily limit of 50 µg PM10/m3	51
Figure 31:	Actual land use by region, 2017	51
Figure 32:	Functionally derelict areas by region, 2017	52
Figure 33:	Government efficiency indicators for Slovenia according to IMD and WEF	55
Figure 34:	Index of executive capacity, 2017	55
Figure 35:	Main obstacles to doing business in Slovenia (WEF survey)	56
Figure 36:	Assets under BAMC management	57
Figure 37:	Indicators of efficiency of the judiciary in Slovenia according to the WEF	60

Index of tables

Table 1: Budget appropriations for environment and energy as a share of total government budget appropriations for R&D.....22

Table 2: Share of types of income in 1st, 3rd and 5th quintiles in disposable income, Slovenia..33

Table 3: Long-term projections of age-related public expenditure35

Index of boxes

Box 1: Social responsibility of organisations20

Box 2: Job quality – Concepts and measurement39

Index of maps

Map 1: Development risk index, 2017 (based on 2013–2016 data)76

Map 2: Location and size of all FDAs recorded in the territory of Slovenia, 2017..... 140

Summary

Key findings and recommendations

This year's Development Report presents an overview of development baselines according to the strategic orientations set out in the Slovenian Development Strategy 2030 (SDS) adopted by the government of Slovenia at the end of 2017. The SDS's primary goal is to ensure a high quality of life for all by realising the following strategic orientations: (i) a highly productive economy that creates value added for all; (ii) lifelong learning; (iii) an inclusive, healthy, safe and responsible society; (iv) a well-preserved natural environment; and (v) high levels of cooperation, competence and governance efficiency.

Positive developments in the last few years

Back on track to convergence with more developed Member States, Slovenia has been moving towards an inclusive society in the last few years; it has also reduced pressures on the environment. After widening significantly during the crisis, Slovenia's development gap with the EU average started to narrow in 2016 owing to measures to stabilise economic conditions, the strengthening of the economic cycle and improved competitiveness. With the recovery of the economy, household income also resumed its growth, and the risk of social exclusion – which is relatively low by international standards – had fallen to its 2008 level by 2016. The recovery was recorded in the majority of sectors and regions and labour market conditions started to improve for people of most age groups and levels of education, which indicates that Slovenia is moving towards an inclusive society. Certain moves have also been made towards reducing the impact of economic activities on the environment, though the slower growth of energy consumption and emissions compared with GDP growth was, in addition to measures adopted, also due to the structure of GDP growth and milder winters. With the strengthening of economic activity, the environmental burden has thus also started to rise.

Key development challenges

In certain areas developments have deviated significantly from the principles of sustainable development and pose a risk to the achievement of the SDS's primary objective. The sustainability and stability of economic development and the consequent improvement in the living standards and wellbeing of the population are threatened by relatively low productivity growth and only slow adjustment to demographic change. From the point of view of creating an inclusive society, particularly the high labour market segmentation of young people and the relatively low economic and social inclusion of older people stand out as problematic. From the environmental point of view, sustainable development is threatened primarily by high (and rising) GHG emissions from transport, the interrupted increase in the share of renewable energy sources and unsustainable use of land.

Recommendations for development policies

To achieve the SDS's central goal, it is essential to ensure more sustainable development by balancing its economic, social and environmental components. Priority measures of development policies should be focused on the following:

- **Acceleration of productivity growth** for economic progress and higher living standards. It is essential to strengthen long-term productivity factors, particularly by (i) investment in R&D to support high-quality research work and stable, long-term measures for fostering innovation and accelerating the digital transformation of the economy and society and (ii) a more rapid adjustment of education and training programmes to labour market needs and technological changes.
- **Adjustment to demographic change** to ensure a decent life for all and long-term sustainability of public finances. The emphasis should lie on (i) reforming social protection systems, (ii) strengthening lifelong learning, (iii) promoting a healthy lifestyle and (iv) adapting working and living environments.
- **Transition to a low-carbon circular economy** to reduce the environmental burden and enhance the competitiveness of the economy. This requires a shift towards more sustainable production and consumption patterns, especially by (i) a sustainable and efficient exploitation of natural resources, (ii) a more sustainable mobility system and (iii) education and raising awareness of the urgency of changes towards sustainable development.
- **Increase in the efficiency of the government and its institutions** to support and promote development by (i) reforming the strategic governance of public institutions, (ii) improving the legislative and business environment and (iii) restructuring general government revenue and expenditure to respond to development challenges, particularly those related to the impacts of demographic change.

Overview of development baselines according to the strategic orientations of the SDS

A highly productive economy that creates value added for all

Slovenia lags significantly behind the EU average in terms of economic development, but its current economic conditions and prospects for short-term growth are good.

After widening during the crisis, Slovenia's development gap, which arises from lower productivity compared with the EU average, started to narrow only in 2016 and is still considerably wider than before the crisis. Current economic developments are favourable. Amid rising demand and improved competitiveness, economic activity has been rapidly strengthening since 2014 and the stability of the banking system and public finances, which was disrupted during the crisis, has been restored. Corporate investment activity, a key factor in boosting productivity growth, has also increased notably. Having been low in the first years following the crisis, it has been rising gradually with the strengthening of the economic cycle and improvement in certain structural factors (a decline in corporate indebtedness, better allocation of production factors and an increase in foreign direct investment). The composition of exports has also improved over the longer term and enterprises have become more integrated into global value chains. However, in the areas of R&D, innovation capacity and digitalisation, which are key long-term drivers of productivity growth, only modest progress has been made in recent years. This significantly limits Slovenia's potential for sustainable productivity growth and thus the possibilities for a more radical improvement in living standards. Inter-regional disparities in economic development, relatively small by international comparison, did not increase during the crisis, but particularly the regions in north-eastern Slovenia face more barriers to development compared with the national average.

Lifelong learning

The level of educational attainment of Slovenia's population is relatively high and rising, but not all knowledge and skills are sufficiently adjusted to the current or future needs of the economy and society.

Owing to the many years of good access to education, the participation of young people in education is high, which is also reflected in relatively high shares of people with secondary and tertiary education. Literacy among young people (performance in mathematics, reading and science) has improved significantly and is high by international standards. However, the structure of students enrolled in educational programmes is adjusting to labour market changes only slowly, which shows in certain mismatches between labour supply and demand. Owing to demographic change (a falling number of young people) and, in recent years, increased migration abroad, ensuring an appropriate supply of suitably skilled labour is also a growing challenge in terms of the desired transition to a highly productive economy. Imbalances also exist between the knowledge and skills workers possess and those demanded in the workplace. Moreover, the reading, mathematical and digital skills of older generations and people with a low education are relatively poor. This is where lifelong learning can play a significant role, but adult participation in lifelong learning programmes is still low.

An inclusive, healthy, safe and responsible society

Social inclusion and participation in society are relatively high, but improving the financial situation of older people and the health status of the population remains a challenge, particularly in light of demographic change.

With the recovery of the economy, the material situation of the population has improved. The risk of social exclusion and income inequalities, which both increased during the crisis, have been falling since 2015, and Slovenia continues to perform much better than the EU average in both areas. In recent years favourable results and improvements have also been seen in terms of gender equality, participation in society and perceived discrimination. All of this indicates development towards an inclusive society. However, inequalities on the labour market remain significant, which is manifested in a relatively high share of precarious and temporary jobs, especially for young people. The employment rate among older people also remains relatively low and the poverty rate among older women high, which makes them more vulnerable to social exclusion. Older people are also characterised by low participation in society and greater exposure to discrimination. In health care, positive shifts have been made, but the proportion of years lived in good health is considerably lower than the EU average.

The quality of life is increasingly affected by the ability to adapt to demographic change, which happens to be very intense in Slovenia. Although Slovenia has relatively good access to public services (with the exception of long-term care), the rapid ageing of the Slovenian population increasingly affects the sustainability of social protection systems

and hence their ability to provide decent pensions and high-quality health and long-term care. By virtue of less supply of labour, demographic change also affects Slovenia's potential for further economic development and higher living standards.

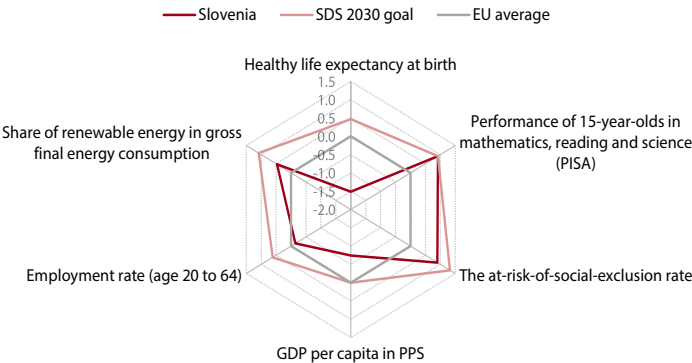
A well-preserved natural environment

The natural environment in Slovenia enables a high quality of life, but it is excessively burdened by economic activities. The natural environment in Slovenia, characterised by forests covering a large part of the land, ample water resources and moderate farming intensity, is relatively well preserved, the exception being excessive air pollution (with dust particles and ozone). The negative consequences of unsustainable land use are being increasingly felt, however (the large extent of brownfield land and expansion of economic activities into agricultural or forest areas). The impact of economic activities on the environment as measured by the indicators of material consumption and emissions per unit of GDP is relatively high. It has decreased slightly since the onset of the crisis, though this not only as a result of sustainable measures for improving efficiency, but also due to weather conditions and lower construction activity. With faster economic growth, the use of natural resources also started to rise. Particularly problematic is the high energy consumption in transport, which still generates significantly more emissions per unit of GDP than the EU average. GHG emissions are the main cause of the relatively high ecological footprint in Slovenia, which exceeds its biological capacity more than the EU average. Slovenia also generates more waste per unit of GDP than the EU average, though it has improved waste management significantly in recent years. Its relatively high use of renewable energy sources is also favourable from the environmental perspective, although this has not been rising for several years.

High levels of cooperation, competence and governance efficiency

The public sector is not sufficiently efficient, nor does it provide a supportive business environment, but the efficiency of the judicial system has improved. The low level of institutional competitiveness reflects poor public sector governance, lengthy administrative and judicial proceedings, a high burden of government regulation, an insufficiently supportive business environment, and a high level of perceived corruption, which is indicated by Slovenia's rankings on international competitiveness scales. The dispersal of and weak connection between public sector bodies impede collaboration between sectors and between different levels of government and increase operational costs. The functioning of the judicial system, however, has improved over the last few years. The number of pending cases has declined and the average time to disposition shortened, which indicates greater efficiency on the part of the judicial system; the quality of the judicial system has also increased according to the available indicators. Trust in public institutions and the rule of law nevertheless remains low. Moreover, international comparisons also point to the need for further improving corporate governance of state-owned enterprises and a faster withdrawal of the state from strategic investments.

Figure: SDS 2030 performance indicators at the level of strategic orientations, standardised indicator values



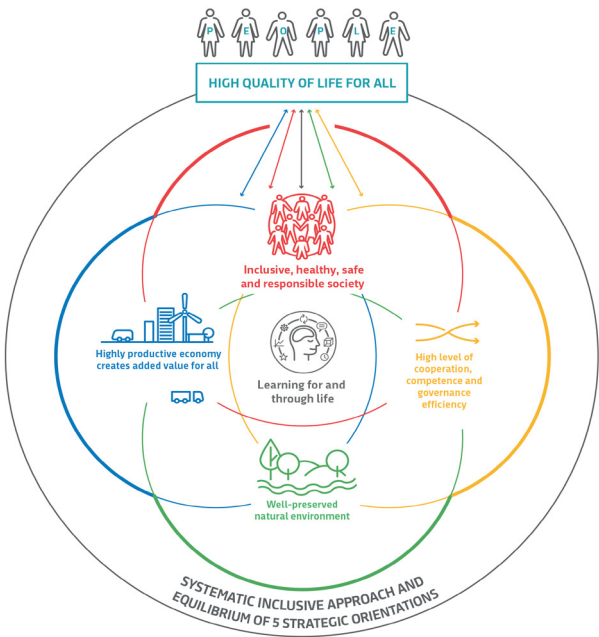
Source: Calculated by IMAD using Eurostat and OECD data, 2017 and 2018.
Notes: Data for Slovenia and the EU refer to 2016; data on healthy life expectancy and the PISA indicator refer to 2015. For the purposes of graphic presentation, the indicator values are standardised using a weighted average and a weighted standard deviation for the EU-28. The total values of the indicators of healthy life expectancy at birth and performance of 15-year-olds in mathematics, reading and science are calculated as the arithmetic means of the standardised values of their sub-indices. The SDS goal for the results of 15-year-olds in mathematics, reading and science (PISA) is to remain in the upper quarter of EU Member States, where Slovenia ranks according to the most recent measurement (in 2015). In social exclusion, exceeding the EU average means that the rate of the risk of social exclusion is lower than the EU average.

Introductory remarks

The Development Report is a document monitoring the implementation of the Slovenian Development Strategy. This year's report presents the baselines for monitoring the realisation of the Slovenian Development Strategy 2030 (SDS), adopted by the government of the Republic of Slovenia on 7 December 2017. The SDS's primary objective is to ensure a high quality of life for all through balanced economic, social and environmental development that creates conditions and opportunities for present and future generations. The basic structure of the report follows the following five strategic orientations identified in the SDS as crucial for ensuring a high quality of life (the main sections of the report): (i) a highly productive economy that creates added value for all; (ii) learning for and through life; (iii) an inclusive, healthy, safe and responsible society; (iv) a well-preserved natural environment; and (v) high levels of cooperation, competence and governance efficiency. The SDS also determined twelve development goals in mutually connected and interdependent areas that are deemed essential for the implementation of the strategic orientations. The report tracks the implementation of each development goal within the strategic orientation (sub-sections of the report) with which the content of the goal is most strongly linked (see Slovenian Development Strategy 2030, Figure 6), although each individual goal can contribute to the implementation of several strategic orientations.

The appendix to the report presents indicators for monitoring the implementation of the SDS in more detail. Thirty 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 (for example because of their specific content). The report uses data sources available as of 31 March 2018.

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



Source: Slovenian Development Strategy 2030, 2017

1

A highly productive economy creating value added for all

As a result of measures to stabilise the economy, the gradual strengthening of the economic cycle and an improvement in competitiveness, 2016 marked the start of a narrowing of Slovenia's development gap with the EU average, which had widened during the crisis. The gap is largely a consequence of the relative low productivity of the Slovenian economy, which has been hovering at about a fifth below the EU average since it plunged during the crisis. It took until 2017 before productivity growth accelerated to a level which makes it possible to catch up with more developed countries. Against the backdrop of a positive impact of cyclical factors (robust demand), some structural components of productivity growth have improved as well (lower corporate leverage, improved allocation of production factors and increased inflows of foreign direct investments). Over a longer time horizon, the composition of exports has also improved and the integration of companies in global value chains has increased significantly. On the other hand, in research and development, innovation, and digitalisation, which are key long-term factors of productivity growth, changes in recent years have been modest. This has considerably limited the potential for a more permanent acceleration of productivity growth and hence the opportunity to lift the population's living standard.

1.1 Economic stability

■ Economic Stability (development goal No. 5)

The aim is to secure economic stability, which is a key precondition for bridging the gap to more developed countries and increasing 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 also 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 indicator for development goal 5:

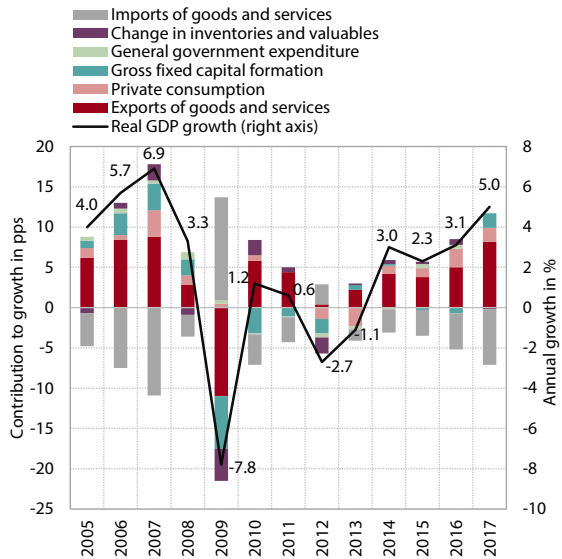
	Latest value		Target value for 2030
	Slovenia	EU average	
GDP per capita (in PPS), index EU=100	83 (2016)	100 (2016)	100
General government debt, as a % of GDP	73.6 (2017)	84.8 (2016)	60

The fairly large gap in economic development relative to the EU average did not start narrowing until 2016. The gap in economic development measured in terms of GDP per capita in purchasing power standards widened by 8 pps during the crisis and it took until 2016 for the first minor improvement to be recorded. A more pronounced decline in employment was the main driving force behind the widening gap post-2008. The level of employment remains above the EU average, but the gap has been narrowing. The productivity gap had not deepened quite as much during the crisis, but productivity remains well below the EU average (see Section 1.2) and is therefore the key aspect that needs to be strengthened if Slovenia is to bridge the development gap at a faster pace.

Following the double-dip recession, the economic situation has been improving since 2014, but it took until early 2017 before gross domestic product climbed back to its pre-crisis level. It was not until 2014 that Slovenia’s GDP growth returned to outpacing the euro area average, but even then it was still lower than in the majority of new Member States with the exception of 2017, when it reached 5%, the fastest rate since 2007. Foreign demand, coupled with improved competitiveness of exporters (see Section 1.2) and their favourable sectoral structure, facilitated a relatively rapid growth in exports, in particular after 2013. Domestically, meanwhile, uncertainty decreased significantly in this period on the back of economic policy measures, in particular the restructuring of the banking system and the gradual fulfilment of fiscal commitments, which improved Slovenia’s standing on financial markets. Consequently, economic growth has become more broad-based. Exports remain the driving force of economic growth, but the impact of domestic consumption has increased as well. Household

consumption has been growing since the end of 2013, buoyed by favourable labour market trends and high consumer confidence. In particular since 2017, gross fixed capital formation has also increased at a steadier pace, having in previous years fluctuated significantly due to the dynamics of the drawing of EU funds at the end of the multi-annual financial framework. Investments in equipment and machinery have been growing since 2014, and in 2016 housing investments started to pick up as well, having declined by almost 60% during the crisis.

■ Figure 2: Structure of GDP growth, Slovenia



Source: SI-STAT Data Portal – National Accounts, 2018.

Following a sharp contraction during the crisis, employment has risen significantly since, but several factors, including structural ones, have restrained wage growth.¹ The rapid rebound in employment was driven by hiring across all sectors in the favourable growth environment. Despite rapid acceleration of economic activity, better business results and the decline in unemployment in recent years, wage growth has nevertheless remained subdued, as it has elsewhere in the EU.² We believe the reasons for this include a more moderate downward adjustment of wages during the crisis, the absence of major price pressures, moderate productivity growth and more robust hiring in industries with relatively low wage levels. Additionally, wage growth has been held back by an increased share of temporary and part-time jobs and the re-employment of the long-term unemployed, who are often entering the labour market with lower wages than they had before their loss of employment.

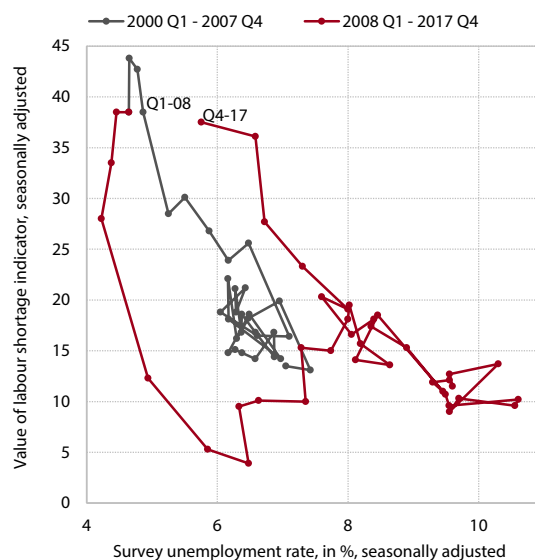
Some indicators show that leveraging the favourable trends, the Slovenian economy is already approaching the peak of its economic cycle. This is evident from the positive output gap, in particular the contribution of labour and total factor productivity, which are respectively above and close to pre-crisis levels. The contribution of capital, on the other hand, remains significantly lower owing to the decline in investments. As a result, potential GDP growth in 2017 was already 1.0 pp below pre-crisis rates. Given the volatility of the output gap, which is a fairly unstable macroeconomic indicator because of how it is calculated,³ the estimate has been supplemented with an overview of other indicators in order to arrive at a better estimate of the current position in the economic cycle. They indicate that in certain segments positive trends have only just started to strengthen, while in others trends are already more pronounced, but our estimate is that they remain within sustainable frameworks.

Financial indicators have been rising at a subdued pace, unlike in 2006 and 2007, when economic growth was significantly above potential and trends in these areas led to a collapse of macroeconomic balances, which reduced the resilience of the economy to shocks; after the outbreak of the financial crisis, these imbalances deepened further. Banks' lending activity, especially the scope of corporate lending, did not stop contracting until 2017 and inflation has hovered between 1% and 2% in a low interest rate environment. Corporate leverage, which peaked at the start of the crisis, has dropped to the level it was before it accelerated in 2015, and companies' ability to repay debt has improved substantially. The current

account balance of payments – the saving–investment gap – which was deeply in negative territory in the pre-crisis period, has been in surplus since 2012 due to a low level of investments⁴ and substantial deleveraging of commercial banks abroad and has been reaching record levels (6.4% in 2017).

In some segments, trends characteristic of the positive part of the economic cycle have strengthened significantly, for example on the real estate market, in some indicators of labour shortage and in capacity utilisation. With the exception of the last, these trends have not yet exceeded long-term averages, however, and are not at levels that would destabilise the economy. In the labour market in particular, the availability of labour is increasingly dependent not only on cyclical factors but also on demographic and structural factors (see Section 3.3); in some industries, meanwhile, there is already a shortage of labour. The match between supply and demand of labour currently available on the labour market remains lower than before the crisis (i.e. the Beveridge curve has moved right). Several indicators of the availability of potential labour are approaching very low levels. Capacity utilisation in manufacturing and services is at historically high rates, which affects the growth of investments in machinery and equipment; these are still more than 20% below crisis levels.

Figure 3: Beveridge curve, Slovenia



Source: Eurostat Portal Page – European and National Indicators for Short-Term Analysis - Business and Consumer Surveys, 2018; calculations by IMAD.

¹ One of the structural causes of moderate wage growth is low productivity growth. In an effort to remain competitive, companies are striving to prevent wage growth from outpacing productivity growth. Moreover, as economic activity recovered in recent years, the hiring of workers with relatively low gross wages has accelerated, which has dampened the overall pace of average wage growth.

² Labour Market and Wage Developments in Europe 2017 (EC), 2017.

³ Economic Issues 2016 (IMAD), 2016.

⁴ Due to a sharp decline in the early years of the crisis (2009–2012), total investments were almost 40% below the average of 2008.

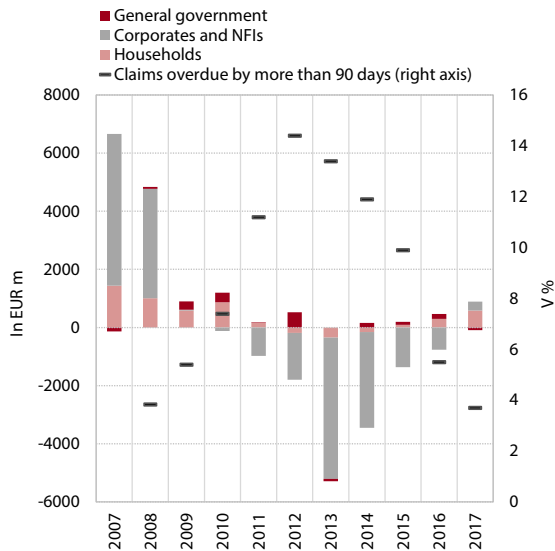
The situation in the banking system has improved significantly post-2013, largely due to a sizeable bank recapitalisation at the end of 2013 and the transfer of a large share of non-performing loans from banks to BAMC. The quality of bank assets has thus improved strongly relative to 2013 and the favourable economic circumstances have contributed to an improvement in creditors’ ratings. Banks’ business results have improved significantly as well, although mostly as a result of the release of provisions and impairments. Net interest revenue continues to contract, although the rate of contraction slowed in 2017. Stabilisation of banks has been additionally supported by the introduction and strengthening of macroprudential supervision,⁵ which assesses risks to financial stability and adopts measures to prevent or mitigate risk. Having conducted substantial deleveraging, banks have significantly reduced foreign exposure (by EUR 16 bn from 2008). Due to low interest rates, however, only overnight deposits have been growing in the segment of non-bank deposits, the main source of bank financing, which increases the maturity mismatch between bank assets and liabilities. In 2017 total lending activity increased for the first time since 2010. Loans to households grew for the third year in a row, but corporate loans increased for the first time in six years. Bank sources remain a key component of corporate financing, with companies therefore sensitive to a potential tightening of lending, which could in turn have an impact on the quality of bank balance sheets. Nevertheless, compared to the pre-crisis years, companies, buoyed by favourable business results, have started to increasingly rely on own sources of financing⁶

for current production and investments. The issuing of debt securities as a source of financing has also picked up slightly, though it remains modest.

Measured by development indicators, the financial system still falls far short of the EU average. Banks’ total assets (as a % of GDP) are significantly below the EU average, having only started to rebound in 2017 due to an increase in overall lending. The gap is narrowest in insurance, in general the segment least affected by the financial crisis, though even here the gap in life insurance remains wide. The capital market remains poorly developed: treasury bonds account for the bulk of the market capitalisation of issues traded on the Ljubljana Stock Exchange, with the number of listed stocks and their market capitalisation modest and lower than before the crisis.

The general government balance has improved substantially in recent years. The general government deficit declined steadily after peaking in 2013 – including due to one-off factors – and in 2017 the fiscal position was balanced as a result of improved macroeconomic circumstances following the stabilisation of the banking sector, the recovery of domestic and foreign confidence, and the adoption of measures to increase revenue and restrain spending. Throughout the period since the start of the economic crisis, the containment of overall expenditure was to a significant degree the result of a substantial contraction of flexible expenditure, i.e. investments and subsidies.⁷ Not only the cyclical, but

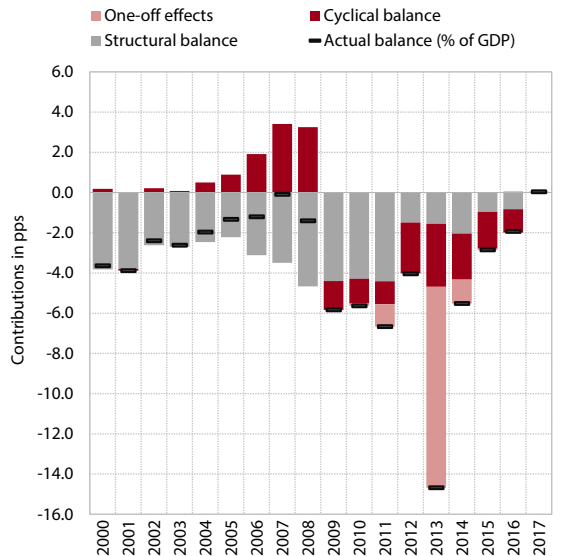
Figure 4: Annual growth of loans to domestic non-banking sectors and share of claims overdue by more than 90 days, Slovenia



Source: Bank of Slovenia; calculations by IMAD.

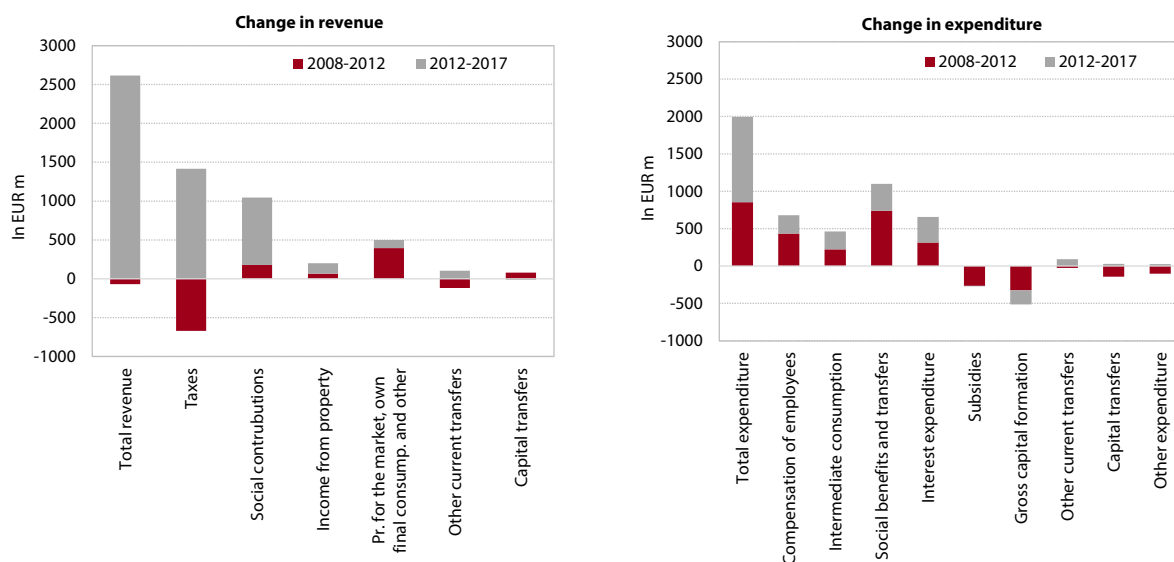
⁵ Introduced in 2013 with the Macro-prudential Supervision of the Financial System Act (Official Gazette of the RS, No. 100/2013).
⁶ In 2014–2017 deposits by non-financial companies rose by roughly half, to EUR 6.4 billion.

Figure 5: Balance and structural balance of the general government sector, Slovenia



Source: SI-STAT Data Portal – National Accounts – General Government Accounts - Basic Aggregates of the General Government, 2018.

⁷ In 2017 investments and subsidies were EUR 783.5 million lower than in 2008, with the uptick in the intervening period (2013 and 2014) largely a result of the completion of the drawing of EU funds from the previous multi-year financial framework.

Figure 6: Change in general government revenue and expenditure in different periods, Slovenia

Source: SI-STAT Data Portal – National Accounts – General Government Accounts – Basic Aggregates of the General Government, 2018.
 Note: The columns show the difference in revenue or expenditure (in EUR) between 2017 and 2008 divided into two periods.

also the structural deficit has dropped since 2012; IMAD estimates that it was close to balance last year and hence at its lowest level to date.

Following brisk growth until 2015, general government debt as a share of GDP did not start declining until 2016 and remains at a high level. General government debt surged from 2008 to 2015 (from 21.8% of GDP to 82.6% of GDP), but in the last two years it dropped to reach 73.6% of GDP in 2017. The contributing factors include an improvement in the primary balance (surplus) and economic growth, which offset the negative impact of interest expenditure on debt accrual in the last two years, eliminating the unfavourable “snowball effect” (see Indicator 1.2). The decline in debt payments in the last two years is additionally a reflection of active debt management in favourable borrowing conditions, which also had the effect of extending debt maturity. Nevertheless, debt remains high and restricts the fiscal space to cope with possible shocks; absent changes in the medium and long term, its sustainability will come under pressure due to swelling age-related expenditure.

Better economic conditions and a stronger impact of demographic change over the medium term require an adjustment of measures in order to continue sustainably improving the general government balance and to reduce debt. Under the adopted budget documents for 2018 and 2019, several more austerity measures will be relaxed, which means that the majority of fiscally significant measures in place in recent years to stem expenditure growth will have been removed. The capacity of the heretofore guiding force of consolidation, which has restrained expenditure growth with the

phasing out of austerity measures, will thus have been exhausted. While the reduction or restraining of certain forms of flexible expenditure, in particular investments,⁸ has so far had a significant impact on fiscal consolidation, the possibilities for them to remain restrained in the future will be limited. A continued sustainable improvement of the fiscal position in circumstances where Slovenia has transitioned into positive output gap⁹ territory according to most estimates of the state of the economic cycle will therefore require the adoption of supplementary systemic measures. Such measures could involve restructuring expenditure and revenue in line with the set priorities and the streamlining of expenditure based on in-depth reviews. These measures will also have to consider the demographic trends and their impacts on social protection systems. That these are not sustainable in the long term is also indicated by the latest EC projections of age-related expenditure (see also Section 3.1.2).

Broader economic policy measures also have an impact on fiscal trends, chief among them the management of state-owned assets, which may affect returns and reduce the risk of recapitalisation with public funds. A coordinated selection of measures is also important as a means of increasing long-term economic growth and hence providing a source of growth for general government revenue. For Slovenia,

⁸ In 2017 investments by the general government reached their lowest nominal level in a decade, and as a share of GDP their level was the lowest on record (2.9% of GDP).

⁹ In accordance with the requirements of the Growth and Stability Pact, this means reducing the structural balance by at least 0.6 pps annually; if the positive output gap exceeds 1.5% of potential GDP, the structural balance should improve by 1 pp.

the most important measures include the strengthening of innovation ability, an efficient institutional framework for the private sector, appropriate adjustment of the educational system and the provision of qualified labour (see Sections 1.2, 2.1 and 5.1).

Just like the economy overall, the regions suffered severe economic hardship post-2008, but since 2013 the situation has been improving. Regional differences, which are not wide by international standards, narrowed further in the crisis, because in relative terms economic activity declined the most in the most developed regions, which also account for the highest share of GDP. One probable reason why economic activity declined faster is that economic activities in the most developed regions were more exposed to both internal and external shocks.

Temporary endogenous regional policy measures¹⁰ were another contributor to rising value added per employee in individual regions. In areas covered by temporary measures, growth outpaced the Slovenian average in both companies and sole proprietors, although this was also affected by the above-average reduction in the number of employees and high rate of bankruptcies in these regions. European cohesion policy funds¹¹ have also contributed to better results and they continue to represent crucial development funds in the current programming period.¹² A more realistic assessment of the long-term effects across all development support programmes will be possible after they have been completed.

Most of the regions with the highest development risk indices are in north-eastern Slovenia. The synthetic index of development risk¹³ is highest in the Pomurje and lowest in the Osrednjeslovenska region. Compared to 2014, when the first calculations¹⁴ were made for

the entire programming period 2014–2020, the index dropped in Koroška, Podravska, Goriška and Savinjska. In most other regions it increased, most notably in Posavska, which is associated with a deterioration in the areas of investment, disposable income, youth unemployment and the share of protected areas.¹⁵

¹⁰ To combat high unemployment, an emergency law for Pomurje was adopted first (payments until the end of 2015), followed by the adoption of temporary development support measures for Pokolpje, Maribor and its surroundings, and the municipalities of Hrastnik, Radeče and Trbovlje.

¹¹ Until the end of 2015, beneficiaries received payments from the national budget totalling EUR 4.3 billion; the highest payments were disbursed in Pomurje, at about EUR 4,000 per capita.

¹² According to EC estimates, cohesion policy funds contribute 4–6 pps to GDP growth in the largest beneficiaries. A euro of cohesion policy funds invested in 2007–2014 is supposed to contribute an additional 2.7 euro to GDP through 2023 (Ex-post evaluation of the ERDF and Cohesion Fund 2007–13 (EC), 2016).

¹³ The indicator is used for monitoring regional development and comprises the following sub-indicators: (1) GDP per capita, (2) gross value added per employee, (3) investments in fixed assets as a share of GDP, (4) registered youth unemployment rate for young people (15–29 years), (5) the employment rate (20–64 years), (6) the proportion of the population with tertiary education (25–64 years), (7) gross domestic expenditure on R&D as a share of GDP, (8) the proportion of wastewater treated with secondary and tertiary treatment, (9) the proportion of nature protection areas in the region, (10) estimated damage caused by natural disasters as a share of GDP, (11) the registered unemployment rate, (12) population ageing index, (13) disposable income per capita, 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).

¹⁴ The index was introduced into regional policy because per capita GDP is too narrow to capture the multi-dimensional nature of regional

development.

¹⁵ Protected areas include protected natural areas, Natura 2000 areas and areas meeting the criteria for Natura 2000 sites (ecologically important areas).

1.2 A competitive and socially responsible business and research sector

A competitive and socially responsible business 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 indicator for development goal 6:

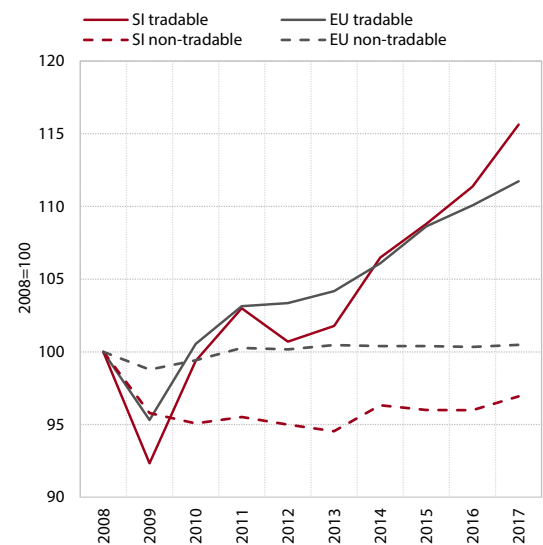
	Latest value		Target value for 2030
	Slovenia	EU average	
Labour productivity, index EU=100	81 (2016)	100 (2016)	95
European Innovation Index, index EU 2010=100, i.e. ranking among leading innovators	98 (2016)	102 (2016)	>120
Digital Economy and Society Index, ranking among EU members	17th place overall (2017) 7th–23rd 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 business sector

The chief means to improve the competitiveness of the business sector in the long term is to raise productivity, which is about a fifth lower than in the EU on average. GDP per employee, the measure of productivity across the entire economy, amounted to 81% of the EU average from 2014 to 2016 (adjusted for differences in purchasing power). This is 2 pps above the trough reached during the crisis but 3 pps below the value achieved prior to its start. In the first years of the recovery, productivity growth was weak, and Slovenia was not able to bridge the gap to developed countries at a faster pace. There are, however, significant differences between the non-tradable and tradable sectors of the economy. The productivity of the tradable sector increased in 2009–2015 at a similar pace to that in the EU on average, whereupon it accelerated and was about 15% above the levels achieved before the crisis in 2017. Productivity growth in the non-tradable sector, on the other hand, lagged behind EU trends and by 2017 was still lower than before the crisis; the majority of non-tradable activities remained below the pre-crisis level in terms of productivity.

Post-crisis productivity growth was affected by both cyclical and certain structural factors; the impact of these has gradually waned. The recovery of demand was quite uneven in the post-crisis period. Whereas foreign demand dropped off sharply during the crisis and accelerated rapidly thereafter, the recovery of domestic

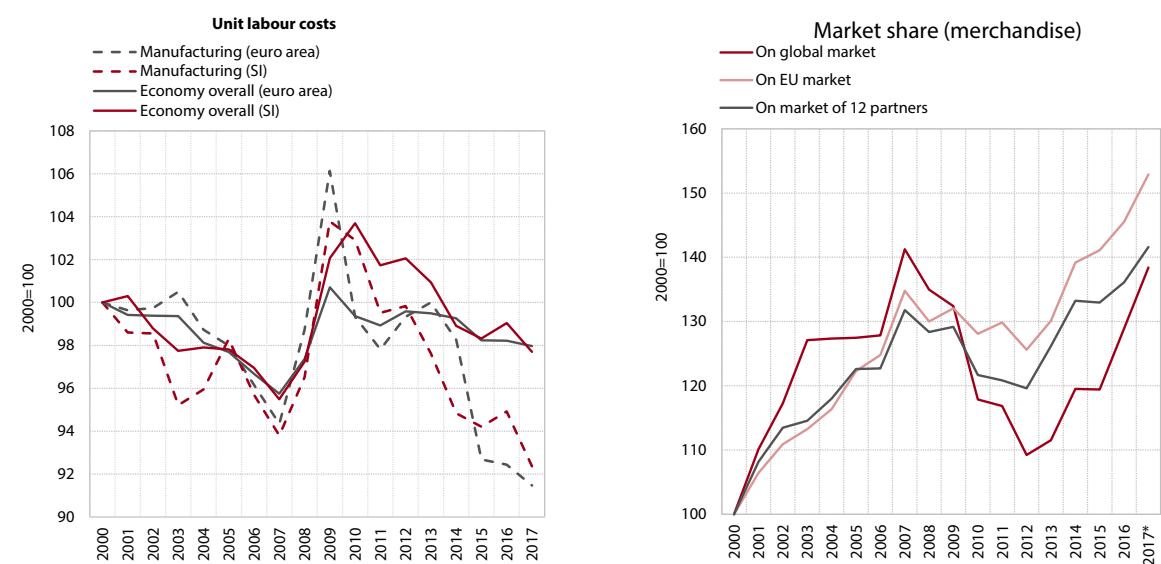
Figure 7: Productivity (value added per employee) of tradable and non-tradable sectors



Source: Eurostat Portal Page – Economy and Finance, 2018; calculations by IMAD.
Note: The tradable sector includes the activities of agriculture (A), industry (B–E) trade, transport and accommodation (G–I), and information and communication (J).

demand was slow and weak; indeed it did not start to pick up until 2016, which goes some way to explaining the significant differences in productivity between the tradable and non-tradable sectors. In addition to the cyclical impact of demand, productivity growth and, in to

Figure 8: Unit labour costs (left) and Slovenia's market share on foreign markets (right)



Sources: SURS, Eurostat, UN Comtrade, WIIW, WTO, 2018; calculations by IMAD.
Note: *Provisional data.

some extent, the differences between the tradable and non-tradable sectors are due to certain structural factors, associated particularly with the deteriorating allocation of production factors¹⁶ and high corporate leverage prior to 2008. Favourable economic conditions and easy accessibility of financing sources prior to the crisis had made it possible to sustain even poorly performing and unproductive companies and to invest fresh capital into less productive purposes. Moreover, many companies were overleveraged as the crisis erupted. During the crisis, these segments of the economy were hit the worst, which deepened the decline in productivity and slowed its recovery. The impact of these cyclical and structural factors has been gradually declining, and productivity growth outpaced the EU average once again in 2017. Nevertheless, the currently favourable trends are not yet sufficient to raise productivity more sustainably in order to bridge the gap to the EU average, which is one of the SDS goals. The main challenges to achieving the goal include improving long-term factors of value added growth associated with knowledge, innovation, R&D, digitalisation and institutional efficiency (for more on these factors, see Section 1.2.2 and Chapters 2 and 5); in the short term, capital deepening will also be required.

Cost factors have exerted a positive impact on the competitive position of the economy in recent years, especially of the tradable sector. When the crisis erupted, unit labour costs rose at a significantly faster pace than in the euro area as a whole. Having then dropped relatively fast, they have been broadly in line with the euro area since 2014. The favourable trends are underpinned in particular by the tradable sector,

especially manufacturing, where stronger productivity facilitates the continued reduction of unit labour costs. In the tradable sector the recent trends in Slovenia have indeed been favourable even compared to Eastern European rivals; the latter have lower unit labour costs, but labour costs have been rising rapidly in the in the majority of these countries since 2015 (see Indicator 1.13).

Stronger productivity and improved cost-effectiveness of the tradable sector exerted a favourable impact on export results. Exports have grown through most of the post-crisis period on the back of robust external demand, and the market share of Slovenian exporters has risen since 2012, which shows that they have improved their competitive position on foreign markets too. Slovenia ranked in the top third of EU countries by growth of merchandise export market share on the global market in 2013–2016, but due to a steeper decline in the crisis the market share is yet to exceed pre-crisis levels, unlike in other new Member States. Slovenia has improved its position on the majority of its traditional export markets since 2013, with the total market share in the most important trading partners already achieving pre-crisis levels. Brisk growth was also recorded on some markets that are less important for Slovenian exports. This indicates that the regional dispersion of exports has increased, which is desirable given the country's strong export reliance on a handful of EU markets: although the strong focus on a few markets has a positive impact on aggregate market share and exports in times when these markets are growing fast (a structural effect), such an export structure has a negative

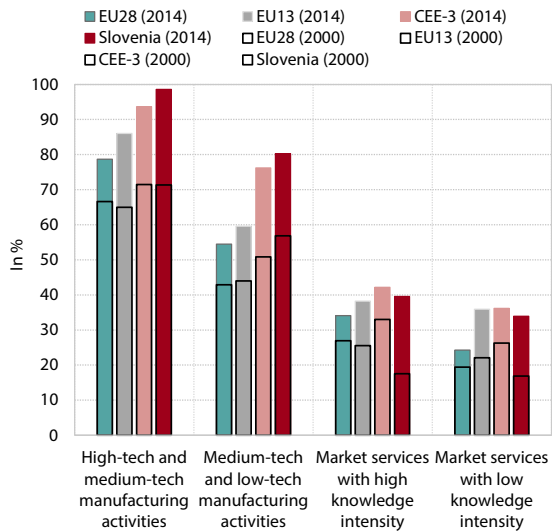
¹⁶ Economic Issues 2017 (IMAD), 2017.

impact¹⁷ during periods when demand on these markets contracts sharply (as it did during the last crisis). Services exports have grown at a brisk pace in recent years, but only exporters of transport, construction and ICT services¹⁸ have expanded their market shares in the EU since 2010.¹⁹

The share of technologically more intensive products has increased in merchandise exports and knowledge-based services account for an increasing share of services exports. These are products and services which require greater use of research and knowledge and which typically generate higher value added. Following brisk growth both before and during the crisis, high-tech products have accounted for about a fifth of total merchandise exports in recent years, which is above the EU average and at a similar level to that in Eastern European countries where high-tech-intensive products represent a relatively high share of exports.²⁰ Compared to the EU average, Slovenia stands out in terms of the high share of medium-tech products, but their share has declined slightly since the crisis and is significantly lower than in Eastern European countries, which export more vehicles and vehicle spare parts than Slovenia. Travel and transport services dominate services exports; the share of knowledge-based services has been increasing fast, although it remains far below the EU average (see Indicator 1.14).

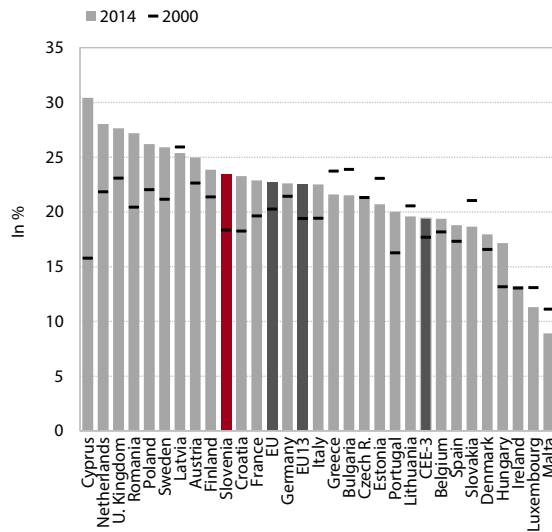
As exports grew at a rapid pace, the internationalisation of the Slovenian economy and its integration into global value chains increased substantially. Internationalisation, either via foreign trade flows (i.e. exports and imports) or through integration in global value chains, is an important driver of value added and competitiveness since it facilitates the transfer of technology and know-how and the reduction of costs. Slovenia ranks as a small open economy with an above-average and rapidly widening share of exports in GDP. The pace of trade integration declined in the first years following the start of the crisis, but in 2013–2016 Slovenia was among the top six EU countries and ahead of the majority of new Member States in terms of growth of exports as a share of GDP. Trade integration is also high according to exports of value added as a share of total value added. This is particularly true in manufacturing, but in the analysed period significant headway was also achieved in the exports of value added of services. Participation in global value chains (GVCs) is also improving rapidly, in particular integration of domestic value added in foreign exports (upstream integration in GVCs): the latest data (for 2014) indicate it was above the EU average and the average of new Member States; in 2000 it was slightly behind both. The

Figure 9: Share of export of value added in total value added



Source: IMAD calculations based on WIOD database (Release 2016).
Notes: EU13 includes new Member States which joined the EU after 2004; CEE-3 includes Hungary, the Czech Republic and Slovakia.
Legend: High-tech and medium-tech manufacturing activities (sections 20 and 21 according to ISIC Rev. 4), machinery and equipment (26, 27 and 28), and transport equipment (29 and 30) (OECD STI Scoreboard, 2015). Market services include sections 45–82 according to ISIC Rev. 4, whereby market services with high knowledge intensity include ICT services (sections 58–63), finance and insurance (sections 64–66), and professional, scientific and technical services (sections 69–75). Other market services are designated as market services with low knowledge intensity (OECD STI Outlook, 2014).

Figure 10: Domestic value added in foreign exports as a share of domestic exports (forward linkages in GVC)



Source: IMAD calculations based on WIOD database (Release 2016).
Notes: GVCs – global value chains; EU13 includes new Member States which joined the EU after 2004; CEE-3 includes Hungary, the Czech Republic and Slovakia.

¹⁷ In 2008–2012 the effect of initial geographic structure contributed about 60% to the average annual decline of market share and about a fifth to the average annual growth in 2013.
¹⁸ Only activities with a significant share of overall services exports are included.
¹⁹ Data are available for 2010.
²⁰ Czech Republic, Slovakia and Hungary.

Box 1: Social responsibility of organisations

The social responsibility of organisations is becoming an increasingly important success factor in nations' sustainable development. The concept of social responsibility includes multiple aspects of the performance of companies and other organisations, such as concern for employees, promotion of the protection of human rights and fundamental liberties, environment protection, and prevention of corruption. Countries use a variety of approaches in creating, implementing and developing this concept. In general, their approaches differ by whether they treat social responsibility narrowly or broadly. Broader treatment encompasses general responsibility of organisations to the natural and social environment; narrow treatment involves responsibility to stakeholders (customers, business partners, interest groups, shareholders, etc.). Since sustainable and socially responsible business practice has a significant impact on society, the economy and the environment, organisations' social responsibility has over the past decade become a significant element of national and international policy programmes of EU countries (e.g. Europe 2020, Implementation of the Growth and Jobs Partnership, 2006, reformed Strategy on Corporate Social Responsibility 2011–2014) (Močnik et al, 2017).

In the absence of a strategic national framework, the promotion of social responsibility in Slovenia is dispersed among multiple stakeholders. Slovenia is in a small group of EU countries without an officially adopted national social responsibility strategy. Nevertheless, an overview of trends in this field indicates deep commitment on the part of various stakeholders and an array of diverse activities carried out, for example by the Institute for the Development of Social Responsibility, Section for the Promotion of Social Responsibility, the Ekvilib Institute, and the Slovenian chapter of the UN Global Compact. The most widely used social responsibility standards in Slovenia are ISO 26000 and SA800 (both for social responsibility), ISO 14001 (environmental management), and OHSAS 18001 (an occupational health and safety management system). Some major companies report on sustainable development using the international benchmarks of the GRI (Global Reporting Initiative), which are globally the most widespread framework for reporting on economic, social and environmental impacts of organisations. Numerous awards and recognitions for progress in organisations' responsibility to society and the natural environment are additionally given out, and some institutions have developed products to promote social responsibility, e.g. the Family Friendly Company and Socially Responsible Company certificates (Ekvilib Institute).

Data that would make it possible to monitor the progress in social responsibility remains scarce. There are better data on certain aspects of social responsibility, such as treatment of the environment (see Indicator 1.19), but there are no sufficient indicators available for the entire scope of social responsibility to monitor progress in Slovenia and internationally. Individual surveys which investigate corporate social responsibility have determined that large companies tend to have a better planned and more targeted set of social responsibility activities than smaller firms, but unfortunately such studies mostly focus on major companies (Močnik et al, 2017).

share of foreign value added in domestic exports, an indicator of downstream integration in GVCs, is above the EU average but below the average of the new Member States.

Foreign direct investment (FDI), although traditionally low, has been increasing at a faster pace since 2014. Slovenia's inbound FDI, a means of integrating companies into the international environment and an opportunity to improve operating efficiency, remains among the lowest in the EU (see Indicator 1.15). Against the backdrop of the overall post-crisis increase in global investments, FDI inflows into Slovenia have increased since 2014, however. The favourable economic conditions in the international environment were not the only driver of the improvement, there being also multiple domestic contributing factors, i.e. (i) acceleration of privatisation and more intense sales of equity stakes in Slovenian companies; (ii) improvement of the economic situation and business expectations in Slovenia; (iii) improved government attitude to FDI; and (iv) more favourable labour market and cost trends compared to some other

new Member States which have already achieved low unemployment rates (labour shortages) and which have recently been registering rapid growth of unit labour costs. However, Slovenia is yet to improve certain key elements of the business environment measured by international institutions' (the World Bank, WEF and IMF) surveys among businesses, such as taxes and tax legislation, the length of administrative procedures, and labour legislation (see Section 5.1), all of which may affect businesses' decisions to enter the Slovenian market.

As the economy has recovered, the share of the population starting a business has risen, as has the number of high-growth enterprises. Entrepreneurial activity is an important factor of long-term productivity growth as it represents the potential to transfer knowledge and innovation into practice. At the same time, entrepreneurs are also the most important actors in translating new ideas into successful market innovations. The number of nascent and new companies (early-stage entrepreneurial activity) has been increasing since 2012 and in 2016–2017 far exceeded the pre-crisis

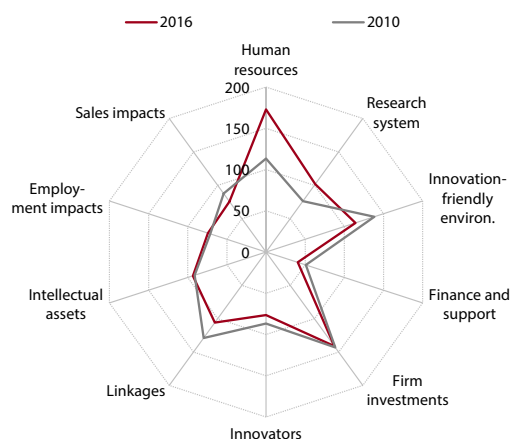
year 2007; for the first time since the crisis it is also now significantly above the EU average.²¹ Initially the increase was mostly necessity-driven, but in the last two years perceived business opportunities became the main driving force, which may represent a favourable starting point for the continued growth and development of these companies. Start-ups have also thrived in Slovenia in recent years, offering mostly digital-based innovative products and services that have high growth potential. The number of high-growth enterprises²² has likewise increased since 2015, but it remains low by international standards. Their number is increasing at the fastest rate in the tradable sector, the only activity where their share is slightly above the EU average being manufacturing.

Environmental responsibility as one of the forms of corporate citizenship is at a level similar to the EU average. The uptake of various forms of socially responsible practices is increasingly becoming an important instrument for the promotion of sustainable production and consumption while also improving the competitive edge of companies. In Slovenia the promotion of social responsibility of companies and other organisations is dispersed among multiple institutions, but in order to monitor progress in this field appropriate and internationally comparable data benchmarks should be established. These benchmarks are best developed in environmental responsibility, one of the segments of corporate responsibility (see Box 1). The prevalence of various environmental certificates demonstrating corporate environmental responsibility (see Indicator 1.19) is roughly on a par with the EU average, but in the most successful countries it is more than twice as high as in Slovenia.

1.2.2 Research, innovation and digital capabilities

In 2010–2016 Slovenia did not reduce its gap with the EU average in terms of the efficiency of the innovation system. Countries' capability to increase productivity and competitiveness is reflected in the efficiency of national innovation systems, which is measured in a synthetic way by the European Innovation Index (EII). The EII monitors the trends in EU countries in areas such as innovation environment, investments in R&D, innovation activity of companies and the effects of innovation. Among the 27 indicators included in the EII, Slovenia achieved above-average results in particular in human resources and corporate R&D investments, while a widening of the gap to the EU average was recorded in particular in financing, public sector support for innovation and the impact of innovations on sales (see Indicator 1.10). Weaknesses of the innovation system are also apparent in insufficient cooperation between

Figure 11: Slovenia's innovation performance by EII sub-areas compared to the EU (2010=100)



Source: European Innovation Scoreboard 2017, 2017.

stakeholders and lack of policy coordination. All this hampers the achievement of the relevant goal in SDS 2030, i.e. ranking in the group of leading innovators as measured by the EII.

Investment in R&D remains fairly high, though in recent years it has been scaled back significantly. R&D investment of the business sector has increased the most since the beginning of the crisis, as companies strived to enhance growth and competitiveness. To a certain extent, these developments were also a result of higher R&D financing from structural funds, which required co-financing by companies, and a positive impact of tax relief.²³ Since 2015, R&D investment of the business sector has been declining. In the public sector it had started to contract already after 2011 and declined by about EUR 115 million by 2016. In 2015 Slovenia had the lowest share of public funds in overall R&D spending (about 20%) among the EU Member States. In the best performing countries in terms of innovations, the share of public R&D funding is roughly 10 pps higher than in Slovenia. Public financing of R&D facilitates basic research and the development of human resources, which is a precondition for breakthrough innovations in cooperation with companies.²⁴ At the same time, providing a stable environment for R&D at public research institutions is key to generating new knowledge, which is essential for the international cooperation of these institutions, allowing them to keep up with the rapid progress of scientific and technological development.

²¹ Based on the GEM (Global Entrepreneurship Monitor) (GERA, 2018). The EU average comprises EU countries included in the GEM.

²² Companies with at least 10% growth in the number of employees over three years.

²³ After the increase in tax relief for R&D investments to 100% in 2012, the number of companies claiming tax relief rose from 515 in 2011 to 757 in 2015. In 2016 it decreased significantly to 630, but the total amount of the tax relief claimed, which represents a loss of corporate income tax revenue in those years, remained roughly the same according to Ministry of Finance data.

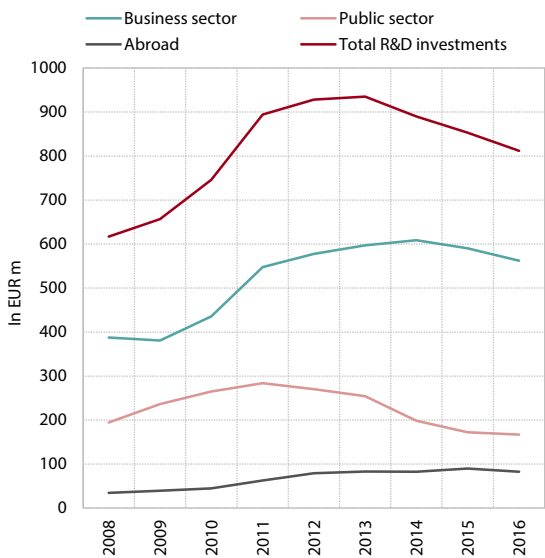
²⁴ The Economic Rationale for Public R&D Funding and Its Impact, 2017.

Table 1: Budget appropriations* for environment and energy as a share of total government budget appropriations for R&D

In %	2008	2009	2010	2011	2012	2013	2014	2015	2016
Slovenia									
Environment	3.51	2.27	3.27	3.36	2.98	3.10	3.30	6.21	4.99
Energy	1.11	1.58	1.99	3.59	2.79	2.90	3.08	2.63	2.97
EU									
Environment	2.87	2.80	2.69	2.62	2.62	2.54	2.48	2.68	2.35
Energy	3.75	3.64	3.88	3.88	3.84	4.27	4.07	4.11	4.00

Sources: Eurostat Portal Page – Science and Technology – Research and Development, 2018; SURS, 2017.
Note: *In accordance with OECD methodology (i.e. the Frascati Manual), this involves funds earmarked by the state for the implementation of R&D within the state and abroad, regardless of the implementing sector (OECD, 2015).

Figure 12: Investment in R&D, Slovenia



Source: SI-STAT Data Portal – Research, Development, Innovation, 2018.

The share of budget appropriations for R&D investments for environmental and energy purposes is relatively high by international standards, as is the share of companies introducing eco-innovations. The share of budget appropriations for environmental and energy R&D investments is above the EU average and has been changing in line with overall public R&D spending dynamics. Unlike the EU, Slovenia allocates more for environmental research than for energy research. Awareness about the importance of a pristine environment is already high²⁵ in Slovenia, while the demand for energy research is expected to increase in the future in an effort to increase energy efficiency (see Indicators 4.2 and 4.4). A more holistic insight into countries’ environmental innovation performance is provided by the Eco-Innovation Index,²⁶ according to

which Slovenia exceeded the EU average in 2016. The survey on innovation activity also shows that Slovenia is achieving good results in eco-innovation and is ranked among the three leading EU Member States. In 2012–2014 over 60% of innovation-active companies introduced eco-innovations for business reasons, these ranging from improving the image of the company and reducing energy, water and material costs to compliance with environmental regulations. The global environmental technology market offers significant opportunities²⁷ and represents a major challenge for the R&D activities of both public and business sectors and requires better cooperation between the two. Greater uptake of eco-innovations and environmental technologies among all actors can be improved with the effective implementation of green public procurement under a new EU initiative.²⁸

Progress in human resources for R&D constitutes a solid foundation for the strengthening of innovation capability, despite certain shortcomings. In the decade between 2006 and 2016, the number of researchers²⁹ grew slightly faster than in the EU and their structure shifted even more in favour of science and technology,³⁰ which employed about 88% of all researchers in 2015, one of the highest shares among the Member States. Progress in terms of the gender structure of researchers has been much slower, however, with the share of female researchers increasing only marginally in this period. The business sector almost doubled the number of researchers in 2006–2016, whereas in the public sector (government and higher education), the number remained unchanged due to a decrease in the government sector. Since 2011 the business sector has accounted for over half of all researchers (2016: 55.3%), which is a positive step towards enhancing the innovation capability of the economy. Such changes in

²⁵ Along with three other protected areas, Natura 2000 areas encompass around 60% of Slovenia’s land area (Natura 2000 in figures, 2017).
²⁶ The Eco-Innovation Index comprises 16 indicators covering five areas: eco-innovation inputs, eco-innovation activities, eco-innovation outputs, resource efficiency outcomes and socio-economic outcomes (see Eco-Innovation Scoreboard 2016, 2017).

²⁷ In 1980–2005 green patents accounted for about 5% of all patented inventions globally; by 2015 their share had risen to 10% (Haščič and Migotto, 2015).
²⁸ In 2017 the European Commission launched a new initiative for a more efficient and sustainable execution of public procurement that would simplify and accelerate procedures with the help of digital technology (Increasing the Impact of Public Investment Through Efficient and Professional Procurement, 2017).
²⁹ Expressed on a full-time equivalent basis. Unless stated otherwise, the figures include female and male researchers together.
³⁰ Researchers in medicine and agriculture included.

the structure of researchers are also characteristic for the most successful innovation-active Member States, although these countries at the same time increased the number of researchers in the public sector in 2006–2016. Considering the rapid growth in the number of new PhDs in 2010–2016³¹ and austerity measures which severely limited their employment prospects in the public sector, it is necessary to immediately involve staff with new know-how in the research and development process.

In Slovenia, as elsewhere in the EU, the number of patents has grown more slowly since the start of the crisis than the number of other forms of intellectual property protection. Slovenia's gap to the EU average has widened in patents and narrowed in Community designs, while in EU trademarks Slovenia achieved the EU average (see Indicator 1.18). The significance of different types of intellectual property protection (patents, trademarks and service trademarks, designs) has been gradually changing due to rapid technological advances which force companies to enter the market with new products and services as soon as possible. The attraction of patents has been additionally reduced by the dominant role of services, where trademarks and service trademarks are more widely used to protect intellectual property, in particular in the absence of a unitary European patent that would shorten procedures and reduce the cost of acquiring a patent for the entire EU through a single submission.

The innovation activity of Slovenian companies stagnated in 2010–2014. During that period³² large and medium-sized companies, in both manufacturing and services, achieved rates of innovation activities that were above the EU average. Small companies, on the other hand, are problematic, as fewer than 40% are innovation-active, a share that is even declining³³ (see Indicator 1.17). In Slovenia the gap in innovation activity between large and small companies is significantly wider than that in countries that are more successful at innovation, which may also be a consequence of the better instruments such countries have for the promotion of innovation activities in small companies. In such countries, small companies are also more likely to participate in the innovation processes of large companies, which can strengthen the innovation activity of both (e.g. partnerships in certain fields, clusters, competence centres, etc.). Moreover, investments in intangible capital in Slovenia, which accelerate the introduction of innovations, are significantly below the EU average.³⁴

Slovenia has been slow in coping with the challenges of digital transformation and the digital maturity of Slovenian companies is weak. In 2014–2017 Slovenia failed to improve on its rank of 17th on the Digital Economy and Society Index (DESI). Unbalanced development across the five main DESI areas (see Indicator 1.11) has been hampering synergies. Notable progress has been achieved in the use of cutting-edge technologies for the digitalisation of enterprise processes and moderate progress has been recorded in digital public services. Slovenia has stagnated in terms of human capital, connectivity and internet use. In some indicators of digitalisation that are not included in DESI, Slovenia ranks around 5th place in the OECD, for example in the industrial stock of robots over manufacturing value added and the share of large enterprises that use big data analysis.³⁵ On the other hand, there are shortcomings in particular in the share of ICT companies investing in R&D (with 13% in 2015, Slovenia is at the tail end of the EU rankings), low level or absence of digital skills in 40% of the workforce, and low share of investments in ICT (2015: 2% of GDP), which increases the risk of being left further behind. Fewer than 20% of companies are digitally mature and only around 40% develop digital potentials.³⁶ Key factors for improving the situation include appropriate understanding of digital transformation,³⁷ human resources, pace of experimentation with new solutions and an organisational structure that better accommodates digitalisation in corporate development strategies.³⁸

Promotion of cooperation between the research sphere and the business sector makes the innovation system more efficient only over the long term. In 2009–2014 Slovenia leveraged EU and national funds to co-finance cooperation between the business sector and public research institutions with the aim of increasing value added and improving wellbeing. The supported instruments (e.g. competence centres, centres of excellence and development centres) were co-funded for 3–4 years. This rendered it impossible to support the entire innovation process from first ideas to the marketing of new products, which takes more time. On the other hand, support for the training of young researchers has been conducted for longer and is yielding good results, though the funding of this instrument has been declining since 2011, reducing the potential to acquire know-how in areas of future technological and societal development. The financing of the Young Researcher programme, which accelerated the transfer of research achievements into industry and matched research more closely with industry needs, was also discontinued. In the 2014–2020 financial framework, the absorption of structural policy funds supporting research and innovation is contingent on

³¹ The total number of new PhDs in this period was 4,600, of which around 46% were in science and technology.

³² The latest available data.

³³ The survey on innovation activity using the OECD methodology (the Oslo Manual) excludes companies with fewer than 10 employees. Consequently, data on innovation activity include neither such companies nor start-ups, which are generally established because of innovations in high-tech solutions and business models.

³⁴ In 2016, they accounted for 28% of total investments, compared to the EU average of 38% (Science, Research and Innovation Performance of the EU 2018, 2018).

³⁵ OECD STI Scoreboard, 2017.

³⁶ The study was conducted on a sample of 213 large and medium-sized companies.

³⁷ This is not just about the introduction of new technologies but also involves efficient integration thereof in all business processes.

³⁸ Erjavec et al., 2018.

projects covering the priority areas of the Slovenian Smart Specialisation Strategy.³⁹ Based on the strategy, strategic research and innovation partnerships (SRIPs) were established in 2016 in nine priority areas⁴⁰ which could contribute to the strengthening of innovation capability and the efficiency of the innovation system in the future. SRIPs represent a new mechanism of long-term support for public–private partnerships in the creation of value chains and the organisation of integral support structures for research and innovation for the achievement of competitiveness at the international level.

³⁹ Slovenia's Smart Specialisation Strategy S4, 2015.

⁴⁰ Smart cities and communities; smart buildings and homes, including the wood chain; networks for the transition to a circular economy; sustainable food production; sustainable tourism; factories of the future; health–medicine; mobility; and development of materials as products. As an essential component, digitalisation is horizontally integrated into all SRIPs.

Slovenia has long had a high rate of youth participation in learning, which is reflected in a relatively high share of the population with upper secondary and tertiary education. In recent years youth literacy (in mathematics, reading and science) has improved significantly as well and is high by international standards. Nevertheless, the enrolment structure has been slow to adjust to changes on the labour market, creating a mismatch between supply and demand for labour. Demographic change (i.e. a decline in the number of youths) and an increase in emigration in recent years have made securing a sufficient inflow of suitably trained workers an increasing challenge in light of the desired transition to a highly productive economy. There are also certain mismatches between the knowledge and skills of the active working population and the demands of the work they are performing, while the textual, mathematical and digital skills of the older population and the less educated are fairly poor. Lifelong learning could play an important role in improving this situation, but at present participation of adults in lifelong learning is insufficient.

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 lifelong learning in order to improve the competitiveness of the economy and the prosperity of society. The goal will be realised through the promotion of lifelong learning 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 youths and adults, by making sure education is efficient and of a high quality, by linking the education system to business, and by developing skills to improve employability. Realisation of this goal is essential for an active and healthy life, which the SDS deals with in development goal 1, and for the competitiveness of the economy, which is dealt with in development goal 6.

SDS 2030 performance indicators for development goal 2:

	Latest value		Target value for 2030
	Slovenia	EU average	
Participation in lifelong learning, in %	11.6 (2016)	10.8 (2016)	19
Share of population with tertiary education, in %	30.7 (2016)	30.7 (2016)	35
PISA results, rank	Ranked in top quartile of EU countries (2015)		Maintain ranking in top quartile of EU countries

Participation in learning is relatively high and the educational structure of the population quite favourable, but there is nevertheless a certain mismatch between human resources demand and supply. Youth participation in upper secondary and tertiary education has been above the EU average for several years. The share of youths (aged 20–24) with at least upper secondary education, an attainment which makes it easier for individuals to successfully function in a modern society – has been around 90% for a number of years and is higher than in the EU as a whole. As younger and better educated cohorts transition to higher age groups, the share of adults (25–64) with completed upper secondary education has also been rising, totalling 87.3% in 2017 (EU: 76.9%). After years of high participation in tertiary education, the share of the population with completed tertiary education has been increasing as well and is on a par with the EU average (30.7%). These trends have increased the human capital of the country, but because the structure of enrolment has been changing too slowly and because of demographic change (smaller cohorts of younger generations), the needs of the business sector are not fully met. Demand on the part of the business sector outpaces supply especially when it comes to staff with an upper secondary vocational degree and staff with a tertiary degree in social services, health care, science and technology. Considering the effects of demographic change (the lower number of youths) and the projected needs of the business sector and society, providing a sufficient number of staff with a tertiary degree may become a bigger problem going forward. The potential to provide a sufficient number of staff with a tertiary education is partially restricted by insufficient efficiency of study, as evident in the low permeability from first to second year, and the low enrolment-to-graduation ratio. Availability of a suitably educated workforce is also

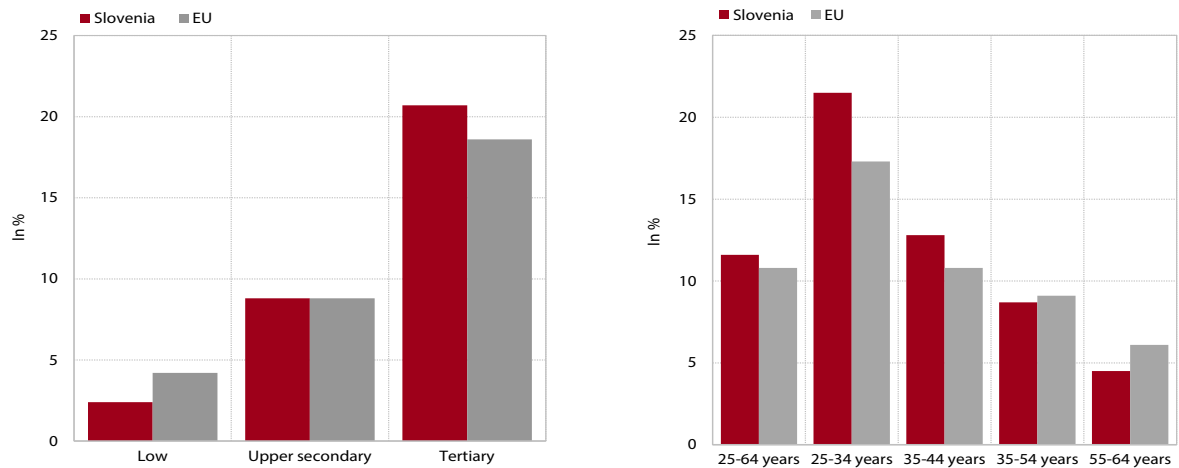
hampered by net emigration and daily commuting of Slovenian citizens to work abroad.

Education quality indicators have improved in recent years. Youth literacy and numeracy results, an indirect indicator of the quality of education, had been relatively poor in the past according to PISA results. But the last PISA study, in 2015, showed a significant improvement and Slovenia was above the EU average in reading, mathematics and science (see Indicator 2.3). However, in terms of inclusion in society and the workplace, poor performance of youths with a lower socio-economic status may pose a problem (data from PIRLS⁴¹ and PISA). Another indicator of the quality of education (formal and informal) are the writing, mathematics and digital skills of adults, which are low in particular among the less educated and the older population. Data from The Global Competitiveness Report 2017–2018 show Slovenia ranking around the average of EU countries in terms of quality of education for several years.

There are also certain mismatches between the knowledge and skills of the active working population and the demands of the work they are performing. Among the *active working population*, a quarter have an education that does not match the jobs they hold. The share of those underqualified has been declining, but the share of those who are overqualified for the job they are doing has been growing. Employees also lack certain knowledge and skills such as social and verbal skills, logical reasoning, and skills inherent to the workplace setting, including collaboration, flexibility, diligence and independence.⁴² A mismatch

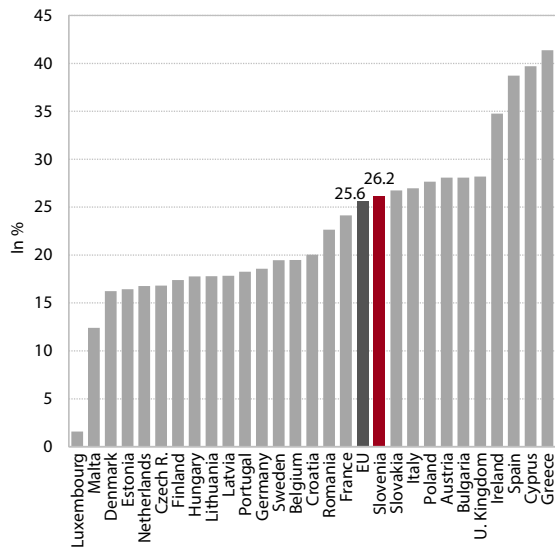
⁴¹ International literacy survey conducted among fourth-year primary school pupils.
⁴² OECD Skills for Jobs Database, 2017.

Figure 13: Participation of adults (25–64) in lifelong learning, by education (left) and age (right), 2016, in %



Source: Eurostat Portal Page – Education and Training, 2018.

Figure 14: Share of employed people aged 25–34 with tertiary education overqualified for their job, 2016



Source: Eurostat Portal Page – Population and Social Conditions, 2018; calculations by IMAD.

in knowledge and skills also exists among *youths* transitioning from education to employment. The share of those aged 25–34 with an upper secondary education in jobs for which they are underqualified or overqualified has been declining, but in 2016 it still amounted to over 25%. On the other hand, the share of those with tertiary education in jobs for which they are overqualified has been increasing. The knowledge and skills mismatch reflects the structure of demand as the labour market recovered, demographic change, and past structure of enrolment at the upper secondary and tertiary levels, which had been insufficiently adapted to the needs of the labour market (see Indicators 2.4 and 2.5). In recent

years the responsiveness of the education system to the needs of the business sector has improved,⁴³ which may reduce the mismatch. However, a system of long-term monitoring of the required knowledge and skills is yet to be put in place and the country still lacks a strategy for attracting suitable staff from abroad.

Participation of adults (25–64) in lifelong learning is slightly above the EU average, but it has not been increasing. From the aspects of successful functioning of individuals in society and the adjustment of society to global trends such as digitalisation and population ageing, it is too low. What stands out in particular compared to the EU as a whole is the under-average participation of those with low educational attainment and the older population in lifelong learning, which has not been increasing in recent years. Some measures⁴⁴ to promote the lifelong education of adults were initiated in 2017, and the Adult Education Act⁴⁵ of 2018 is supposed to also exert a positive impact. In most private sector activities, participation of employed people in lifelong learning lags behind the public sector, which is hampering efforts to improve competitiveness gains, extend active working years, and reduce the knowledge

⁴³ With measures in vocational upper secondary education that include the introduction of apprenticeships in the school year 2017/2018, grants for occupations in high demand and training of teachers at companies. At the tertiary level, measures include the acquisition of practical experience at companies, transition from programme to institutional accreditation of higher education institutions and a system for monitoring graduate employability (under preparation); taking account of graduate employability in allocating funding for higher education institutions is also being considered.

⁴⁴ The programme Co-financing of Education and Training for Raising Educational Attainment and Acquiring Vocational Competences 2016–2018 and the measure Comprehensive Support for Active Ageing of the Labour Force at Companies (ASI).

⁴⁵ By establishing a network of public service providers in the area of adult education, the new Adult Education Act is intended to contribute to the creation of a stable and predictable financial environment and, by extension, increase the participation of adults in lifelong learning.

and skills mismatch. Another indicator showing that companies do not invest enough in their employees is the WEF study,⁴⁶ which places Slovenia 17th among EU countries. This data also shows a low degree of willingness to learn among employees.

⁴⁶ The Global Competitiveness Index, Historical Dataset 2007–2017 (WEF), 2017.

2.2 Culture and language as main factors of national identity

■ Culture and language as main factors of national identity (development goal 4)

The goal involves developing and preserving national culture and the Slovenian language as factors of national identity, strengthening the country's identity, and promoting social and economic progress. Realisation of the goal will be supported with the promotion of participation in cultural activities, development and preservation of culture and cultural heritage, strengthening of cooperation between business and culture, and promotion of creativity and creative industries. Preservation of the Slovenian language and accessibility of culture will also hinge on digitalisation, while strengthening the country's identity will require international cultural collaboration, according to SDS 2030. Involvement in cultural activities contributes to the development of functional literacy, which is dealt with in development goal 2, and a healthy and active lifestyle, which is the focus of development goal 1.

■ Performance indicators for development goal 4:

	Latest value		Target value for 2030
	Slovenia	EU average	
Visits to cultural events, per capita number of visits	6.0 (2016)	N/A	8
Share of cultural events performed abroad, in %	2.7 (2016)	N/A	3.5
Open source language resources and tools, number	79 (2017)	N/A	153

The ways culture and language impact national identity, the country's identity in the international arena, and social and economic progress are intertwined, exceedingly complex and typically felt over a longer time horizon, which limits the scope for comprehensive annual monitoring of this SDS development goal. Culture and language contribute to the recognition of our uniqueness, to the openness of society, and to the development of creativity, innovativeness and collaboration, and they are essential factors of economic and regional development.⁴⁷ Inherent to culture are elements such as language, customs and traditions, communication, and the way of life, thought and conduct. This shows its impacts are multi-faceted and intertwined, which is why they cannot be estimated purely with analysis of particular statistical indicators. There are a variety of data available in the cultural sphere, but analysis is largely restricted to trends in individual segments, as attempted below.

Cultural production is prolific across Slovenia, with Ljubljana standing out at the EU level. The number of cultural events is high, the physical accessibility of cultural institutions is comparable to the EU average, while Ljubljana places high by cultural vibrancy⁴⁸ in a ranking of European cities. On the other hand, the share of guest performances abroad is low, which may be an indirect indicator of the quality of cultural production. In cultural heritage, the European Year of Cultural Heritage 2018 represents an opportunity to enhance the economic potential of this field.⁴⁹ The situation in the

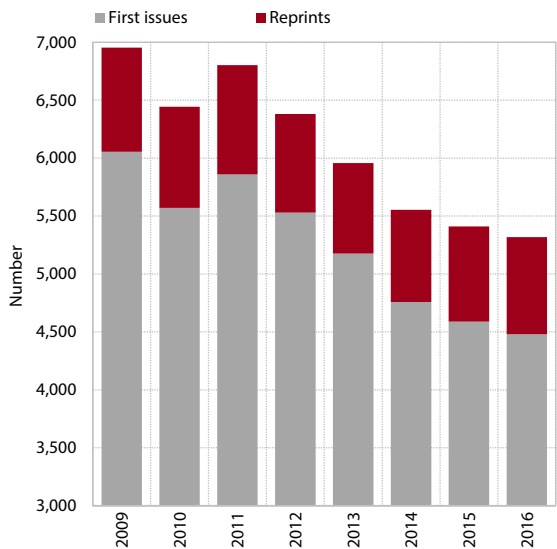
fine arts could improve next year with the percent for art scheme introduced in 2017 for fine arts and intermedia works exhibited in new or renovated public buildings.⁵⁰ Higher quality of domestic cultural production could also entice more foreign visitors and hence strengthen the economic potential of culture.

The trends in book production and general libraries are fairly unfavourable. The number of published books and brochures has been decreasing since 2012. The annual number of Slovenian works of fiction, which may contribute to national cultural identity awareness, fluctuated in 2009–2016 and accounted for only slightly over half of total published works of fiction. Per capita book sales have not been increasing, even though multiple measures have been adopted in recent years to improve the accessibility and sales of (quality) books.⁵¹ The publishing industry could benefit from Slovenia's selection as the honorary guest of the Frankfurt Book Fair in 2022, which may not only contribute to the success of Slovenian authors but also create an opportunity to leverage the potential of cultural tourism. Membership of general libraries, which perform an important role in promoting reading culture, has been decreasing, but members on average borrow more library materials than they did several years ago.

⁴⁷ Slovenian Development Strategy 2030, 2017.
⁴⁸ Measured by cultural vibrancy, it ranks fourth among 36 cities of similar size (The Cultural and Creative Cities Monitor, 2017).
⁴⁹ Srakar, 2018.

⁵⁰ The Act Amending the Exercising of the Public Interest in Culture Act (ZUJIK-G) of 2017 introduced a percent for arts in public investment projects of 1% or 1.25% (depending on size of investment) for fine arts and inter-media works in new public buildings.
⁵¹ These measures include the introduction of a portal for monitoring the single price of books, the national Growing with the Book campaign, the creation of the Portal Closer to Books and the Portal Revije. In 2016, 2.8 books per capita were sold.

Figure 15: Number of published books (works), first issues and reprints



Source: National and University Library, 2017.

One of the factors that affect Slovenian language and cultural heritage is digitalisation. Digitalisation facilitates the accessibility, preservation and development of the Slovenian language. One major project concerning the accessibility of dictionary information for the general public is the portal Fran,⁵² which is recording a rapid growth in search queries. The National and University Library has also been stepping up activities concerning the archiving of websites as a means of permanently preserving Slovenian cultural heritage on the World Wide Web. Meanwhile the digital library of Slovenia (D-LIB.SI)⁵³ represents an important addition to brick-and-mortar libraries. The scope of digitalisation of library materials was lower than planned in 2016, but the number of queries was among the highest so far.

General government expenditure on culture and the share of the active working population in the sector are high by international standards. Expenditure on culture has been decreasing in real terms for several years, in particular due to a substantial decline in investments. In 2016 it amounted to 1.0% of GDP,⁵⁴ well above the 0.6% of GDP average recorded in the EU in 2015. There are no comprehensive data on private funding of culture, but expenditure for which data are available (exploitation of tax breaks by legal

entities and income tax donations) is low and does not significantly contribute to improving the financial state of organisations.⁵⁵ The share of the active working population employed in culture has increased since the start of the crisis and is high by international standards.⁵⁶ The number increased the most in the performing and visual arts, while dropping significantly in publishing and printing. Culture stands out in terms of its high share of the self-employed, which was at just under a third of the total active working population in the sector.

⁵² The Fran portal combines dictionaries, Slovenian language resources and portals created at the Fran Ramovš Institute of the Slovenian Language, along with dictionaries digitised by the institute. It also allows users to search selected Slovenian language corpora.

⁵³ The Digital Library of Slovenia is an online library of texts, images and multimedia.

⁵⁴ According to Cofog methodology. It includes expenditure on cultural services (0.3% of GDP), radio, television and publishing (0.7% of GDP). The RTV Slovenija licence fee is also included.

⁵⁵ Srakar, 2018.

⁵⁶ According to the Labour Force Survey, it was 3.5% in Slovenia in 2015 (EU: 2.9%).

3

An inclusive, healthy, safe and responsible society

Social inclusion, participation in social life and gender equality have all improved in recent years, which indicates a society that is developing towards becoming inclusive. Although the material conditions have improved for the majority of social groups (broken down by gender, education, etc.), improving the social inclusion of the older population remains a challenge, with the risk of poverty particularly high among women. Considering the ageing of the population, it is particularly important to increase employment and social participation among the older population. To improve the socio-economic status of youths, meanwhile, it is necessary to increase participation in the labour market and in particular reduce labour market segmentation, which predominantly affects youths and may also influence their decision on whether or not to start a family or explore job prospects abroad. In the future, the capacity to provide decent living conditions will be significantly affected by demographic change, which will reduce the supply of labour and hence exert a drag on economic development; demographic change will also require adjustment of social protection systems as age-related expenditure rises. The overall health of the population is improving, although healthy life expectancy remains fairly low. Progress in this field will rely primarily on how the health care system performs in improving lifestyles, reducing inequalities in health and shortening waiting times.

3.1 A decent life for all

A decent life for all (development goal 3)

The aim is to provide for a decent life for all generations. To realise the goal, it is necessary to ensure appropriate income levels for a decent life by creating work opportunities and putting in place targeted social transfers which reduce the risk of social exclusion, by establishing sustainable social protection systems, by improving the quality of the living environment, by strengthening cooperation and solidarity, and by eliminating all forms of discrimination. Demographic change requires adaptation on the part of society and of the systems of social protection. Realisation of the decent life goal is contingent on the implementation of the development goals of a healthy and active life (development goal 1), a competitive and socially responsible business and research sector (development goal 6), an inclusive labour market and high-quality jobs (development goal 7), and sustainable natural resource management (development goal 9).

Performance indicators for development goal 3:

	Latest value		Target value for 2030
	Slovenia	EU average	
The risk of poverty or social exclusion, in %	18.4 (2016)	23.5 (2016)	< 16
Income inequality, quintile share ratio (80/20)	3.6 (2016)	5.1 (2016)	< 3.5
Personal experience of discrimination, in %	13 (2015)	21 (2015)	< 10

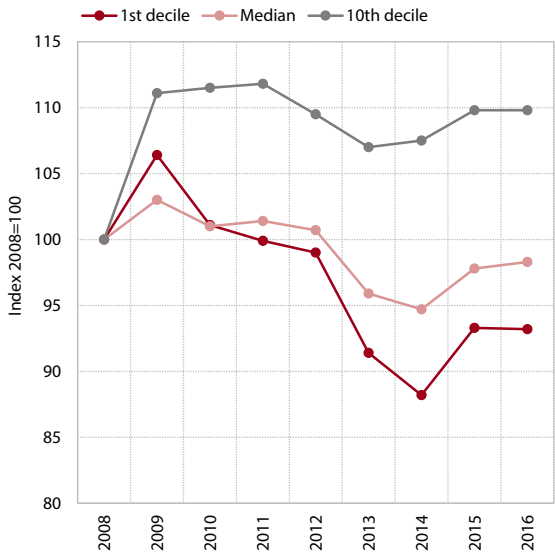
3.1.1 Impact of material conditions

The risk of poverty or social exclusion has been decreasing in recent years and in 2016 reached a similar level to that before the crisis. Among the three elements of social exclusion, two were still higher in 2016 than in 2008, the risk of poverty and the percentage of people living in households with low work intensity, whereas severe material deprivation was lower (see Indicator 3.1). In the last two years, the risk of social exclusion was reduced because of improvements on the labour market and the return of economic growth, the partial relaxation of austerity measures in social transfers, and the reintroduction of grants for underage pupils. Despite the improvements, however, 371,000 people were still at risk of social exclusion in 2016, with the high risk of poverty among older women particularly worrying.

Gross adjusted disposable income and actual individual consumption returned to growth in the last two years. This is attributable to improvements on the labour market as a result of more robust economic activity. The economic crisis reduced household incomes in lower income brackets more than in higher brackets, but when growth returned (after 2013), incomes in the lower brackets increased faster than those in higher brackets. We believe this is the result of activities that employ lower-skilled workers being affected more severely by the economic crisis. Between 2008 and 2013, the share of income of the first quintile dropped largely because of lower income from employment, as the crisis reduced employment the most among the lower-skilled and those on temporary contracts (low wages).

Consequently, in the first quintile social benefits (effect of automatic stabilisers) and income from self-employment increased, including due to necessity-driven self-employment and the promotion of self-employment with active employment policy measures. Since 2013, on the other hand, the incomes of the bottom quintile have increased faster than those in other income brackets. We believe this trend has been driven largely by growing

Figure 16: Real growth in disposable income per household member in selected income brackets



Source: SI-STAT Data Portal, 2018; calculations by IMAD.
Note: Data for an individual year refer to the previous year's income.

Table 2: Share of types of income in 1st, 3rd and 5th quintiles in disposable income, Slovenia

In %	2008			2016		
	First quintile	Third quintile	Fifth quintile	First quintile	Third quintile	Fifth quintile
Income from employment	5.6	18.8	37.9	4.8	19.1	38.2
Income from self-employment	11.8	14.8	40.7	15.0	15.6	33.8
Pensions including bonuses	16.8	18.6	25.6	14.3	18.9	26.5
Family allowances	21.4	18.9	16.6	24.7	21.7	12.3
Social benefits	25.5	19.7	14.8	28.0	18.6	16.0
Other	8.9	19.7	35.1	5.6	12.7	58.0
Equivalent disposable income	10.0	18.6	33.5	9.5	18.7	34.0

Source: SURS, SILC.

Note: Other includes income from capital, difference between received and given transfers among households, children's income, property tax, and difference between income tax payments and refunds.

employment of the lower-skilled – i.e. those most likely to have been dismissed during the crisis. Consequently, the consumption of households with the lowest incomes has been growing faster than that of households with higher incomes. Gross adjusted disposable income per capita was 78.2% of the EU average in 2015 (the last year for which data are available), the gap to the EU average being wider than ten years ago. Similarly, actual individual consumption per capita (in PPS) reached 78.4% in 2016. However, the gap to the EU average in both indicators widened at a slower pace than the gap in per capita GDP (see Indicator 1.1).

Income inequality is very low, whereas wealth inequality is almost at the euro area average. Income inequality increased slightly in the last 15 years, but it remains among the lowest in the EU due to the strong impact of high progressivity of income taxation (see Indicator 3.2). ECB data show Slovenia slightly below the euro area average by gross wealth distribution in 2014. A similar picture emerges in the share of gross wealth of the wealthiest 20% of households, which amounts to 62.3% (euro area: 65.0%). The poorest fifth of households has 0.5% of total wealth.

Accessibility of health services, an indicator of quality of life, is undermined by longer waiting times. In the Slovenian health care financing system, direct payments are relatively low (see Indicator 3.20)⁵⁷ and significantly below the EU average, so that even households with the lowest incomes do not face catastrophic health expenditure.⁵⁸ However, differences in health expenditure increased markedly in the past decade, in particular during the crisis and from 2012 to 2015, when waiting times also increased rapidly. This may lead to health inequality, as those with higher income⁵⁹ are more likely to be able to afford out-of-pocket payments. That waiting periods are a major problem is also evident from

the indicator of unmet needs for medical treatment, which are rarely associated with financial reasons but are most frequently a result of waiting periods.⁶⁰ Measures were therefore adopted in 2016 and 2017 to manage waiting periods.⁶¹

Providing long-term care is becoming increasingly challenging. The number of recipients of long-term care has been increasing for several years and exceeded 61,000 in 2015. Just over a third received institutional long-term care, the rest being in home care.⁶² Measured by the participation of total population in long-term care, Slovenia exceeds the average of 23 OECD Member States,⁶³ but it is widening its gap in terms of participation of the population aged over 65 (2015: Slovenia: 11.6%, OECD 18: 13.0%). Home care is the least developed segment and the one in which Slovenia lags farthest behind as measured by the participation of persons over 65.⁶⁴ Inadequate long-term care is a burden on families and increases the demand for health care services. Systemic regulation is therefore needed as soon as possible.

Slovenia is no exception in that the income status of individuals across all age groups affects the

⁶⁰ According to the EHIS survey, in 2017 waiting periods were the reason for 19.6% of unmet needs related to health care among the total population, which approximately corresponds to the available data on the number of all patients on waiting lists. In 2017 the government adopted a special programme for the reduction of waiting periods, which continues in 2018. The number of all persons on waiting lists rose by 1.6% from 1 January 2017 to 1 January 2018 (from 229,814 to 233,475), of which the number of those waiting longer than admissible rose from 40,648 to 58,887 (National Institute of Public Health, 2018).

⁶¹ To improve the accessibility in certain programmes, the government earmarked additional funds of EUR 7.9 million in 2016 in the framework of the One-Off Additional Programme; in 2017 and 2018 a special government project for the reduction of waiting periods and increased quality of health treatment was conducted.

⁶² These persons receive home care (21,600) or just a cash allowance (16,600). The actual number of recipients of a cash allowance is significantly higher (over 41,000), but in the final tally of recipients the rule of double counting is used: a recipient receiving both the service and the cash allowance is only counted once.

⁶³ In 2015 it amounted to 3.0% (OECD: 2.5%) (OECD Stat, 2018). For Slovenia the number of recipients of long-term care includes recipients of community health nursing (more in Nagode et al, 2014).

⁶⁴ The share of those over 65 receiving home care was 58.8% in 2015 (OECD 16: 66.8%) (Health at a Glance, 2017).

⁵⁷ According to WTO recommendations, out-of-pocket expenditure is acceptable until it reaches roughly 15% of health expenditure; in Slovenia it was 12.6% in 2016.

⁵⁸ Ministry of Health, WHO, European Observatory on Health Systems and Policies, 2015.

⁵⁹ Zver, E. and Srakar, A., 2018.

accessibility of education, which is otherwise relatively good overall. Participation of children in pre-school is above the EU average, which contributes to a high share of women in full-time employment. Although participation of children is lower in lower income brackets than in higher ones, the difference is smaller than in the EU on average, which indicates that accessibility is relatively good. The situation is similar when it comes to participation in after-school classes and other forms of organised care. Those in lower income brackets are more likely to have difficulties paying for children's care than people at the same income level in the EU generally.⁶⁵ Pupils from families with a lower socio-economic status achieve poorer reading, mathematics and science scores (see Indicator 2.3) and are more likely to enrol in vocational programmes, which reduces their social mobility. Participation of the lower-skilled (lower income) in lifelong learning is significantly below that of persons with tertiary education (higher income), which further reduces their employability.

Cultural activity and physical activity are strongly correlated with income status. Persons with lower incomes are least likely to visit cultural events or engage in amateur cultural activities. They are also less likely to do sports or work out, activities which affect overall wellbeing and health,⁶⁶ in which regard the difference between the lowest and highest income brackets, which is wider than in the EU on average, did not decrease significantly between 2012 and 2016.

Exposure to various kinds of discrimination may affect decency of life; in Slovenia, it is relatively low. Discrimination constitutes a breach of the right to equal treatment of an individual or group due to nationality, race, skin colour, gender, sexual orientation, religion, age, disability, education, social status or other personal circumstance; it may occur in fields including employment, education and access to goods. Long-term exposure to discrimination has a negative impact on the discriminated persons and groups in that it may lead to social exclusion and produce negative economic outcomes.⁶⁷ The share of persons who experienced any form of discrimination dropped in 2008–2015 and is lower than in elsewhere in the EU (see Indicator 3.3), but age discrimination (of those over 55) increased in 2012–2015, which is particularly worrying given future population ageing trends. Violence against women may be considered an extreme form of discrimination as well, and according to a pan-European survey on violence against women, its incidence in Slovenia is below the EU average.

⁶⁵ In Slovenia (2016), 17% of households in the first quartile (EU: 11%) and 7% of households in the fourth quartile (EU: 3%) have problems settling these expenses and the costs of formal education (textbooks, books, school materials, etc.).

⁶⁶ 36% of persons in the first quartile and 59% of persons in the fourth quartile do sports and exercise.

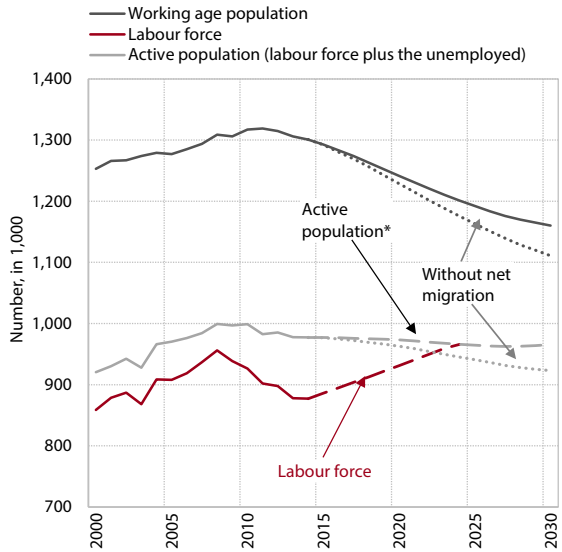
⁶⁷ Kogovšek, N. and Petković, B., 2007.

3.2.2 Impact of demographic change

In the future, the capacity to provide for a decent life for the population will be strongly affected by demographic change, which is very marked in Slovenia. Life expectancy is rising, the share of the older population is growing, the number of births is stagnating and net immigration is relatively low. Since 2011 the most active segment of the population (20–64 years) has been shrinking.⁶⁸ In the coming years, the pace of demographic change will only intensify. The latest population projections from 2015 forecast that the dependency ratio will rise by 20 pps by 2030 to 79.6%, which means that 80 children, youths and older persons will depend on 100 people aged 20–64.

Demographic change is reducing the supply of labour, which may become a drag on economic development in the future. As the demand for labour rises, employers increasingly face problems finding appropriately skilled workers, an issue that will only become more acute in the coming years. Assuming migrations remain modest, even higher employment of youths and the older population will not suffice to fully meet the demand for labour. And assuming labour market regulations and retirement conditions remain unchanged, the contraction of the population in the age group 20–64 will become a limiting factor to economic growth within the next ten years. Simulations of the

Figure 17: Scenarios of changes in the size of the working age population, labour force and active population



Source: Eurostat – ESSPOP2015; calculations by IMAD.
Note: *The simulation is based on the ESSPOP2015 population projections. The assumptions used for the labour force simulation are as follows: i) continued growth of the share of the highly educated, ii) equalisation of the (lower) employment rate of women with the (higher) employment rate of men by 2030, and iii) a 20-pps increase in the employment rate of the older population by 2030. For a detailed description of the methodology, see Peschner and Fotakis (2013, 2015).

⁶⁸ In 2016, their number was almost 40,000 lower than in 2011.

Table 3: Long-term projections of age-related public expenditure

	Share of GDP, in %							Change, in pps of GDP 2016–2070		
	2016	2020	2030	2040	2050	2060	2070	Slovenia	EU	EUs
Baseline AWG scenario ¹										
Total	21.9	22.1	23.9	26.6	28.8	28.8	28.3	6.3	1.7	2.1
Pensions	10.9	11.0	12.0	14.2	15.6	15.2	14.9	3.9	–0.2	0.2
Health care*	5.6	5.8	6.3	6.7	6.8	6.8	6.7	1.0	0.9	0.9
Long-term care**	0.9	1.0	1.1	1.4	1.7	1.8	1.8	0.9	1.2	1.1
Education	4.0	4.0	4.2	4.1	4.5	4.7	4.6	0.6	0.0	–0.1
Unemployment benefits	0.4	0.3	0.3	0.3	0.3	0.3	0.3	–0.1	–0.2	–0.2
Risk AWG scenario ²										
Health	5.6	6.0	6.7	7.3	7.6	7.7	7.6	2.0	1.6	1.8
Long-term care	0.9	1.0	1.4	2.1	2.9	3.7	4.4	3.5	2.7	3.1

Source: The 2018 Ageing Report: Economic and Budgetary Projections for the EU Member States (EC), working version, March 2018.
Notes: ¹ The baseline scenario for health expenditure accounts for the effects of ageing, the assumption that half of the additional years of life are spent healthy and, via an assumption about lower income elasticity of demand for health care services (1.1, which drops to 1.0 towards the end of the period), the effect of technological progress, albeit to a lesser extent. ² The risk scenario for health expenditure accounts for the effects of ageing and assumes that half of additional years of life are spent in a healthy state. It also takes into account income elasticity of 1.4 (dropping towards 1.0 through the end of the period) and hence gives greater weight to the pressure of technological progress. Expenditure on long-term care accounts for demographic change as well as the assumption about the convergence of expenses and the increase in coverage of long-term care to the level of the EU average in 2070. EU – weighted average; EUs – simple average; *Public expenditure on health care according to SHA methodology but excluding expenditure on long-term care and including expenditure on investments according to COFOG methodology. **Total expenditure on long-term care according to SHA methodology (excluding expenditure on disability benefits, which had been included in previous AWG projections).

assumptions of demographic trends show that absent a net positive migration of foreign labour, the working age population, presently defined as the age group 20–64, would contract even if it were to be redefined as the age group 20–85.

Unless policies and systems change, population ageing will create significant problems in the provision of stable financing of social protection systems. Projections prepared by the European Commission in conjunction with Member States and released in February 2018 indicate that in the majority of Member States, age-related expenditure will rise even faster until 2060 than projections in 2015 suggested. For Slovenia, the forecast is similar to that in 2015 in that the country stands out in terms of a strong increase in overall age-related expenditure: by 6.9 pps of GDP by 2060 and by 6.3 pps by 2070. Long-term projections are thus a renewed warning that assuming a no-policy-change scenario, the effect of ageing on general government expenditure will be very strong and significantly above the EU average. The projected increase in pension expenditure is the area where Slovenia stands out the most, but it also exceeds the EU average in terms of growth in expenditure on health, education and unemployment. This is the result both of current systems and policies and of Slovenia’s overall demography: until 2050 larger cohorts will retire and, given the increasing life expectancy, they will spend more years in retirement (assuming the current retirement conditions remain unchanged). At the same time, smaller cohorts will enter the labour market, severely worsening the ratio between pensioners and workers, which has been deteriorating since 2012 in any case. The long-term sustainability of public finances would come under even more pressure

if public expenditure on health care and long-term care were to grow at a faster pace due to non-demographic factors (risk scenario).

Pension expenditure growth has been moderate over the last several years but ensuring the sustainability of financing and providing decent pensions remains a challenge. The new pension legislation (the ZPIZ-2), which entered into force in 2013, temporarily slowed down the increase in the number of old-age pensioners⁶⁹ and the number of other types of pensioners decreased as well. Temporary suspension of annual statutory pension indexation has also contributed to a moderation of growth in recent years. Yet despite several years of moderate growth, the transfer from the national budget to the ZPIZ remains high,⁷⁰ which indicates there are short-term problems with the financing of pensions. Long-term projections of pension expenditure indicate that spending as a share of GDP will start increasing again in a few years, reflecting a faster increase in the number of persons over 65 and a concurrent faster deterioration in the ratio of the active working population to pensioners. It is therefore of paramount importance that Slovenian residents be properly informed about the consequences of ageing and the rights stemming from mandatory insurance and

⁶⁹ We estimate that the rate of increase in the number of pensioners slowed down due to the effects of the adoption of the ZPIZ-2, as their number surged prior to adoption of the act and in the year after it was adopted. In the next few years the effect will gradually diminish, as those who had to defer retirement due to stricter conditions provided by the law start to retire. It is therefore expected that the retirement age of new retirees will gradually increase.
⁷⁰ The transfer from the national budget to the pension insurance fund amounted to EUR 1,163 million in 2017.

to promote saving for old age. Securing a decent level of pensions will become increasingly difficult. Although there is no uniform definition of a decent pension, OECD experts estimate it to be around 70% of pre-retirement income,⁷¹ considering the minimum rights of low-income individuals. In Slovenia, the ratio for individuals with an average wage and 40 years of pensionable service is 58.8% for men and 65.4% for women.

⁷¹ Antolin, P., 2011.

3.2 An inclusive labour market and high-quality jobs

An inclusive labour market and high-quality jobs (development goal 7)

The objective is to create an inclusive labour market that will provide high-quality jobs with high value added (see also goal 6). By implementing the concept of sustainable working lives and adapting jobs to demographic change, older workers will be able to work longer and their health will improve. An improving system of flexicurity and the promotion of employment of both sexes in professions atypical for their sex will enhance the participation of under-represented groups on the labour market.

Performance indicators for development goal 7:

	Zadnji podatek		Target value for 2030
	Slovenia	EU average	
Employment rate (20–64 age group), in %	70.1 (2016)	71.1 (2016)	> 75
In work at-risk-of-poverty rate, in %	6.1 (2016)	9.6 (2016)	< 5

After deteriorating sharply during the crisis, the situation on the labour market has improved in recent years, but participation of some groups remains only modest. The strong turnaround on the labour market was driven by an acceleration of the economic recovery and attendant job creation, in particular in activities with high value added. After 2013, the activity rate⁷² increased as well, following several years of stagnation. As employment prospects improved, even persons who had been deterred from the labour market by a long period of low demand⁷³ returned to the workforce. The improvement is also evident from the employment rate, which in the second quarter of 2017 exceeded the EU average for the first time since the crisis (see Indicator 3.10). Despite the improved situation, however, participation of under-represented population groups such as older people and the low-skilled remains a challenge. Long-term unemployment is also persistent, with one in two unemployed out of work for over a year.

Participation of youths and older population on the labour market has increased in the last several years, this due both to economic activity and to demographic trends and policy measures. Youths were disproportionately affected by the crisis,⁷⁴ not only because of the generally low demand for labour but also because they were more likely to have temporary jobs (fixed-term employment and student work⁷⁵). After 2013

the youth employment rate increased, which we believe was due to higher demand for student work, greater youth focus of active employment policy measures and demographic trends.⁷⁶ Since youths in Slovenia have above-average participation in upper secondary and tertiary education (see Section 2.1), the share of those who are neither employed nor studying is relatively low (see Indicator 3.13). The employment rate of the older population (55–64) increased rapidly after 2013 as well, driven by demographic trends and the pension reform adopted in 2013, which gradually increases the statutory retirement age. But even though it is increasing, the employment rate in this age group is among the lowest in the EU as a result of relatively early retirement, which undermined the long-term sustainability of the pension system.

Despite the adoption of certain measures, labour market segmentation remains a problem. In a segmented labour market, one tier of workers has regular, better-paid jobs and a second tier are in precarious,⁷⁷ non-standard, less-protected and low-paying jobs⁷⁸ and have poorer prospects of transitioning to safer forms of employment. Severe segmentation may increase inequality among workers, accentuate the volatility of hiring and firing, discourage companies from investing in workers, and undermine the motivation

⁷² The activity rate in the age group 20–64, which shows the share of the employed and unemployed population, rose by 3.5 pps to 78.4% from the second quarter of 2013 to the second quarter of 2017.

⁷³ According to the Labour Force Survey, these are inactive persons who are willing to accept work but are not actively looking for work. In the first three quarters of 2017 their number declined by a third compared to the same period of 2013.

⁷⁴ In 2008–2013 they were the age group whose employment rate decreased the most and whose unemployment rate rose the most.

⁷⁵ The scope of student work contracted by 36.7% in 2008–2013. In addition to lower demand for work, this could also be due to the increase in the concession fee in mid-2012 and restrictions on student work in the public services sector. By the second quarter of 2017 the scope of student work had again increased and was up 39.1% on the

same quarter in 2013.

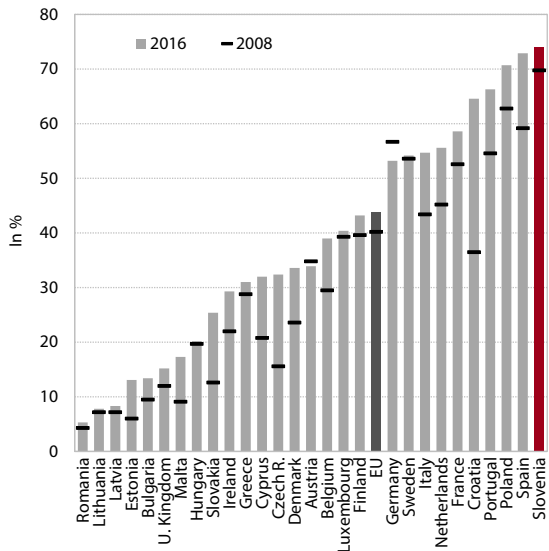
⁷⁶ Demographic trends are evident in the contraction of the number of youths (aged 15–24): Labour Force Survey data show it declined by 15,500 (7.1%) from the second quarter of 2013 to the second quarter of 2017. Coupled with higher employment (by 13,700 or 24.2% in the same period), this increased the employment rate in this age group (by 8.7 pps to 34.4%).

⁷⁷ The term "precarious forms of employment" does not have single definition. Eurostat and the European Commission define it as employment with lower pay (below two-thirds of median hourly wage) that is not full-time permanent employment.

⁷⁸ An EC analysis (2017) for Slovenia showed that excluding selected factors such as age, education, activity and profession, workers on temporary employment contracts have 10% lower wages than employees on permanent contracts.

for work. A segmented labour market is also more susceptible to shocks.⁷⁹ The prevalence of temporary forms of employment depends on factors such as the ease of using such forms of employment, rigidity of regulations governing firing and uncertainty of demand. Although legislative changes adopted in 2013 improved workers’ prospects of getting permanent employment contracts,⁸⁰ the share of temporary employment remains high and above the EU average, in particular among youths, where it is the highest in the EU. A major driving force thereof is the existence of student work, the most flexible type of work in Slovenia. The share of precarious types of employment is also significantly above the EU average (see Indicator 3.14). The precarious status of youths, coupled with an unfavourable housing policy, may induce youths to emigrate⁸¹ and affect their decisions on whether and when to start a family.

Figure 18: Share of temporary employment among youths (15–24)



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

The employment prospects of the long-term unemployed have been improving and the long-term unemployment rate has dropped to the EU average. The long-term unemployed are at risk of their knowledge and skills becoming obsolete, which reduces their employment prospects. This may result in them transitioning into inactivity, which is not only unfavourable per se but also from the vantage point of Slovenia’s demographic challenges. Long-term unemployment was exacerbated in 2009–2014 due to a long period of modest

demand for labour. In the early stages of the economic recovery, the situation initially improved only for the short-term unemployed; in the last several years, however, high employment growth and certain active employment policy measures have reduced the number of the long-term unemployed. In the second quarter of 2017 the long-term unemployment rate was on a par with the EU average, having been above the average throughout the crisis (see Indicator 3.10). Nevertheless, the share of long-term unemployment in total employment remains high (51.3%), which calls for additional activation and training measures to improve the employability of the long-term unemployed. It is also necessary to develop and more frequently implement measures that prevent the transition to long-term unemployment.

Slovenia allocates relatively limited funds for active employment policy programmes, although such measures could improve the participation of vulnerable groups. To improve flexicurity, it is sensible to increase funding of active employment policy programmes and expand unemployment benefit coverage. However, in framing the system of flexicurity, it is necessary to place greater emphasis on creating appropriate incentives for work.⁸² Slovenia is among the countries with a significant unemployment trap in the early stage of unemployment;⁸³ the trap increased in the past ten years and discourages individuals from seeking employment.

The available job quality indicators show a slight improvement in the last ten years. Job quality is a multi-faceted concept and how it is measured is gradually evolving (see Box 2). Eurofund,⁸⁴ for example, has found that the physical environment index and the working time quality index improved in the majority of the countries surveyed. In Slovenia a comparison between 2010 and 2015 also indicates a decrease in work intensity and a significant improvement in individual discretion and educational prospects. Eurofund’s classification of profiles (cluster analysis) ranks Slovenia slightly above the EU average by share of lower-quality jobs and around the EU average by all other profiles in 2015. Measured with OECD quality benchmarks, Slovenia ranks around the average of the analysed countries.

Job quality may affect health, and hence the status of an individual on the labour market, and social protection systems. Jobs characterised as highly demanding (e.g. time pressure, physical risks to health), coupled with a lack of resources for the job (e.g. insufficient discretion and poor social support at work) pose a great health risk. Physical and mental

⁷⁹ Lepage-Saucier, 2013.
⁸⁰ Vodopivec et al (2016), for example, found that immediately after the reform, the probability of transitioning from fixed-term employment to indefinite employment with the same employer rose by 28.2% for low-skilled men under 30.
⁸¹ Precarious Youths and Emigration in Times of Crisis: Images, Reality, Growth, 2013.

⁸² Combined with high taxation of income, unemployment benefits and social transfers may deter individuals from employment.
⁸³ The unemployment trap indicates the difference between the net income of a person when they transition from unemployment to employment; it occurs because of higher taxes and social contributions in employment and lower social transfers compared to income and higher social transfers during unemployment.
⁸⁴ Sixth European Working Conditions Survey (Eurofund), 2017.

Box 2: Job quality – Concepts and measurement

Job quality is a multidimensional concept. Ways of measuring it are evolving only gradually, which is why time series are not yet available. Below we present two multidimensional measuring concepts developed by the OECD and Eurofund which benchmark Slovenia against other countries and indicators developed by Eurostat.

The **OECD**¹ measures job quality with three dimensions of quality:

- a) **Earnings quality**, which deals with two aspects: (i) level of earnings, which directly affects material wellbeing, and (ii) distribution of earnings, which is likewise important for quality (measured with the Gini coefficient).
- b) **Labour market security**, captures aspects of economic security related to the risk of job loss and its economic cost for workers. These dimensions are measured with (i) probability of job loss (transition to unemployment) and duration of unemployment and (ii) public insurance for unemployment (coverage and amount of unemployment benefits).
- c) **Quality of the working environment**, captures non-economic aspects of jobs, including the nature and content of the work performed, working-time arrangements, and workplace relationships. It is measured as incidence of job strain characterised as high job demands with low job resources.

In the Sixth European Working Conditions Survey, **Eurofund** measured job quality using seven indices: (i) physical environment, (ii) work intensity, (iii) working-time quality, (iv) social environment, (v) skills and discretion, (vi) prospects for education and promotion, and (vii) earnings.

Using cluster analysis of these dimensions, Eurofund has created the following job profiles:

- a) **High-flying jobs**, which denotes complex and demanding jobs where individuals have high discretion and can set their own work methods and pace of work. Such workers also have good education, training and promotion prospects. The downsides of these jobs are poorer working-time quality and high work intensity.
- b) **Smooth running jobs**, which are characterised by low work intensity, high quality of working time (often fewer than 48 hours per week) and good social environment at work. The level of earnings, skills and discretion at work is somewhat lower than in other profiles.
- c) **Active manual jobs**, which are characterised by more risk in the physical environment (noise, temperature, etc.). Working time quality is average, though atypical and shift work is more common; the social environment is good.
- d) **Under pressure jobs**, where social environment stands out in negative terms due to a high incidence of abuse at work (frequent verbal abuse), work intensity is high, and the quality of the working environment is poor (frequent night, shift and/or weekend work). Earnings and the use of skills and discretion in these jobs are high.
- e) **Poor quality jobs**, which are characterised by low earnings, promotion prospects, skills and discretion, average working time quality, and a work intensity that is slightly better than in under pressure jobs.

Eurostat measures job quality with indicators measuring a single dimension, for example weekend work, longer working hours in main job, weekly hours worked, share of employees working through employment agencies or share of precarious types of employment (the last is presented in Indicator 3.22).

¹ From OECD: How Good Is Your Job? Measuring and Assessing Job Quality, 2015.

health are also affected by poor working conditions and unemployment, which is an additional burden on health care and the welfare system. The employment rate among the older population, which is very low in Slovenia, is additionally dragged down by chronic illnesses, obesity, and other risk behaviours such as smoking and alcohol consumption. The result is a high rate of absenteeism, which has been growing in recent years (see Indicator 3.15) and lower participation on the

labour market. Considering that 38% of respondents in Slovenia (EU: 25%) believe that work has adverse effects on health, and as many as 43%⁸⁵ think they will not be able to do their job until age 60, measures promoting a sustainable working life are particularly important against the backdrop of demographic challenges.

⁸⁵ The percentage in Slovenia is among the highest in the EU.

3.3 A healthy and active life

A healthy and active life (development goal 1)

The aim is to provide a high quality of life for all generations by promoting healthy and active lifestyles throughout the life cycle. Against the backdrop of profound demographic change, maintaining a high quality of life will require adapting social protection systems, promoting longer working lives, and making sure high-quality health care and long-term care services are accessible. It is also necessary to create opportunities for the transfer of knowledge between generations and to provide equal opportunities, including by facilitating a balance between work, care and leisure activities across the entire life cycle. To realise this goal, it is necessary to create conditions for a decent life for all generations, which is dealt with under development goal 3.

Performance indicators for development goal 1:

		Latest value		Target value for 2030
		Slovenia	EU average	
Healthy life years at birth, number of years	Men	58.5 (75.2% of life expectancy) (2015)	62.6 (80.3% of life expectancy) (2015)	64.5 (80% of life expectancy)
	Women	57.7 (68.8% of life expectancy) (2015)	63.3 (76.0% of life expectancy) (2015)	64.5 (75% of life expectancy)
Gender equality index		68.4 (2015)	66.2 (2015)	> 75

The health of the population has improved in the last ten years, but measured by healthy life years, Slovenia is still far below the EU average. Basic health indicators improved across the EU due to advances in medicine, better quality of health care, and factors including growing incomes, higher educational attainment and better awareness. In Slovenia, life expectancy at birth improved more over the last decade than in the EU on average. The gap in healthy life years narrowed as well, but by 2015 the number of years a person could expect to live without disability was still significantly below the EU average (see Indicator 3.17). Self-assessment of health and dependence also improved, but they also remain below the EU average. Measured by preventable deaths, an indicator of the efficiency of the health system, Slovenia achieved the EU average (see Indicator 3.19), but it still ranks poorly in terms of premature mortality,⁸⁶ which is related to the high prevalence of unhealthy lifestyles.

Health inequalities have slightly reduced in the last ten years. The gap between the low-skilled and the high-skilled in terms of life expectancy at 30 and 65 narrowed in 2012–2014 compared to 2006–2008. It also narrowed more for men than for women, with life expectancy increasing in particular for low-skilled men. However, regional differences⁸⁷ in life expectancy

for men remain wide. Measured by the educational gap, Slovenia places in the middle of the rankings of EU countries for which data are available (see Indicator 3.23). In healthy life expectancy the gap between the low-skilled and the high-skilled also narrowed in 2005–2014, with the narrowing for both sexes a result of a higher number of years without disability for the low-skilled and a lower number of years without disability for the high-skilled.⁸⁸ Reducing inequalities in health requires interdepartmental coordination focused on promoting healthy lifestyles in those with low socio-economic status and other most vulnerable groups. The low-skilled population in particular require additional attention and opportunities to leverage their potentials, actively contribute to society and enjoy a healthy old age. Continued reduction of inequalities in health would significantly contribute towards the mitigation of pressure on health expenditure growth and towards a reduction in absenteeism (see Indicator 3.15).

Despite lifestyle improvements in certain areas, the gap to the EU average has been widening. The share of overweight children, rising rapidly and already among the highest in the EU, is a key risk factor for adult obesity and obesity-related illnesses (see Indicator 3.22). Slovenia is also well below the EU average in terms of the share of youths who eat vegetables every day. The share of regular smokers has declined in the last ten years, but in the majority of other European countries it has been dropping at a faster pace. Slovenia also stands out in terms of per capita alcohol consumption, ranking fifth

⁸⁶ The premature mortality rate is an indicator of mortality before age 65 which is associated with unhealthy and/or risky lifestyles (death due to accident, especially traffic fatalities, and smoking- and alcohol-related deaths) or could be prevented by health care measures (early detection of risk factors, cancer screening tests).
⁸⁷ The biggest differences between regions were 4.3 years for men and 2.2 years for women.

⁸⁸ Kofol Bric,T., Zaletel, M., 2018.

among EU Member States; the gap to the EU average⁸⁹ continues to widen. Similarly, the poor ranking in cancer⁹⁰ mortality is largely associated with risk behaviour. To improve lifestyles, it is essential to strengthen preventive medicine and public health,⁹¹ improve policies mitigating risk behaviour, and raise awareness about responsibility for own health. This would also contribute to higher labour market participation.

The incidence of mental health problems has increased in the last several years. The upward trend is characteristic of all developed countries, a consequence of fast-paced life, society's high expectations regarding individual performance, unhealthy lifestyles, growing inequalities, deprivation, and loneliness among the older population. Between 2008 and 2015 Slovenia recorded a significant increase in first doctor visits by children and youths due to mental and behavioural disorders. In those over 20, the number of prescriptions for antidepressants rose and mental health problems were the third most common cause of sick leave in this period.⁹² The EHIS survey shows that in 2014 the share of the population reporting depression in the year before was above the EU average (Slovenia: 8.8%; EU26: 7.9%). The high suicide rate has fallen slightly in the last ten years, but it remains among the highest in the EU.⁹³ Only the prevalence of dementia is slightly below the EU average (Slovenia: 13.4 per 1,000 population; EU: 15.0), but projections suggest it will increase to 21 by 2035.⁹⁴ The Resolution on National Mental Health Programme 2018–2028 adopted in early 2018 calls for broader action by multiple sectors and policies to reduce the burden of mental illness and defines priority areas of action. The emphasis is on a transition from predominantly in-patient treatment to treatment of mental health conditions at the primary level and in the local environment.

In gender equality, an important element of an active society, Slovenia had made headway in the last ten years and is currently achieving good results. Slovenia has advanced very rapidly in terms of gender equality in the last ten years and scores above the EU average across all six analysed areas⁹⁵ (see Indicator 3.18). Significant

progress was achieved in particular in women's participation in political life,⁹⁶ which is associated with changes in electoral law (introduction of gender quotas)⁹⁷ and the consequent improvement of the index in the power segment. Gender pay and employment gaps are narrow, largely due to good availability of pre-school education, appropriate regulation of parental leave, high educational attainment among women and a high share of women working full-time.⁹⁸ Overall, women are better educated than men, though they are under-represented in some of the best-paid professions and in leadership positions, while their average wages are lower. The index shows that much like in other countries, in the last ten years Slovenia did not record an improvement in the segment of time, which indirectly measures work–life balance and the division of household chores between men and women. Women do significantly more unpaid work than men, which has an adverse impact on their work–life balance.⁹⁹

Participation in social life has increased in recent years and is relatively good, except among the older population. The share of the population regularly performing unpaid work exceeds the EU average and has risen in the last few years (see Indicator 3.24). As the demand for long-term care and social protection services rises, it makes sense to promote volunteering on the part of the older population in the provision of such services as this is the area in which the gap with the EU average is widest. More volunteering increases the participation of older persons in society, contributes to intergenerational cooperation and expansion of individuals' social networks and development of new knowledge and also helps to prevent loneliness. Political participation has also risen in the last few years, although it remains below the EU average. Compared to the EU as a whole, youths (18–24) are the least politically active. Older persons, on the other hand, are less likely than those in younger age groups to participate in cultural events or visit cultural or historical sites, though they do not lag behind in terms of participation in artistic activities. Considering that society is ageing and given that a major aim is to prevent dependence, the share of those over 50 who regularly do sports or exercise is too low, lagging behind the EU average.

⁸⁹ OECD Health at a Glance 2017, 2017.

⁹⁰ Slovenia ranks third among OECD countries by cancer mortality. In 2015 it recorded 243.3 deaths per 100,000 population, compared to the EU average of 203.7 (OECD Health at a Glance 2017, 2017).

⁹¹ Contrary to recommendations by international institutions, expenditure on preventive medicine and public health decreased in the five years to 2015; in 2003–2010 it stood at 3.7% and by 2015 it had dropped to 2.7% of current health expenditure (OECD: 2.8%). Several studies (Sassi, F. et al, 2013; Cecchini, M. et al, 2015; OECD, 2015) have confirmed that anti-alcohol policies and measures to restrict tobacco use and consumption of unhealthy food have a positive impact on health expectancy and life expectancy and reduce health expenditure (see Assessing the Effects of Some Structural Measures in Slovenia, IMAD, 2016).

⁹² Resolution on a National Mental Health Programme 2018–2028 (Ministry of Health), 2018.

⁹³ Slovenia 2015: 18.1 suicides per 100,000 population; EU-28 2013: 21.1 (OECD Health at a Glance, 2017).

⁹⁴ OECD Health at a Glance, 2016.

⁹⁵ The gender equality index is calculated from 31 indicators across six segments: work, money, knowledge, time, power and health.

⁹⁶ In 2008, the share of women in the Slovenian parliament was 13.5%; in 2016 it was 35.6%.

⁹⁷ For more, see Bratuž-Ferk et al, 2017.

⁹⁸ For more, see Čelebič, T., et al, 2017.

⁹⁹ While on average women do 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.

A preserved healthy natural environment

The majority of indicators measuring the exploitation of natural resources and the burdening of the environment in the long term show improvement, but in a period of economic growth it will be hard to sustain the trend without additional energy and resource-efficiency measures. After the beginning of the crisis, resource and energy use declined in line with expectations, as consequently did greenhouse gas emissions, which are a major environmental concern. Reductions were also achieved relative to GDP, but GDP per unit of resources or emissions (resource productivity) remains lower than the EU average. Faster improvement is hampered in particular by greater use of energy in transport, which, being fairly unsustainable, has a significant impact on the environment. Total use of renewable energy sources is significant, though it has not increased in recent years. On the other hand, significant progress has been achieved in terms of waste treatment. As a result, the natural environment is not excessively polluted on average, which is further helped by the large share of protected areas, high forest cover and moderate intensity of agriculture. It is, however, necessary to point to two major issues: poor air quality due to relatively high concentrations of particulate matter and ozone and irrational use of space associated with areas that remain poorly utilised or abandoned following the crisis.

4.1 A low-carbon circular economy

A low-carbon circular economy (development goal 8)

The aim of SDS 2030 is to break the link between economic growth and increasing consumption of raw materials and energy, which is associated with significant pressure on the environment. Sustainable growth will be achieved by profound changes in consumption and production patterns, and thus by more efficient exploitation of resources, waste management and energy use, and a higher share of renewable energy sources. This will also help reduce greenhouse gas emissions. Changes in this direction will be supported by education and integration, the promotion of environmental innovations, and, most notably, the phasing out of fossil fuels. SDS 2030 also highlights the necessity of changing transport by accelerating the development of sustainable mobility.

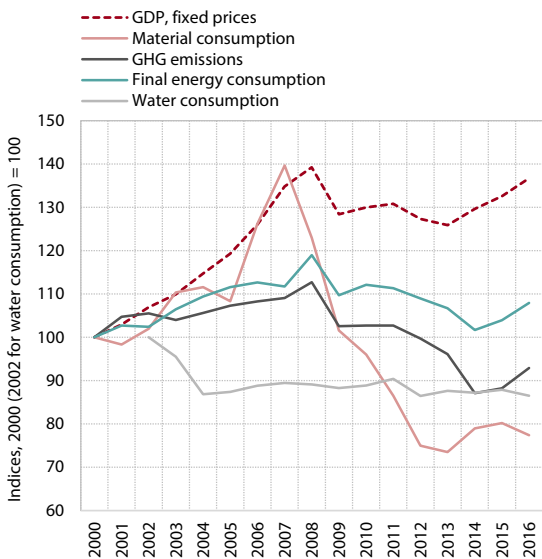
Performance indicators for development goal 8:

	Latest value		Target value for 2030
	Slovenia	EU average	
Resource productivity, PPS/kg	1.9 (2016)	2.2 (2016)	3.5
Share of renewable energy in gross final energy consumption, in %	21 (2016)	17 (2016)	27
Emission productivity, PPS/million kg CO ₂	2.9 (2015)	3.3 (2015)	EU average in 2030

After the start of the crisis, consumption of natural resources declined at a faster pace than GDP. Analysis of the environmental dimension of economic development is typically conducted using indicators which show the ratio between economic growth and the consumption of materials, energy and water and the resulting greenhouse gas emissions. During the crisis, the amounts of most of the resources studied and hence emissions declined relatively fast. The consumption of materials decreased the most, which is attributable to the decline in construction activity during the crisis;

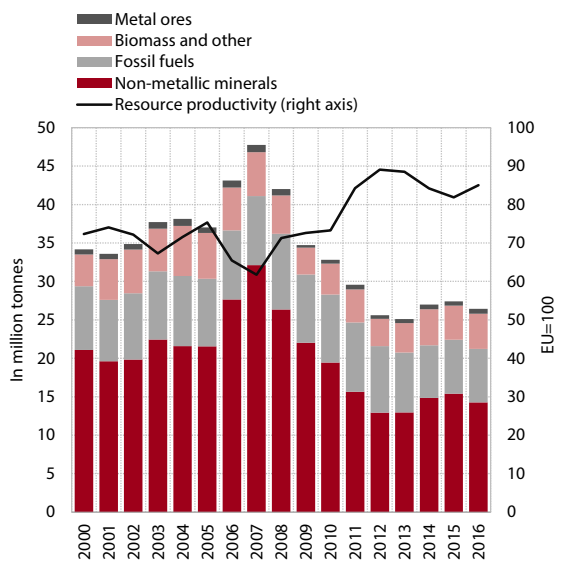
alongside the consumption of water, the consumption of energy dropped the least, this mostly as a consequence of increased use in transport. The overall improvement was however not only a result of more sustainable solutions, given that the consumption of energy and materials increased again with the rebound in economic growth, which led to an increase in greenhouse gas emissions. Energy consumption and emissions responded to the rebound in economic activity with a slight lag; this was

Figure 19: GDP growth compared to growth of energy, material and water consumption and greenhouse gas emissions



Sources: SI-STAT Data Portal – Economy; SI-STAT Data Portal – Environment; calculations by IMAD.

Figure 20: Domestic material consumption¹ and relative resource productivity, Slovenia



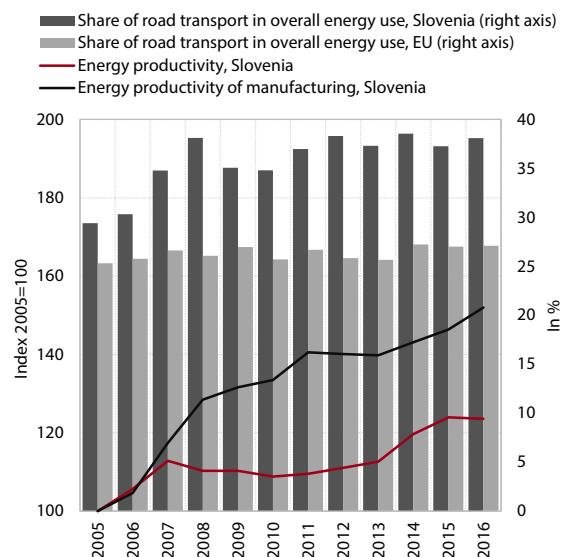
Sources: SI-STAT Data Portal – Environment, 2017; Eurostat Portal Page – Environment, 2017; Eurostat Portal Page – Economy and Finance, 2017; calculations by IMAD.
Note: ¹Domestic material consumption is defined as domestic extraction plus net imports of materials.

a consequence of the closure of a major thermal power plant and milder winters having reduced the demand for heating.

Material consumption dropped following the start of the crisis, mostly due to a decline in construction activity. *Resource productivity*, which is one of the fundamental circular economy indicators and is measured as the ratio of GDP to domestic material consumption, increased at a faster pace than in the EU as a whole in 2007–2012 on the back of a contraction of construction activity and the resulting decline in the consumption of non-metallic minerals. Fluctuations in construction activity also had a significant impact on material consumption in subsequent years. In 2016 resource productivity increased to 85% of the EU average, meaning that for a unit of consumed resources, Slovenia created 15% less GDP than the EU on average (see Indicator 4.1). Sand, gravel, lime and gypsum account for around 50% of material consumption, a share that is among the highest in the EU. Given the rebound in construction activity, a further improvement in resource productivity will be difficult to achieve, as the increase in resource productivity is expected to slow due the implementation of some major construction projects, such as the planned construction of rail infrastructure.

Due to energy efficiency measures and the impact of certain one-off factors, energy consumption has decreased substantially. The consumption of energy for heating has declined due to more prudent use, better building insulation, greater efficiency of heating installations and other efficiency measures. In individual years the decline was significantly related to above-average temperatures in the heating season. In 2014 the consumption of solid fuels decreased mostly on account of the closure of a brown coal-fired thermal power station and modernisation lignite-fired power station. In liquid fuels the consumption of petrol and heating oil¹⁰⁰ dropped, while the consumption of diesel has been growing due to increasing road freight transit; in 2016 this was the single biggest contributor to the increase in overall energy consumption. High consumption in transport is the main reason why overall energy consumption has declined at a slower rate in the last several years. In the future, it may even rise again due to the uptick in economic activity and the expansion of transit in the broader region, which may make it difficult to achieve short- and long-term objectives (see Indicator 4.4). As overall energy consumption declined, *energy productivity*, measured as the GDP to overall energy consumption ratio, improved over the longer time horizon: in the last several years it has been about a fifth below the EU average.¹⁰¹

Figure 21: Energy productivity in Slovenia and in manufacturing; share of road transport in final energy consumption



Sources: Eurostat Portal Page - Environment and Energy, 2017; Eurostat Portal Page - Economy and Finance, 2017; calculations by IMAD.

The share of renewable energy sources (RES), for which Slovenia has relatively favourable natural conditions, is above the EU average but has stagnated in recent years. The growing use of RES until 2009¹⁰² was initially driven by increased consumption of wood and wood biomass and later by solar and geothermal energy. Over the subsequent seven years, the share of RES increased only modestly, by 1 pp to 21% (EU: by 5 pps to 17%). Traditional RES – wood and hydropower – account for the bulk of RES (see Indicator 4.2). The use of wood for heating is otherwise desirable from the aspect of RES, but using it incorrectly may cause problems with particulate emissions. Regarding the use of other RES, Slovenia ranks at the tail end of the EU, with the gap in wind energy being particularly wide. In heating, Slovenia has retained a much higher share of RES due to the use of wood; the share of RES in electricity consumption is almost equal to the EU average due to rapid growth in the EU as a whole, while the already small share of RES in transport has decreased further in the last ten years, unlike in the EU where it has been increasing in this period.¹⁰³ Though natural conditions such as forest, water and wind abundance are favourable in Slovenia, more intensive action will be needed to eliminate obstacles to the completion of individual projects and expand the use of RES.

Emissions of greenhouse gases, which significantly contribute to climate change, declined following the crisis. Preliminary estimates show greenhouse gas

¹⁰⁰ Lower consumption of heating oil has been partially offset by wood and wood pellets.

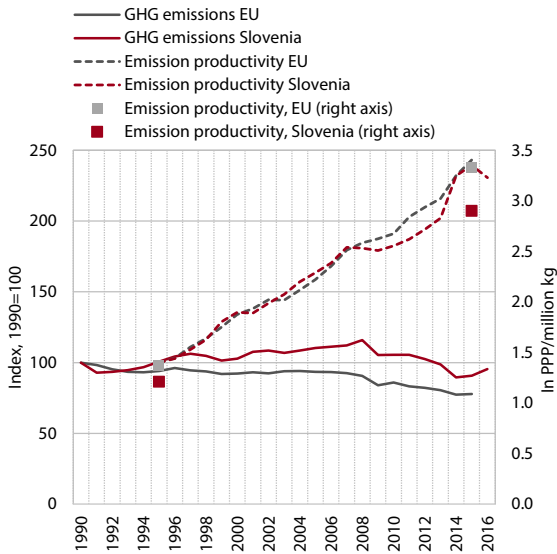
¹⁰¹ In comparisons over time, we use GDP at fixed prices for overall energy use; in comparisons between countries or with the EU, GDP in purchasing power standards (PPS) is used.

¹⁰² In that year, the share of renewables increased the most, not only as a result of the crisis and hence a decline in overall energy use, but also of improved statistical capture.

¹⁰³ In 2016 the share of biofuels in transport was 1.6%, with the EU target for 2020 at 10%.

emissions in 2016 were about 18% lower than in the peak year 2008 (see Indicator 4.3). After the decline in emissions from the energy sector (mainly as a result of the closure of a major thermal power plant), the biggest source of greenhouse gases in the country has become transport. The goal for 2020 that emissions from sectors not included in the Emission Trading Scheme (ETS) will not increase by more than 4% on 2005¹⁰⁴ was exceeded in the initial years. Continued achievement of the goal will be contingent on the rising emissions of the transport sector, which accounts for half of these sectors' emissions. Particularly problematic is the use of fossil fuels; this had been promoted with higher subsidies in previous years, which is contrary to emission reduction goals.¹⁰⁵ *Emission productivity*, measured as the ratio of GDP to greenhouse gas emissions, is below the EU average, but the gap has narrowed over the last several years; in 2015 emission productivity in Slovenia was roughly 13% lower than the EU average. Its growth, which had been similar to the EU average during the boom years, slowed more than in the EU during the crisis, before accelerating again in the last several years. This has however been mainly due to one-off factors (such as the closure of a thermal power plant and reduced heating in milder winters); to achieve longer-term headway, even with faster GDP growth, improvements of a more permanent nature will be required.

Figure 22: Greenhouse gas emissions and emission productivity

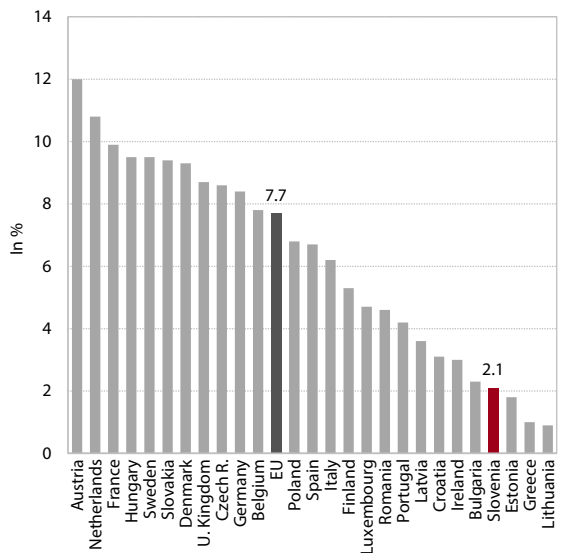


Sources: Eurostat Portal Page - Environment and Energy, 2018; Eurostat Portal Page - Economy and Finance, 2018; calculations by IMAD.
Notes: The figure for 2016 is the preliminary estimate by the Environment Agency. Comparison in PPS is sensible between countries in an individual year but not over a longer time horizon.

¹⁰⁴ Decision No 406/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions (OJ L 140, 5.6.2009) and Operating Programme of Measures to Reduce Greenhouse Gas Emissions by 2020 (Government of the Republic of Slovenia, 2014).
¹⁰⁵ Second annual report on implementation... until 2020, 2017.

The volume of transport, which has a significant impact on the environment, has increased sharply after each round of EU enlargement, with growing road transport a particularly pressing problem. Transport shapes the modern way of life; it connects and it facilitates trade, but it has a significant harmful impact on the environment and the health of the population. The main problem is the high, and growing, consumption of non-renewable fossil fuels. In Slovenia most goods are transported by lorry and most passengers travel by car, neither of which is particularly environmentally friendly. Though they are also the dominant transport modes in other EU countries, in Slovenia they account for an above-average share of total transport. The share of road freight surged in the middle of the last decade and has accounted for roughly four-fifths of total freight transport in recent years (see Indicator 4.5). The volume of road freight services performed by Slovenian road hauliers has increased significantly, mostly on account of services performed abroad; in Slovenia, meanwhile, an increase has been recorded in the transport operations of foreign hauliers, which are already estimated to account for over three-quarters of all hauliers on Slovenian motorways. In passenger transport, cars are a more common mode of transport than in the EU, whereas the use of public transport, in particular railways, is relatively low by international standards. This can partly be attributed to a lower degree of urbanisation and higher dispersion of settlements, but in recent years the trend has also been affected by reduced frequency of operation and discontinuation of public transport lines, as evident from the relatively high share of the population who assess public transport as poorly accessible.¹⁰⁶ Sustainable

Figure 23: Share of rail transport in overall passenger transport, in passenger kilometres



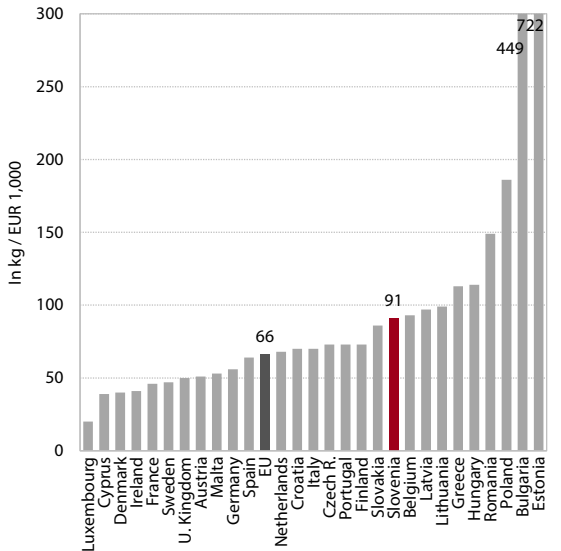
Source: Eurostat Portal Page – Tables on EU policy, 2018.
Notes: The indicator refers to travel within the country, regardless of ownership of vehicle. Cyprus and Malta do not have rail transport.

¹⁰⁶ Additionally, transportation costs as a share of household expenditure are the highest in the EU.

mobility would improve with an expansion of the public transport network and its modernisation, combined with the development of more environmentally friendly technologies.

Manufacturing activities create around one third more waste per unit of GDP than the EU average, but progress has been achieved in the treatment of municipal waste. In manufacturing and services, the amount of waste generated increased by a fifth in 2012–2016 (see Indicator 4.6). Reducing waste, both in absolute terms and per unit of GDP, will require a more substantial shift into a circular system, i.e. increased use of recyclable materials. Generation of municipal waste has also been increasing, but it is still slightly below the EU average. More attention will have to be paid to certain categories of waste that are problematic in a broader sense, for example hazardous waste and food waste.¹⁰⁷ Foreign trade in waste has been increasing, with exports outpacing imports. Net waste exports dropped to around 2% of all generated waste. *Treatment* of waste has improved significantly in recent years, also owing to newly built or modernised regional waste-processing centres.¹⁰⁸ Indeed, the value of total environmental investments and current expenditure on the environment was highest precisely in the waste treatment area. Better treatment reduces landfilling, the least environmentally desirable outcome of treatment,¹⁰⁹ while improving processing and hence recycling – actions contributing towards sustainable development. Preparation of waste for reuse contributes to a more efficient use of resources, reduces emissions of greenhouse gases and dependence on imports of raw materials, and creates opportunities for new green jobs. Further progress in this field will also be driven by joint EU guidelines, for example the recent measures regarding plastics.¹¹⁰

Figure 24: Generation of waste excluding major mineral wastes per GDP, 2014



Source: Eurostat Portal Page – Tables on EU Policy, 2018.

¹⁰⁷ The amount of food waste, a reflection of consumers’ attitude to food and the environment, is increasing. In 2015 each inhabitant of Slovenia threw away on average 73 kilograms of food, up 14% on 2013. Food waste accounts for around 3% of all waste and about 22% of total organic waste created in Slovenia.

¹⁰⁸ In the previous programming period, these were among the most important environmental cohesion projects.

¹⁰⁹ Landfilling is also problematic in terms of greenhouse gas emissions: it accounts for about 4% of total emissions.

¹¹⁰ In early 2018 the first strategy for plastic waste was adopted in a bid to change the way plastic products are designed, produced, used and recycled. Plastic is produced in excessive amounts and how it is used and landfilled does not leverage the economic benefits of a more circular approach. The new strategy is expected to increase the usefulness of recycling, reduce the amount of plastic waste, help stop plastic pollution, and encourage investments and innovations (Strategy on Plastics (EC), 2018).

4.2 Sustainable natural resource management

Sustainable natural resource management (development goal 9)

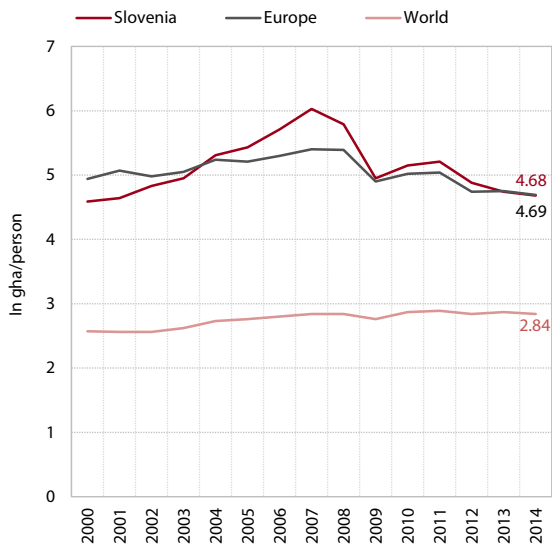
The aim of SDS 2030 is to sustainably protect natural resources and plan an efficient use thereof, as they represent a pillar of a healthy living environment, the production of high-quality food and the performance of economic activities with high value added. The goal will be achieved by overcoming silo mentality, preserving biodiversity, managing soil in a sustainable way, preserving high-quality farmland, sustainably developing forests and efficiently managing waters. SDS 2030 also recognises the importance of a responsible treatment of space. Efficient adaptation to climate change and exploitation of the opportunities that climate change brings will be particularly important.

Performance indicators for development goal 9:

	Latest value		Target value for 2030
	Slovenia	EU average	
Utilised agricultural area, in %	23.6 (2016)	40.6 (2015)	>24
Quality of watercourses, mg O ₂ /l	1.0 (2012)	2.2 (2012)	< 1
Ecological footprint, gha/person	4.7 (2014)	4.7 (2014)	3.8

Current production processes and lifestyles are exerting too much pressure on nature. Long-term changes in lifestyles have accelerated the exploitation of natural resources and increased pollution. The *ecological footprint*, a synthetic indicator of environmental development, increased quite rapidly in the period of economic growth, then dropped during the recession almost to the level before economic growth (see Indicator 4.10). The latest calculation, for 2014, shows it amounted to 4.7 gha/person, roughly on a par with the EU average.¹¹¹ *Nature's biocapacity*, i.e. biological areas

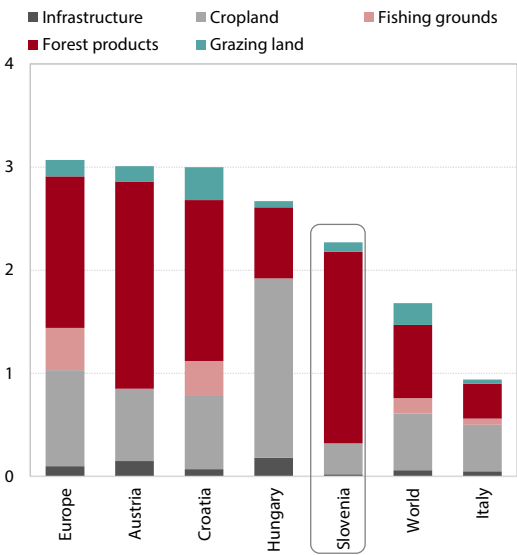
Figure 25: Ecological footprint



Source: National Footprint Accounts (Global Footprint Network), 2018.

¹¹¹ National Footprint Account (Global Footprint Network), 2017.

Figure 26: Biocapacity and structure, 2014

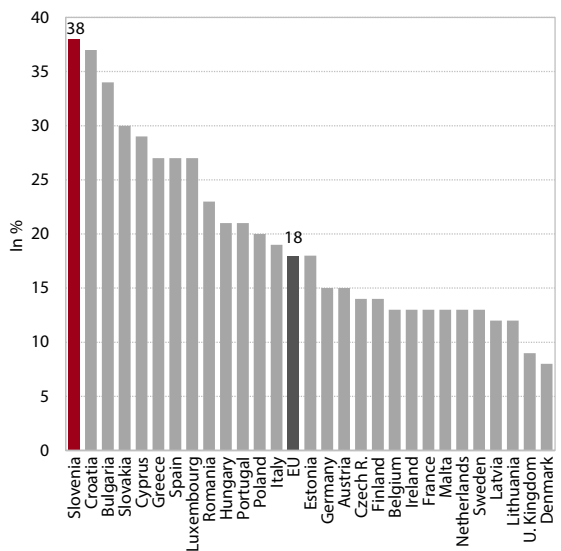


Source: National Footprint Accounts (Global Footprint Network), 2018.

with regeneration capacity, is below the EU average on a per capita basis. Forests account for the bulk of Slovenia's biocapacity area, but despite their large surface area they do not suffice to absorb emissions of carbon dioxide, the biggest contributor to the ecological footprint. In Slovenia the difference between ecological footprint and biocapacity, called the *ecological deficit*, is therefore above the European average and amounts to twice the biocapacity of Slovenian nature. Due to greenhouse gas emissions, one of the principal causes of climate change, the carbon footprint is the greatest single reason why ecological limits are exceeded.

Boasting extraordinary animal and plant life, Slovenia is among the areas with the highest biodiversity in Europe, a result not only of natural conditions but also of the protection of plant and animal species and prudent ecosystem management. Protected area with high biodiversity, landscape diversity and natural features is a particularly important component thereof. Measured by the share of protected area, which is 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 has been declining in Slovenia, largely due to non-sustainable spatial management.¹¹² The most pressing problems are (i) development with inappropriate spread of urbanisation, transport and industrialisation, (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, seek compromise between the interests of nature protection and economic activity, and act in concert, in particular when it comes to land use, which will produce synergies.

Figure 27: Share of protected area, 2016



Source: Eurostat Portal Page – Tables on EU Policy, 2018.

Soil in Slovenia is largely unpolluted, yet, despite the good overall condition, there are individual areas polluted with inorganic (e.g. cadmium, lead, arsenic and copper) or organic pollutants (e.g. pesticides).¹¹³

¹¹² It is quite difficult to determine biodiversity because of the large number of species and interaction between them and with the abiotic environment. Indicators that broadly show the general condition include population size of selected bird species, farmland bird index, conservation of wildlife populations and forest conservation.

¹¹³ Surveys of Soil Pollution in Slovenia in 2008 (Biotechnical Faculty), 2009.

At individual sampling locations with past or present mining, smelting or metallurgical activity, studies have shown values for inorganic pollutants above action values and, in some cases, above critical values. The most polluted areas include the Mežica Valley, the Celje Basin, Jesenice and Idrija. The presence of cadmium and lead are particularly problematic for both environment and people.¹¹⁴ 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 moderately exceeded.

Agriculture, one of the key factors in land management, is not very 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 (for regional distribution, see Figure 31. The synthetic indicator of soil quality, the “soil value number”, shows that only 7% of farmland is in the top-quality class and as much as a fifth is in the lowest two quality classes.¹¹⁵ These conditions hamper agricultural production, reduce efficiency and dictate a significant focus on animal production (see Indicator 4.8). 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. The nitrogen and phosphorous balances, which are indicators of agriculture’s impact on soil and water, have significantly improved over the long term. Average yields are mostly below the EU average, which means that the impact on the environment is less severe but also indicates poor land utilisation. Consequently, self-sufficiency in the majority of basic agricultural products, in particular organic produce, is relatively low.¹¹⁶

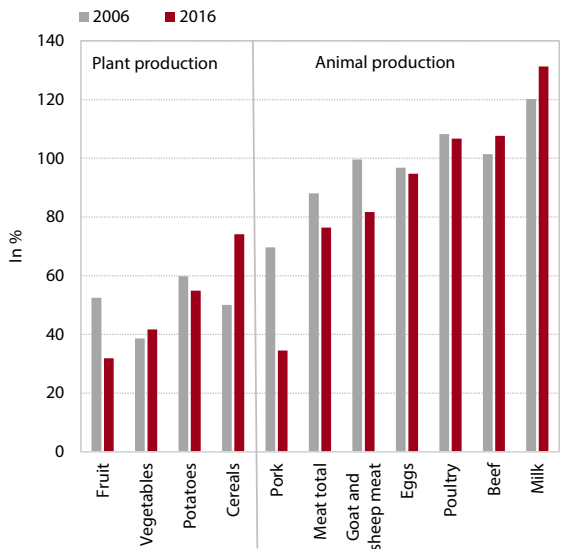
Management of forests, which cover the majority of Slovenia’s territory, is sustainably oriented but forest resources are not sufficiently exploited. Slovenia is one of the three most forested countries in Europe and forests are its best-preserved natural ecosystems. While this is favourable for the environment, a very high share of forest is not desirable in terms of optimal use of space. Slovenia’s forest cover has been increasing, but the

¹¹⁴ In the Mežica Valley, measures have been carried out since 2008 to remedy the problem of soil pollution, including the asphaltting of unmetalled roads, replacing polluted soil, resurfacing with unpolluted soil and planting grass. Lead content thus dropped to below action level, but in some places, it has started to increase gradually. Before the remedial measures, 20% of children had elevated blood lead levels, while in recent years the share has dropped to 10% (Report on the Environment in the Republic of Slovenia 2017, 2017).

¹¹⁵ 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 (Anamarija Slabe, 2015).

¹¹⁶ 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).

Figure 28: Degree of self-sufficiency in basic agricultural products, Slovenia



Sources: SI-STAT Data Portal – Environment and Natural Resources – Agriculture and Fishing; Agriculture Institute, 2018.

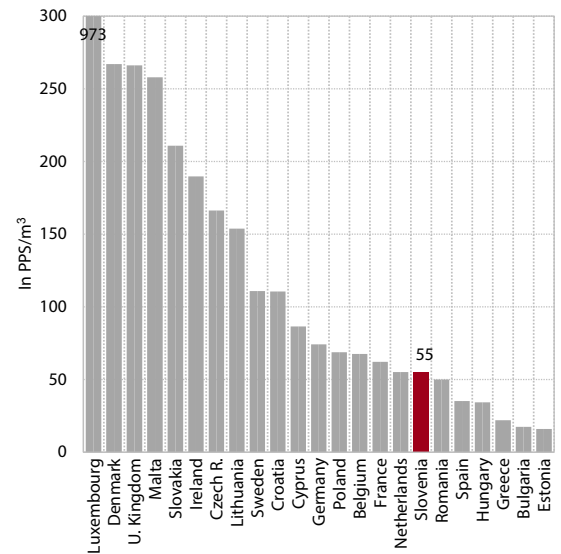
changes have not been uniform. It has increased in areas where there was already plenty of forest from the aspect of landscape diversity, and decreased in areas of intensive agriculture and, in particular, in suburban areas.¹¹⁷ Since 2014 Slovenian forestry has been grappling first with the consequences of a severe glaze damage and later with a massive invasion of forest pests. At the end of 2017 forests were also hit by a strong windthrow, which means that the extensive sanitary cuts will continue. The intensity of tree felling remains relatively low, whereby the growing net exports of the best quality wood remain particularly problematic (see Indicator 4.13).

Slovenia has very abundant water sources and most water bodies have a good chemical status; however, the ecological status of some river basins is not satisfactory. Slovenia has enough water, on average: only half of the quantity of surface waters flowing into or falling on the territory is utilised, and only a fifth of groundwater. Total water consumption has been decreasing over the long term, including due to more rational use and lower losses on the network. Nevertheless, there are occasional water shortages, largely due to uneven distribution of rainfall and increased evaporation. The share of water for irrigation in total water use is almost negligible, but it will increase because of accelerated climate change. Biochemical oxygen demand, a measure of water quality, decreased to the lowest level among EU countries after 2005 due to more and better treatment of wastewater. This indicates a significant improvement in the chemical, biological and biochemical parameters and an increase in the

¹¹⁷ Resolution on the National Forest Programme, Official Gazette of the RS, No. 111/07.

biodiversity of aquatic ecosystems.¹¹⁸ Slovenian rivers are fairly oxygen-rich and contain low levels of nutrients (see Indicator 4.9), but fertiliser and pesticides still represent a hazard for waters in areas of intensive agriculture. In 2009–2016, 96% of bodies of surface water had a good chemical status and 59% a good ecological status. The ecological condition is worrying in particular in the Mura river basin, where the majority of the body of water does not have a good ecological status.¹¹⁹ Water productivity, measured as GDP per unit of pumped freshwater, has improved slightly over the long term but remains low by international standards.

Figure 29: Water productivity, 2015 or latest data available



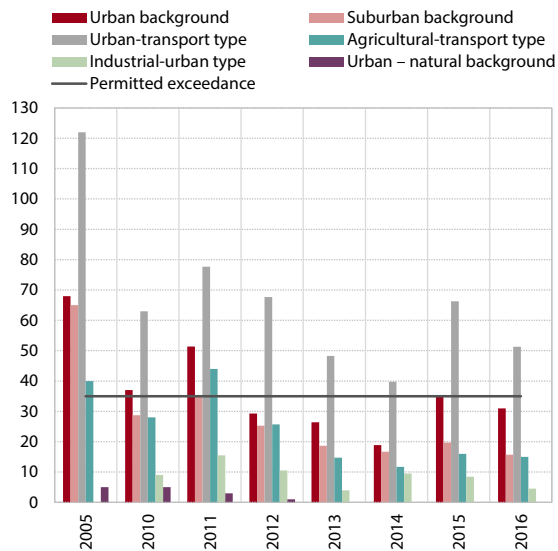
Source: Eurostat Portal Page – Tables on EU Policy, 2018.

The issue of air quality in Slovenia is largely related to concentrations of particulate matter and ozone, indicators which have not been improving in recent years. Particulate matter (PM) is created mostly through the burning of wood biomass in household furnaces and in road transport, in particular from diesel vehicles, but it is also generated by industry and agriculture. Despite reductions, especially in the winter, exposure of the urban population to these particles is still relatively high and exceeds the EU average (see Indicator 4.11). Daily limit values of PM₁₀ were most commonly exceeded at measuring points in cities affected by transport emissions, but there is significant uncertainty about the conditions in populated rural areas, where there

¹¹⁸The chemical status of waters is determined with reference to 45 priority substances including atrazine, benzene, cadmium and mercury. The ecological status of waters is assessed based on the condition of communities of water plants, algae, invertebrates and fish.

¹¹⁹Trobec, T., 2017; Environment Indicators, ARSO, 2017; National Environment Protection Action Programme, 2017.

Figure 30: Number of days with exceeded daily limit of 50 µg PM10/m3



Source: Environment Agency, 2017.

are far fewer measurements.¹²⁰ Locally, air quality significantly depends on the location and wind. Aside from greater awareness of the population, the biggest improvements could be achieved by technologically more advanced furnaces and legislative restrictions. Due to the significant impact of air quality on people's health, EU policy in this field is becoming stricter.¹²¹ The second major air quality problem in Slovenia has to do with *ozone and its precursors*, which are mostly generated by road traffic; however, the concentration of ozone is strongly affected by transboundary pollution.¹²² In *other pollutants, for example sulphur dioxide*, which were highly problematic in the past, progress has been achieved over a longer period.¹²³

Slovenia's territory is unevenly populated, being characterised by high dispersion and a large number of small settlements. There are few large towns: only seven have more than 20,000 inhabitants and they are home to about a quarter of the total population. The degree of urbanisation is around 50% and has not increased in the last decade despite planning being focused on strengthening and expanding urban areas. Consequently, Slovenia is among the least urbanised

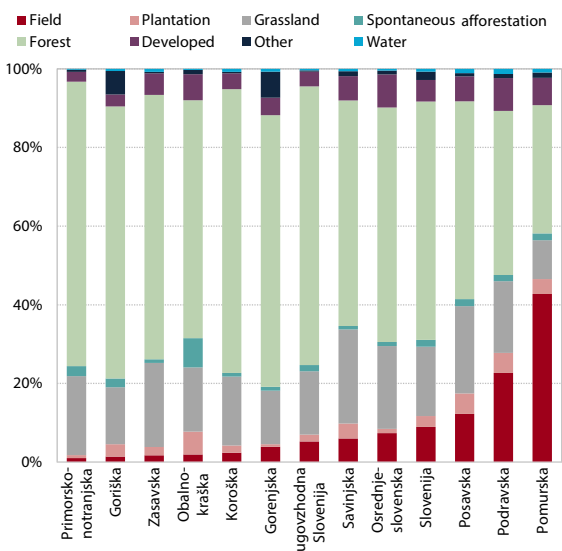
¹²⁰ Excessive concentration of airborne PM₁₀ particles is not only an environmental and health issue, it is also a legal issue in that it constitutes a breach of the directive on ambient air quality.

¹²¹ The EU directive on the reduction of national emissions, which is the central element of the comprehensive programme Clean Air for Europe, sets stricter limits for five major pollutants, including PM particles. Slovenia is supposed 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 the savings on labour are supposed to be several times higher due to lower health care and sickness absence costs.

¹²² Air Quality in Slovenia in 2016 (ARSO), 2017

¹²³ Ogriin, 2017.

Figure 31: Actual land use by region, 2017



Source: Ministry of Agriculture, Forestry and Food, RABA graphic data for the whole of Slovenia (Repe, Lampič, 2017).

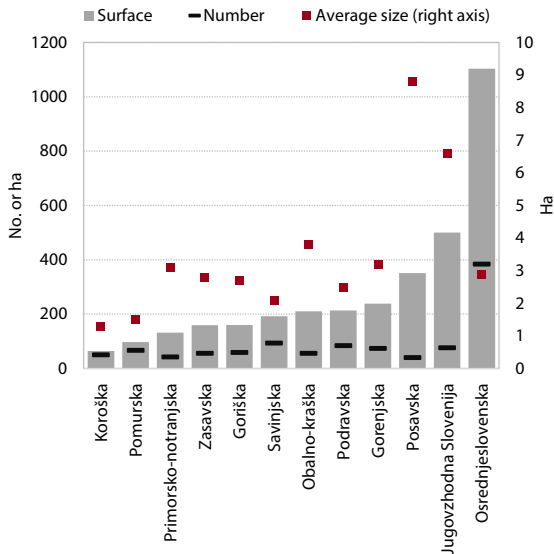
EU countries. Rather than in cities, the population is concentrated in smaller settlements in larger urban zones along the motorway network. This causes fragmentation of space, interrupts green corridors between settlements and hampers the organisation of public transportation due to lower density of housing.¹²⁴ In the immediate vicinity of transport infrastructure, the population are exposed to excessive noise. Greater settlement density in functional urban areas of larger population centres increases the demand for the expansion of developed areas due to the construction of housing, and production facilities, services facilities and public economic infrastructure.

In the period of rapid economic development pressure on space escalated and during the crisis degraded areas were created at a faster pace. During the growth years, individual economic activities encroached on agricultural land and farmland, but after 2010 the impact of the crisis on space started to become apparent as well. Some initiated investments were never finished because they had not been well planned, which was often related to the easily accessible European as well as national funds. Moreover, the economic crisis caused or accelerated company closures, creating underutilised or abandoned sites with visible impact of prior use, i.e. functionally derelict areas (FDAs)¹²⁵ (see Indicator 4.14). The unsustainable use of space could be reduced with greater utilisation of built-up yet abandoned or insufficiently utilised sites.

¹²⁴ Environment Report, 2017.

¹²⁵ Includes areas over 0.5 ha (0.2 ha in urban settlements). Nine types of functionally derelict areas have been defined: areas of industrial or commercial activities; infrastructures; agricultural activities; defence, protection and rescue services; transitional use; mineral extraction; services activities; tourist and sports activities; and areas for housing.

Figure 32: Functionally derelict areas by region, 2017



Sources: Lampič and Bobovnik, 2017; Lampič, B., Kušar, S., and Zavodnik Lamovšek, A., 2017.

A high level of cooperation, training and effective governance

Slovenia's low institutional competitiveness is characterised by ineffective management of the public sector, long administrative and judicial procedures, heavy burden of state regulation, a business environment that is insufficiently encouraging despite recent progress, and a high degree of perceived corruption, all of which are evident from Slovenia's scores in international competitiveness rankings. Fragmentation and poor integration of public sector bodies hamper cooperation between sectors and between different levels of administration, increasing operating costs. Trust in public institutions and the rule of law is low, judging by the high number of applications to the European Court of Human Rights. The performance of the justice system in terms of accessibility and quality significantly affects trust in public institutions. The number of pending court cases has been reduced in recent years and the average duration of procedures shortened, which indicates that the effectiveness of the justice system has improved; the available indicators also show improvements in quality. Slovenia is also one of the safest countries in the world, which has a positive impact on quality of life; at the same time, it participates in international organisations, operations and missions, which supports a stable international environment and human security. Numerous strategies have been adopted in recent years to address challenges in these fields (public administration, the judiciary and international affairs); the key going forward is to implement the planned measures and fulfil international commitments.

5.1 Efficient governance and high-quality public service

Efficient governance and high-quality public service (development goal 12)

Achievement of this goal requires efficient strategic governance of public institutions and the creation of high-quality public policies that respond to change effectively and quickly. Significant factors listed in 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 value		Target value for 2030
	Slovenia	EU average	
Trust in public institutions, in %	Parliament: 11 Government: 17 Local authorities 43 (2017, autumn survey)	Parliament: 35 Government: 36 Local authorities: 51 (2017, autumn survey)	At least half the population trusts public institutions (average of latest three surveys)
Executive capacity, average score on a 1–10 scale	4.7 (2016)	6.1 (2016)	EU average in 2030

Slovenia’s institutional competitiveness is gradually improving, but it has not yet regained pre-crisis levels. International competitiveness indicators (of the IMD, WEF and World Bank) show that the state’s ability to ensure the proper functioning of the economy declined strongly after the start of the crisis compared to other countries. The strongest setbacks were recorded in indicators measuring public finances (see Section 1.1) and the institutional framework. International surveys highlighted strong dissatisfaction of businesses with the performance of public institutions, poor adjustment of government policies to the altered economic circumstances and increased perception of corruption. In the last three years Slovenia has made headway in international competitiveness rankings, but its rank is nevertheless lower than before the crisis, which is largely attributable to the marked decline of survey indicators during the crisis.¹²⁶ As several key macroeconomic factors recovered, so too did business sentiment, but segments covering the performance of the state, such as state regulation, duration of administrative and judicial procedures, and efficiency of the legal framework and government spending, still score poorly. Trust on the part of businesses¹²⁷ and the population¹²⁸ in the functioning of key institutions of the state and in policy remains very low and significantly below the EU average.

Public involvement in the legislative process and decision-making is low and election turnouts have been falling. Public involvement is a mechanism that promotes cooperation in the process of making decisions or creating documents by everyone affected

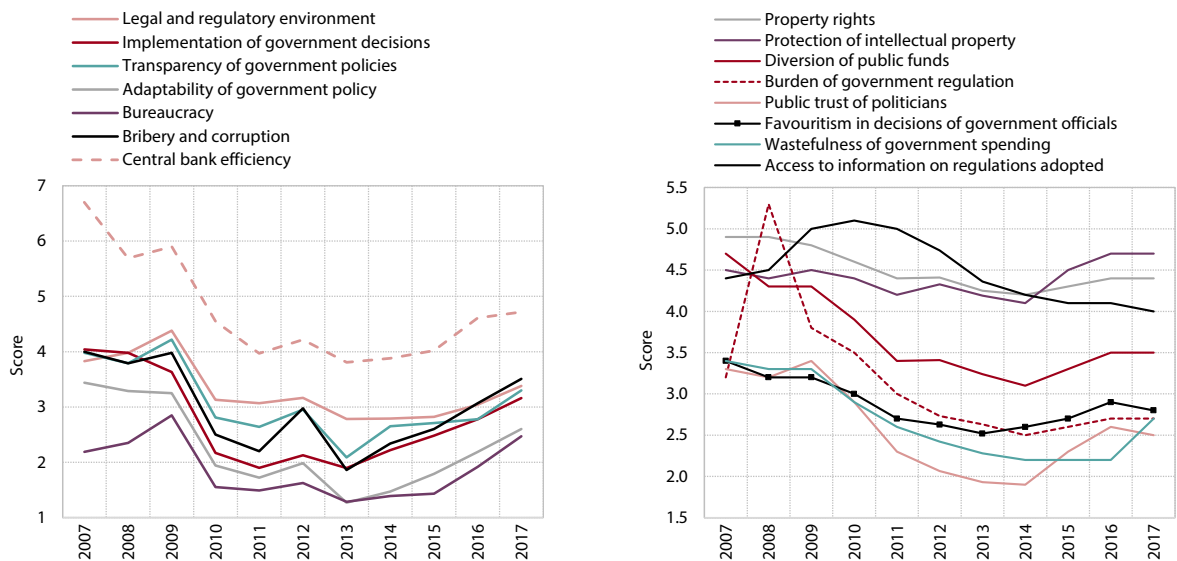
by or interested in a decision. Such involvement is also an opportunity to strengthen trust in public institutions, improve their transparency, and create better and more lasting policies. Fundamental and minimum standards of the involvement of stakeholders are determined by the Resolution on Legislative Regulation,¹²⁹ which is binding but often ignored in the legislative process.¹³⁰ Turnout in elections in which political representatives are directly elected is relatively low compared to other EU countries. In the last general election, it stood at 51.7%, the lowest in the EU after Poland, Lithuania, France and Romania (in presidential elections, it was the lowest among all EU countries with directly elect presidents).¹³¹

The involvement of stakeholders in social dialogue is high.¹³² Social dialogue represents an important means of coordinating the interests of employers, employees and the state. The central forum of dialogue is the Economic and Social Council, while the state puts in place appropriate mechanisms for facilitating and strengthening dialogue. Decisions are adopted in accordance with the rules of procedure and are binding on all social partners,¹³³ but consensus on major issues (e.g. response to the crisis or indexation of the minimum wage) often remains elusive. SDS 2030 therefore calls for the strengthening of cooperation and accountability of all partners in social dialogue, while the government made the commitment in the last social pact that it would more actively involve social partners in the

¹²⁶ The drop in survey indicators was also the result of marked deterioration in business sentiment, which was far more pronounced than in other countries.
¹²⁷ The World Competitiveness 2017 (IMD), 2017.
¹²⁸ Eurobarometer Survey 88 (EC), 2017.

¹²⁹ Resolution on Legislative Regulation, Official Gazette of the RS, No. 92/2007.
¹³⁰ Public Participation in the Legislative Procedure (Ministry of Public Administration), 2015.
¹³¹ International Institute for Democracy and Electoral Assistance (IDEA), 2017.
¹³² Industrial Relations in Europe 2014 (EC), 2015; ICTWSS database, 2015.
¹³³ Rules of Procedure of the Economic and Social Council, Official Gazette of the RS, No. 82/2007.

Figure 33: Government efficiency indicators for Slovenia according to IMD (left) and WEF (right)



Sources: The World Competitiveness 2017 (IMD), 2017; The Global Competitiveness Report 2017 (WEF), 2017.
Note: Higher scores are better, maximum scores are 10 for IMD (left) and 7 for WEF (right).

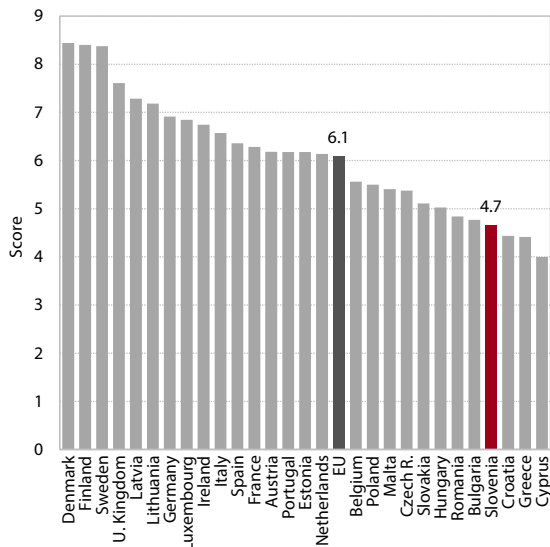
drafting of strategic documents within the framework of the European Semester.

5.1.1 Performance of public administration and provision of public services

The efficiency of public administration, an important factor in government performance and competitiveness of the country, which also plays an important role in development at local and national levels, is low. International comparisons show that executive capacity, an indicator measuring strategic governance of public institutions, is very low compared to other EU countries. The indicator shows inefficiencies in various areas (regulatory impact assessment, strategic planning, participation of different expert groups in the preparation of legislation, etc.). An overly complex organisational structure affects both the efficiency of the provision of public goods and accountability, which is dispersed and difficult to identify.¹³⁴ In 2015 Slovenia adopted a strategy for the development of its public administration, which should help improve and modernise the public sector and ensure better services for citizens and businesses; the strategy was operationalised with a two-year action plan adopted in 2016.¹³⁵

¹³⁴ Slovenia: Towards a Strategic and Efficient State (OECD), 2012.
¹³⁵ Two-year action plan for the implementation of the 2015–2020 public administration development strategy in 2016 and 2017, 2016. The measures cover the following areas: efficient organisation, efficient use of human, financial and spatial resources, improvement of legislative environment, open and transparent conduct, quality management, modernised inspection, and efficient IT.

Figure 34: Index of executive capacity, 2017



Source: Sustainable governance indicators, 2017; IMAD calculations.

Slovenia ranks around the EU average in terms of development of e-government services. One of the goals of SDS 2030 is to design user-friendly, accessible, transparent and efficient public services, with e-government services playing an important role as digitalisation expands. In 2015 the eUprava e-government portal was updated, providing a one-stop shop for citizens performing e-administration services – from data kept about the citizens by the state to information about administrative procedures

and applications filed. Several comparative analyses conducted by the EC and the OECD¹³⁶ show that Slovenia is lagging behind EU leaders in terms of exploiting the potential of e-services and digitalisation. The European Commission has recommended that Slovenia accelerate the digitalisation of front-office services (user-centric) and back-office systems and promote uptake of electronic services among its citizens. A significant limitation in this area is patchy general knowledge of e-services and insufficient ability of citizens to use such services. The introduction of a portal for open public-sector data in 2016 improved data accessibility and Slovenia ranks among the countries that have made the greatest progress in this area in recent years.¹³⁷

As part of measures to improve the performance of public administration, quality models are being introduced in public administration bodies. The majority of administrative units started to control quality using quality standards over a decade ago, but in recent years they have also introduced the Common Assessment Framework (CAF)¹³⁸ for the public sector and regular self-assessments complete with action plans, remedial measures, responsible persons and implementation deadlines. The introduction of CAF as a system of quality management also started in public administration bodies in 2017 (13 ministries joined the self-assessment).¹³⁹

Implementation of the programme of measures to eliminate administrative obstacles and improve regulation continues, but the impact of regulations should be measured more systematically. A variety of programmes to eliminate administrative obstacles have been systematically executed for over ten years, with the currently valid document, the Single Document to Ensure Better Regulatory and Business Environment, having been adopted in 2013. The Single Document is expanded with new measures on an ongoing basis, and the implementation of the planned measures has increased in the last two years (currently about two-thirds of all the planned measures are being implemented).¹⁴⁰ Among the key measures that have been introduced are the SME test, a test for small and medium-sized enterprises as support in the drafting of regulations and the measurement of their impact on business, and a central credit register with the Bank of Slovenia containing data on the debt of natural

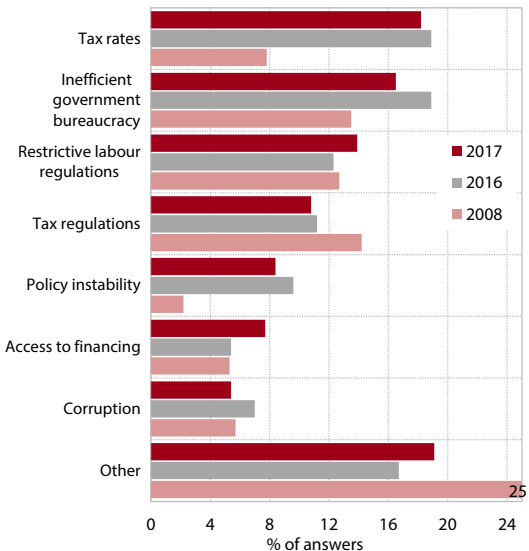
persons and business entities. Several other measures that will significantly affect the business environment are in the process of implementation, for example a reform of the regulation of professions and activities (e.g. attorneyship and conditions for entering the tourism market) and completion of new planning and construction legislation. However, there are still shortcomings in regulatory impact analysis (RIA), since new legislation is still not subject to systematic and comprehensive analysis of the impact of regulation on public finances, business, the environment and society as a whole.

5.1.2 Impact of public institutions on the economy and business sector

Efficiency of the institutional framework and performance of the state and its institutions are essential for an environment conducive to business in Slovenia. The organisation and performance of government must support better competitiveness of the private sector. International surveys and organisations (the WEF, IMD, World Bank, European Commission and OECD) have cautioned Slovenia against state interference in company operations (and a too slow reduction of administrative burdens for companies), warned about inefficient governance and called for the sale of state-owned companies (insisting that the strategy of the Bank Assets Management Company should be implemented); inefficient organisation and poor integration of parts of the public administration remains a major problem as well.

Recent surveys among businessmen show that the main obstacles to business in Slovenia are related

Figure 35: Main obstacles to doing business in Slovenia (WEF survey)



Source: The Global Competitiveness Report 2017 (WEF), 2017.

¹³⁶ eGovernment Benchmark 2017 (EC), 2017; Government at a Glance 2017 (OECD), 2017.
¹³⁷ Open Data Maturity in Europe 2017 (EC), 2017.
¹³⁸ The Common Assessment Framework in the public sector is a tool for comprehensive quality management developed by the public sector for the public sector based on a model of business excellence by the European Fund for Quality Management (EQFM).
¹³⁹ EIPA data show that there were 81 registered CAF users in Slovenia at the end of 2017 who used the model at least once for internal assessment of their performance, i.e. self-assessment (European Institute for Public Administration CAF Database, 2018).
¹⁴⁰ 10th 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), 2018.

to taxes and tax policy. In the last decade significant progress has been made to facilitate and speed up the formation of new businesses, but after the start of the crisis it turned out that not enough has been done to support their smooth functioning. The ease of doing business has been significantly improved with changes to insolvency legislation in 2013 that reduced the duration of insolvency procedure and prevented asset stripping of insolvent debtors. The WEF survey finds that the main obstacles to doing business in Slovenia are high taxation (and high labour costs due to social contributions) and inadequate tax legislation, pointing out that the high tax rates are hampering investment growth. Other major obstacles include long procedures conducted by public bodies, which are mostly the result of planning and construction regulations (and long coordination with other stakeholders in procedures), and labour legislation, which is too restrictive according to business managers surveyed.

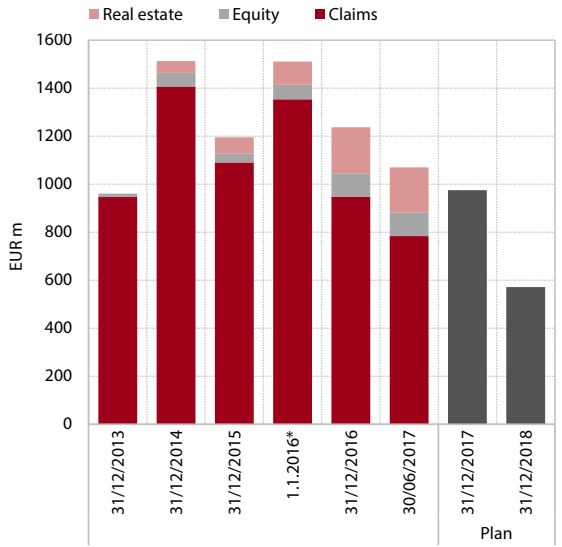
By adopting the State Asset Management Strategy¹⁴¹ in 2015, Slovenia rounded off the legislative and institutional framework for the withdrawal of the state from company ownership and better management of companies that remain in state ownership. The strategy, which divided state assets into portfolio, important and strategic assets, is a blueprint for the Slovenian Sovereign Holding (SSH) and the Bank Assets Management Company (BAMC) facilitating accelerated privatisation and more efficient governance. By 2020 at the latest, SSH is expected to transfer to the Republic of Slovenia all securities and equity defined as strategic or important,¹⁴² and after it has settled all liabilities to denationalisation claimants, other assets will follow. The operation of BAMC was extended until the end of 2022 with amendments to the Act Regulating Measures of the Republic of Slovenia to Strengthen the Stability of Banks¹⁴³ adopted in 2016. The amendments allow BAMC to more efficiently participate in debtor restructuring and company financing procedures with the aim of increasing the economic value of its claims; they also contain provisions improving governance and supervision of BAMC, which is obliged to sell off at least 10% of the estimated value of acquired assets each year.

Yields on investments in state ownership have improved in the last several years, but international organisations have warned that corporate governance of state-owned companies must improve further. SSH, as the manager of state-owned equity stakes in companies, creates conditions for active management of assets in accordance with a multi-year management plan.¹⁴⁴ As of the end of 2016, the book

value of all assets under management (assets in direct ownership of SSH and assets of the Republic of Slovenia managed by SSH) was EUR 10.45 billion, which is slightly less than in preceding years.¹⁴⁵ The state recapitalised SSH at the end of 2016 with EUR 200 million; prohibited from selling equity in companies designated as strategic or important, SSH had been unable to settle the liabilities for denationalisation claims it took on as the legal successor of the Slovenian Compensation Company. After the return to economic growth, the yield on assets under SSH management rose to 6% (2014: 1.8%, 2015: 4.7%)¹⁴⁶ and the proceeds from dividends improved. Nevertheless, the OECD has warned that SSH should improve governance at state-owned companies in accordance with OECD corporate governance guidelines and appoint competent and professional supervisory boards.¹⁴⁷ It also considers that the long list of strategic and important companies should be shortened to just a few strategic companies in industries where competition is not possible and whose state ownership would have a positive impact on the economy as a whole.

Withdrawal of the state from company ownership is conducted through BAMC and SSH. The withdrawal via BAMC,¹⁴⁸ which has to be wound down by the end of 2022, continues at an accelerating pace. Assets under BAMC management amounted to EUR 1.2 billion as of the

Figure 36: Assets under BAMC management



Source: BAMC interim report, 2017.
Note: As of 1 January 2016, the value of the portfolio increased after the merger by acquisition of Factor banka and Probanka. Under the transaction, BAMC received a small leasing portfolio, which is included among the claims.

¹⁴¹ Ordinance on State-Owned Asset Management Strategy, Official Gazette of the RS, No. 53/2015.
¹⁴² Act Amending the Slovenian Compensation Fund Act, Official Gazette of the RS, No. 55/2017.
¹⁴³ Act Amending the Act Regulating Measures of the Republic of Slovenia to Strengthen the Stability of Banks, Official Gazette of the RS, No. 104/2015.
¹⁴⁴ State Assets Management Strategy and Annual State Assets Management Plan.

¹⁴⁵ 2013: EUR 11.25 billion; 2014: EUR 11.6 billion; 2015: EUR 11.59 billion.
¹⁴⁶ The key goal is to generate yields on state assets of 8% of book value of equity by 2020.
¹⁴⁷ OECD Economic Surveys: Slovenia (OECD), 2017.
¹⁴⁸ The state withdraws from company ownership through BAMC in three ways: by selling equity stakes in companies, by selling claims (non-performing loans) to companies and by selling real estate that BAMC took possession of in the process of bank restructuring.

end of 2016 and declined by around EUR 168 million by mid-2017. Non-performing claims account for the bulk of the assets (73% as of 30 June 2017), with real estate and equity accounting for a small share of the total.¹⁴⁹ The BAMC business strategy for 2016–2022 stipulates that assets under management will more than halve by the end of 2018 compared to 2016;¹⁵⁰ BAMC must offload at least 10% of the estimated value of acquired assets each year. On the other hand, the sale of equity stakes in companies that are on the list of 15 companies under SSH management slated for privatisation proceeded at a sluggish pace. In 2017 SSH sold two companies (in total, ten from the list have been sold so far),¹⁵¹ one sale is scheduled for 2018, while the procedures for the sale of the remaining equity stakes have been suspended. SSH, which managed equity in 88 companies as of the beginning of 2018, additionally plans the sale of equity stakes (some of them being minority stakes) in 13 other companies, including a large bank and casinos.¹⁵² A renewed launch of the procedure to sell the largest state-owned bank (Nova Ljubljanska banka) hinges on an agreement with the European Commission.

¹⁴⁹ In the first half of 2017 the value of equity and real estate under BAMC management did not change significantly, whereas the value of claims fell by as much as 17.4%.

¹⁵⁰ Between its inception and mid-2017, BAMC created revenue from asset management of EUR 1.1 billion, of which EUR 369.2 million in 2016 and EUR 246.4 million in the first half of 2017. BAMC thus exceeded the whole-year statutory target for revenue from transferred and absorbed assets in the first half of 2017.

¹⁵¹ SSH has so far sold equity in ten companies from this list (Adria Airways, Adria Airways Tehnika, Aerodrom Ljubljana, Cimos, Elan, Fotona, Helios, Nova KBM, Paloma and Žito), of which Cimos and Paloma were sold in 2017.

¹⁵² Major companies include Abanka, Casino Portorož, Casino Bled and HIT.

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 citizens, economic development and prosperity, as 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 SDS 2030 include 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 elimination of the causes of corruption.

Performance indicators for development goal 10:

	Latest value		Target value for 2030
	Slovenia	EU average	
Rule of law index, rank among EU members	Rank 15 (data for 21 EU countries) (2016)	–	Ranking in the top half of EU countries
Time needed to resolve civil and commercial court cases, number of days	277 (2015)	244 (2015)	200

Trust in the rule of law and the judiciary is low. The rule of law is underpinned by the principle of equality before the law and emphasises the inalienable authority of law. The bedrock of people’s trust in the legal order and respect of 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 procedures, accessibility of legal remedies, and predictability and stability of legal standards. International comparisons (the World Justice Project and World Bank Governance Indicators) indicate there are shortcomings in the rule of law, with Slovenia ranking poorly in this regard compared to other EU countries. Distrust in the rule of law and the judiciary is reflected in the relatively high number of applications¹⁵³ to the European Court of Human Rights (ECHR), which is significantly higher than in other EU countries.¹⁵⁴ Most of the cases in which violations have been determined are related to effective legal remedy and long court procedures, but in the last three years the majority of the violations have concerned the right to fair trial.¹⁵⁵ Slovenia respects ECHR rulings and has adopted appropriate remedial measures, which is reflected in a reduction of the number of open cases at the court in the last year.¹⁵⁶ Trust in the judiciary remains relatively

low, in particular due to the poor perception of the independence of courts and judges among the general public.¹⁵⁷ Similarly, low trust among the general public has also been detected by a study of public satisfaction with the work of the courts,¹⁵⁸ although the same study did find that satisfaction is improving.

In justice, the priority is to improve the efficiency, transparency and quality of the justice system, with an emphasis on the judicial branch. The key strategic document in this field is the Justice 2020 Strategy, which determines that by 2020 the expected time it takes to resolve important cases is to be reduced to 6 months, with all other cases to be resolved in 3 months. The number of judges per 100,000 population should decrease (to 42), while the ratio between court (non-judge) staff and judges should increase to 4.3 (non-judge staff per judge). One of the principal challenges in this field is to create a predictable and stable legal environment, and to adopt measures and legislation in cooperation between the judiciary and the executive branch. The Supreme Court has warned against the broadening of jurisdiction on the grounds that this could lead to an increase in pending cases (e.g. the new Family Law transfers jurisdiction in several areas from social work centres to courts) if the number of judges continues to decline in line with the agreed objectives.

Court statistics show that the efficiency of courts has improved further. In the last several years the number of pending cases at almost all courts has continued to

¹⁵³ Since 1993 almost 95% of all applications have been ruled inadmissible or thrown out, and in 2017 alone the court rejected or threw out 1,818 applications on inadmissibility grounds (Analysis of Statistics 2017, European Court of Human Rights, 2018).

¹⁵⁴ Since 1993 violations have been found in 3.5% of all applications, which is above the EU average (2.3%), as violations were determined in 329 of the 353 applications admitted.

¹⁵⁵ The violations peaked between 2006 and 2008, with 262 cases involving the right to fair trial in a reasonable time (Violations by Article and by State, 2014, 2015, 2016 and 2017).

¹⁵⁶ In *Ališić and others vs Slovenia*, the ECHR ruled in 2014 that Slovenia was responsible for compensation of unpaid foreign currency deposits in Ljubljanska banka subsidiaries in Zagreb and Sarajevo. The execution of the judgement reduced the number of open cases from

1,750 (2014) to 127 and the number of unexecuted judgements from 309 (in 2015) to 49.

¹⁵⁷ Flash Eurobarometer 447: Perceived Independence of the National Justice Systems in the EU among General Public, 2017; Flash Eurobarometer 448: Perceived Independence of the National Justice Systems in the EU among Companies, 2017.

¹⁵⁸ Opening of the court year 2018 (Supreme Court), 2018.

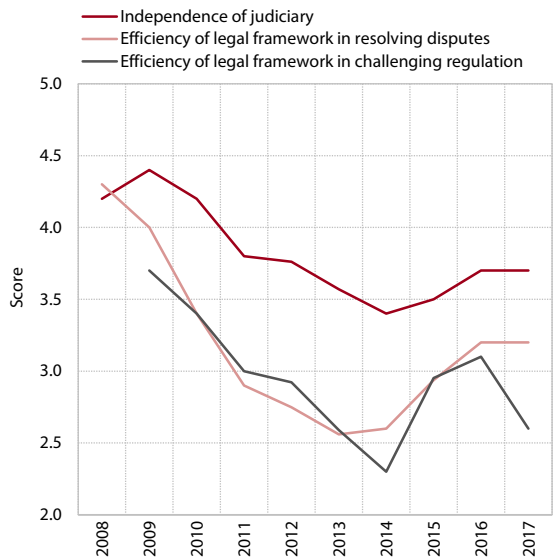
fall, while most courts, even though the number of judges and court staff¹⁵⁹ declined, resolved more cases than they received.¹⁶⁰ New caseload (in particular the number of more important cases¹⁶¹) has been dropping off, which the Supreme Court believes is partly a consequence of a decline in speculative applications due to greater alignment of case-law and legal certainty and the awareness that courts resolve cases efficiently and quickly. The average time it takes to resolve a case also fell, standing at 7.7 months for important cases and 2.6 months overall in 2017. As efficiency improves and procedures get shorter, one of the main challenges is to preserve the quality of the judiciary and protect the rights of parties to legal proceedings.¹⁶² Compared to other EU countries, the expected duration of civil and commercial procedures is slightly longer, though it has been falling.¹⁶³ Despite changes to insolvency law that shortened court procedures,¹⁶⁴ the entire duration of such procedures is still rather long. Insolvency cases are

recorded as unresolved at court until they are completed, despite the fact that courts cannot directly affect the course of proceedings after issuing the decree on their commencement.¹⁶⁵ Corporate and personal bankruptcy procedures in particular are long, averaging 18.7 and 44.6 months respectively, whereas other liquidation procedures (compulsory liquidation and simplified compulsory settlement) are much shorter.¹⁶⁶ At least to a certain extent, this probably affects how businesses rate the work of the judiciary (see the WEF survey).

The quality of the Slovenian judiciary is comparable to other EU countries. Quality of the judiciary in the narrow sense is the quality of judges' output – i.e. court decisions – but in the broader sense it also reflects the provision of court services. According to the CEPEJ¹⁶⁷ study, the quality of the judiciary in Slovenia is positively influenced by the frequency of training of judges and court staff, satisfaction surveys, and the use of clear efficiency standards. On the other hand, Slovenia lags behind in the use of ICT and in communicating with parties to procedures. The quality of court services is also assessed by the World Bank (Doing Business), with Slovenia ranking around the EU average. The quality of court services is also good according to the court user satisfaction survey (in particular regarding the ease of understanding the judge's language and the professionalism of judicial staff).

The perception of corruption remains high. The rate of perceived corruption in a country mainly 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 crisis, which can be largely attributed to new legislation,¹⁶⁸ more publicised work of investigative institutions (e.g. Commission for the Prevention of Corruption) and better public awareness. In 2017 a new programme for the strengthening of integrity and transparency was adopted for the period 2017–2019; it emphasises measures to improve the integrity of institutions, public employees, holders of public office and other employees in the public sector and greater transparency therein.¹⁶⁹ Yet the adoption of programmes and measures does not per se affect the perception of corruption, which is among the highest in the EU,¹⁷⁰ as also evident from World Bank governance indicators which measure corruption.¹⁷¹ A similarly negative opinion is also prevalent among the Slovenian population,¹⁷² which sees

Figure 37: Indicators of efficiency of the judiciary in Slovenia according to the WEF



Source: The Global Competitiveness Report 2017 (WEF), 2017.
Note: Higher is better, highest score is 7.

¹⁵⁹ The number of judges fell by 77 in 2013–2017 and the number of court staff by 74. As of the end of 2017 there were 43.1 judges per 100,000 population and the ratio between court staff and judges was 3.9. To achieve the goal, the number of judges should fall by 20 and the number of court staff should rise significantly (by 220–230 persons).

¹⁶⁰ The caseload indicator (the ratio between the number of resolved cases and new caseload in the last 12 months, expressed in percent) stood at 103% in 2017, which indicates improved efficiency, with the courts resolving more cases than they receive.

¹⁶¹ Cases designated as important include all cases resolved by the Supreme Court and cases at other courts in accordance with the classification in the methodology for statistical research of court performance, which is determined by the justice ministry.

¹⁶² Opening of the court year 2018 (Supreme Court), 2018.

¹⁶³ The 2017 EU Justice Scoreboard (EC), 2017.

¹⁶⁴ The procedure to issue a decision initiating insolvency (the declaration of bankruptcy) lasted 45 days on average for bankruptcies of legal entities and 19 days for personal bankruptcies.

¹⁶⁵ Includes the liquidation of the bankruptcy estate and discharge of debtors or, in the case of personal bankruptcy, expiry of the probation period for the waiver of liabilities.

¹⁶⁶ Data for 2016. Annual Report on the Efficiency and Effectiveness of Courts (Supreme Court), 2017.

¹⁶⁷ The 2017 EU Justice Scoreboard (EC), 2017.

¹⁶⁸ Act on Integrity and the Prevention of Corruption, Official Gazette of the RS, No. 69/2011.

¹⁶⁹ Programme of the Government of the Republic of Slovenia for the Strengthening of Integrity and Transparency 2017–2019, 2017.

¹⁷⁰ Corruption Perception Index 2017 (Transparency International), 2017.

¹⁷¹ World Bank Governance Indicators, 2017.

¹⁷² Special Eurobarometer 470: Corruption (EC), 2017.

corruption as a part of the business culture, with health care and public procurement seen as being particularly susceptible thereto. In order to reduce corruption risks in these two areas, the introduction of centralised contracting in health care continued in the past year (e.g. pooling of contracts for medicines, medical devices and equipment); in the past, this was an area where funds were often found to have been used uneconomically.¹⁷³

¹⁷³ Final Report on the Implementation of the Programme of the Government of the Republic of Slovenia for the Strengthening of Integrity and Transparency 2015–2016 – Zero Tolerance to Corruption, 2017.

5.3 A safe and globally responsible Slovenia

A safe and globally responsible Slovenia (development goal 11)

The aim is to equip Slovenia to be able to face global challenges such as migration flows, terrorism, climate change and respect of human rights. Factors listed by 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) and promoting prevention and strengthening the capacity for managing natural and other disasters. It also highlights the strengthening of 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 value		Target value for 2030
	Slovenia	EU average	
Share of population that reported crime, vandalism or violence in their area, in %	8.5 (2016)	13.0 (2016)	< 10
Global Peace Index, rank among EU members	5 (2017)	–	Maintaining ranking among the top ten countries in the world and top five in the EU

Since independence, Slovenia has been a member of the most important international organisations which maintain a stable international environment, security and human rights. A member of the United Nations since 1992, it has also been active in specialised UN agencies and commissions (the World Health Organisation, UNESCO and UNICEF). It is a member of the Council of Europe and the Organisation for Cooperation and Security in Europe. For over a decade it has also been a Member State of the EU, which is its most important political and legal environment. The fundamental framework of institutional national security, aside from that set by the EU's common security and defence policy, is NATO. Slovenia allocated 0.9% of GDP for defence in 2016, which is below the EU average and falls short of NATO commitments. The most important multilateral economic organisations of which Slovenia is a member are the International Monetary Fund, the World Trade Organisation and the Organisation for Economic Cooperation and Development, which brings together the most developed countries in the world.

Slovenia is one of the safest and most peaceful countries in the world. The Global Peace Index ranks it among the ten most peaceful countries in the world, with the EU the most peaceful region. Other indicators show it is also one of the safest countries, and crime declined in 2012–2016.¹⁷⁴ In 2016 the number of crimes handled by the police was 26.6% below the ten-year average. After 2014 the share of economic crime in total crime declined and the share of general criminal offences increased.

¹⁷⁴ Annual Report on the Work of the Police 2016 (Ministry of the Interior – Police), 2017.

5.3.1 Safety

Slovenians feel safe in their country. The sense of endangerment in the living environment remains low. The share of people who feel safe walking alone in the local area after night remains high. In 2016 fewer people had a personal experience with burglary or physical assault than in preceding years and their share is lower than the EU average.¹⁷⁵ The sense of safety also depends on people's trust in the police, which though improving in the last two years remains below the EU average.¹⁷⁶ Slovenians continue to feel that their immediate neighbourhoods and Slovenia generally are secure places to live in. Statistics show, however, that in 2015 the standardised death rate from assault was slightly above the EU average (Slovenia: 0.8 persons per 100,000 population; EU: 0.7).

Transport safety has greatly improved in recent years. The standardised death rate from transport accidents was above the EU average in 2015, the latest year for which data are available, with 7.8 persons per 100,000 population dying as a result thereof (EU: 5.8). However, in 2010–2017 the number of deaths declined at a faster pace than in the EU as a whole and was much lower in 2017 than in 2010.¹⁷⁷ There are several factors behind the improvement, including better transport infrastructure

¹⁷⁵ European Social Survey. The data for European countries show the total average result of selected countries regardless of size of national sample or country size. The selected countries are countries for which data were available (Belgium, Germany, Finland, France, Great Britain, Ireland, Netherlands, Poland, Sweden and Slovenia).

¹⁷⁶ Eurobarometer Survey 88 (EC), 2017.

¹⁷⁷ Data for 2017 are preliminary. In Slovenia the number of deaths due to traffic accidents declined by 25% in 2010–2017 (EU: 20%) and stood at 104 in 2017.

(e.g. motorway construction), safer cars and preventive measures (e.g. reduction of permitted blood alcohol level). These trends continue although the total number of kilometres driven has been rising, having increased by almost 50% from 2000.¹⁷⁸

Slovenia is also under a constant threat of natural and other disasters. In 2016 the Administration of the Republic of Slovenia for Civil Protection and Disaster Relief intervened with protection, relief and rescue staff in more than 15,800 incidents.¹⁷⁹ In recent years the number of accidents has been rising. The main causes of natural disasters in Slovenia are floods, strong wind and snow. Timely intervention is ensured through emergency notification centres and public rescue services, and the preparedness of other rescue and relief forces and civil protection units. The key challenge is creating a system that will facilitate effective coordinated action and contribute to the mitigation of damage and other consequences of an accident. Preventive measures are important as well, in particular appropriate land use planning and measures for protection against fire and other natural disasters.¹⁸⁰ The goals, policies and strategy of protection against natural and other disasters are determined in the national programme for 2016–2022,¹⁸¹ which was adopted in 2016.

Slovenia is also successful in facing security challenges at the international level. In 2010–2016 the number of recorded instances of organised crime increased.¹⁸² Increases were recorded in illicit production of and trafficking in prohibited drugs, banned substances in sports and precursors for the production of illicit drugs. Cybercrime also increased in this period, mostly on account of a surge in attacks on information systems (there was a higher number of reports by physical and legal entities concerning ransomware infections and email fraud).¹⁸³ Migration also represents a major security challenge; the number of illegal border crossings has increased since 2010, mainly due to increased migration from crisis areas.¹⁸⁴ In the last year

the number of illegal migrants has continued to rise.¹⁸⁵ The number of weapons-related crimes, on the other hand, decreased.¹⁸⁶ In the area of terrorism, Slovenia focuses on preventive action.

5.3.2 Global responsibility

Slovenia strives to improve global responsibility and solidarity.¹⁸⁷ This entails speaking up and working for peace and security, prosperity and dignity for all people, eradication of poverty, environmental and sustainable development, respect of human rights, and peaceful and inclusive societies. An important aspect thereof is the consistent implementation of international commitments, including financial obligations, adjustment of the domestic legal order, and fulfilment of international commitments regarding climate change and sustainable development (see Chapter 4).

The international environment is in constant flux, posing new challenges for Slovenia. Changes in the broader international environment and new global trends and challenges (migration flows, terrorism, cybersecurity, climate change, and the impact of technological progress on the integration of regions and states) have profound implications for Slovenia. Slovenia's challenge is not only to improve its ability to respond and adapt to new trends and global challenges, but also to increase its role and influence in shaping these trends and challenges.¹⁸⁸ To this end, Slovenia plans to continue strengthening its network of diplomatic and consular missions and its activities in international organisations and other forums. Following the success of its candidacy for the Human Rights Council in 2016–2018, Slovenia has the opportunity to strengthen its role in the UN, not only in the protection of human rights, but also in the maintenance of international peace and security and respect for international law.

EU membership is Slovenia's primary leverage in the shaping of policies and the creation of mechanisms and measures that address current trends and challenges in accordance with Slovenian values and interests. Slovenia has actively participated in decision-making on the implementation of the EU's Global Strategy¹⁸⁹ as a framework for EU action in international relations. It has complemented the actions of the EU in particular by working to deepen political, economic, social and cultural relations in the Western Balkans with

¹⁷⁸ OECD Road Safety Annual Report 2017, 2017.

¹⁷⁹ Such as natural and other disasters, transport accidents, fires and explosions, pollution incidents, accidents involving hazardous substances, nuclear and other incidents, finds of unexploded ordnance, supply disruptions and damage to buildings and other events that required technical and other assistance.

¹⁸⁰ Slovenia will also address these challenges by using EU funds, in particular through 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).

¹⁸¹ Resolution on the National Programme of Protection against Natural and Other Disasters 2016–2022, Official Gazette of the RS, No. 75/2016.

¹⁸² In 2010, there were 352 cases of organised crime, in 2015, 524 and in 2016, 393.

¹⁸³ The lowest number of attacks on information systems was recorded in 2010 (76), but by 2011 it had already increased to 236. In 2012–2015 there were fewer such crimes, but in 2016 their number increased to 260 and was the highest since 2010.

¹⁸⁴ 2015 was an exceptional year, as mass migration occurred as part of the migration and refugee crisis. Police statistics on illegal border crossings do not include migrants who entered Slovenia during the period of mass migrations (around 360,000 persons).

¹⁸⁵ In 2016, 1,148 illegal crossings of the national border were recorded, with the figure increasing to 1,930 in 2017 (citizens of Afghanistan, Turkey, Kosovo, Pakistan and Algeria accounted for the bulk of the crossings).

¹⁸⁶ The highest number of weapons crimes was recorded in 2014 (134); in 2016 there were 93, still more than in 2012, when the number was lowest (88).

¹⁸⁷ Slovenian Development Strategy 2030 (SVRK), 2017.

¹⁸⁸ Slovenia: Secure, Successful and Respected in the World (foreign ministry), 2015.

¹⁸⁹ Shared Vision, Common Action: A Stronger Europe. A Global Strategy for the European Union's Foreign and Security Policy, 2016.

the aim of strengthening the resilience of societies and countries in the region and accelerating their process of EU accession. The implementation of the Global Strategy also involves measures for strengthening the Union's security and defence, such as Permanent Structured Cooperation in the area of security and defence policy (PESCO),¹⁹⁰ which was established by the Council in December 2017. In this framework, 25 EU Member States, Slovenia included, adopted ambitious commitments, among them the pledge to increase defence budgets.

Slovenia's ability to successfully address global trends and challenges also depends on resolving fundamental issues concerning the existence, future integration and political nature of the EU.

Slovenia is in favour of a deepening and enlargement of the Union. Its priorities include strengthening the democratic legitimacy¹⁹¹ of the EU, the rule of law as the guiding principle of EU Member States,¹⁹² and the re-establishment of the full functioning of the Schengen system.¹⁹³ Key debates are underway in the EU on the completion of economic and monetary union, reform of the common agricultural policy, and the next multi-year budget framework. Slovenia needs to clearly define what its interests are in these regards, so that it can play a role in shaping decisions that will affect its future position in the EU and the prosperity of its citizens. Framing and asserting Slovenia's interests in the EU requires in-depth work on EU affairs, closer coordination and more staff, including in the light of the presidency of the EU Council that Slovenia will take over for the second time in the second half of 2021.¹⁹⁴

International development cooperation and humanitarian aid are essential components of global responsibility and contribute to the strengthening of bilateral relations and Slovenia's image in the world.

Expenditure on official development aid has increased in recent years but remains well below internationally adopted commitments. In the last two years, the bulk of the increase in aid has been associated with the refugee and migration crisis.¹⁹⁵ Multilateral aid in the framework of EU development policies accounts for the majority of spending on aid. The Resolution on International Development Cooperation and Humanitarian Aid adopted in 2017 confirmed the commitment that by 2030 Slovenia will allocate 0.33% of gross national income for official development aid and at least 10% of the available bilateral development aid for humanitarian assistance.¹⁹⁶ The OECD issued an overview of Slovenia's

international development cooperation in 2017 and the challenges it listed included narrowing its focus to just a few priority regions and hence improving the effectiveness of aid, better cooperation and the sharing of information with stakeholders in Slovenia, and forging long-term partnerships with prospective aid donors.¹⁹⁷

¹⁹⁰ Implementation Plan on Security and Defence (Council of the EU), 2016.

¹⁹¹ Lange, S., 2016.

¹⁹² This is also an objective of the EU's external action (particularly in candidates and potential candidates for EU membership).

¹⁹³ Speech by Prime Minister Miro Cerar at the consultation of Slovenian diplomats, 2018.

¹⁹⁴ Barbutovski, D., Bucik, M., Lange, S., Mimeo, 2017.

¹⁹⁵ Report on International Development Aid 2016 (foreign ministry), 2017.

¹⁹⁶ Resolution on the International Development Cooperation and Humanitarian Aid of the Republic of Slovenia, Official Gazette of the RS, No. 54/2017.

¹⁹⁷ 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 ◆ SDS 2030 PERFORMANCE INDICATOR
- 1.2 General government debt ◆ SDS 2030 PERFORMANCE INDICATOR
- 1.3 Real GDP growth
- 1.4 General government balance
- 1.5 Current account of the balance of payments and net international investment position
- 1.6 Financial system development
- 1.7 Regional variation in GDP per capita
- 1.8 The development risk index

A competitive and socially responsible business and research sector

- 1.9 Productivity ◆ SDS 2030 PERFORMANCE INDICATOR
- 1.10 The European Innovation Index ◆ SDS 2030 PERFORMANCE INDICATOR
- 1.11 The Digital Economy and Society Index ◆ SDS 2030 PERFORMANCE INDICATOR
- 1.12 Export market share
- 1.13 Unit labour costs
- 1.14 Exports of high-technology goods and knowledge-intensive services
- 1.15 Foreign direct investment
- 1.16 R&D expenditure and the number of researchers
- 1.17 Innovation activity of enterprises
- 1.18 Intellectual property
- 1.19 Corporate environmental responsibility

Gross domestic product per capita in purchasing power standards1.1

In 2016 Slovenia reduced slightly its economic development gap vis-à-vis the EU average for the first time since 2008. In 2008 its GDP per capita in PPS reached 90% of the EU average, but during the economic crisis, particularly in 2009, it fell considerably more than in the EU as a whole, so that Slovenia's development gap had widened to 18 pps by 2012. Only in 2016 did Slovenia improve its position relative to the EU average, this by 1 pp (with GDP at 24,100 PPS¹). Data on economic activity in 2017 show that Slovenia continued to converge with more developed EU Member States last year, a trend that can also be expected in the years to come. A breakdown of per capita GDP into productivity and employment rate shows that the widening of the gap was more affected by the fall in employment. Slovenian employment rates, which were significantly above the EU average at the onset of the crisis, have thus stabilised just above the average rate in the EU. Although the productivity gap

widened less during the crisis, its level is still considerably below the EU average, pointing to an area that is crucial for closing the overall development gap.

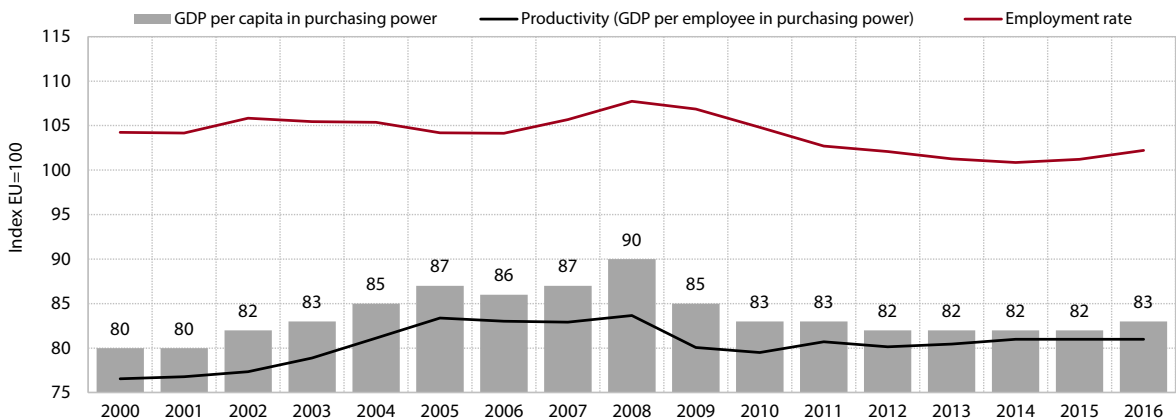
Slovenia remains one of the EU countries that have seen their relative positions in terms of economic development deteriorate the most since the beginning of the crisis. Only six Member States have diverged more from the EU average since 2008: Greece (25 pps), Cyprus (22 pps), Finland (12 pps), the Netherlands (11 pps), and Spain and Italy (9 pps each). Fourteen countries have narrowed their gaps, ten of them being new Member States. Two Member States, Malta and the Czech Republic, have overtaken Slovenia in this period. The overall gap in per capita GDP in PPS between the most and the least developed EU Member States has narrowed from 1:8.7 in 2000 (Romania/Luxembourg) to 1:5.3 in 2016 (Bulgaria/Luxembourg).

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

	2000	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016	SDS 2030 target
Slovenia	80	87	90	85	83	83	82	82	82	82	83	100
EU-15	116	113	111	110	110	110	109	109	109	109	108	
Scandinavian countries	129	125	128	126	126	126	126	125	123	123	121	
New Member States excluding Slovenia	51	60	67	66	67	68	69	70	70	71	72	

Source: Eurostat Portal Page – Economy and Finance – Prices – Purchasing Power Parities, 2017; calculations by IMAD.

Figure: GDP per capita and its components



Source: Eurostat Portal Page - Economy and Finance – National Accounts, 2017; calculations by IMAD.

¹ GDP per capita expressed in purchasing power standards allows comparisons of GDP between countries by eliminating the differences in general price levels. The purchasing power standard (PPS) is the common currency used by Eurostat to express the volume of economic aggregates. PPS is thus an artificial, fictive "currency" which at the level of the EU equals one euro, PPS or the "EU-28 euro" being a "currency" that reflects the average price level in the EU-28.

General government debt

1.2

After increasing significantly in 2008–2015, general government debt as a % of GDP has since been declining. Slovenia's indebtedness, which until 2008 had been very low, surged in deteriorated macroeconomic conditions owing to several years of persistently high general government deficits and the impact of one-off expenditures (mostly bank recapitalisations and payments on the basis of court decisions). Since 2015, when it peaked at 82.6% of GDP, the debt-to-GDP ratio has been falling due to the improvement in the primary balance (surplus); moreover, in the last two years, the positive contribution of economic growth exceeded the negative effect of interest expenditure on debt formation, thus eliminating the unfavourable "snowball effect". At 73.6% of GDP, Slovenia's debt is still significantly above the 60% limit set in the Stability

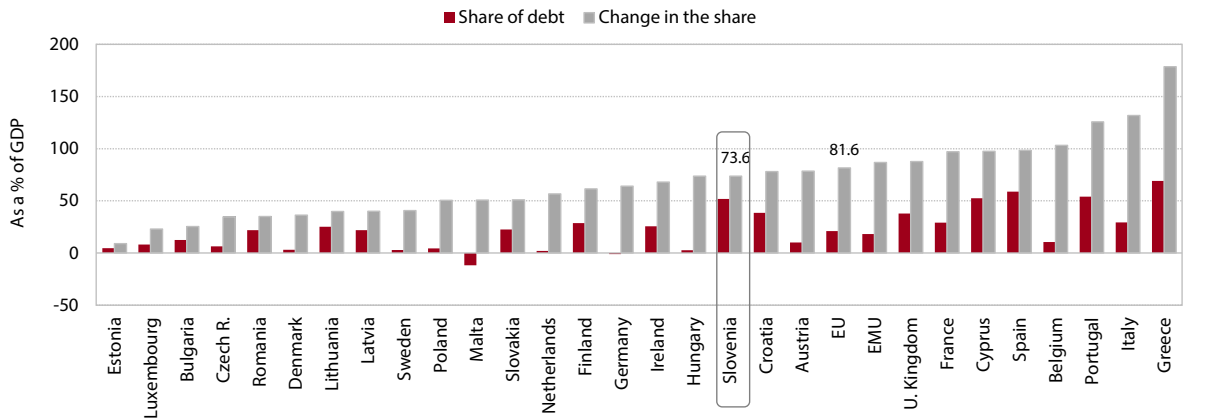
and Growth Pact, but the dynamics of its reduction in 2016 and 2017 comply with the Pact's rules for the three-year transition period following the abrogation of the excessive deficit procedure.¹ Slovenia has taken advantage of the favourable financial market conditions² in recent years to buy back dollar-denominated bonds issued in 2012–2014, when it had limited access to financial markets, and to pre-finance the liabilities of the state budget, thus creating some liquidity reserves. Active debt management contributed to both a decline in interest on the existing debt and a lengthening of the average debt maturity. The implicit interest rate has thus fallen to new lows in the last few years (3.4% in 2017). The improved fiscal position has also played a significant role in the improvement of Slovenia's credit ratings in recent years, though these remain worse than before the crisis.³

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

	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	SDS 2030 target
In EUR billion												
General government	7.7	8.3	12.5	13.9	17.2	19.4	25.5	30.2	32.1	31.8	31.9	
As a % of GDP												
General government	26.3	21.8	34.6	38.4	46.6	53.8	70.4	80.3	82.6	78.6	73.6	60.0
General government												
Debt change, of which	-0.6	-1.0	12.8	3.7	8.3	7.1	16.6	10.0	2.2	-4.0	-4.9	
1. Primary balance	-0.2	0.3	4.5	4.0	4.8	2.0	12.1	2.3	-0.4	-1.1	-2.5	
2. Snowball effect	0.1	-0.6	2.3	1.6	1.3	3.1	2.3	0.7	0.7	-0.2	-2.7	
- Interest payments	1.5	1.1	1.3	1.6	1.9	2.0	2.6	3.2	3.2	3.0	2.5	
- Effect of GDP growth	-1.0	-0.7	1.8	-0.4	-0.2	1.3	0.6	-2.0	-1.8	-2.5	-3.7	
- Effect of inflation*	-0.4	-1.0	-0.8	0.3	-0.4	-0.2	-0.9	-0.5	-0.8	-0.7	-1.5	
3. Stock-flow adjustments**	-0.5	-0.8	5.9	-1.8	2.3	2.1	2.2	7.0	2.0	-2.8	0.3	

Source: SI-STAT Data Portal – Economy – National Accounts – General Government Accounts – Main Aggregates of the General Government, 2018.
Note: * 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 totals and calculations do not add up due to rounding.

Figure: Consolidated general government debt as a share of GDP in 2017 and change in the share of debt in 2008–2017



Source: Data for Slovenia: SURS – SI-STAT Data Portal – National Accounts – General Government Accounts – Main Aggregates of the General Government, 2018; for other EU Member States: Eurostat Portal page – Economy and Finance – Government Statistics, 2018.

¹ During the transition period (2016–2018 in the case of Slovenia), the pace of debt reduction is assessed on the basis of a country's progress towards the minimum linear structural adjustment required (EC, 2016, Annex 6). Following the end of the transition period, a country that is in the preventive arm of the Stability and Growth Pact must reduce the amount by which its debt exceeds 60% of GDP by 1/20th per year.
² The coupon rates of these bonds are from 5% to 6%. Slovenia significantly reduced its exposure to USD debt in 2016 and 2017. At the end of 2017, the nominal amount of US dollar-denominated bonds was USD 2.1 billion. Slovenia also continued with partial buybacks of these bonds at the beginning of 2018.
³ The improvement also continued in 2017 (Moody's raised its credit rating for Slovenia by two grades from Baa3 to Baa1, Standard & Poor's by one from A to A+, while Fitch left the rating in 2017 unchanged (A-)).

Real GDP growth

1.3

After four years of growth, GDP exceeded its pre-crisis peak in 2017; in the last two years its growth has strengthened further, supported by export growth momentum and stronger growth in domestic consumption. After the double-dip recession, Slovenia's real GDP has been rising since 2014, its growth becoming more broad-based and closer to the rates from before the 2007 peak. The main driver of growth remains exports. Their growth has been strengthening further in the last few years, driven by stronger growth in foreign demand and a concurrent improvement in the export competitiveness of Slovenian enterprises, which is reflected in rising export market share on the global market¹. Domestic consumption has also become an increasingly important driver of growth: until 2016, household consumption in particular, which rebounded at the end of 2013 and continues to be boosted by favourable labour market conditions and high consumer confidence, and since 2017, also investment in gross fixed capital formation, though this is still significantly lower than before the crisis due to its sharp fall in the

early years thereof (2009–2012). Private investment in machinery and equipment has otherwise been steadily rising since 2014, which is mainly related to high capacity utilisation, good business performance and low corporate indebtedness. Residential investment rebounded in mid-2016, while last year renewed growth was also recorded for investment in civil-engineering works.² With a gradual relaxation of austerity measures, government consumption also expanded in the three years to 2017

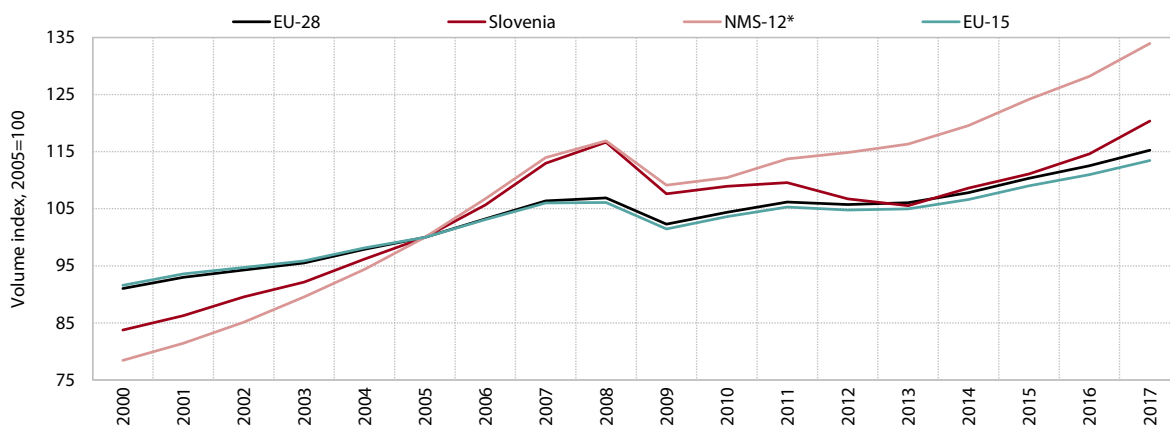
After a sharper fall during the crisis, Slovenia recorded faster GDP growth (5.0%) than the EU average (2.4%) in 2017 for the fourth year in a row. This was primarily a consequence of Slovenian exports rising faster than those of the EU as a whole, where in recent years GDP has been almost equally driven by exports and domestic consumption. Last year Slovenia's GDP growth also outpaced the average of other new Member States,³ where GDP has increased at stable rates ever since 2010 and behind which Slovenia still lags significantly in terms of cumulative growth in the period since 2005.

Table: Contribution of expenditure components to GDP change, Slovenia

	2000	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Real GDP growth (right axis), in %	4.2	4.0	3.3	-7.8	1.2	0.6	-2.7	-1.1	3.0	2.3	3.1	5.0
Contribution to GDP growth, in pps												
Total domestic consumption	1.8	1.9	3.1	-9.7	-0.8	-0.6	-5.6	-1.9	1.6	1.7	2.7	3.7
Private consumption	0.4	1.2	1.2	0.5	0.7	0.0	-1.4	-2.3	1.0	1.1	2.3	1.7
Government consumption	0.7	0.5	0.9	0.4	-0.1	-0.1	-0.5	-0.4	-0.2	0.5	0.5	0.4
Gross fixed capital formation	0.7	0.9	2.0	-6.5	-3.2	-1.1	-1.8	0.6	0.2	-0.3	-0.7	1.8
Changes in inventories	0.0	-0.7	-0.9	-4.0	1.9	0.6	-2.0	0.2	0.5	0.3	0.7	-0.2
External trade balance (goods and services)	2.3	2.1	0.2	1.9	2.0	1.3	3.0	0.8	1.4	0.6	0.5	1.3
Exports of goods and services	5.6	6.2	2.8	-11.0	5.8	4.4	0.4	2.2	4.2	3.8	5.0	8.2
Imports of goods and services	-3.2	-4.1	-2.7	12.8	-3.8	-3.1	2.5	-1.4	-2.9	-3.2	-4.5	-6.9

Source: SI-STAT Data Portal – Economy – National Accounts, 2018.

Figure: GDP in Slovenia, the EU and selected groups of EU Member States



Source: Eurostat Portal Page – National Accounts, 2018.

Note: * Data for NMS-12 are a non-weighted average for countries that entered the EU in 2004 or later, except Slovenia.

¹ See Indicator 1.12.

² The growth of investment in civil engineering works rebounded (only) temporarily in 2014 under the impact of local elections and the completion of a number of (particularly public) projects financed under the 2007–2013 EU financial perspective with the end of absorption in 2015.

³ Those that joined the EU in 2004 or later.

General government balance

1.4

The general government balance has improved significantly over the last few years. The general government deficit has been steadily declining since 2013, when it was at its highest, partly under the impact of one-off factors. In 2017 the budget was balanced. This was attributable to the improvement in macroeconomic conditions as a result of the stabilisation of the banking sector and restored domestic and international confidence, the adoption of measures to increase revenue and contain expenditure, and lower capital transfers related to BAMC transactions.¹ Most of the measures for increasing revenue after 2013 were of a permanent nature. They included increases in the rates of certain existing taxes and the introduction of new taxes and a broadening of the base for social contributions; the government also stepped up activities for more efficient tax collection (introduction of tax registers). These measures have also partly offset the loss of revenue from corporate income tax resulting from both weaker business performance during the economic crisis and reductions in the rate of corporate income tax between 2006 and 2016,² which

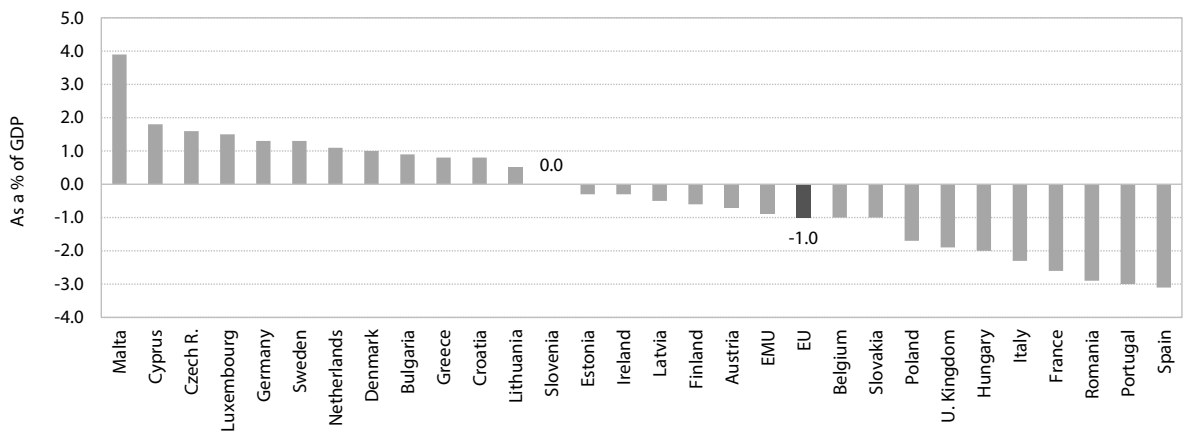
contributed to fiscal consolidation and a decline in the structural deficit. The changes also shifted the tax burden from capital to consumption during the crisis, while the effective taxation of labour remained more or less unchanged. In the last two years, the government has adopted certain measures for restructuring public taxes to lower the tax burden on labour and increase the tax burden on capital.³ On the expenditure side, particularly employee compensation and social benefits and transfers fell in 2012–2014, this as a result of austerity measures adopted in 2012, but since 2014 these measures have been gradually relaxed. The containment of total expenditure was to a great extent attributable to a significant decline in investment and subsidies over the 2008–2017 period,⁴ which points to the great role played by flexible expenditure in the consolidation process thus far. As a result of favourable borrowing terms and active debt management, interest payments have also been falling since 2015, but owing to the rising debt, their share in total expenditure remains high (5.8% of total expenditure in 2017 compared with 2.5% in 2008).

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

	2000	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Revenue	42.5	43.6	42.5	42.4	43.6	43.3	44.5	44.8	44.3	44.9	43.3	43.1
Expenditure	46.1	44.9	43.9	48.2	49.3	50.0	48.5	59.5	49.9	47.7	45.3	43.1
General government balance	-3.6	-1.3	-1.4	-5.8	-5.6	-6.7	-4.0	-14.7	-5.5	-2.9	-1.9	0.0
Primary balance	-1.3	0.2	-0.3	-4.5	-4.0	-4.8	-2.0	-12.1	-2.3	0.4	1.1	2.5

Source: SI-STAT Data Portal – Economy – National Accounts – General Government Accounts – Main Aggregates of the General Government, 2018.

Figure: General government balance, 2017



Source: Data for Slovenia: SI-STAT Data Portal – Economy – National Accounts – General Government Accounts – Main Aggregates of the General Government, 2018; for other EU countries: EU Eurostat Portal page – Economy and Finance – Government Statistics, 2018.

¹ The impact of the BAMC as a government sector unit is pronounced particularly owing to the valuation of write-offs and debt-to-equity swaps in companies managed by the BAMC, which is recorded under capital transfers, which were very high particularly in 2015. In 2017 this item had a positive impact on the general government balance.

² The tax rate, 25% in 2006, was in 2010 first reduced to 20% and then gradually to 17% by 2013. In 2017 it was raised again, to 19%.

³ The main measures being changes in personal and corporate income taxation: the personal income tax brackets were changed, with the rate of personal income tax in the 4th tax bracket also being reduced. The threshold for entitlement to the highest general tax allowance was raised by 300 euros and part of performance-related pay (such as 13th wage and Christmas bonuses) was disburdened (up to 70% of the average wage in Slovenia). In corporate income taxation, the general rate of corporate income tax was raised from 17% to 19%.

⁴ In 2017 investment and subsidies were EUR 783.5 million lower than in 2008, the rises in 2013 and 2014 being mainly related to the end of absorption of EU funds from the previous financial perspective.

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 2017, at EUR 2.8 billion (6.4% of GDP), was the highest recorded to date. The current account, which remained more or less balanced in the first two years of the economic crisis, has recorded a surplus since 2011, widening by EUR 2.7 billion in 2012–2017 as a whole.¹ The surplus in current transactions is a consequence of: (i) private sector deleveraging² and net savings and (ii) improvement in the competitive position of Slovenian exporters and the still low level of investment. The current account surplus also reflects the lower deficit in current transactions of the government sector, which is mainly a consequence of positive changes in the fiscal balance, i.e. a reduction in the general government deficit. The excess of aggregate savings over investment is reflected in both a decline in external liabilities and an increase in international financial assets, meaning that Slovenia's international net investment position is improving.

After the liberalisation of the capital and financial accounts and Slovenia's accession to the EU, the net financial position vis-à-vis the rest of the world turned from positive to negative. Despite private sector deleveraging, it deteriorated significantly in the

first years of the crisis (until 2012) owing to increased government borrowing. Since 2013 it has been gradually improving, primarily as a result of further deleveraging by commercial banks, lower government liabilities to foreign portfolio investors and higher banking sector external claims. Commercial banks and the Bank of Slovenia are stepping up financial investment in foreign securities, which is a consequence of developments in financial markets, i.e. low or negative interest rates on the money market. The Bank of Slovenia is also buying securities under the asset purchase programme (APP). In the last few years external liabilities have been rising only in the direct investment component, this owing to a larger stock of inward FDI, which is increasingly exceeding the stock of outward FDI. Despite the increase in this negative position, the structure of the overall net international investment position is therefore more favourable than in previous years. In 2017 Slovenia recorded a negative net financial position of 31.3% of GDP, which is within the indicative threshold of external imbalances (35% of GDP). This threshold is exceeded most markedly by the countries that experienced the severest sovereign debt crises (Spain, Portugal, Cyprus, Greece and Ireland).

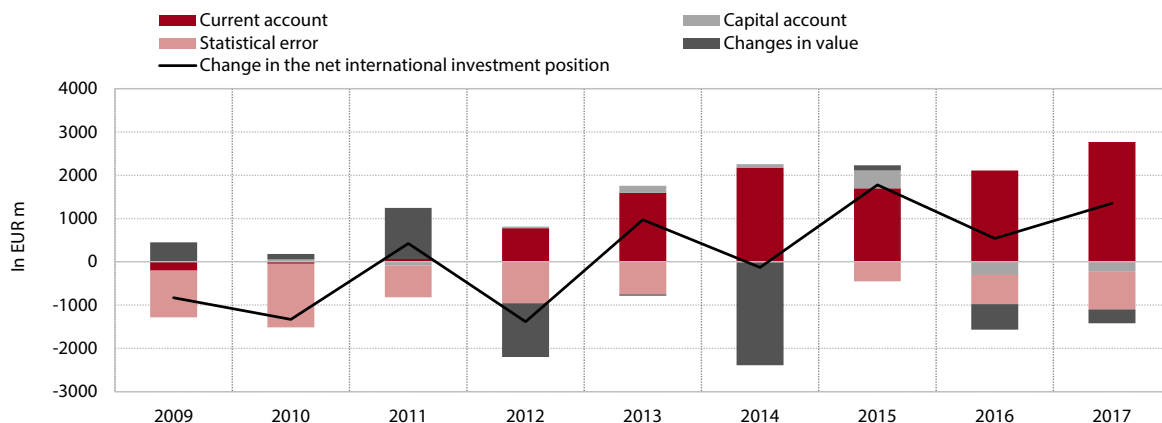
Table: Slovenia's international investment position, as a % of GDP

	2000	2005	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
1 Debt claims	39.4	67.3	77.3	71.9	74.5	72.3	72.0	72.9	72.3	84.3	84.6	81.8	78.3
2 Equity claims	2.4	12.5	22.1	17.3	20.2	20.6	19.1	20.1	19.8	20.8	24.1	23.5	21.7
3 Total claims (1+2)	41.8	79.8	99.4	89.2	94.8	92.9	91.0	93.0	92.1	105.2	108.7	105.4	99.9
4 Gross external debt	43.1	70.4	101.5	106.4	115.2	116.2	112.9	118.8	114.9	125.7	120.1	110.9	100.4
5 Equity liabilities	10.4	20.2	23.4	22.1	23.2	23.8	23.3	24.3	24.3	25.2	28.4	31.4	30.8
6 Total liabilities (4+5)	53.5	90.6	124.9	128.5	138.4	140.0	136.2	143.0	139.2	150.9	148.5	142.2	131.2
7 Net external debt/claims (1–4)	–3.7	–3.1	–24.2	–34.5	–40.7	–43.9	–41.0	–45.9	–42.6	–41.4	–35.4	–29.0	–22.2
8 Net equity debt/claims (2–5)	–8.0	–7.7	–1.3	–4.8	–2.9	–3.2	–4.2	–4.2	–4.5	–4.4	–4.3	–7.8	–9.1
9 Net financial position (7+8)*	–11.7	–10.8	–25.5	–39.4	–43.6	–47.2	–45.2	–50.1	–47.2	–45.8	–39.8	–36.9	–31.3

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 of changes in the net financial position, in EUR million



Source: Banka Slovenije, 2017; calculations by IMAD.

¹ In 2017 the current account surplus did not exceed the indicative threshold of the EU indicator of external imbalances (a three-year average of the current account balance as a % of GDP exceeding 6% or falling below –4%).

² Before the crisis, Slovenian companies were mostly financing their growth by borrowing from banks, which, in turn, were additionally borrowing particularly from foreign banks. After 2008 the banks started to repay foreign loans.

Financial system development

1.6

Slovenia has a wide gap with the EU average in financial system development; particularly the gap in capital market and banking sector development has widened since the onset of the crisis. The situation in the financial system is gradually improving, particularly as regards sources of finance, while the quality of the banks' assets also continues to improve (at the end of 2017 the share of arrears of more than 90 days was 3.7%, having peaked in 2012 at 14.4%). The gap with the EU average as measured by the indicator of the banks' total assets relative to GDP is widening, however. Following the intense corporate deleveraging in banks, the volume of corporate loans was considerably lower than in 2008 despite the increase in 2017 (the first since 2010). This was also reflected in the movement of the banking system's total assets, which had been declining since 2010 until rising slightly last year. However, as this increase did not follow the growth of GDP, the indicator of total assets as a share of GDP dropped further last year and was more than one quarter (27.7%) lower than at the end of 2008 (larger declines being reported only for Ireland, Austria and Malta).¹ On the asset side, the decline in the banks' total assets since 2010 has been largely due to the falling volume of loans to non-banking sectors as a result of corporate deleveraging; on the liability side, the banks drastically reduced their liabilities to foreign banks (by almost 90% to EUR 2.0

billion), including the ECB (liabilities to the ECB started to decline after the banks' balance sheet repair at the end of 2013). This source of funding was only partly offset by non-banking sector deposits, and the maturity structure of these is fairly unfavourable, with overnight deposits accounting for almost two-thirds. Slovenia has the widest gap with the EU average in terms of its capital market. Never a significant source of financing for the Slovenian economy, the capital market has shrunk further and markedly since 2007. The market capitalisation of shares remains low even in favourable economic conditions. The number of stocks listed on the Ljubljana Stock Exchange continues to fall, there being practically no new issues, and trading volume remains extremely low. The largest segment of Slovenia's capital market is bonds (more than 80%), where government bonds predominate (97%).

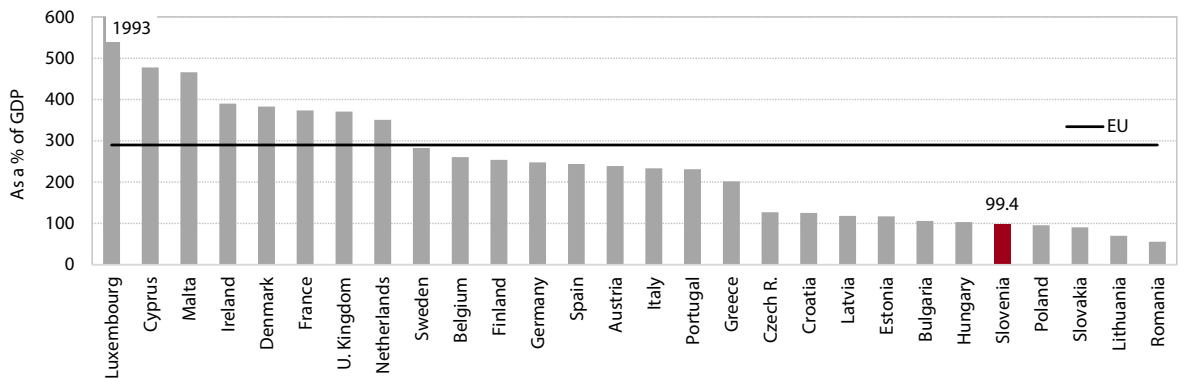
The gap with the EU is smallest in the insurance sector, where the indicator value also dropped the least relative to the pre-crisis period. However, Slovenia still lags significantly behind the EU in the share of life-insurance premiums, which, at 1.4% of GDP, is less than one-third of the EU average. The low value of premiums in this insurance category is mainly a consequence of the relatively insignificant level of saving for old age, which additionally impedes capital market development.

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

	2000	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Banks' total assets, as a % of GDP												
Slovenia	84.3	103.1	129.1	147.7	146.2	142.1	140.8	127.8	115.8	107.1	99.4	93.4
EU	233.9	293.7	332.2	348.8	346.7	351.3	337.9	312.8	309.0	292.7	289.7	
Insurance premiums, as a % of GDP												
Slovenia	5.0	5.3	5.3	5.7	5.8	5.6	5.6	5.5	5.2	5.1	5.0	
EU-25*		8.7	8.2	8.7	8.7	8.2	8.2	8.3	8.4	8.4	8.2	
Market capitalisation of shares, as a % of GDP												
Slovenia	17.6	22.9	22.3	23.4	19.4	13.2	13.6	14.3	16.5	14.2	12.4	12.2
EU	95.6	90.2	42.4	56.9	64.8	56.9	60.9	68.4	69.1	74.4	76.1	78.5

Sources: Financial Stability Report (various volumes); Annual Statistical Report (Ljubljana Stock Exchange – various volumes); Statistical Insurance Bulletin (Slovenian Insurance Association – various volumes); Swiss Re: Sigma – World insurance (various volumes); ECB, Company files (London Stock exchange – various volumes); European Securities Exchange Statistics (Federation of European Securities Exchanges); Eurostat Portal Page – National accounts (EUROSTAT); SI-STAT Data Portal – National Accounts, 2017. 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 in EU Member States, 2016



Sources: BoS; ECB; SURS; Eurostat, 2017.

¹ Data for EU countries refer to 2016.

Regional variation in GDP per capita

1.7

GDP per capita is highest in the Osrednjeslovenska region, which exceeds the national average by more than 40%. This is partly, however, a consequence of high commuter flows, as Osrednjeslovenska is the region that provides the most (over one-third of) jobs. The only other region to exceed the Slovenian average in GDP per capita is Obalno-kraška. *GDP per capita is lowest in Zasavska, at just above 50% of the Slovenian average.* Since 2016 GDP has again been rising across all regions. From 2014 it was already growing relatively fast particularly in the regions of Zahodna Slovenija, i.e. those that also recorded relatively larger declines in economic activity in the first years of the crisis. In 2015 and 2016 the strongest GDP growth was recorded in the Obalno-kraška region; it was also strong in the Osrednjeslovenska and Gorenjska regions. In the last few years, below-average growth has again been seen in most Vzhodna Slovenija regions, which are also among the least developed.

Regional disparities, which are small in Slovenia compared with other countries, decreased further during the crisis. The relative dispersion of GDP per capita,¹ which is one of the indicators of regional disparities, had been decreasing from 2010 to 2015; in 2016 it rose slightly, but remained lower than before

the crisis (21.7% compared with 22.3% in 2008). This is mainly attributable to a larger fall in economic activity in most of the relatively more developed regions during the crisis, and although since 2014 their GDP has again been rising faster than in other regions, the disparities between the regions are still smaller than they were before the crisis. The ratio between the two regions with the highest and lowest values of per capita GDP (1:2.6) is also relatively small compared with other EU Member States, though it is gradually rising.

The gap between the regions and the EU average in GDP per capita, which had mostly been widening during the crisis, has narrowed since 2014. Zahodna Slovenija was at 97% of the EU average in 2016 (109% in 2008), while Vzhodna Slovenija was at 67% (74% in 2008) and thus remained among the less developed regions in the EU.² The Osrednjeslovenska region is the only statistical region to exceed the EU average, but its advantage decreased significantly from 2008 to 2016 (by 15 pps, which represented the greatest deterioration among the Slovenian regions). Besides Osrednjeslovenska, Obalno-kraška and Zasavska increased their gaps with the EU average the most in this period (–11 pps); Zasavska is otherwise also the region with the greatest lag.

Table: Regional GDP, Slovenia

Cohesion (NUTS 2) / statistical region (NUTS 3)	GDP per capita								Nominal GDP growth, in % 2016/2015	GDP structure in % 2016
	Slovenia = 100							EU = 100		
	2008	2010	2012	2013	2014	2015	2016	2016		
Slovenia	100.0	100.0	100.0	100.0	100.0	100.0	100.0	83	4.1	100.0
Zahodna Slovenija (NUTS 2)	121.2	121.2	120.1	119.4	119.1	119.1	119.5	97	4.6	56.3
Obalno-kraška	107.1	108.7	101.4	98.3	97.4	100.1	101.8	83	6.0	5.6
Goriška	95.4	93.6	91.1	90.7	90.6	91.6	91.8	75	4.0	5.2
Gorenjska	84.5	82.8	83.3	85.9	87.6	87.7	88.2	72	4.5	8.7
Osrednjeslovenska	145.1	145.3	145.0	143.4	142.0	141.2	141.2	115	4.5	36.8
Vzhodna Slovenija (NUTS 2)	82.0	81.7	82.5	82.9	83.1	83.0	82.6	67	3.4	43.7
Primorsko-notranjska	72.3	70.5	68.9	70.6	72.0	73.8	73.6	60	3.8	1.9
Jugovzhodna Slovenija	96.6	95.2	93.9	95.0	96.2	96.4	95.0	77	2.7	6.6
Posavska	80.1	81.6	83.2	84.3	84.2	83.7	82.8	67	2.8	3.0
Zasavska	60.6	61.0	58.8	59.1	56.7	54.1	53.3	43	2.4	1.5
Savinjska	89.5	90.6	91.9	91.6	91.3	92.0	92.0	75	4.2	11.4
Koroška	76.7	74.2	78.8	79.7	80.1	80.8	80.6	65	3.5	2.8
Podravska	83.8	82.5	82.9	82.8	83.3	82.8	82.1	67	2.8	12.8
Pomurska	63.4	64.2	67.1	68.5	68.4	67.1	67.6	55	4.3	3.8
Dispersity of GDP per capita (NUTS 3)	22.3	23.8	23.0	22.2	21.7	21.4	21.7			

Sources: SI-STAT Data Portal – Economy – National accounts – Regional Gross Domestic Product, 2018; Eurostat Portal Page – General and Regional Statistics, 2018; calculations by IMAD.

¹ The dispersion of regional GDP per capita is measured as the sum of the absolute differences between regional and national GDP per capita weighted by the share of population. It is expressed as a percentage of national GDP per capita.
² Less developed regions are defined as NUTS 2 regions where GDP per capita is less than 75% of the EU average.

The development risk index by region1.8

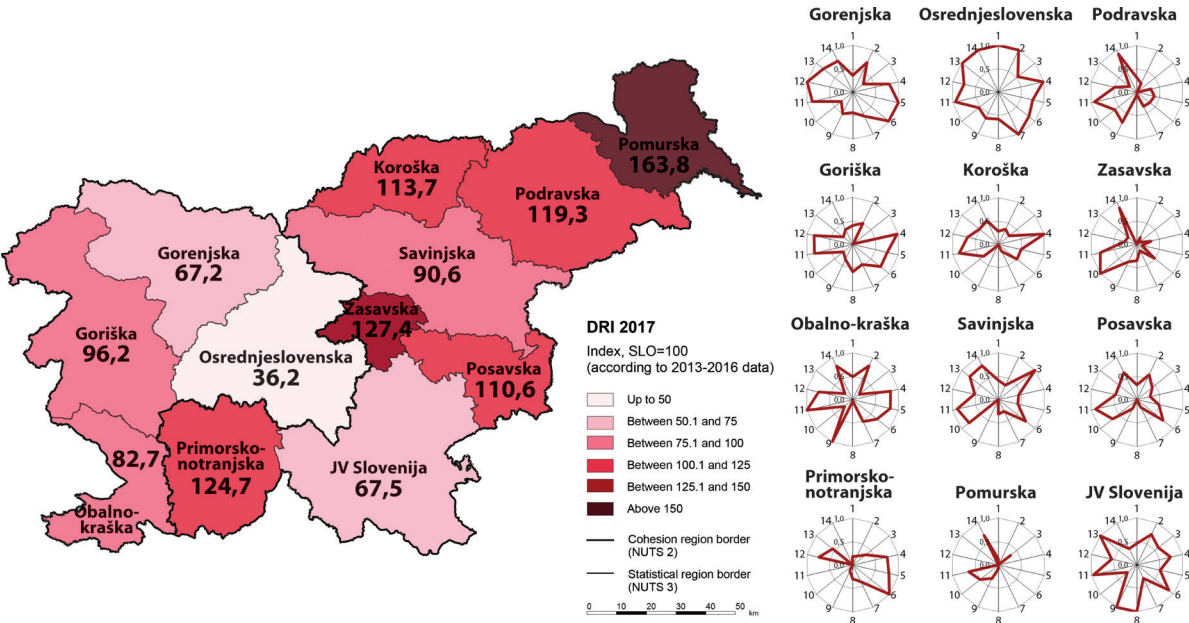
The composite development risk index (DRI) value,¹ calculated on the basis of data available in 2017, is highest in the Pomurska and lowest in the Osrednjeslovenska region. Pomurska (index value 163.8) has the lowest results for as many as seven indicators. This region also ranks last but one in terms of per capita GDP. Osrednjeslovenska has the highest or among the highest values for most indicators, except for investments in fixed assets as a share of GDP and the proportion of protected areas, where its values are somewhat lower, though still above average. The region closest to the average is Goriška.

Relative to 2014, the DRI value declined the most in Koroška and increased the most in Posavska. Compared with 2014, when DRI values were calculated for the entire programming period 2014–2020, the index value fell the most in Koroška (by 8 index points). It also dropped in Podravska, Goriška and Savinjska, while remaining unchanged in Primorsko-notranjska. In all other regions it rose, the most in Posavska (by 9 index points), mainly as a consequence of lower values of investments in fixed assets, disposable income, unemployment of young people and the proportion of

protected areas. This region nevertheless remains sixth according to its DRI value, which is where it was in 2014. The rankings in terms of the DRI otherwise have not changed significantly from year to year.

A comparison of the regions' rankings according to the DRI and GDP per capita shows the greatest differences in the Gorenjska and Obalno-kraška regions. The DRI has been introduced into regional policymaking because GDP per capita proved to be too narrow an indicator to capture the multi-dimensional nature of regional development. The two indicators are otherwise not mutually comparable in absolute terms, as the DRI includes as many as 14 indicators from different areas. The rankings on the two indicators differ the most in the Gorenjska and Obalno-kraška regions. Gorenjska is the region with the second lowest risk to development (after Osrednjeslovenska), though ranking only sixth in per capita GDP; this is related mainly to its low unemployment and high employment rates, above-average productivity, high disposable income per capita, and relatively favourable score on the population ageing index.

Map 1: Development risk index, 2017 (based on 2013–2016 data)



Sources: SURS, ARSO, Administration for Civil Protection and Disaster Relief, MGRT, DRI Investment management, 2017; calculations by IMAD.

¹ 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) investments in fixed assets as a share of GDP, (4) the registered unemployment rate for young people (15–29 years), (5) the employment rate (20–64 years), (6) the proportion of the population with tertiary education (25–64 years), (7) gross domestic expenditure on R&D as a share of GDP, (8) the proportion of wastewater treated with secondary and tertiary treatment, (9) the proportion of protected areas in the region, (10) estimated damage caused by natural disasters as a share of GDP, (11) the registered unemployment rate, (12) population ageing index, (13) disposable income per capita, 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).

Productivity

1.9

Slovenia's productivity gap with the EU average remains wider than before the crisis. The SDS goal is to reach 95% of the average productivity level in the EU by 2030 (it stood at 81% in 2016). Over the comparably long period of 2000 to 2016, Slovenia reduced its productivity gap by only 4 pps. The dynamics of convergence, however, varied during this period. Until the onset of the crisis, productivity had been rising faster than the EU average, Slovenia thus achieving its smallest lag behind the EU in 2008 (84% of the average). The economic crisis then wiped out most of the progress made, the slowdown in productivity growth being a consequence of more pronounced cyclical and structural factors.¹ In the last few years Slovenia has again been gradually catching up with the EU average, though at a much slower pace than before the crisis. Trend productivity growth in 2016 and 2017 reached only a good third of that in 2000–2007, mostly as a consequence of the absence of capital deepening.

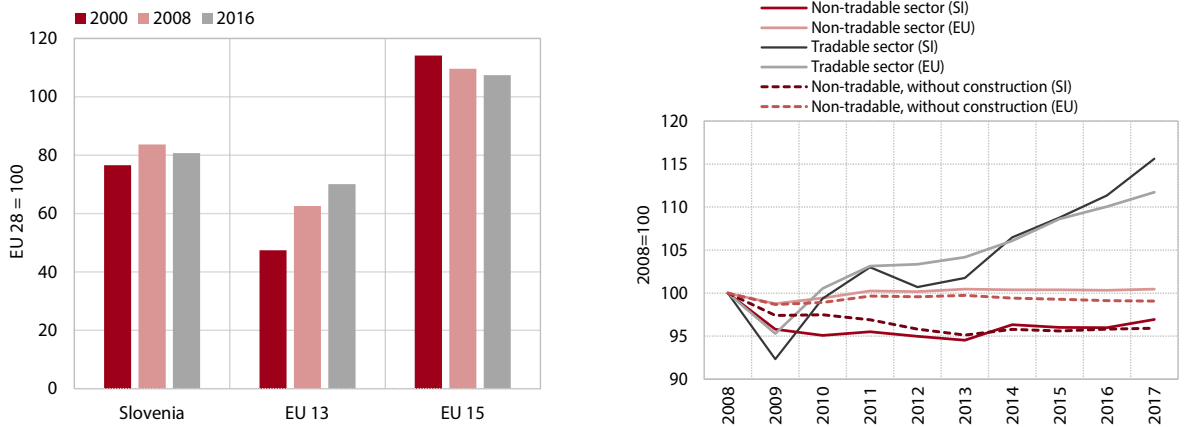
Productivity movements are unfavourable particularly in the non-tradable sector. In the tradable sector, they are significantly influenced by manufacturing, which is the most exposed to competition. Manufacturing has relatively rapidly offset productivity losses incurred during the crisis,² and since 2013 its productivity has mostly been rising faster than elsewhere in the EU. On the other hand, the non-tradable sector still lags behind pre-crisis levels in terms of productivity and has seen its already wide gap with the EU average widen further. This can be attributed to construction, as this sector was severely affected by the crisis, and to certain knowledge-intensive services (such as financial and professional and technical services) that are focused predominantly on the domestic market, where demand started to recover later and more slowly than foreign demand.³ Following a long period of mainly negative trends, productivity in these non-tradable sector activities, particularly construction, increased more markedly in 2017.⁴

Table: Labour productivity, Slovenia

	2000	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	SDS 2030 target
Real productivity growth, in %	2.6	4.5	0.7	-6.1	3.4	2.4	-1.8	0.0	2.6	1.0	1.2	2.2	
Productivity in PPS, EU=100	77	83	84	80	79	81	80	80	81	81	81	N/A	95

Sources: SI-STAT Data Portal – National Accounts, 2018; Eurostat Portal Page – Economy and Finance, 2018; calculations by IMAD.

Figure: Productivity of the economy (GDP per employee in PPS) and real productivity growth (value added per employee) in the tradable and the non-tradable sectors*



Source: Eurostat Portal Page – Economy and Finance, 2018; calculations by IMAD.
Note: * The tradable sector includes agriculture (A), mining (B), manufacturing (C), energy supply (D), public utilities (E), trade (G), transportation (H), accommodation and food service activities (I), and information and communication activities (J), while the non-tradable sector comprises construction (F), financial services (K), real estate (L), professional, scientific and technical activities (M), administrative and support service activities (N), public administration (O), education (P), health and social work (Q), arts, entertainment and recreation (R), and other service activities (S).

¹ Cyclical factors include the sharp fall in investment, while longer-term structural factors are reflected primarily in the contribution of total factor productivity, which increases as a consequence of better technologies or improvements in production processes and hence higher labour and capital efficiency (OECD, 2016). See also Chapter 1.2.
² Also as a consequence of the structural effect from the contraction of production in low-productivity industries, particularly in the first years of the crisis. In 2017 productivity in manufacturing was almost a quarter higher than in 2008 and almost twice that in 2000.
³ In addition to financial services (K) and professional, scientific and technical services (M), knowledge-intensive market services also include information and communication activities (J), which otherwise belong to the tradable sector and where productivity movements are extremely unfavourable too. M and J activities are also characterised by a large and rising share of the self-employed, who tend to have lower productivity according to statistical data.
⁴ Growth was also higher relative to the EU average.

The European Innovation Index

1.10

Slovenia was close to the EU average in terms of the European Innovation Index (EII) in 2010–2016, but its convergence stagnated. The EII¹ is a composite indicator measuring performance of national innovation systems in EU Member States in four areas: (1) framework conditions for the innovation activity of enterprises, (2) investment in innovation activity, (3) innovation activity at the level of enterprises and (4) impacts of innovation activity of enterprises. Based on the EII, countries are classified into four performance groups from the most to the least innovative. Slovenia is in the group of strong innovators with EII values between 90% and 120% of the EU average.² During the crisis,³ the EII value deteriorated or stagnated in half of the EU Member States, including Slovenia. The group of those that increased their EII values during that period meanwhile included both some of the innovation leaders and countries from other groups. In 2010–2016, the gap between the Member States with the best and the worst performance with regard to the EII (Sweden and Romania) widened further.

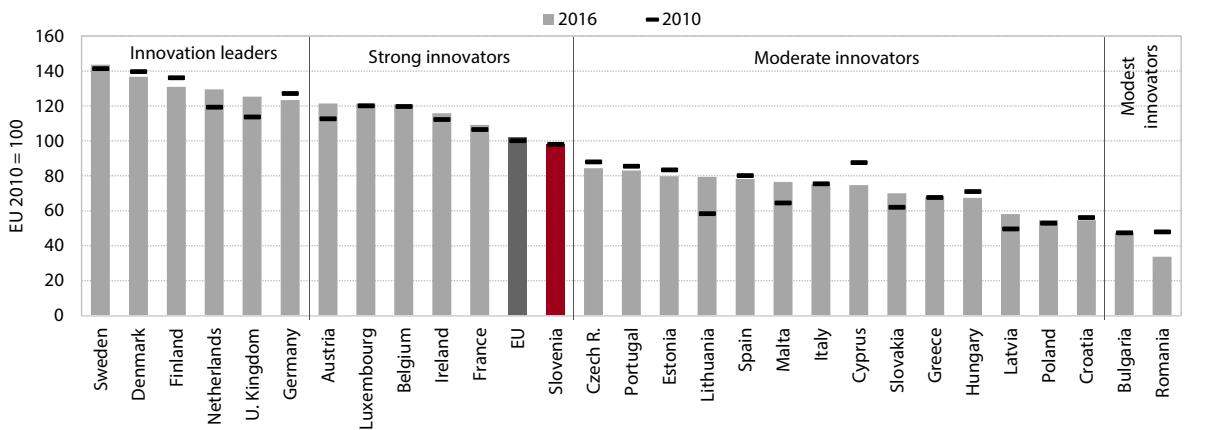
Slovenia's innovation system is relatively strong in framework conditions, which affect the innovation activity of enterprises, while it is relatively weakest regarding investments in innovation activity and their effects. Regarding framework conditions, in 2010–2016 Slovenia made the greatest progress in the number of new doctors of science, the percentage of the population aged 25–34 having completed tertiary education, international scientific co-publications and scientific excellence. The share of enterprises with access to high-speed broadband – which is a condition for introducing advanced electronic and mobile services – also increased significantly. The greatest weaknesses are revealed in investment in innovation activity related to both the reduction of public R&D expenditure and the low level of venture capital investments, which are usually oriented towards high-growth high-technology enterprises. Slovenia is also relatively weak in terms of the effects of innovation activity on competitiveness, which is reflected particularly in the low shares of exports of knowledge-intensive services (see Indicator 1.14) and persons employed in high-growth enterprises.

Table: European Innovation Index

	2010	2011	2012	2013	2014	2015	2016	SDS 2030 target
Slovenia (index EU 2010 = 100)	98	99	98	97	99	98	98	>120 (ranking among innovation leaders)*
Slovenia	0.483	0.490	0.483	0.480	0.487	0.483	0.482	
EU	0.493	0.496	0.489	0.495	0.489	0.497	0.503	

Source: European Innovation Scoreboard 2017, 2017.
Note: * Innovation leaders are countries with innovation performance higher than 120% of the EU average from 2010. In 2016 the group of innovation leaders included Germany, the UK, the Netherlands, Finland, Denmark and Sweden, the countries that had EII performance scores of between 0.609 and 0.708.

Figure: European Innovation Index, expressed relative to the EU average (EU 2010=100)



Source: European Innovation Scoreboard 2017, 2017.

¹ The methodology of calculating the EII has been changed several times in line with development trends and priorities of the EU innovation policy (see the European Innovation Scoreboard 2017, 2017).
² The best performing Member States are innovation leaders, whose performance is higher than 120% of the EU average from 2010. The largest group is moderate innovators, which includes Member States with innovation performance between 50% and 90% of the EU average; the weakest group, modest innovators, includes Member States with performance levels below 50% of the EU average (ibid).
³ A comparison between 2016 and 2010, when the majority of indicators were available for 2014 or 2015 or for 2008 or 2009 respectively.

The Digital Economy and Society Index

1.11

Slovenia belongs to the group of medium-performing EU Member States regarding the digital transformation of the economy and society; its ranking has not changed significantly since 2014 measurements began. The index monitors the evolution of EU Member States in terms of digital competitiveness, measuring their progress in five dimensions: connectivity, human capital, use of internet services, integration of digital technology and digital public services.¹ Slovenia ranks slightly below the EU average in terms of the digital transformation of the economy and society, lagging behind in four of the five index components, the most in the *use of internet services* (23rd place in 2017). Throughout this period, the internet has been relatively widely used for simpler services (news, music, games, videos, etc.) but considerably less than generally in the EU for more advanced services such as e-banking and online shopping. In the last few years, social networks have also been used significantly less than in the EU. The *integration of digital technology* is the only index component where Slovenia has made visible progress in the last few years and exceeded the EU average (7th place). It ranks above or close to

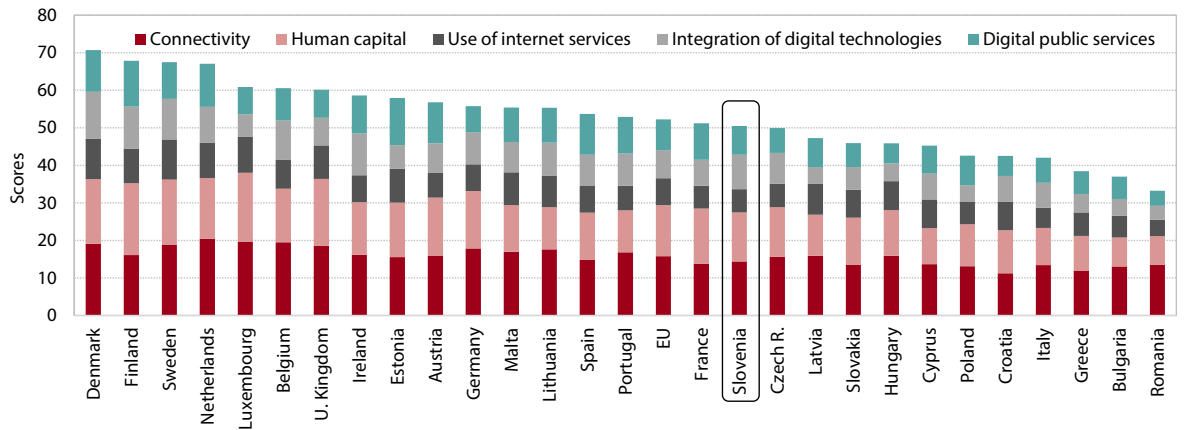
the EU average on most business digitisation and e-commerce indicators. Since 2015 – when e-invoicing became mandatory for all suppliers of budgetary users – a rapid introduction of e-invoices in a standard format stands out in particular in this regard. In *connectivity*, a slow transition to mobile and fast broadband has been observed; the coverage of the latter is good, but prices remain relatively high. In the *human capital* dimension, Slovenia lags slightly behind the EU in the percentage of internet users and in basic digital skills. The shares of ICT specialists in the workforce and of science, technology, engineering and mathematics graduates, the two indicators of advanced digital skills, are similar to those in the EU overall. In *digital public services* Slovenia lags behind the EU average particularly due to its smaller share of population interacting with public administration completely by electronic means.² At the same time, it ranks around the EU average on most indicators of the supply of e-government services, where of late considerable progress has been made particularly with regard to open data³ and the extent to which administrative procedures related to important life events can be performed completely online.

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

	2014	2015	2016	2017	SDS 2030 target
Digital Economy and Society Index	17	18	18	17	< or = 9
Connectivity	15	18	18	19	< or = 9
Human capital	14	15	15	14	< or = 9
Use of internet services	19	16	24	23	< or = 9
Integration of digital technology	18	19	13	7	< or = 9
Digital public services	17	18	19	16	< or = 9

Source: European Commission (Digital Single Market), 2017.
Note: Index calculations for individual years are based on data for the preceding year.

Figure: Digital Economy and Society Index (DESI) and its components, 2017



Source: European Commission (Digital Single Market), 2017.

¹ The connectivity dimension includes fixed broadband, mobile broadband, broadband speed and prices. In human capital, the index measures the basic and advanced digital skills of the population and their use of the internet. The use of internet dimension comprises indicators of internet use by type of use (content, communication and transactions). The dimension of integration of digital technologies is divided into two sub-areas: business digitisation and e-commerce. The dimension of digital public services measures the availability and use of various e-government services.
² Since 2014, the gap with the EU average in the share of population (aged 16–74) returning completed forms to public authorities electronically has even been widening.
³ Data anyone is free to use, reuse and redistribute without limitation or copyright restrictions. They enable further connectivity of data and new knowledge creation and increase the efficiency of single data entry.

Export market share

1.12

The export share of Slovenian goods on the world market is approaching the level of its pre-crisis peak. The presence of Slovenian goods on foreign markets peaked in 2007, when Slovenia satisfied approximately 0.2% of global demand for goods. In 2008–2012, however, Slovenia was one of the EU countries with the largest market share declines on the global market,¹ which was also partly due to the regional orientation of its exports.² Since 2013 Slovenia's market share has again been rising; it has already exceeded pre-crisis levels in the EU and most main trading partners, while being still somewhat lower on the global market. In 2017 the positive trends continued. Market share in the EU, where Slovenia exports around three-quarters of its goods, grew by 5.1% (3.1% in 2016). The greatest contribution to export market share growth was made by exports to France. Among main trading partners outside the EU, market share increased in Switzerland, Turkey and the US and declined in countries of the former Yugoslavia and in Russia. According to preliminary data, Slovenia's total export market share on the global market rose by 7.4% in 2017 (8.0% in 2016).

Broken down by product groups, the market share of high-technology products rose the most over the

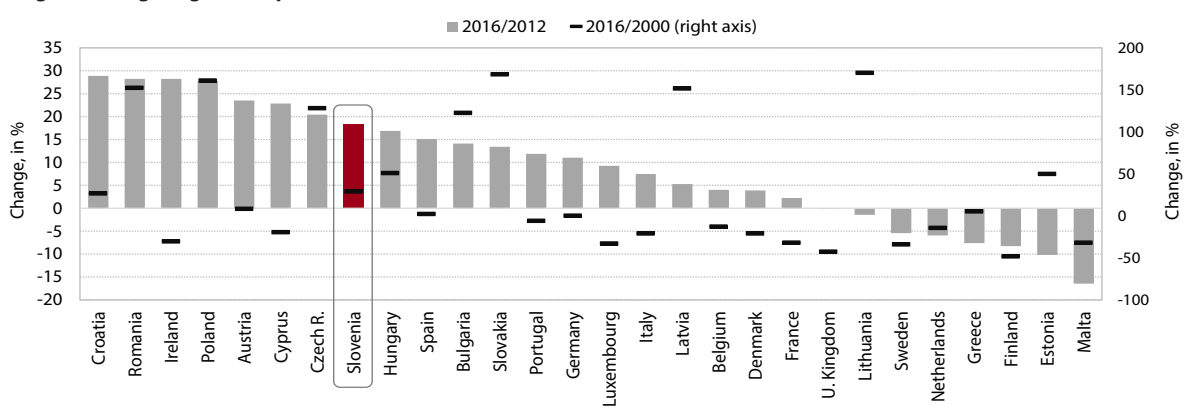
longer term. With an increase in the relative importance³ of high-technology products and a decline in the share of low-technology products, the product composition of Slovenia's exports came closer to that of the EU as a whole. In the period since 2000, the market share of natural resources has also been rising relatively rapidly (owing mainly to rising wood exports and international trade in oil),⁴ but Slovenia satisfies only a relatively small share of the world's natural-resource demand. Among manufactured goods, in 2017 the market share in the EU increased the most in road vehicles (by almost 15%), mainly on account of the start of production of a new car model last year. Without the contribution of road vehicles, manufacturing activities would have seen much lower market share growth in the EU in 2017,⁵ yet still higher than in 2016. In 2017 strong market share growth in the EU was also recorded for medicinal and pharmaceutical products and, to a lesser extent, electrical machinery and equipment. These being the three main product groups of Slovenian exports, product specialisation of exports⁶ increased further. The largest market share declines were recorded for iron and steel and non-ferrous metals, where Slovenia's (otherwise relatively high) export growth did not follow the strong increase in import demand.⁷

Table: Slovenia's export market share in the world and in main trading partners¹, in %

	2000	2007	2016	Average annual growth rates, %			
				2001–2007	2008–2012	2013–2016	2017*
World	0.138	0.195	0.178	5.2	–4.9	4.3	7.4
Germany	0.474	0.472	0.539	0.0	1.0	2.2	2.1
Italy	0.498	0.687	0.748	4.8	–1.8	4.8	8.8
Austria	0.959	1.328	1.437	4.9	–0.2	2.5	0.5
Croatia	8.725	8.267	10.533	–0.7	0.3	6.1	–2.1
France	0.204	0.287	0.233	6.0	–3.5	1.0	24.5
Russian Federation	0.564	0.473	0.457	–1.9	–3.5	4.7	–8.1
Serbia	N/A	5.447	4.669	N/A	–1.3	–1.8	–9.4

Sources: United Nations Comtrade, 2018, SI–STAT Data Portal – Economy, 2018; calculations by IMAD.
Notes: ¹ The share of Slovenia's goods exports in global goods exports/goods imports of a given trading partner. * Preliminary data.

Figure: Change in global export market shares, EU countries



¹ Among new EU Member States, only Croatia recorded a comparable decline (by almost a quarter) in market share in this period.
² Slovenia's goods exports are more oriented towards markets that have been recovering relatively slowly since the crisis, particularly those of the EU and the former Yugoslavia.
³ Measured by the increase in relative market share on the world market, i.e. market share of an individual product group divided by the country's total market share on the world market.
⁴ Re-exports.
⁵ Instead of 6% (2.3% in 2016), 3.8% (3.2% in 2016).
⁶ In 2016 road vehicles, electrical machinery and equipment, and medicinal and pharmaceutical products together accounted for 35% of Slovenia's goods exports on the global market (against 28% in 2000). Their share is also above average with regard to the composition of EU exports (25% in 2016).
⁷ The strong nominal growth was probably also partly due to stronger growth in metal prices.

Unit labour costs

1.13

Slovenia has been gradually closing the competitiveness gap with the EU that opened in the period of the crisis. Under the impact of strong wage growth (in 2008 and 2010¹) and a decline in productivity (2009), Slovenia saw a significant deterioration in its cost competitiveness relative to the EU during the crisis. This gap has since mostly been narrowing, in 2012 and 2013 solely on account of labour market adjustment (a decline in compensation of employees). In 2017 developments were much more favourable, with the cost competitiveness of the Slovenian economy improving further as a result of stronger growth in productivity, which outpaced the growth of wages. In the EU, average unit labour costs remained unchanged in 2017 for the second consecutive year, albeit with significant differences between Member States (in terms of both level and dynamics). A significant increase in unit labour costs is mainly recorded for new Member States, where unit labour costs were previously among the lowest.

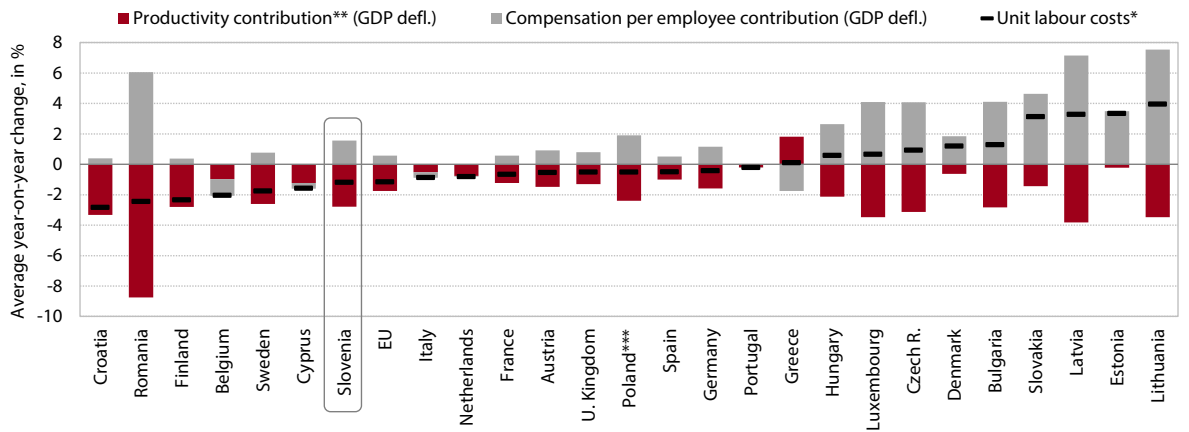
In the tradable sector, unit labour costs are declining at a faster pace than in the non-tradable sector, which is also a consequence of labour market adjustments, but in the future it will be crucial to accelerate productivity growth. The decline in unit labour costs has a favourable impact on competitiveness particularly in the tradable sector, but also – indirectly – in the non-tradable sector (for example through lower prices of services). Unit labour costs in Slovenia's non-tradable sector still exceed their pre-crisis level (by 4.7%), while in the tradable sector their movements have been more favourable (a decline of 1.4% on 2008), given that in manufacturing and traditional market services (accommodation and food service activities, trade, and transportation), compensation per employee has been rising more slowly than productivity since the crisis. Although the growth of tradable sector productivity strengthened in 2017 (3.8%), it is still lower than the long-term average before the crisis (5.2%). Amid the expected upward pressures on wages, a further strengthening of productivity growth will be crucial to maintain the competitive position in the future.

Table: Unit labour costs in Slovenia and the EU

	Average annual growth (%)	2000–2008	2009–2017	2010	2011	2012	2013	2014	2015	2016	2017
Slovenia	Total	–0.1	0.1	1.6	–1.9	0.3	–1.1	–2.0	–0.6	0.7	–1.4
	Tradable sector	–0.7	–0.1	0.8	–3.7	1.1	–0.8	–2.6	–0.8	–0.2	–2.6
	Non-tradable sector	0.5	0.5	3.3	0.2	0.2	–0.4	–1.5	–0.4	1.4	–0.8
EU	Total	–0.4	0.0	1.0	–0.9	0.5	–0.2	–0.5	–1.0	0.0	–0.2
	Tradable sector	–0.7	–0.3	–2.1	–1.0	–0.8	–0.2	–0.8	–2.0	–0.5	–1.0
	Non-tradable sector	–0.1	0.4	0.6	–0.3	0.1	–0.1	–0.3	–0.1	0.5	0.5

Source: Eurostat Portal Page – Economy and Finance, 2018; calculations by IMAD.

Figure: Unit labour costs in the tradable sector, EU Member States¹, change in 2015–2017



Source: Eurostat Portal Page – Economy and Finance, 2018; calculations by IMAD.
Notes: ¹ Excluding Malta (data not available) and Ireland (which was significantly affected by certain one-off factors during this period). The EU average also includes Ireland. * A decline in the value indicates improvement in competitiveness and vice versa. ** The negative sign means productivity growth. *** Data for Poland are for 2015–2016.

¹ In 2008 wage growth was a consequence of the adjustment of wages to past high inflation and productivity and the elimination of wage disparities in the public sector; in 2010 it was boosted by the increase in the minimum wage.

Exports of high-technology goods and knowledge-intensive services

1.14

The technological intensity of goods exports is rising. The share of high-technology products in total goods exports expanded particularly in the first years of the crisis, with the shares of other, less competitive, industries contracting more strongly. Over the last few years it has stabilised at around 20%, Slovenia thus exceeding the EU average.¹ Particularly pharmaceutical exports increased in the first years of the crisis, but in 2013 their growth came to a halt due to the exchange rate movements and prices on some of the main markets (such as Russia). High-technology exports have otherwise expanded in absolute terms throughout the period analysed, particularly exports of electronic and telecommunication equipment and, in 2016, aircraft components. Exports of medium-technology products remain the highest, particularly of vehicles and machinery.

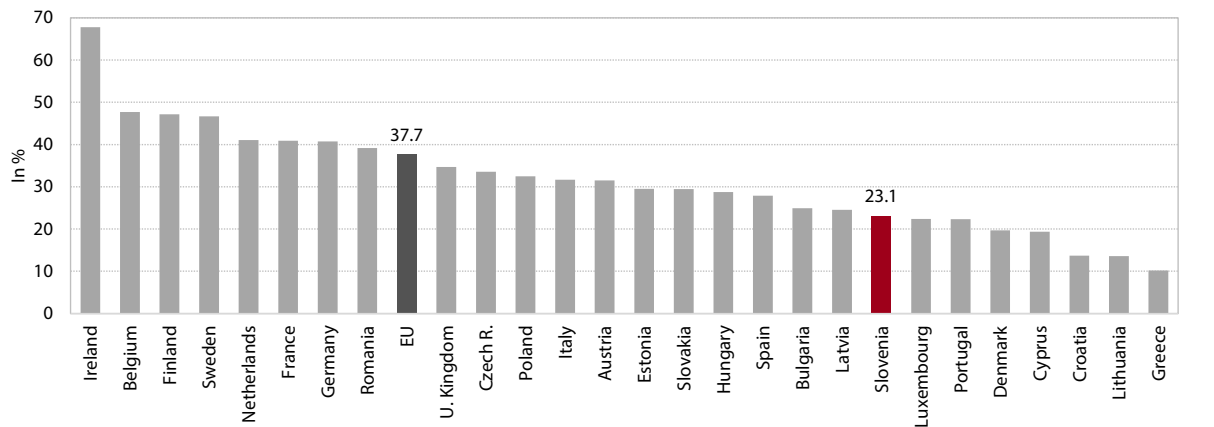
Despite the stronger export orientation of knowledge-intensive non-financial market services,² their share in total exports of services remains among the lowest in the EU. Despite an increase in the share of knowledge-intensive services in total exports of services in recent years (to 23.1% in 2016), Slovenia's gap with the EU average (37.7%) remained relatively wide in 2010–2016, at over 12 pps. Most sectors of knowledge-intensive services lagged behind the EU average, particularly computer services (around 7 pps). In the EU, exports of computer and information services rose the most during this period, affected primarily by strong growth in exports of computer services (around 20% per year on average) by Eastern European countries which joined the EU in 2004. In Slovenia, meanwhile, particularly telecommunication services achieved a higher share than in the EU, but in the three years to 2016, the share of these services in total exports of services declined both in Slovenia and in other EU Member States.

Table: Structure of goods exports by factor intensity, Slovenia and the EU

		2000	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016
Natural resources	Slovenia	5.3	5.3	6.1	5.6	6.2	6.3	5.7	6.1	6.3	6.8	6.4
	EU	7.9	7.9	8.9	9.0	9.3	9.4	9.4	9.7	9.3	9.1	8.8
Resource-intensive goods	Slovenia	15.2	13.1	13.6	14.1	14.9	15.6	16.4	16.7	16.6	15.5	14.9
	EU	21.6	20.9	21.7	21.3	23.3	25.0	25.3	24.9	24.3	22.9	21.9
Low-technology goods	Slovenia	27.1	23.4	20.8	18.4	18.5	18.8	18.1	17.6	18.0	17.9	18.0
	EU	21.1	19.1	17.3	16.7	16.1	15.7	15.2	15.2	15.5	15.5	15.7
Medium-technology goods	Slovenia	38.1	41.8	41.0	40.7	38.9	37.0	36.4	36.0	36.7	37.3	38.4
	EU	27.7	30.1	30.8	29.5	29.1	29.3	28.8	29.1	30.0	30.8	31.5
High-technology goods	Slovenia	13.1	13.7	16.2	18.5	18.5	18.3	19.4	20.0	19.5	19.7	19.5
	EU	17.6	17.7	16.6	18.4	17.5	16.3	15.9	16.0	16.1	17.0	17.5

Sources: Comtrade UN, SURS, 2018; calculations by IMAD.
Note: The classification of products into individual groups is based on UN methodology (Lall). As the classification does not include all products, 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, 2016



Source: Eurostat Portal Page – Economy and Finance, 2018; calculations by IMAD.
Note: Exports of knowledge-intensive non-financial market services are calculated as the sum of exports of telecommunication, computer and information services (SI) and other business services (SJ).

¹ According to UN methodology (Lall). The analysis is based on UN methodology, which enables a division of products based on their technological intensity; Eurostat's methodology is much narrower, as it only includes exports of individual high-technology products of the highest R&D intensity. According to Eurostat's methodology, the figures for Slovenia are considerably lower, showing that high-technology exports reached only 5.7% in 2015 (against 11.0% in the EU as a whole).
² According to the OECD definition, these include information and communication activities (J) and professional, scientific and technical activities (M) (OECD Science, Technology and Industry Scoreboard 2013, 2013).

Foreign direct investment

1.15

Since 2014 inward FDI flows have been rising more rapidly (yet not faster than in most new EU Member States), while outward FDI remains modest. The increase in inward FDI is mainly 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 in Slovenia. According to the results of the SPIRIT surveys for 2014–2017, each year of this period more than 35% of companies with foreign equity were planning to expand in Slovenia, a trend that may be expected to continue in the future, given that 38.2% of companies surveyed are also planning to increase their activities in 2018. On the other hand, outward FDI has been rising only modestly since 2014, following a decline in 2010–2013. In 2017 its stock was still 7.6 pps lower than its 2009 peak. The inflows and outflows of equity capital both dropped significantly in 2017.

Slovenia remains among the EU countries with the lowest inward FDI stock as a share of GDP. By 2017, the stock of inward FDI as a percentage of GDP had increased to 30.8%, which is around 8 pps more than at the beginning of the crisis. Slovenia thus ranks among the new EU Member States with the largest increases in the stock of inward FDI since the beginning of the crisis; at the same time, however, it remains among the EU countries with the smallest stock of FDI as a share of GDP. A smaller share than in Slovenia is recorded only by France, Germany, Italy and Greece. Slovenia's outward FDI as a share of GDP dropped from the record 17.0% in 2009 to 13.5% in 2017. Among new EU Member States, Slovenia otherwise lags only behind Hungary and Estonia in this regard, but both these countries have significantly higher shares.

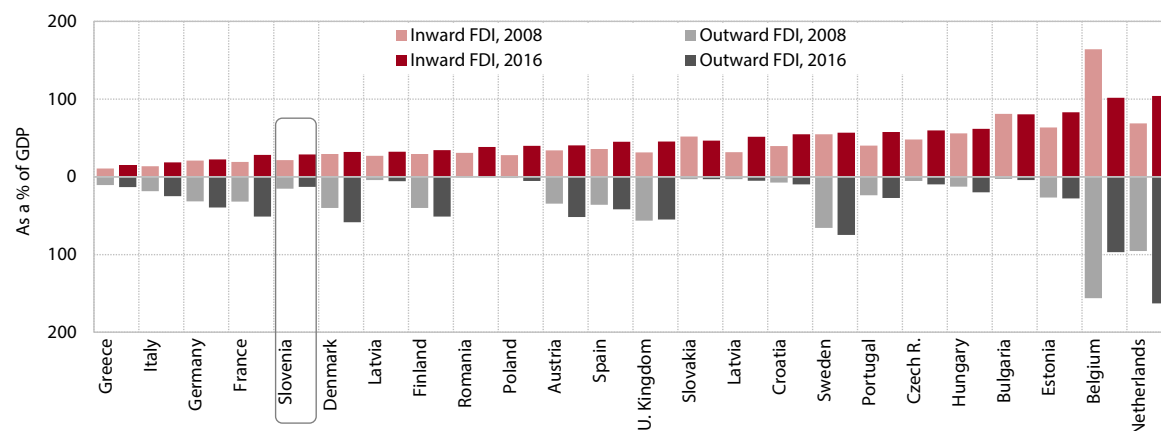
Table: Flows and stocks¹ of inward and outward FDI² in Slovenia

In EUR million	2000	2005	2008	2010	2011	2012	2013	2014	2015	2016	2017
Inward FDI											
Year-end stock	2,567	5,981	8,598	7,983	8,880	9,249	8,897	10,202	11,612	12,950	13,368
Outflow of equity capital ³	96.3	270.7	380.3	449.9	63.2	334.1	441.7	1,436.1	1,344.1	938.1	333.7
Stock as a % of GDP	11.9	20.5	22.7	22.0	24.1	25.7	24.8	27.3	30.0	30.4	30.8
Outward FDI											
Year-end stock	829	2,777	6,085	6,097	6,049	5,710	5,179	5,335	5,508	5,714	5,764
Outflow of equity capital ³	54.7	456.0	720.8	181.0	240.7	383.9	427.4	133.8	243.9	251.0	103.6
Stock as a % of GDP	3.8	9.5	16.0	16.8	16.4	15.9	14.4	14.3	14.2	14.1	13.5

Source: Bank of Slovenia, 2018.

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 EUR 8,926 million according to the new methodology and 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, 2017.

Note: For better illustration, the figure shows EU countries excluding Cyprus, Malta, Ireland and Luxembourg, which stand out in comparison with other countries owing to their very large FDI stocks.

R&D expenditure and the number of researchers1.16

R&D expenditure (as a percentage of GDP) had been rising until 2013, when it significantly exceeded the EU average. R&D expenditure first started to decline in the public sector, falling by 39.7% in real terms in 2012–2016. This indicates a significant divergence from the commitments of the Research and Innovation Strategy of Slovenia (RISS) for 2011–2020.¹ Business sector expenditure had been the main driver of R&D expenditure growth up to 2015, when this expenditure also started to decline. An important factor in financing R&D investment of the business sector, in addition to own funds,² was funds from the business sector abroad and the European Commission.³ The increase in the business sector's expenditure on R&D was also boosted by considerable R&D tax relief.⁴ The share of business sector expenditure in total R&D expenditure is high in Slovenia. In 2016 it was 69.2%, considerably higher than the average in the EU (2015: 55.3%). Despite the strong economic growth in the last few years, R&D expenditure shrank in Slovenia, unlike in some more developed EU Member States where the share of R&D expenditure

hovers around 3% of GDP or even higher (for example Sweden, Germany and Austria).

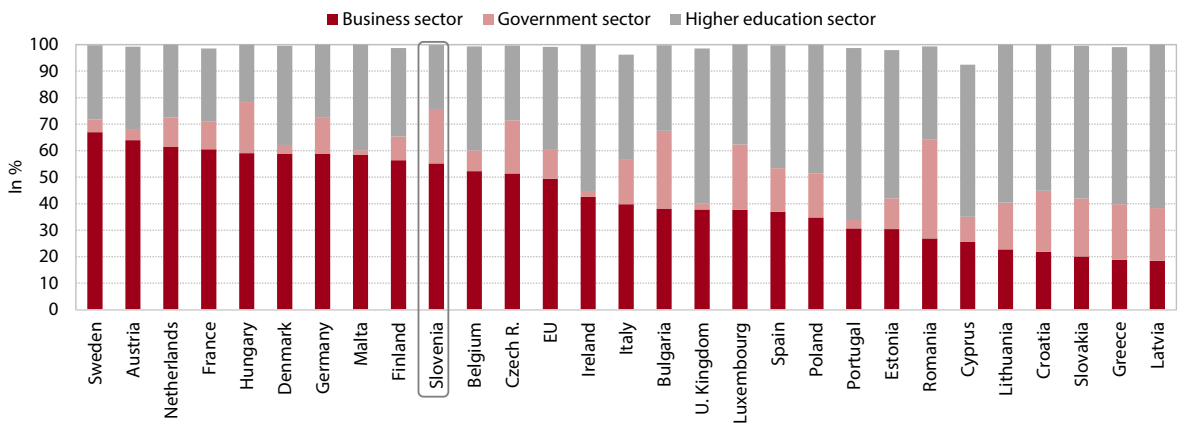
The number of researchers⁵ rose considerably in the last decade; most of them were employed in the business sector. Such movements are important for creating new knowledge, innovative products and services and enhancing the competitiveness of the economy. With the increase in business sector funding for R&D, the number of researchers almost doubled in the business sector in the last decade, to 4,500, in contrast to the public sector, where it rose only by around 50 (to approximately 3,600). The shortage of researchers in the latter will become particularly pronounced in the future, with the retirement of older researchers, and will be reflected in a lower level of breakthrough basic research, which is also the basis for business sector research. As in most other EU Member States, the bulk of researchers are employed in manufacturing. In services,⁶ which are characterised by lower R&D intensity, the overwhelming majority of researchers (over 90%) work in knowledge-intensive services.⁷

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

	2000	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016
Slovenia	1.36	1.41	1.63*	1.82	2.06	2.24*	2.57	2.58	2.37	2.20	2.01
EU	1.77	1.74	1.84	1.93	1.93	1.97	2.01	2.02	2.03	2.04	2.03

Sources: Eurostat Portal Page – Science and Technology – Research and Development, 2018; SI-STAT Data Portal, 2018.
Notes: Data for the EU are Eurostat estimates. * The breaks in the time series in 2008 and 2011 were due to the higher number of reporting units in the business sector. In 2011 this change contributed to an increase in R&D expenditure of 0.21% of GDP (see Development Report 2013, p. 132).

Figure: The structure of researchers by sector of employment, 2016, as a % of all researchers



Sources: Eurostat Portal Page – Science and Technology – Research and Development, 2018; SI-STAT data portal, 2018.
Note: The difference to 100% is the private non-profit sector; data for France and Poland refer to 2015.

¹ The target set at the adoption of the RISS 2011–2020 was to increase public R&D expenditure gradually to 1.2% of GDP, but this target was subsequently lowered to 1.0% of GDP. In 2016 public expenditure on R&D reached only 0.41% of GDP.
² Individual sectors are mainly financing their R&D on their own, which is not conducive to cooperation and transfer of research results between sectors (see Development Report 2017, p. 81).
³ In 2010–2013 centres of excellence and competence and development centres were also financed by cohesion funds. To obtain these funds, co-funding by enterprises was required.
⁴ Since 2012 the tax relief has totalled 100% of all funds invested in R&D. In 2016 the amount of tax relief claimed fell only slightly, but the number of companies claiming tax relief was significantly lower (by 16.8%).
⁵ Expressed on a full-time equivalent basis.
⁶ Activities of the Standard Classification of activities (SKD): G–N.
⁷ These include information and communication activities (J) and professional, scientific and technical activities (M).

Innovation activity of enterprises

1.17

The innovation activity of enterprises did not increase between 2010 and 2014, meaning that Slovenia's gap with the EU average widened further. In 2012–2014, 45.9% of enterprises were innovation-active in Slovenia, which is slightly less than in the previous three-year period (2010–2012) for which comparable data are available.¹ In the EU, minimal progress was made, but the most innovation-active Member States increased their lead. The share of large innovation-active enterprises (IAEs) in Slovenia exceeds the EU average, while the share of small IAEs lags behind. Enterprises in manufacturing are traditionally more innovation-active than those in the service sector, but both lag behind those in the best performing countries by 10 to 20 pps, which is reducing their competitiveness. In those EU Member States where the share of IAEs decreased in the in 2012–2014 period, the gap between the manufacturing and service sectors, similarly to Slovenia, widened further. Among service activities in Slovenia, the share of IAEs is highest in computer services, at 72.5%; this is close to the EU average but significantly lower than in leading Member States (over 85%). The share of IAEs in all knowledge-intensive services

together⁵ amounts to 55.6% in Slovenia. These services (e.g. ICT services and consultancy services) significantly contribute to the strengthening of innovation capacity in other sectors, thus improving the competitiveness of the entire economy.

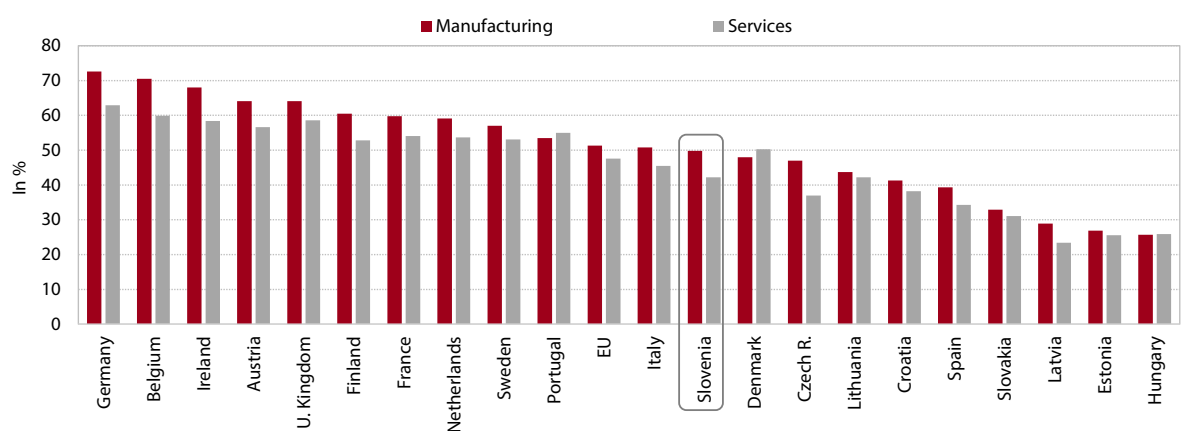
The share of IAEs that introduced eco-innovations³ in 2012–2014 was one of the highest in the EU. It totalled over 60%, being higher only in Germany and Portugal. The greatest beneficiaries of eco-innovations were enterprises themselves⁴ rather than the end users of their products.⁵ This means that business interest is becoming an increasingly important incentive for introducing eco-innovations, unlike in the past, when eco-innovations were assumed to be beneficial mainly for the environment (Hojnik, 2016). As in leading EU Member States, eco-innovations mostly benefited enterprises by reducing energy consumption or CO₂ emissions. The main motivations for introducing eco-innovations cited by Slovenian IAEs include (1) improved corporate image, (2) excessive energy, water or raw materials costs, and (3) environmental regulations, a list similar to that given by enterprises in leading countries of the EU.

Table: Innovation-active enterprises by enterprise size, as a % of all enterprises

		Total	Small	Medium-sized	Large	Manufacturing	Services
2010—2012	Slovenia	46.5	40.5	62.0	86.9	49.9	43.8
	EU	48.9	45.2	60.5	76.4	51.8	46.8
2012—2014	Slovenia	45.9	39.7	63.1	87.2	49.8	42.2
	EU*	49.1	45.0	61.5	78.1	51.3	47.6

Sources: Eurostat Portal Page – Science and Technology – Community Innovation Survey, 2017; SURS, 2017; calculations by IMAD.
Note: * Data for manufacturing for the EU average excluding Malta; calculations by IMAD.

Figure: Share of innovation-active enterprises in manufacturing* and services in 2012–2014, as a % of all enterprises



Source: Eurostat Portal Page – Science and Technology – Community Innovation Survey, 2017; calculations by IMAD.
Note: * Data for manufacturing for the EU average excluding Malta; calculations by IMAD.

¹ A survey on innovation activity that includes a wider set of activities was carried out for only the second time, which should be taken into account in comparing and interpreting data for the period before 2010 (see Development Report 2015, p. 122).
² These include information and communication activities (J) and professional, scientific and technical activities (M). Enterprises from M activities are significantly less innovation-active than those from J activities.
³ The question about eco-innovations was included for the first time in the latest statistical survey on innovation activity (for 2012–2014). As data are not available for all Member States, there is no figure for the EU average.
⁴ The effects of eco-innovations on enterprises include cost savings, enhanced firm reputation and brand recognition, entry to new (foreign) markets, and an increase in revenues, depending on the type of eco-innovation introduced (Hojnik, 2016).
⁵ All eco-innovations in fact have a positive impact on the environment, regardless of who is the direct beneficiary of their effects.

Intellectual property

1.18

Slovenia has made great progress in terms of EU trademarks and service marks since the beginning of the crisis but its gap with the EU average with regard to patents has widened. However, it remains the most successful country in Central Europe with regard to the level of patenting activity, which is measured by the number of first¹ patent applications per million inhabitants. This can to some extent be explained by the relatively great importance of the pharmaceutical sector² in the structure of Slovenia's economy. Specifically, technologies³ in individual sectors are not equally patentable. According to the international WIPO methodology, the most patentable technological fields are medical technology, digital communications, computer technology, and technology related to electrical energy, machinery and apparatus.⁴ More than half of the patent applications filed with the EPO in 2010–2017 derived from these technological fields, and most of them were filed by large enterprises

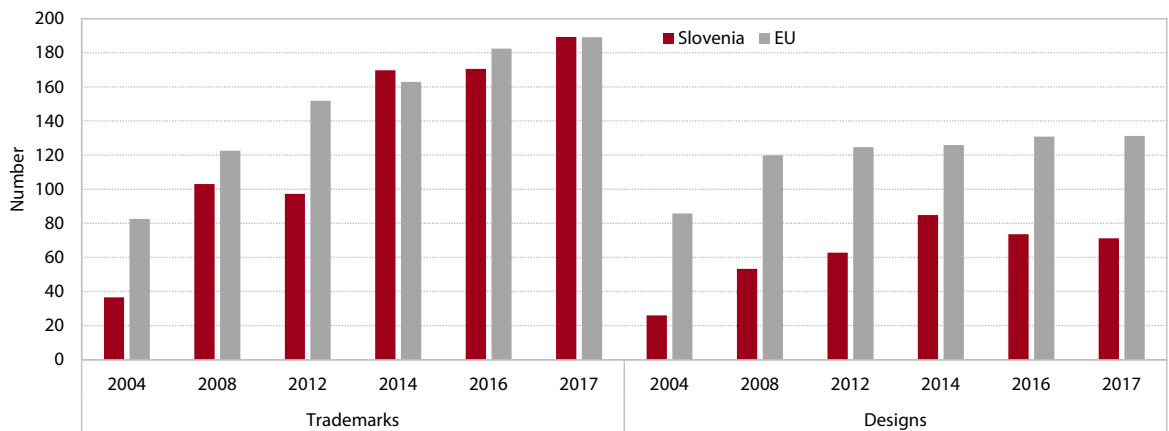
(EPO Annual Report 2017, 2018). In EU trademark⁵ legal protection, the number of Slovenia's applications per million inhabitants has been rising faster than in the EU in recent years and Slovenia reached the EU average in 2017. In the number of Community designs⁶ per million inhabitants, Slovenia's gap with the EU average remains wide, indicating insufficient use of the potential of creative industries to enhance the competitiveness of products and services. EU trademark and Community design protection, which can be obtained for the territory of the entire EU by filing a single application with the EU Intellectual Property Office (EUIPO), is becoming an increasingly attractive option owing partly to both the lower costs involved than in the case of patents and the much shorter registration procedure. These types of legal protection for intellectual property rights are therefore interesting for enterprises of all sectors, although they are particularly suitable for service activities and small and micro enterprises.

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

	2000	2005	2008	2010	2011	2012	2013**	2014**	2015***	2016***	2017***
Slovenia	25	54	69	52	55	62	62	66	57	55	46
EU	106	116	114	113	114	113	112	112	133	132	135

Sources: Eurostat Portal Page – Science and Technology – Patent Statistics, 2018; EPO Annual Report – statistics 2017, 2018.
Notes: * Data for 2015–2017 relate to patent applications filed with the EPO in the current year and are not necessarily first filings on a global scale, (EPO Annual Report – statistics 2017, 2018). ** Eurostat estimate. *** Provisional data.

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



Source: EUIPO Web Page, 2018; calculations by IMAD.

¹ The data on patent applications for the last three years are taken from the EPO Annual Report, which means that they pertain to the current year. These are not necessarily the first applications filed anywhere in the world, which refer to the year closest to the date of invention and are released by Eurostat (see Slovenian Economic Mirror 2/2009).
² According to the international patent classification, the technology section "Human Necessities" includes medical and veterinary science, which can be linked to the pharmaceutical industry.
³ In patents, it is actually about the exclusive legal protection of technologies (not sectors) and technological procedures and processes in which products are made. The international classification of patents is therefore based on the classification of technologies (Schmoch, 2008).
⁴ Among the ten most important technological fields, technologies related to pharmaceuticals rank 8th.
⁵ A trademark or service mark is any sign, or any combination of signs, protected by law, capable of distinguishing identical or similar goods or services, and of being graphically represented. A trademark is valid for ten years from the date of filing and may be renewed (SIPO Annual Report 2011, 2013).
⁶ A design is defined as the external appearance of a product (design) protected by the law. A product qualifies for protection if it is new and has an individual character. Design protection lasts for five years and may be renewed (SIPO Annual Report 2011, 2013).

Corporate environmental responsibility

1.19

Corporate environmental responsibility refers to appropriate environmental management that organisations can demonstrate by obtaining various environmental certifications. Rising environmental awareness increases the need for companies and other organisations to demonstrate to various stakeholders that they effectively manage the impacts of their activity on the environment. They are therefore increasingly seeking environmental certification, for example the international ISO 14001 certificate, or joining the EU Eco-Management and Audit Scheme (EMAS).¹ Environmental certificates under these two schemes are focused on impacts arising from an organisation's activity, while for products or services with a reduced environmental impact, an ecolabel (such as the "EU Flower") can be obtained.² Environmental certificates are important instruments in supporting sustainable production and consumption and sustainable industrial policy.

The number of environmental certificates per million inhabitants in Slovenia is similar to the EU average, the most widely used certificate being ISO 14001; the prevalence of the EU Ecolabel (EU Flower) is greater

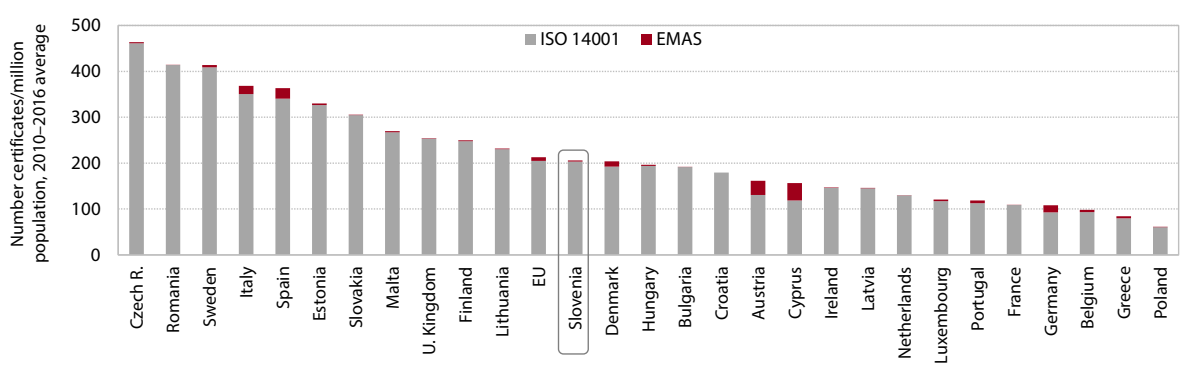
than in the EU as a whole. Until 2005 the number of ISO 14001 certificates per million inhabitants had been rising faster than the EU average; until 2011 it was higher than in the EU as a whole, then hovered around the EU average in subsequent years. Companies' participation in EMAS and the number of EU Flower licences awarded are somewhat lower both in Slovenia and in the EU generally. In Slovenia, participation in EMAS increased only in 2015, whereby Slovenia moved into the upper half of EU Member States after previously recording the greatest gap on this indicator. Some EU Member States, in line with EC regulations,³ use measures facilitating organisations to register or remain registered with the scheme or offer incentives to registered organisations able to prove that they have improved their environmental performance. The EU Ecolabel (EU Flower) is more widespread in Slovenia than EMAS, the number of Ecolabel licences awarded exceeding the EU average.⁴ In addition to manufacturing (particularly the paper and chemical industries), the EU Flower is also widespread in tourist accommodation (in which sector the number of licence holders is also high in other Member States, for example France, Italy and Spain).

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

		2000	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016
ISO 14001	Slovenia	44.3	208.8	220.9	191.9	194.9	201.9	200.0	225.9	206.2	173.1	223.3
	EU	20.4	89.5	143.1	161.2	189.6	186.6	205.0	210.5	213.7	212.4	216.6
EMAS	Slovenia	0.0	0.5	0.5	1.0	1.5	1.5	1.5	0.5	0.5	4.8	5.3
	EU	7.0	6.2	7.9	8.5	8.8	8.8	8.8	8.1	8.0	7.7	7.6
EU Flower	Slovenia	N/A	0.0	1.5	1.5	1.5	3.4	4.9	7.3	7.3	7.3	7.8
	EU	0.1	0.6	1.4	1.9	2.1	2.0	3.0	4.3	3.8	4.0	3.9

Sources: Eurostat, ISO, ARSO, European EMAS Helpdesk, 2017; 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 can be obtained at the European EMAS Helpdesk and at <http://ec.europa.eu/environment/ecolabel/news-alerts.html>; N/A – data not available.

Figure: Number of environmental certificates (ISO 14001 and EMAS) in Slovenia and EU-28 Member States, 2010–2016 average



Sources: Eurostat, ISO, 2017; calculations by IMAD.
Note: As data fluctuate significantly over the short term, the countries are arranged according to the average number in 2010–2016.

¹ The international standard ISO 14001 (an environmental management system) was developed by the International Organisation for Standardization (ISO) in 1996. EMAS (the Eco Management and Audit Scheme), an environmental management instrument of the EU, was introduced in 1995. Both have undergone several revisions to adapt to changes in the treatment of the environmental performance of organisations. The revisions also extended the scope of EMAS. It initially restricted participation to industrial companies in Europe; with the revision in 2001 it was extended to any public or private organisation, while the revision in 2010 opened it to non-European organisations or European organisations operating in non-European countries (<http://www.arso.gov.si>; <http://www.jrconsultants.co.uk/iso-14001-history/>; <http://www.greenelement.co.uk/blog/article/a-history-of-iso-14001/>).

² The EU Ecolabel (EU Flower) is an environmental protection instrument introduced by the EU in 1992. It commits the holder to adhere, to the greatest possible extent, to the sustainable environmental protection strategy over the entire life-cycle of its product or service (www.arso.gov.si).

³ Regulation (EC), No. 1221/2009.

⁴ Data for EU-27.

2 Lifelong learning

Knowledge and skills for a high quality of life and work

- 2.1 Share of the population with tertiary education ◆ SDS 2030 PERFORMANCE INDICATOR
- 2.2 Participation in lifelong learning ◆ SDS 2030 PERFORMANCE INDICATOR
- 2.3 Performance in reading, mathematics and science (PISA) ◆ SDS 2030 PERFORMANCE INDICATOR
- 2.4 Enrolment in upper secondary and tertiary education
- 2.5 Graduates from tertiary education
- 2.6 Education expenditure

Culture and language as main factors of national identity

- 2.7 Attending cultural events ◆ SDS 2030 PERFORMANCE INDICATOR
- 2.8 Share of cultural performances held abroad ◆ SDS 2030 PERFORMANCE INDICATOR

Share of the population with tertiary education2.1

The share of adults (25–64 years) with tertiary education is rising and equals the EU average. Its growth is related to the long-term trend of high participation of young people in tertiary education.¹ Such developments – which can be expected to continue in the future – are favourable, as a rise in the number of tertiary-educated persons tends to increase a country's human capital and boost innovation activity. In view of the ageing population and the expected increase in business sector demand for workforce with tertiary education, it will be vital to ensure a sufficient number of tertiary-educated adults. The share of women with tertiary education is much higher than that of men, the gap between the two groups being wider than for the EU as a whole. In 2008–2016 the share of tertiary-educated people rose the most in the young (25–34 years) and middle (35–44 years) age groups, where it exceeds the EU average. Differences also exist at the level of statistical regions, the share of tertiary-educated

adults being highest in Osrednjeslovenska (almost 40% in 2016) and lowest (half lower) in Zasavska. Since 2005 the share of tertiary-educated adults has been rising across all regions, while the disparities between regions have been declining.

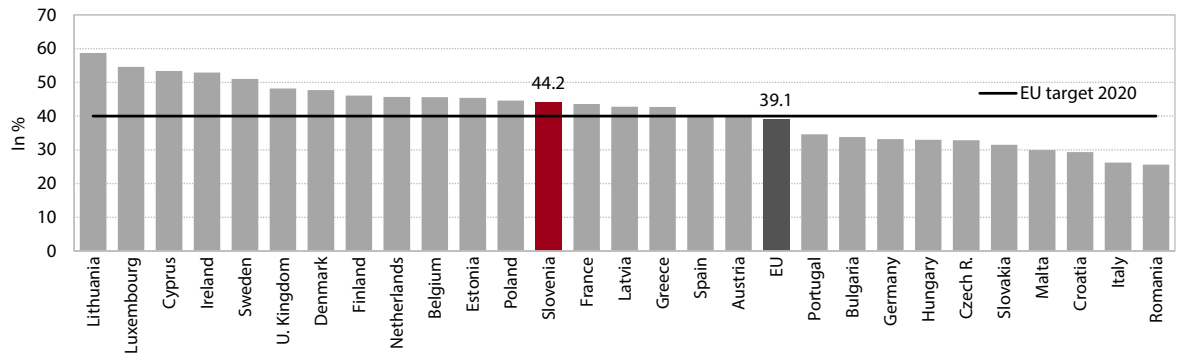
The share of tertiary-educated young people (30–34 years) is high. Having already been rising for several years, it totalled 44.2% in 2016, which is higher than the EU average (39.1%) and higher than the Europe 2020 Strategy target (40%). It is much higher for women than for men. The problem remains the inefficient use of tertiary education, which is reflected in skills mismatch, as tertiary education is not sufficiently linked to the business sector's needs. The efficiency of study is also low, the share of tertiary graduates in the 20–24 age group being low despite the high participation of young people in tertiary education. There is also room for improvement in the quality of tertiary education.²

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

	2005	2008	2009	2010	2011	2012	2013	2014	2015	2017	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	35.0
Men	17.6	19.0	19.0	19.5	20.3	21.1	22.7	23.4	24.0	24.3	
Women	22.8	26.4	27.9	28.1	30.1	32.0	33.3	34.1	36.7	37.6	
20–24 years	3.2	3.8	3.5	5.5	6.4	7.9	9.7	9.5	11.3	11.9	
25–34 years	24.7	30.0	30.4	31.3	33.8	35.3	37.4	38.0	40.8	43.0	
30–34 years	24.6	30.9	31.6	34.8	37.9	39.2	40.1	41.0	43.4	44.2	
55–64 years	16.3	16.1	16.7	16.3	16.4	17.2	18.3	17.9	18.9	19.1	
EU											
Total	22.5	24.2	25.1	25.9	26.8	27.7	28.6	29.3	30.1	30.7	
Men	22.7	23.8	24.4	25.1	25.8	26.5	27.1	27.9	28.4	28.9	
Women	22.3	24.7	25.8	26.7	27.7	28.9	30.0	30.7	31.8	32.5	
20–24 years	12.6	13.4	13.6	14.3	14.8	15.6	16.3	17.0	17.2	17.6	
25–34 years	28.3	29.2	29.9	30.9	32.3	33.3	34.4	35.5	36.4	37.2	
30–34 years	28.1	31.1	32.3	33.8	34.8	36.0	37.1	37.9	38.7	39.1	
55–64 years	16.8	17.0	17.5	18.1	18.7	19.1	19.7	20.3	20.9	21.3	

Source: Eurostat Portal Page – Population and social conditions – Education and training, 2018.

Figure: Share of the population aged 30–34 with tertiary education, 2016



Source: Eurostat Portal Page – Population and Social conditions, 2018.

¹ In 2015, 48.3% of young people (20–24 years) participated in tertiary education (EU: 32.1%).
² According to the PIAAC survey, the reading and mathematical skills of young people (20–24 years) with tertiary education or those enrolled in tertiary education are below the EU average.

Participation in lifelong learning

2.2

The participation rate for adults (aged 25–64) in lifelong learning¹ has been declining since 2011. In 2016, at 11.6%, it was higher than the EU average (10.8%), though lower than the objective of the strategic framework for European cooperation in education and training (Education and Training 2020/ET 2020), which is 15%, and the objective of the SDS 2030 (19%). Despite the end of the economic crisis and greater capability of companies and households to finance education, participation in lifelong learning has not yet started to increase, which reduces the possibilities of adults for successful inclusion in society. The low participation rates of low-educated people and older people with poor reading, mathematical and digital skills are particularly problematic.² Among statistical regions, Osrednjeslovenska and Koroška had the highest and the lowest participation rates in lifelong learning in 2016

(14.5% and 8.5%) respectively, though since 2009 the gap between the two has mostly been narrowing.

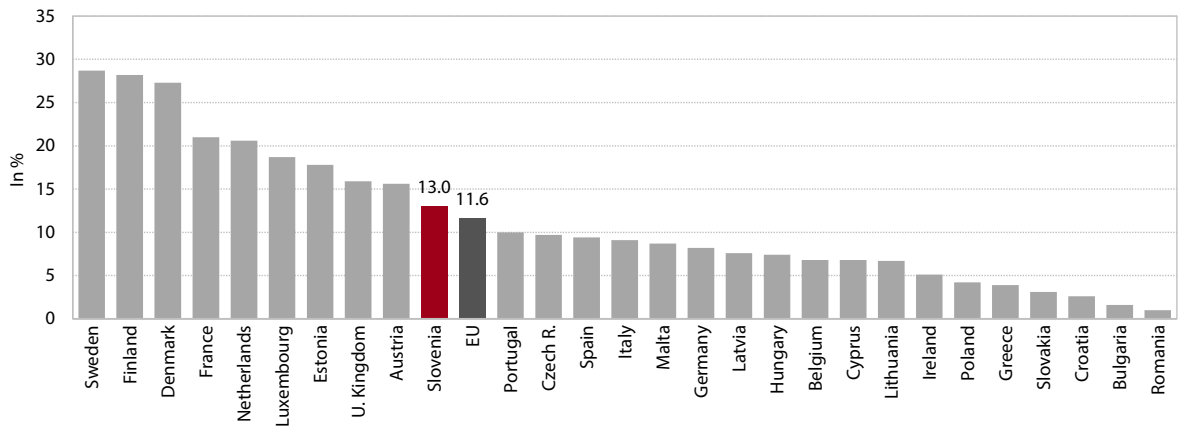
The participation of working-age population (25–64 years) in lifelong learning has also remained unchanged. Since 2014 it has been hovering around 13%; this is higher than the EU average yet significantly lower than before the crisis. In 2016 participation in lifelong learning was highest in education and lowest in construction. It is on average higher in those sectors that have larger shares of people with tertiary education. It is also higher in the public than in the private sector. In 2008–2016 participation in lifelong learning declined in most activities (particularly in information and communication activities), which may reduce the possibilities for workers to adapt to global trends and for companies to increase their competitiveness.

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

	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016	SDS 2030 target
Slovenia	15.3	14.3	14.8	16.4	16.0	13.8	12.5	12.1	11.9	11.6	19.0
EU	9.6	9.5	9.5	9.3	9.1	9.2	10.7	10.8	10.7	10.8	

Source: Eurostat Portal Page – Population and social conditions – Education and training, 2018.

Figure: Participation of employed persons aged 25–64 in lifelong learning, 2016



Source: Eurostat Portal Page – Population and social conditions – Education and training, 2018.

¹ Lifelong learning includes formal and non-formal education.
² According to the PIAAC survey, adults with lower education tend to have lower skills than those with upper secondary or tertiary education, and older adults (55–65 years) tend to have lower skills than young adults.

Performance in reading, mathematics and science (PISA)

2.3

The performance of Slovenian 15-year-olds in mathematics, science and reading literacy is good. According to PISA 2015,¹ they scored higher than the EU average in all three literacy types and rank in the upper quarter of EU Member States. 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 reading and science but is still below target in mathematics. While overall girls achieve better results in reading and science, boys score higher in mathematics. Between 2012 and 2015, Slovenian 15-year-olds improved their scores in mathematics and, in particular, reading, while their performance in science remained approximately the same.

The good results are related to educational (material and human) resources, an area where Slovenia has a favourable position on most indicators. Material

resources include textbooks, library materials and laboratory equipment. As regards human resources, there is no shortage of teachers in Slovenia, Slovenia's favourable position in this area being related to the number of certified teachers (i.e. teachers who have obtained a licence or passed a professional examination) and the pupil/teacher ratio. There is, however, still room for improvement in some indicators, such as class size, teachers' help with homework, equipment of schools with computers and participation of teachers in professional development programmes.

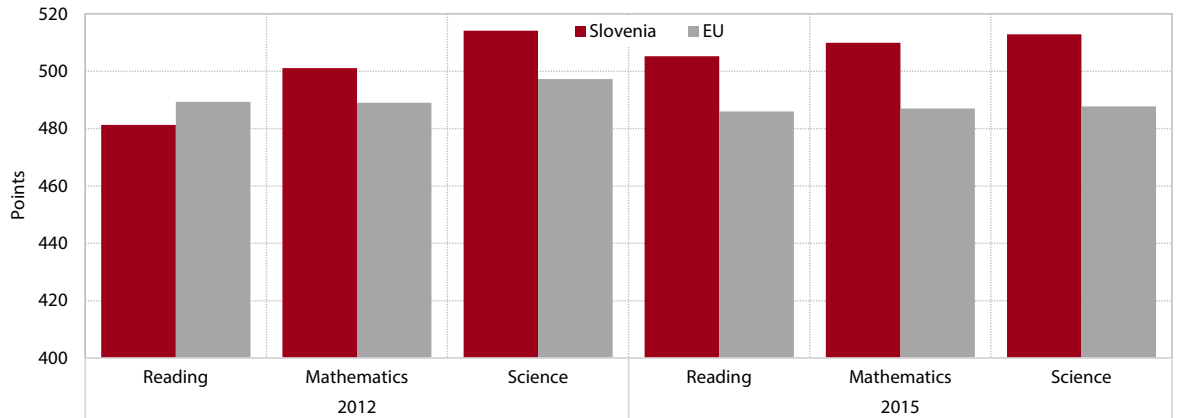
15-year-olds from lower socio-economic backgrounds and those from immigrant backgrounds tend to achieve worse results in mathematics, science and reading. Pupils from the highest socio-economic backgrounds perform the best and those from the lowest the worst, but the gap between the two groups narrowed between 2012² and 2015 and was smaller than the EU average for all three literacy types. Immigrant pupils achieve worse results in science literacy than their non-immigrant peers, the difference between them being greater than on average in the EU.³

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

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

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

Figure: Average performance in mathematics, science and reading of 15-year-olds (PISA), Slovenia and the EU*, 2012 and 2015, in points



Source: OECD, PISA 2015.
Note: * Non-weighted average.

¹ PISA (Programme for International Student Assessment) is an international survey of reading, mathematics and science 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 pupils' competencies that are needed in professional or private life and are important for individuals and society.
² For 2012 only data for mathematical literacy are available. For 2012 only data for mathematical literacy are available.
³ Data for mathematical and reading literacy are not available.

Enrolment in upper secondary and tertiary education 2.4

The number of young people enrolled in upper secondary education is falling, thus reducing the availability of future human capital. In the 2006/2007–2016/2017 period their number declined by approximately one-quarter for demographic reasons, which reduced the number of candidates for enrolment in tertiary education and entry to the labour market. Although those enrolled in vocational programmes represent a larger share in the structure of pupils in upper secondary education than on average in the EU, employers have difficulty finding appropriate workers, particularly those with vocational upper secondary education. A large share of young people (82.1%) are enrolled in educational programmes that enable direct enrolment in tertiary education, which – together with tuition-free full-time study at the first and second levels – makes it less likely that they will enter the labour market directly after completing the upper secondary level of education. The number of young people in vocational upper secondary education programmes declined, although their share increased. Until the 2016/2017 school year, there was no apprenticeship system in Slovenia (the type of training programme that strengthens the links between school and employers), unlike in the EU as a whole, where almost a quarter of all

pupils enrolled in vocational education are engaged in apprenticeship programmes.¹ In 2006/2007–2016/2017, enrolment in general educational programmes declined even more than that in vocational programmes.

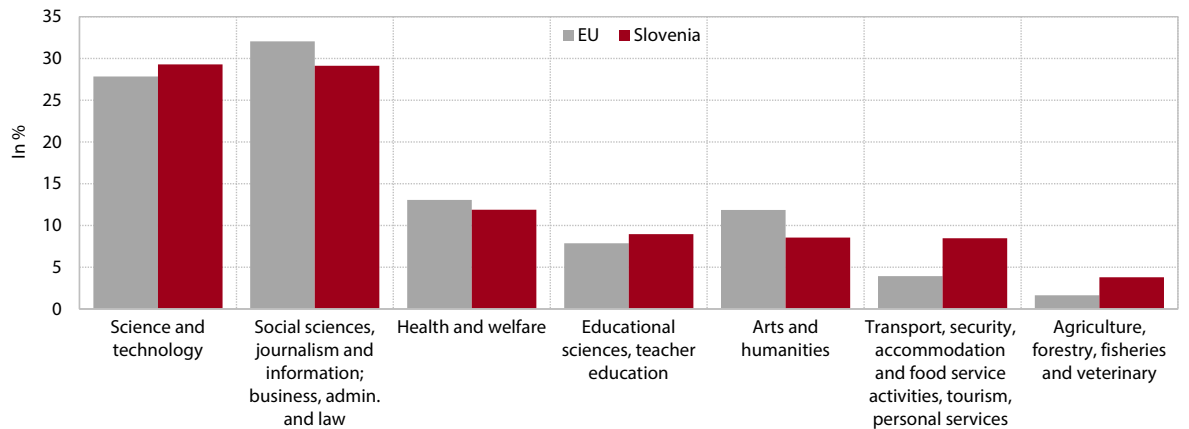
Enrolment in tertiary education has also been falling for several years. The number of students in tertiary education has been declining since the 2010/2011 academic year. In 2009/2010–2016/2017 it dropped by almost a third, the most in social sciences, which also recorded a decline in their share. The shares of those enrolled in health and welfare and science and technology courses rose the most, though – owing to a falling number of students enrolled – not enough to meet the high business sector demand (see Indicator 2.5). Furthermore, the lower enrolment in health and welfare courses compared with the respective share of graduates is also problematic from the aspect of meeting the needs of an ageing society. Enrolment in tertiary education is still insufficiently matched with business sector needs. This is a consequence of there being no system for monitoring the employability of graduates and for long-term forecasting of labour market needs, which makes it difficult to plan enrolment based on business sector demand.

Table: Structure of young people¹ enrolled in upper secondary education by field of education, in %

		2005	2008	2010	2011	2012	2013	2014	2015
Slovenia	Total	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
	Vocational programmes	60.9	58.9	58.8	59.3	59.9	60.3	61.6	62.5
EU	Total	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
	Vocational programmes	53.3	49.5	49.2	50.5	49.6	45.3	44.4	44.7

Sources: Eurostat, SURS, 2017; calculations by IMAD.
Note: ¹ Full-time students.

Figure: Structure of students enrolled in tertiary education by field of education, Slovenia and the EU*, 2015



Sources: Eurostat, SURS, 2017; calculations by IMAD.
Note: * Excluding Ireland, Greece and Italy.

¹ Vocational programmes that combine school-based and work-based learning are called apprenticeship, dual and alternating models of education.

Graduates from tertiary education

2.5

The number of tertiary-level graduates is declining owing to demographic trends. It has been falling ever since 2013. Taking into account demographic projections and hence a decline in the number of students (see Indicator 2.4), similar trends are expected to continue in the future. The only exception was 2016, when the number of graduates increased significantly in all fields, this being the last year for completing studies under the pre-Bologna study programmes.¹ In the structure of graduates, the share of graduates in social sciences dropped substantially in 2005–2016; given the falling enrolment rates, it is set to decline even more (Indicator 2.4). The share of science and technology graduates expanded the most, which is a consequence of increased promotion of enrolment in such courses. From the perspective of meeting the needs of an ageing society, the falling number of graduates in health and welfare² poses a problem. These account for a much smaller share in the structure of graduates than on average in the EU. The possibilities for ensuring a sufficient number

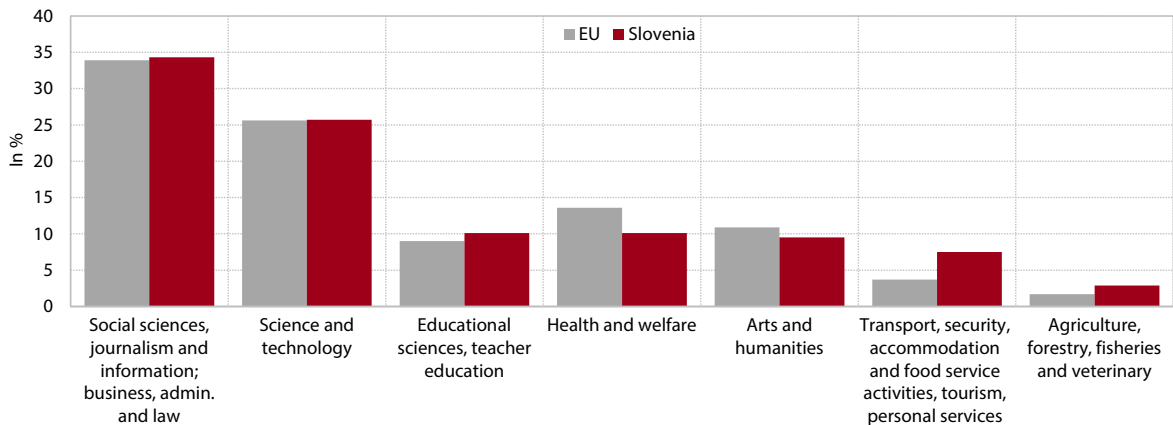
of persons with tertiary education are also restricted by the low efficiency of study. In the 2016/2017 academic year, the rate of transition into the second year of study was only 57.0%. The relationship between the number of graduates and the number of students enrolled (new entrants) would also improve with a higher efficiency of study. Slovenia has had 0.2 graduates per one new entrant in the last few years, except in 2016, the last year for completing the pre-Bologna study programmes, when the ratio rose to 0.4. The international exchange of students is also modest. The percentage of Slovenian students studying abroad (which should provide them with knowledge and skills that cannot be acquired at home) is lower than the EU-22 average.³ The share of students from abroad studying in Slovenia is also lower.⁴ With declining enrolment and the expected greater needs of the business sector and society, the problem of providing a sufficient number of graduates may worsen, especially in light of possible migration abroad, where the demand for this type of personnel is also high.

Table: Number of graduates from tertiary education per million inhabitants

	2008	2009	2010	2011	2012	2013	2014	2015	2016
Slovenia	8,567	8,907	9,621	9,980	10,237	9,314	9,133	9,032	15,002
EU	8,458	8,167	8,783	9,575	9,604	9,383	9,374	9,065	N/A

Source: Eurostat Portal Page — Population and Social Conditions – Education and Training, 2017.
Note: N/A – not available.

Figure: Structure of students enrolled in tertiary education by field of education, Slovenia and the EU, 2015, in %



Source: Eurostat, SURS, 2017; calculations by IMAD.

¹ The deadline for completing studies under the pre-Bologna study programmes expired on 30 September 2016. In 2016 the number of tertiary graduates rose by 66.2% and totalled 30,967.
² Recruiting engineers, health personnel and IT professionals tends to be the most problematic according to data from the 2016/2017 Manpower Talent Shortage survey.
³ In 2015 it was 3.2% in Slovenia (EU-22: 7.5%).
⁴ In 2015 it was 2.7% in Slovenia (EU-22: 8.4%).

Education expenditure

2.6

Public expenditure on education (as a % of GDP) is below the EU average, while private expenditure is higher.¹ Public expenditure has been falling since 2012. In 2016 it accounted for 4.51%² of GDP and was the lowest in ten years. The decline since 2012 has been primarily a consequence of the Government's fiscal consolidation measures, but also of certain other measures to rationalise the use of public expenditure on education.³ Public expenditure has dropped at all levels of education, but particularly pre-primary. In 2014 (the latest international data), expenditure on upper secondary and tertiary education was lower than the EU average, despite the higher participation of young people in education; expenditure on pre-primary and primary education was higher than in the EU as a whole. Private expenditure on education is also declining (in 2016 it amounted to 0.6% of GDP); according to data for 2014, however, it was still higher than the average for those EU Member States that are also OECD members (i.e. the EU-22).

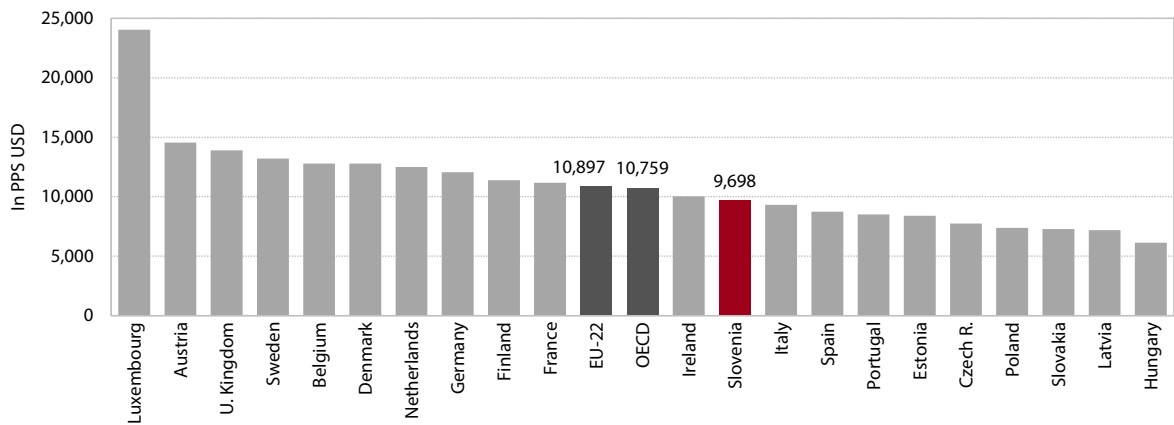
Expenditure (both public⁴ and private) per participant in education is low, which can reduce the possibilities for improving the quality of education. In the last few years expenditure per participant has increased at all levels of education, particularly tertiary education, which saw a significant decline in the number of students enrolled. In 2014 (the latest international data), expenditure per participant was nevertheless lower than the EU-22 average, except for that on pre-primary and primary education, which is higher than in the EU as a whole – at the pre-primary level owing to the favourable pupil/teacher ratio and at the primary level⁵ due to the extended primary school programme.⁶ At the upper secondary and tertiary levels it is significantly below the EU-22 average owing to the high number of participants. At the tertiary level, it is also low because full-time students enrolled in 1st and 2nd study levels pay no tuition fees, which makes international comparisons questionable.

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

	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016
Slovenia	5.63	5.11	5.57	5.56	5.57	5.33	5.08	4.95	4.61	4.51
EU	4.92	5.04	5.38	5.41	5.25	N/A	5.09	5.11	N/A	N/A.

Source: Eurostat; SURS, 2017; calculations by IMAD.
Note: N/A – not available.

Figure: Expenditure on educational institutions per participant*, in PPS USD, 2014



Source: Education at a Glance (OECD), 2017.
Note: * Including primary, secondary, upper secondary and tertiary levels of education.

¹ 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.
² 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 4.80% of GDP in 2016.
³ For example, removing anomalies such as fictitious enrolment in tertiary education, introducing per capita funding in upper secondary education, changing the legal status of upper secondary schools, using internal personnel reserves in elementary schools, and improving the organisation of work in kindergartens according to the new Rules on norms for the performance of pre-school education activity of 2014.
⁴ Public expenditure does not include transfers for students/households.
⁵ In Slovenia the primary level of education includes the first two triads of elementary school.
⁶ The extended programme includes after-school classes, morning care, remedial lessons, supplementary lessons, extracurricular activities and non-compulsory elected subjects.

Attending cultural events

2.7

The average attendance at cultural events per inhabitant¹ rose in 2008–2016. It was highest in 2012, owing to the many events hosted by Maribor, the city that held the European Capital of Culture title that year. In the remaining years of this period it amounted to around 5–6 visits per inhabitant, which is far below the SDS 2030 target. The number of people attending cultural events rose in 2008–2016, reaching 12.3 million in 2016. The highest attendance in 2016 was reported for cultural events carried out by cultural associations.

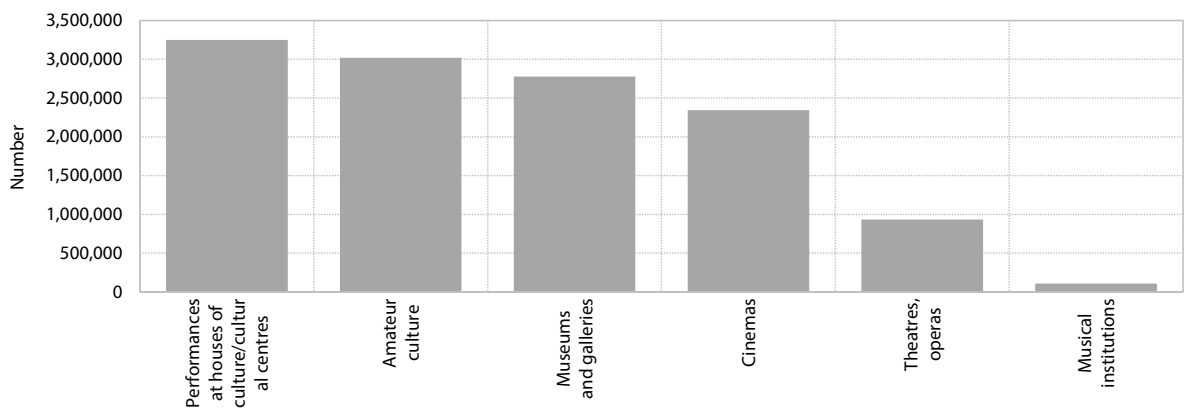
Attendance at such events rose significantly during the 2008–2016 period, owing not only to higher numbers of cultural associations and members thereof, but also to a greater supply of events. In 2016 significant attendance was also recorded by houses of culture and cultural centres. At the same time, cinema attendance dropped in the 2008–2016 period owing to fewer people going to see foreign feature films, while attendance at screenings of Slovenian films increased.

Table: Average attendance at cultural events per inhabitant

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

Sources: SURS, Public Fund for Cultural Activities of the Republic of Slovenia, Slovenian Film Centre, 2017; calculations by IMAD.

Figure: Attendance at cultural events, Slovenia, 2016



Sources: SURS, Public Fund for Cultural Activities of the Republic of Slovenia, Slovenian Film Centre, 2018.

¹ Cultural events include: (i) exhibitions at museums, galleries and exhibition grounds; (ii) theatre performances; (iii) orchestral and choral concerts; (iv) cinemas; (v) performances at houses of culture/cultural centres; (vi) amateur culture. As a result of an extensive revision in the methodology in 2016, there is a break in the data series for the following groups: (i) museums, galleries and exhibition grounds; (ii) theatres; (iii) orchestral and choral concerts; (iv) houses of culture/cultural centres.

Share of cultural performances held abroad

2.8

The share of cultural performances held abroad¹ totalled 2.7% in 2016. Touring is an indirect indicator of the quality of cultural production, given that invitations to perform abroad are assumed to represent recognition of a cultural institution's good work. Because of the short data series, developments in this area are difficult to assess: data are only available for 2016, while the figure for 2015 is SURS's estimate (see note to table below). According to these data, the share of cultural performances abroad remained more or less unchanged

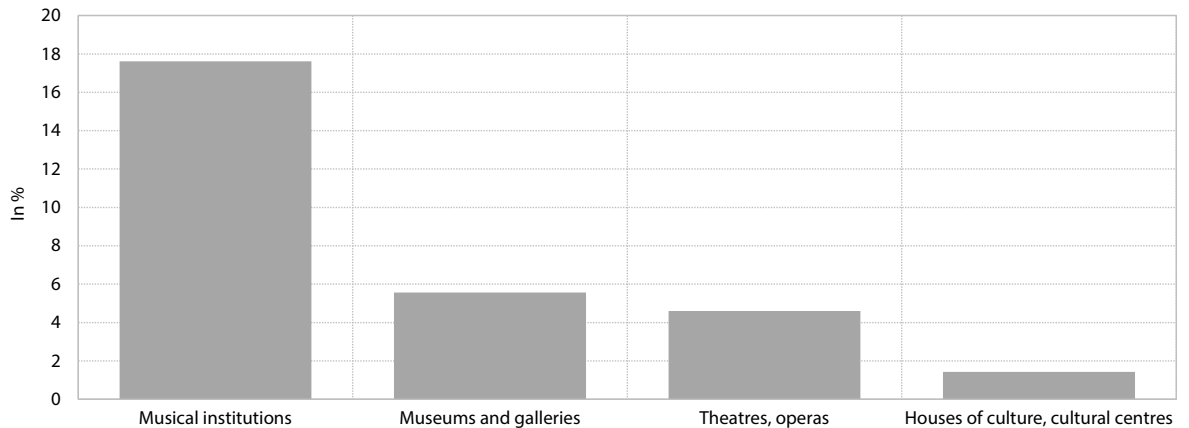
in 2016 compared with the previous year and is still far below the SDS target for 2030. Among performances held abroad, those in the EU accounted for the largest share (around 90%), which reflects the geographical attachment of Slovenian culture to this area. In 2016 musical institutions had the most performances abroad, which we assess is related both to the nature of their work and to systematic promotion of international cooperation.

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

	2005	2016	SDS 2030 target
Slovenia	2.8 (estimate) ¹	2.7	3.5

Source: SURS, 2018.
Note: ¹ 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. Up to 2015 data for houses of culture 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, 2016



Source: SURS, 2018.

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. Cultural performances involve: (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 decent life for all

- 3.1 Social exclusion rate ◆ SDS 2030 PERFORMANCE INDICATOR
- 3.2 Inequality of income distribution ◆ SDS 2030 PERFORMANCE INDICATOR
- 3.3 Experience of discrimination ◆ SDS 2030 PERFORMANCE INDICATOR
- 3.4 Median equivalised disposable income
- 3.5 Life satisfaction
- 3.6 Social protection expenditure
- 3.7 Housing deprivation rate
- 3.8 Housing cost overburden rate
- 3.9 Material deprivation rate

An inclusive labour market and high-quality jobs

- 3.10 Employment rate (the 20-64 age group) ◆ SDS 2030 PERFORMANCE INDICATOR
- 3.11 At-risk-of-poverty rate of employed persons ◆ SDS 2030 PERFORMANCE INDICATOR
- 3.12 Unemployment rate and long-term unemployment
- 3.13 Young people not in employment, education or training
- 3.14 Precarious and temporary employment
- 3.15 Absence from work due to illness
- 3.16 Accidents at work and other work-related health problems

A healthy and active life

- 3.17 Healthy life years ◆ SDS 2030 PERFORMANCE INDICATOR
- 3.18 Gender Equality Index ◆ SDS 2030 PERFORMANCE INDICATOR
- 3.19 Amenable mortality
- 3.20 Health expenditure
- 3.21 Expenditure on long-term care
- 3.22 Overweight and obesity in adults
- 3.23 Life expectancy
- 3.24 Unpaid voluntary work

Social exclusion rate

3.1

After peaking in 2014, the rate of social exclusion¹ dropped to 18.4% in 2016 and was, as in the last ten years, lower than the EU average. After rising in 2007–2014, the values of individual components of this composite indicator decreased in Slovenia in 2015 and 2016, though they remained higher than before the crisis. With the improvement in labour market conditions after 2013, the proportion of persons living in households with very low work intensity declined; in 2016, it totalled 7.4%, which is slightly more than in 2007. Despite the fall in the last nine years, the severe material deprivation rate and the at-risk-of-poverty rate remained higher than before the crisis. The at-risk-of-poverty threshold for a single household in the last two years remained approximately the same (EUR 616). In 2016, a total of 280,000 persons lived below the poverty threshold, 7,000 fewer than in 2015 and 39,000 more than in 2008. Both the at-risk-of-poverty rate² and the proportion of persons in households with very low work intensity were still higher than in the pre-crisis year 2008.

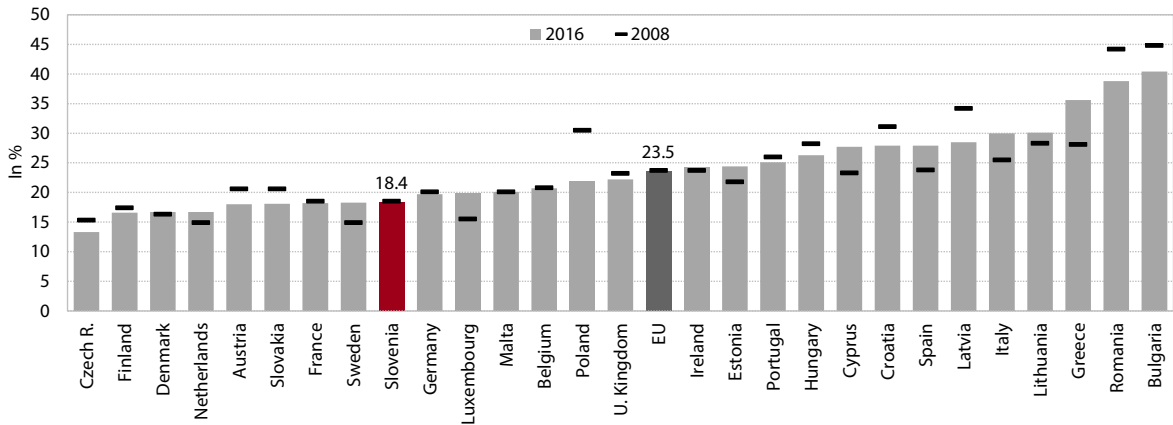
With the improvement in economic conditions, the risk of social exclusion declined for most population groups. Throughout the period analysed, the at-risk-of-poverty rate was the highest for the unemployed (44.7% in 2016, down 0.1 pps year on year). Broken down by age, people over 65 are still at the greatest risk, though this is at the same time the only age group where in 2016 the at-risk-of-poverty rate was lower than before the crisis.³ Among those under 65 years old, the risk of poverty is highest in the 50–65 age group, where it has been rising since 2013 (from 13.2% in 2012 to 15.4% in 2016, when it peaked). This can be attributed to the high share of long-term unemployed in this age group and the low employment rate, one of the lowest in the EU. In 2016 the at-risk-of-poverty rate rose the most for retired persons under 65 (by 2.8 pps relative to the preceding year to 16.4%). The at-risk-of-poverty rate for people aged less than 18 declined by 2.3 pps and for single-parent families, also one of the most vulnerable population groups, by 7.2 pps (to 25.3%). This is considered to be a result of the new Scholarship Act⁴ from 2013 and the reinstatement of government scholarships for underage pupils.

Table: The at-risk-of-social exclusion rate and its components, in %

		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	SDS 2030 target
Slovenia	At-risk-of-social exclusion rate	18.5	17.1	17.1	18.5	17.1	18.3	19.3	19.6	20.4	20.4	19.2	18.4	< 16
	At-risk-of-poverty rate	12.2	11.6	11.5	12.3	11.3	12.7	13.6	13.5	14.5	14.5	14.3	13.9	
	Severe material deprivation rate (4 of 9)	5.1	5.1	5.1	6.7	6.1	5.9	6.1	6.6	6.7	6.6	5.8	5.4	
	Persons living in households with very low work intensity	8.6	6.9	7.2	6.7	5.6	6.9	7.6	7.5	8	8.7	7.4	7.4	
EU	At-risk-of-social exclusion rate	25.7	25.3	24.4	23.8	23.3	23.7	24.3	24.7	24.5	24.4	23.8	23.5	

Source: Eurostat Portal Page – Population and Social Conditions – Living Conditions and Welfare – Income and Living Conditions, 2017.

Figure: The at-the-risk-of-social exclusion rate, 2008 and 2016



Source: Eurostat Portal Page – Population and Social Conditions – Living Conditions and Welfare – Income and Living Conditions, 2017.
Note: For Croatia the first data is from 2010.

¹ The rate of the risk of social exclusion is one of the six key performance indicators of the SDS 2030. This is a composite indicator comprising three components: the at-risk-of-poverty rate, the severe material deprivation rate and the proportion of people living in households with very low work intensity. "Very low work intensity" means less than 20% of a household's total work potential. Persons included in more than one component are counted only once.

² The at-risk-of-poverty threshold is calculated as 60% of the median equivalised disposable income. The calculation for 2016 is based on income from 2015 calculated 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.

³ The gender gap in people over 65 years old is extremely wide (22.5% for women and 10.8% for men).

⁴ Scholarships started to be granted according to the new Act (the ZŠtip-1, Official Gazette No. 56/2013) in the 2014/2015 school year.

Inequality of income distribution

3.2

The low income inequality¹ in Slovenia is to a great extent the result of redistribution policy. Slovenia is a country with strong income redistribution through high progressivity of taxation (personal income tax) and moderate redistribution of income through social transfers.² In 2000–2012³ the levels of income redistribution changed only marginally. Major changes did occur after 2012, however, with the adoption of austerity measures and social policy changes. The adopted measures reduced social transfers, which had been raised considerably during the crisis. At the same time, they changed the redistribution of income from employment by progressively reducing the earnings of public sector employees. The economic crisis was not reflected in higher income inequality in 2009–2012 precisely thanks to social transfers, which mitigated the effects of the crisis

either as automatic stabilisers or as special measures adopted to protect the material standard of the poorest population groups. Income inequalities did not change in Slovenia with the revival of economic activity and a gradual removal of austerity measures.

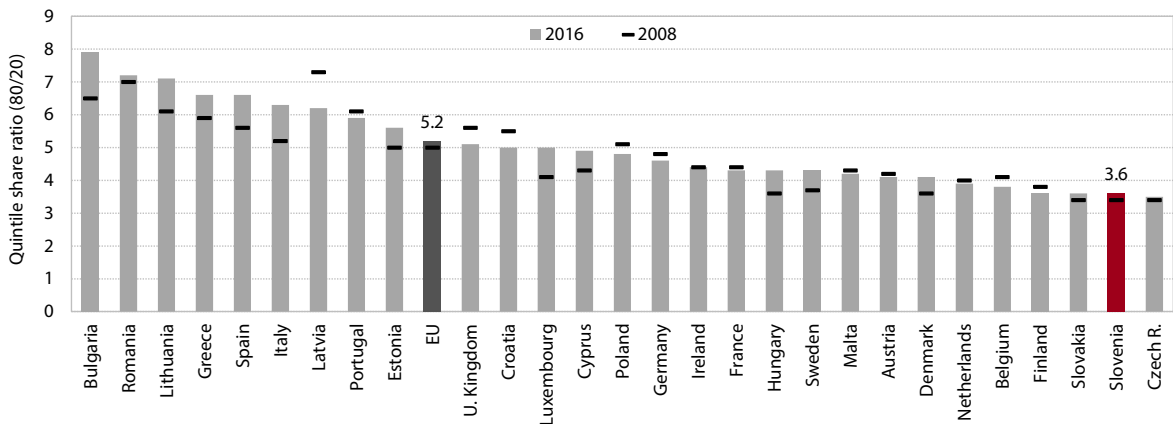
Income inequalities in Slovenia are low; in 2016 they were among the lowest in the EU. In 2016 they were slightly higher than in 2008, similarly to the EU as a whole, where the largest increase was recorded for Bulgaria. As in other countries, the share of income of the 1% of equivalent household members with the highest incomes is rising at a rapid pace (from 3.3% in 2005 to 3.7% in 2016). Though it is still lower than the EU average (5.0%), its growth is now one of the fastest among EU Member States.

Table: Inequalities of equivalised disposable income distribution, quintile share ratio 80/20

	2000	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016	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	< 3.5
EU	N/A	N/A	5.0	4.9	4.9	5.0	5.0	5.0	5.2	5.2	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 (S80/S20)



Source: Eurostat Portal Page – Population and Social Conditions – Living Conditions and Welfare – Income and Living Conditions, 2018.
Note: Data for 2005 for Bulgaria are from 2006, for Romania from 2007 and for Croatia from 2010.

¹ Income inequalities are measured by the income quintile share ratio (the S80/S20 ratio). They are expressed by equivalised disposable income. Household disposable income includes income from employment and self-employment, income from capital, social transfers, and pensions. The equivalised disposable income is determined using the number of household members converted into equivalised adults according to the OECD equivalence scale, which assigns a weight 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.
² OECD: Executive summary: Income redistribution through taxes and transfers across OECD countries (OECD), 2017.
³ Earnings refer to the preceding year, i.e. the 2000–2014 period actually pertains to earnings in 1999–2013.

Experience of discrimination

3.3

The share of people who experienced discrimination in Slovenia in 2015¹ was among the lowest in the EU and lower than in 2008. Overall 13% of respondents experienced discrimination in 2015, which is significantly below the EU average of 21%. The most frequently mentioned reasons for discrimination were being over 55 years old and gender (3%), followed by being under 30 years old, religion or beliefs, and disability (2%). Discrimination based on ethnic origin, sexual orientation or gender identity was experienced by 1% of respondents, while 5% of respondents experienced being discriminated against for other reasons. All these shares are lower than the EU average, except the shares of those feeling discriminated against for being younger than 30 years or because of their gender identity, which equal it. According to the European Social Survey data, the share of respondents who have a few good friends of a different ethnic origin

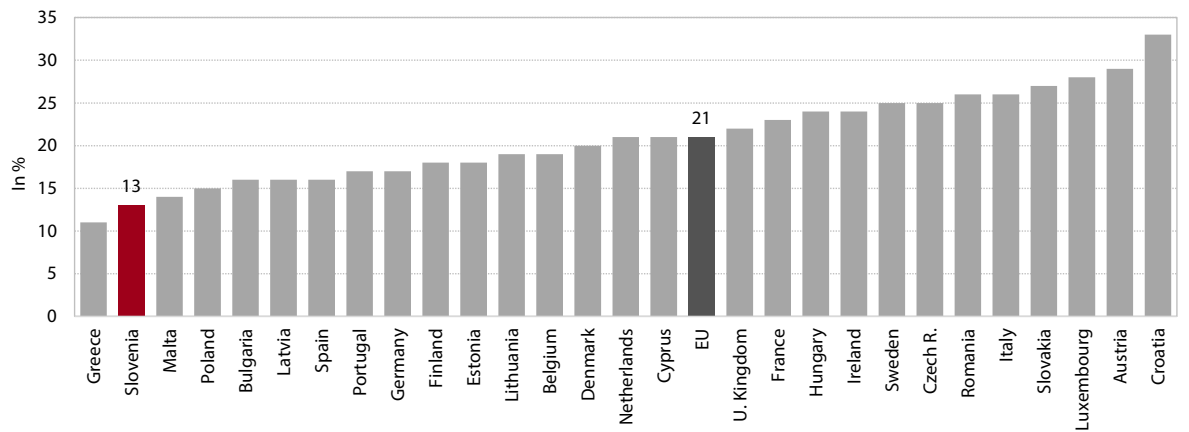
than their own and the share of those who think that it is a good thing for people to interact with people of different ethnicity are larger than in the EU as a whole.² The latter is likely the reason for the relatively low share of people who felt discriminated against for their nationality, where Slovenia differs the most from the EU average. The awareness of rights in the event of discrimination is also relatively good in Slovenia, as two-thirds of respondents said they would know their rights should they fall victim to discrimination or harassment.³ More than half of respondents think that the media sufficiently reflects diversity with regards to various groups, although the perceived diversity in the media varies depending on the group in question. Most respondents agree that school lessons and materials should include information about diversity in terms of ethnic origin (71%), religion or beliefs (71%), sexual orientation (63%), and gender identity (61%).

Table: Total share of those who have experienced some form of discrimination or harassment, in %

	2008	2009	2012	2015	SDS 2030 target
Slovenia	15	16	12	13	< 10
EU	15	16	16	21	

Source: Special Eurobarometer 437, 2015.
Note: Data for the EU for 2008, 2009 and 2012 are for the EU-27 while data for 2015 are for the EU-28.

Figure: Experience of discrimination, 2015



Source: Special Eurobarometer 437, 2015.

¹ The source of the data is Special Eurobarometer (2008, 2009, 2012 and 2015), 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 years old, being younger than 30 years old, religion or beliefs, disability, gender identity or another reason?
² According to the European Social Survey 2014. Obtained at <http://www.europeansocialsurvey.org/data/>.
³ Compared with the EU average of 45%.

Median equivalised disposable income

3.4

The gradual real growth of median equivalised disposable income¹ was interrupted by the economic crisis, social policy changes and austerity measures; amid a rebound in economic activity, it records modest growth. In 2016 the median income expressed in euros exceeded the 2006 level in real terms.² Slovenia ranks in the middle of EU Member States on this indicator, together with Spain, Italy and Cyprus, which all have higher GDP per capita than Slovenia. The period of 2005–2016 was characterised by very rapid growth in median incomes in Eastern European countries and significantly lower growth in the countries that were most affected by the crisis (including Slovenia), while in Greece median income even declined.

The decline of income in lower income brackets mainly reflected loss of employment, while income of people with higher education dropped primarily as a result of austerity measures in the area of public sector earnings. In 2008–2016 the share of income from employment in equivalised disposable

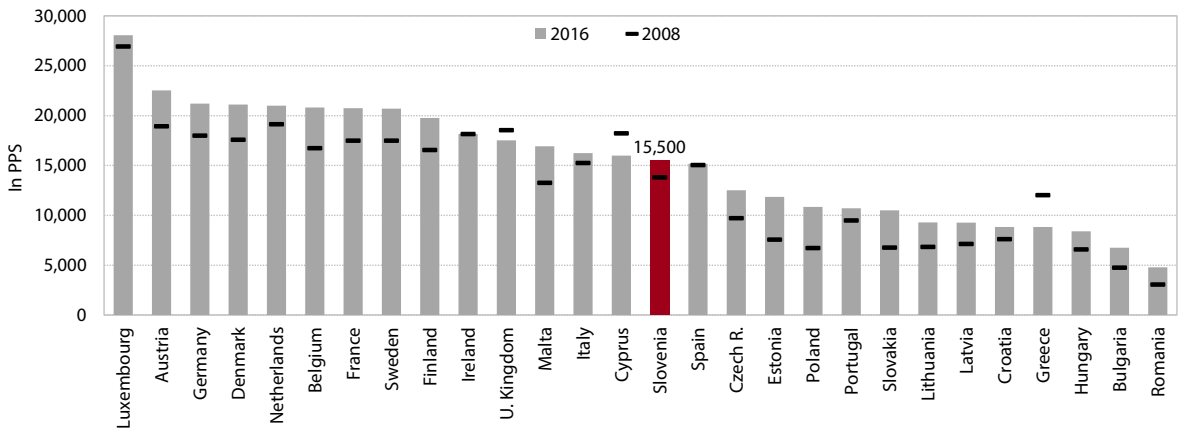
income declined, by far the most for the first two income quintiles.³ This was attributable to the fall in employment of low-skilled workers particularly in labour-intensive sectors which contracted strongly during the crisis. In 2009–2012 the loss of earnings of low-skilled workers (due to unemployment or a drop in income from employment) was cushioned by social transfers, but after 2012 these transfers decreased owing to austerity measures and social policy changes. Since 2014 income from employment has risen slightly, boosted by stronger economic activity and hiring, but only for households in the second quintile. In 2013–2014 the level of income from employment was also significantly affected by the progressive reduction of public servants' wages, a measure which lowered income from employment for tertiary-educated employees and had not yet been fully abolished by the end of 2016 even with the revival of economic activity. Median incomes by educational attainment in Slovenia have consequently moved even further from the EU average.⁴

Table: Median equivalised disposable income, in euros, 2005 prices

	2006	2008	2009	2010	2011	2012	2013	2014	2015	2016
Slovenia	9,317	10,238	10,574	10,377	10,389	10,282	9,767	9,643	9,945	10,021
EU	12,953	13,953	13,605	13,529	13,357	13,382	13,024	13,071	13,293	13,615

Source: Eurostat Portal Page – Population and social conditions – Living conditions and welfare – Income and living conditions, 2018, calculations by IMAD.
Note: Data for individual years show income from the preceding year.

Figure: Median equivalised disposable income, in PPS



Source: Eurostat Portal Page – Population and social conditions – Living conditions and welfare – Income and living conditions, 2018.
Note: For Bulgaria, in 2005 data from 2006 are taken into account, for Romania data from 2007 and for Croatia data from 2010; for Ireland, Italy and Luxembourg, data for 2016 are from 2015.

¹ The indicator shows the distribution of median equivalised disposable income. For the methodological explanation of equivalised household disposable income, see Indicator 3.2.
² Data on income refer to data from the preceding year, thus data recorded in 2016 refer to income from 2015.
³ In 2008–2016 the average equivalised income from employment fell by 2.2 pps; incomes in the first and second quintiles fell even more (by 5.0 pps and 5.8 pps respectively).
⁴ In 2005–2016 the median net equivalised income in euros for people with lower education increased by 32% in nominal terms, for those with upper secondary education it increased by 29.2% and for those with tertiary education it increased by only 12.4%. In 2016 Slovenia lagged behind the EU average by 22.7% for workers with lower education, 26.5% for those with upper secondary and 31.5% for those with tertiary education.

Life satisfaction

3.5

After falling during the crisis, life satisfaction has been rising in Slovenia since 2013, reaching its highest level in 2017 (92%). The share of people satisfied with their lives¹ has exceeded the EU average ever since 2004, when Slovenia was first included in Eurobarometer measurements. In 2017 Slovenia was also one of the six countries recording a continuous increase in the share of satisfied respondents in the last three measurements (together with Luxembourg, Hungary, the Czech Republic, Cyprus and Portugal).

In 2017 the already high shares of people satisfied with their own financial and employment situation (73% and 62% respectively) reached and exceeded their pre-crisis levels. Satisfaction with one's personal employment situation is the only area measured where satisfaction did not increase from the previous measurement. The shares of respondents satisfied with the employment situation in the country (25%) and the economy at the country level (46%) have also been rising without interruption since autumn 2014, though these have yet to reach their pre-crisis levels. When asked to

identify two main issues at the personal level,² in 2017 Slovenian respondents pointed to pensions, social and health security, living conditions, the cost of living, and working conditions.

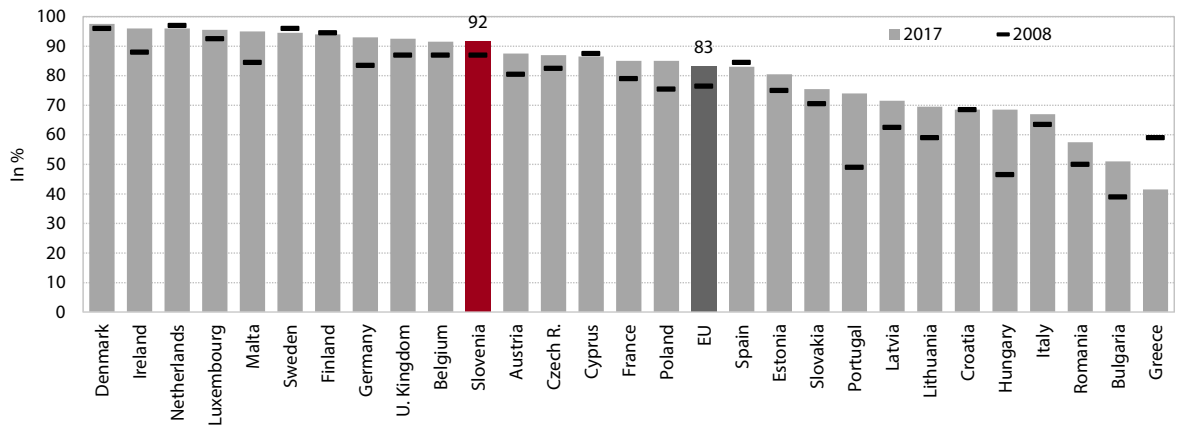
At the country level, social and health security was stressed as the main concern (38%). Other frequently mentioned issues were unemployment (29%), the economic situation of the country (24%), pensions (19%) and public debt (15%). The issue of social and health security has been coming to the fore since autumn 2012, while concerns about unemployment, though still frequently mentioned, decreased to their lowest level since the beginning of the crisis and by 32 pps from their highest level in spring 2014. The frequency of citing the economic situation of the country is 43 pps lower than its peak in autumn 2011, while concerns about pensions and public debt remained at almost the same level in the last two years.³ Expectations for the next 12 months are moderate,⁴ the greatest improvements being expected in the employment situation at both the personal and country levels (both by 3 pps).

Table: Life satisfaction, in %

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Slovenia	88	89	88	89	87	86	85	83	85	82	83	84	89	92
EU	81	81	82	80	77	78	78	77	77	75	80	76	81	83

Source: Eurostat, 2017.
Note: Except for 2004, the annual averages are calculated using two measurements, one spring and one autumn.

Figure: Life satisfaction, in %



Source: Eurobarometer, 2017.

¹ Eurobarometer measures life satisfaction with the following question: All things considered, how satisfied would you say you are with your life these days? The possible answers are very satisfied, satisfied, dissatisfied and very dissatisfied. In our analysis, the category of satisfied people includes those very satisfied and satisfied.

² They were asked to identify two areas (of those listed) they perceived as their greatest concerns at the personal level and at the level of the country.

³ It should however be noted that the assessments of the situation at the country level tend to be more sensitive to media representation of reality than those reflecting one's personal situation.

⁴ Our analysis presents the shares of those expecting an improvement in the next year; Eurobarometer, on the other hand, also monitors the shares of those who expect a deterioration and those expecting no change.

Social protection expenditure

3.6

In 2015 Slovenia allocated more funds for social protection than in 2008, primarily owing to population ageing and mitigation of the effects of the economic crisis, yet still less than the EU average. As a share of GDP, social protection expenditure totalled 23.7% in 2015, up 2.7 pps on 2008, when it bottomed out, but the share remained below the EU average throughout the period (at around 29%). During the crisis the growth of social protection expenditure arose mainly from higher expenditure on old age, which makes up the largest share of total social protection expenditure owing to the rising number of pensioners. Given the increase in the number of the unemployed during the crisis, expenditure on unemployment benefits also rose considerably, though its contribution to the growth declined slightly with the improvement in labour market conditions in 2014 and 2015. Expenditure on social exclusion not elsewhere classified was also higher; following a period of decline, this had started to rise rapidly with the onset of the crisis.¹ The significantly higher expenditure on sickness and healthcare than before the crisis is mainly the result of higher expenditure on sickness benefits.²

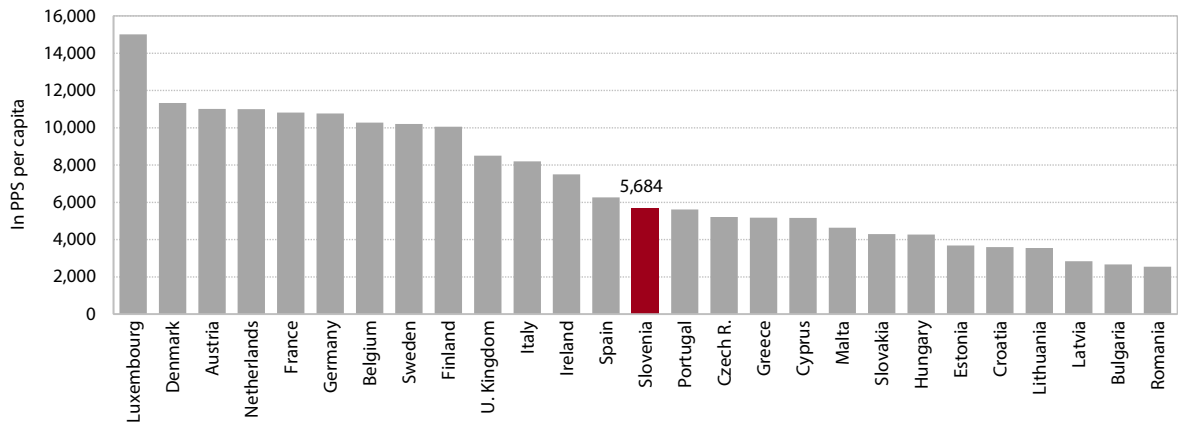
Slovenia lags behind the EU average in terms of social protection as a share of GDP, most notably in expenditure on housing and unemployment benefits, but it allocates more than the EU average for social exclusion benefits not elsewhere classified. The system nevertheless provides relatively good access to health services and reduces the poverty risk. Slovenia has the widest gap with the EU average in expenditure on unemployment benefits. The duration of benefits being similar to the EU average, this is primarily a consequence of the small share of unemployment benefit beneficiaries among the unemployed compared with other Member States. Slovenia is also one of the countries with a relatively high replacement rate at the early stage of unemployment, one of the highest in the EU. The relatively low expenditure on housing is to a great extent related to the only modest level of rental housing market development and the small share of non-profit housing in Slovenia.

Table: Social protection expenditure, as a % of GDP

	2000	2005	2008	2009	2010	2011	2012	2013	2014	2015
Slovenia	23.7	22.6	21	23.7	24.4	24.5	24.9	24.7	23.9	23.7
EU	N/A	N/A	25.9	28.7	28.6	28.3	28.7	28.9	28.7	N/A

Source: Eurostat Portal Page – Population and Social Conditions – Social Protection, 2017.
Note: N/A – not available.

Figure: Social protection expenditure in PPS per capita, 2015



Source: Eurostat Portal Page – Population and social conditions – Social protection, 2017.

¹ The amendment to social legislation in 2014 facilitated access to cash social assistance. The new regulation eased slightly the conditions for reimbursing cash social assistance from inheritance: it reduced, by one-third, the amount of financial social assistance received that has to be repaid after the death of the beneficiary from his/her estate and abolished the obligation to pay the financial social assistance back if it had been received for no more than 12 months. It also broadened the general conditions for income support eligibility.

² According to NUJ data, there were 859,615 cases of sickness leave in 2015, 16.2% more than in 2008. The increase is also due to the rising numbers of the employed and older persons.

Housing deprivation rate

3.7

Slovenia is one of the countries with the highest housing deprivation rates¹ in the EU. In 2016 almost one-quarter of Slovenia's population suffered from housing problems of one kind or another.² The regions with the highest shares (over 30%) of the population living in poor housing conditions are Pomurska, Zasavska and Goriška. The corresponding share in the EU as a whole is around 15%. Only Portugal, Cyprus and Hungary have higher rates of housing deprivation than Slovenia. The rate for the EU as a whole has been stable since 2011, while the rate for Slovenia has been gradually declining. In 2011 more than one-third of the population suffered from some type of housing problem, one of the reasons being the relatively old housing stock, given that as many as 83% of flats had been built before 1990. Since

then, the construction of new flats has been modest, which is a consequence of housing policy.³

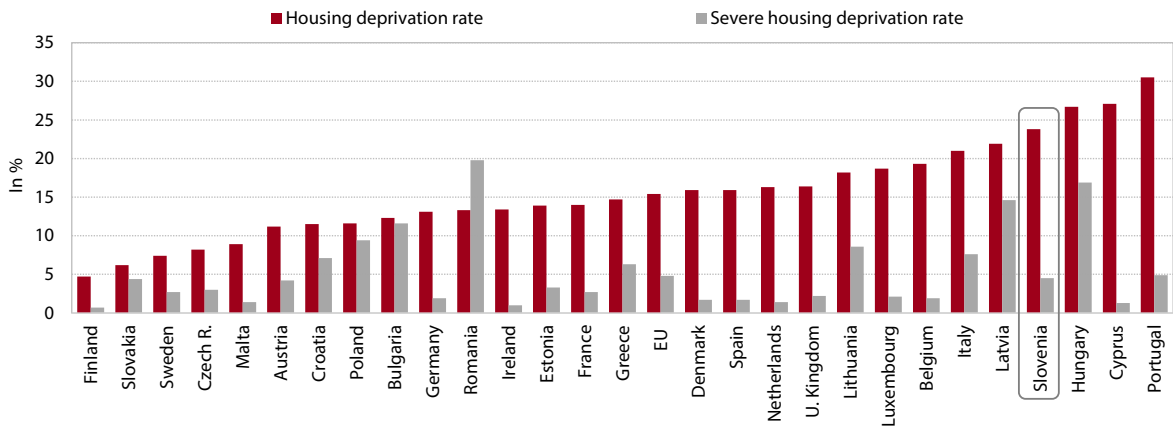
In 2016, 4.5% of the population faced severe housing deprivation in Slovenia.⁴ The rate of severe housing deprivation is significantly lower than the rate of housing deprivation and even somewhat lower than the EU average. Having been steadily declining since 2011, the severe housing deprivation rate first fell below the EU average in 2016. The overcrowding rate⁵ also fell, this by almost 4.5 pps (in the EU by 0.4 pps).⁶ The improvement in the housing stock since 2014 reflects the positive effect of loans and non-repayable subsidies (grants) for environmental investments offered by the Eco Fund.

Table: Housing deprivation (HD) rate and severe housing deprivation (SHD) rate, in %

	2011		2012		2013		2014		2015		2016	
	HD	SHD	HD	SHD	HD	SHD	HD	SHD	HD	SHD	HD	SHD
Slovenia	34.7	8.7	31.5	8.1	27.0	6.5	29.9	6.5	26.9	5.6	23.8	4.5
EU	15.6	5.4	15.1	5.0	15.6	5.1	15.7	5.0	15.2	4.9	15.4	4.8

Source: Eurostat Portal Page – Population and social conditions – Living conditions and welfare – Income and living conditions, 2017.

Figure: Housing deprivation rate and severe housing deprivation rate, 2016



Source: Eurostat: Eurostat Portal Page – Population and Social Conditions – Living Conditions and Welfare – Income and Living Conditions, 2017.

¹ The rate of housing deprivation measures the percentage of the population living in poor housing conditions with regard to various components of deprivation (e.g. in bad dwelling conditions, in a dwelling without a bathroom or toilet, or in a dwelling considered too dark).

² I.e. in dwellings with certain deficiencies such as a leaking roof, damp walls/foundations/floors or rot in window frames/floor.

³ At the transition, Slovenia's housing stock declined. The construction of new dwellings dropped significantly, as most of the previous housing policy measures were abolished, while new measures were being introduced only slowly, particularly those concerning the most vulnerable groups. The effects of these interventions can still be felt today (see Mandič, 2007, Housing challenges in ..., 2015; Mandič, Filipovič Hrast, 2015).

⁴ Severe housing deprivation refers to people living in an overcrowded dwelling deprived by at least one housing deprivation item.

⁵ Overcrowding is measured by the number of rooms available to the household, the household's size and its members' age. It is low in Slovenia, but Slovenia also has a low housing standard, which is a consequence of the housing policy before the transition, oriented as it was towards building as many flats as possible at the expense of the number of rooms. The majority of people thus live in dwellings that may be described as overcrowded according to internationally recognised standards (Sendi, 2013), although they are not considered overcrowded according to the statistical data.

⁶ It fell the most in the Zasavska region, where it had also been the highest (around 30%).

Housing cost overburden rate

3.8

With the improvement in the financial situation of households, the housing cost overburden rate¹ dropped in the last two years of the period analysed. With the decline in disposable income and accelerated growth in housing costs, the housing cost overburden rate increased in Slovenia in 2008–2013, rising faster than in the EU as a whole. By 2016 it had declined to 5.7% and was 1.3 pps higher than in 2008. In 2016 housing costs represented a heavy burden for 32% of Slovenian households, this despite the improvement in their financial situation, i.e. an increase in disposable income and a fall in the overburden rate. Owing to financial distress, 15% of households were in arrears with their payments of housing bills at least once; among these, the majority (85%) were unable to pay their bills on time twice or more. Housing costs were an excessive burden particularly for households below the poverty threshold.² In 2016 the overburden rate in the first quintile remained higher than in 2008.

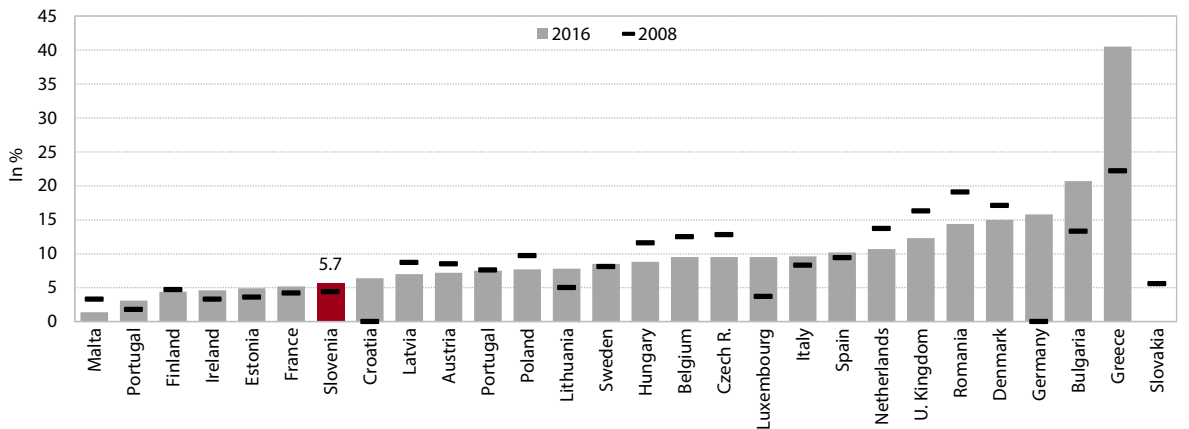
The share of the population overburdened with housing costs in Slovenia is almost half lower than in the EU as a whole (11.1%), which is explained by the ownership structure. Slovenia ranks among the quarter of countries with the lowest housing cost overburden rates. The relatively low rate in Slovenia is due to the structure and ownership of dwellings. In the EU 60% of people on average live in houses and 40% in flats, more than two-thirds of which are owner-occupied. The Slovenian averages are 70% and 30% respectively, around 76% of all properties being owner-occupied. In the EU, on the other hand, more than one-quarter of people living in an owner-occupied home had a mortgage or an outstanding loan in 2016. In Slovenia, this share was around 10%.

Table: Housing cost overburden rate, in %

	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016
Slovenia	4.7	4.4	3.9	4.3	4.7	5.2	6.0	6.4	6.1	5.7
EU	N/A	N/A	N/A	10.8	11.4	10.9	11.1	11.5	11.3	11.1

Source: Eurostat Portal Page – Population and Social Conditions – Living conditions and Welfare – Income and Living Conditions, 2017.
Note: N/A – not available.

Figure: Housing cost overburden rate, 2016



Source: Eurostat Portal Page – Living conditions, 2017.

¹ The housing cost overburden rate is the percentage of the population living in a household where total housing costs represent more than 40% of the total disposable income. The calculation of the housing cost overburden rate includes total annual housing costs of a household (interest on a loan or mortgage, rent, insurance, the costs of regular maintenance and repairs, utilities (water, electricity, gas and heating), sewerage removal, waste removal, etc., net of housing allowances.
² The housing cost overburden rate for households below the poverty threshold was 28.3%, 7.2 pps higher than in 2008.

Material deprivation rate

3.9

After rising during the crisis, the material deprivation rate¹ fell sharply in 2015 and 2016, reaching its lowest level to date in both Slovenia and the EU. In 2016 it totalled 13.5% and was, as in previous ten years, lower than the EU average. In 2016, there were 273,000 materially deprived people in Slovenia, 72,000 fewer than in 2011 and 2014, when their numbers were the highest. The material deprivation rate among people below the poverty threshold was also lower than in previous years (38.4%), yet significantly higher than among those above the poverty threshold (13.5%), the gap between the two groups being even wider than before the crisis. The lowest (and lower than the Slovenian average) material deprivation rates are recorded for children, followed by people over 65 years old, and the highest for working-age people (18–64 years).

A large majority of the population was able to afford basic durable goods in 2016. Highest were the shares of people able to afford items such as a telephone (99%), a washing machine (98%), a colour TV (97%), sufficient fuel to keep their home adequately warm (95%), a car (84%), a personal computer (77%), or a meal with meat or a vegetarian equivalent (93%). All these shares were the highest since first measured. A similarly high share of people was also able to afford a one-week holiday away

from home (69%). The share of people able to deal with unexpected expenses (55%) rose as well, having been higher only in 2007 and 2009.

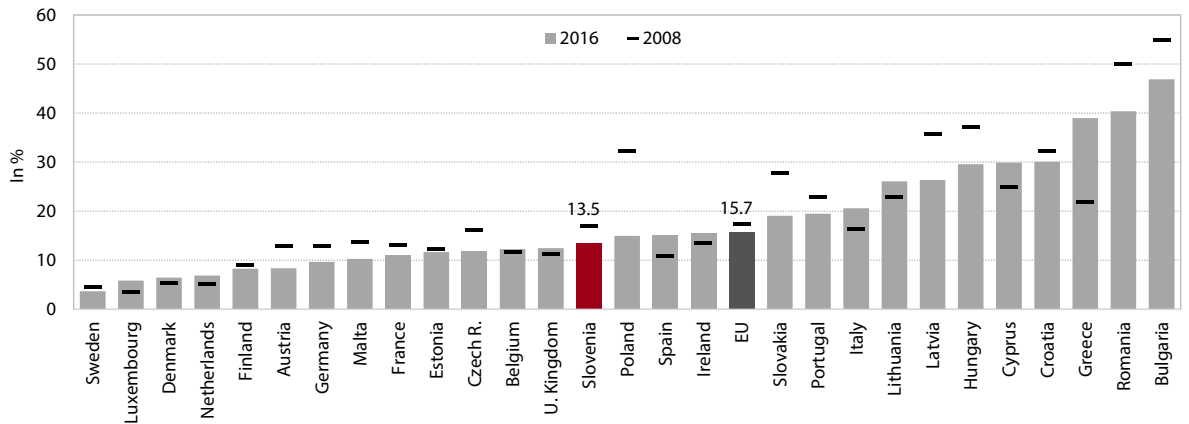
The ability of households to make ends meet in 2016 was the highest in the entire period analysed. The share of those who make ends meet easily or fairly easily was higher than in 2016 (35%) only in 2007. The corresponding share of those who have some difficulty in making ends meet had already been close to its lowest level for two consecutive years (37.2%). The share of those who have difficulty or great difficulty was also the lowest (25.9%) in seven years, though still higher than in 2007. Among households that had been able to make ends meet with (great) difficulty in 2007, the financial situation improved only for those with two adults and three or more dependent children, which represented the lowest share of households with (great) financial problems in 2016; the second lowest share was that of households with at least one adult over 65 years old. The greatest deterioration was recorded for single women (42.2%), followed by one person younger than 65 years (37.6%) and two persons younger than 65 years (27.9%), which can be attributed to the problem of the working poor or even to age discrimination. As in all previous years, single mothers struggle the most to make ends meet.

Table: Material-deprivation rate, in %

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
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
EU	20.0	19.2	18.1	17.4	17.3	17.7	18.5	19.7	19.5	18.5	17.0	15.7

Source: Eurostat Portal Page – Population and Social Conditions – Living Conditions and Welfare – Income and Living Conditions – Material Deprivation, 2017.

Figure: Material deprivation rate



Source: Eurostat Portal Page – Population and Social Conditions – Living Conditions and Welfare – Income and Living Conditions – Material Deprivation, 2017.
Note: For Croatia the first data is from 2010.

¹ I.e. deprivation in at least three of the nine material deprivation items. These are the ability (1) to deal with unexpected expenses; (2) to afford a one-week annual holiday away from home; (3) to afford adequate meals; (4) to pay for arrears (mortgage or rent, utility bills, and hire purchase instalments); (5) to keep one's home adequately warm; (6) to afford a washing machine; (7) to afford a colour TV; (8) to afford a telephone/mobile phone; (9) to afford a personal car. Severe material deprivation is deprivation in at least four out of the nine material deprivation items.

Employment rate

3.10

The employment rate (among 20–64-year-olds) has been rising since 2014; in 2017 it exceeded the EU average again after dropping below it during the crisis. In the second quarter of 2017 it reached the pre-crisis level from 2008. In addition to favourable economic conditions, its growth is more and more affected by demographic trends.¹ Since 2014 the employment rate has been rising particularly among young people (20–29 years), which were strongly hit by the crisis owing to their high exposure to fixed-term employment contracts (which were not being extended during the crisis) and a decline in student work. The favourable developments since 2014 reflect increased hiring, a larger volume of student work, demographic trends and active employment policy programmes targeted at young people. The employment rate for older people (55–64 years) continued to rise during the crisis, partly as a result of the pension reform and demographic effects.² Despite the increase, it remained among the lowest in the EU in 2017.

Since the crisis, the employment rate has been rising in all education groups, the most among low-skilled people and those with secondary or upper secondary education. It was people with low, secondary or upper secondary education who were

affected the most by the crisis (also in comparison with the EU average), this owing to a significant decline of activity in construction and manufacturing. The improvement in the last few years reflects the structure of the recovery of economic activity and strong hiring in sectors where such workforce predominates (manufacturing, transportation, accommodation and food service activities, and employment activities, which mostly provide workers to the manufacturing sector). The employment rate for those with higher education fell the least during the crisis, as in other EU countries, mainly due to a smaller contraction of activity in sectors that employ better educated workforce and hiring in public service activities. The employment rate for those with higher education is gradually rising and remains somewhat higher than the EU average.

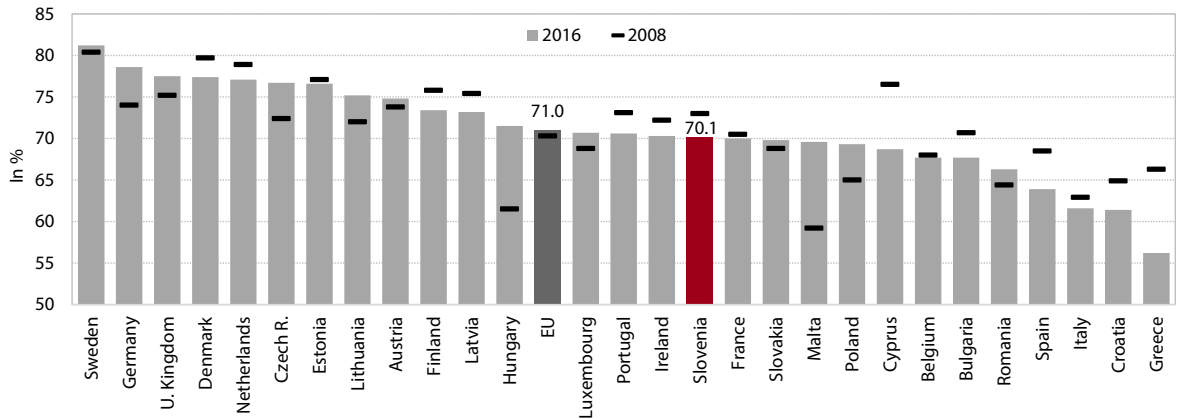
Since 2013 the employment rate has been rising across all regions, the fastest in Vzhodna Slovenija. Among the regions of Vzhodna Slovenija – which is below the EU average – Zasavska has the lowest employment rate (64.9% in 2016), but this region is narrowing the gaps with the EU and Slovenian averages at the fastest pace.³ The employment rate in Zahodna Slovenija exceeds the EU average by 0.9 pps.⁴

Table: Employment rate (20–64 age group), in %

	2000	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	SDS 2030 target
Slovenia	68.5	71.4	72.9	72.1	70.7	68.6	68.1	67.1	68.4	69.4	70.6	73.4	>75.0
EU	N/A	68.0	70.5	69.1	68.7	68.8	68.6	68.4	69.2	69.9	71.1	72.3	

Source: Eurostat Portal Page – Population and Social Conditions – Labour Market, 2017.
Note: N/A – data not available; data for individual years refer to the second quarter.

Figure: Employment rate, in %



Source: Eurostat Portal Page – Population and social condition – Labour market, 2017.

¹ The employment rate is the ratio of the number of employed persons to the number of working-age persons. The number of working-age persons is gradually declining, which is reflected in the increase in the employment rate.
² Demographic effects are increasing the employment rate for the 55–64 age group in two ways: i) through the transition of employed persons from lower age groups into the 55–64 age group and ii) through the exit of older unemployed people from this age group.
³ In 2016 it increased its employment rate by a good 10 pps relative to 2013, the most of all statistical regions.
⁴ Obalno-kraška is the only Zahodna Slovenija region to lag behind the EU average.

At-risk-of-poverty rate of employed persons

3.11

After rising during the crisis, the at-risk-of-poverty rate of employed persons dropped to 6.1% in the last three years of the period analysed and is below the EU average. In 2013–2016 it fell by 1 pp, in line with what is required for Slovenia to meet the SDS target (below 5%). In terms of the at-risk-of-poverty rate of the employed aged 18 years or more, Slovenia has performed better than the EU average since measurements began.

Throughout this period, the at-risk-of-poverty rates of the employed were the highest among those in atypical forms of employment. In 2016 the at-risk-of-poverty rate for people with permanent employment

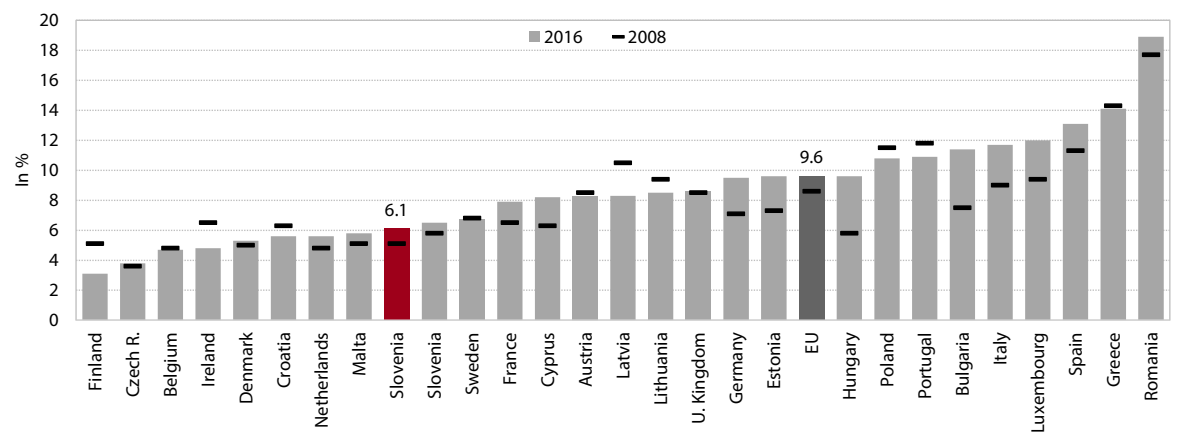
contracts totalled 3.4%, similar to its pre-crisis level. For those with fixed-term employment contracts, it fell in the last two years, from 14.6% to 9.3% in 2016. Meanwhile, the at-risk-of-poverty rate for people working shorter hours rose again, from 13% to 15.6% in 2016, the highest level thus far. The at-risk-of-poverty rate for the self-employed in 2016 was 23%, down 4.8 pps from its 2014 peak. An individual's decision on whether or not to accept work or an atypical form of employment is, in our estimation, determined on the one hand by the fact that the at-risk-of-poverty rates of unemployed, retired or other inactive persons¹ are significantly higher than those of persons in employment (any form of employment) and, on the other, relatively low work incentives.²

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	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	< 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	

Source: Eurostat Portal Page – Population and social conditions – Living conditions and welfare – Income and living conditons, 2017.

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 – Income and Living Conditions, 2017.
Note: The first data for Croatia is from 2010.

¹ In 2016 the at-risk-of-poverty of the unemployed totalled 44.7%, of retired persons 16.4% and of inactive persons 20.1%.
² The unemployment trap: in 2016 the tax burden for a single person was 89.6% of additional gross earnings from employment, which means that single persons increased their net income by only 10.4% of gross earnings on moving from unemployment into employment.

Unemployment and long-term unemployment

3.12

After rising sharply in 2008–2013, the unemployment rate has been rapidly declining since and remains lower than the EU average. By the second quarter of 2017 it had dropped to 6.4%; its decline, faster than on average in the EU, is related to vigorous economic growth and stronger employment. In the crisis years the unemployment rate rose more for men (and exceeded the rate of women), as those sectors where male workforce predominates were strongly affected by the crisis.¹ In the last years of the period analysed, the male unemployment rate otherwise remained lower than the female rate owing to the structure of the recovery of employment in labour-intensive sectors and restrictions on hiring in public service activities, where women make up a larger share of the workforce than men. For similar reasons unemployment declined the most among people with low, secondary or upper secondary education. The unemployment rate of young people

(15–24 years), who were hit hardest by the crisis,² dropped by more than half³ from its 2013 peak, to 10.0% in 2017, and was significantly below the EU average of 16.9%.

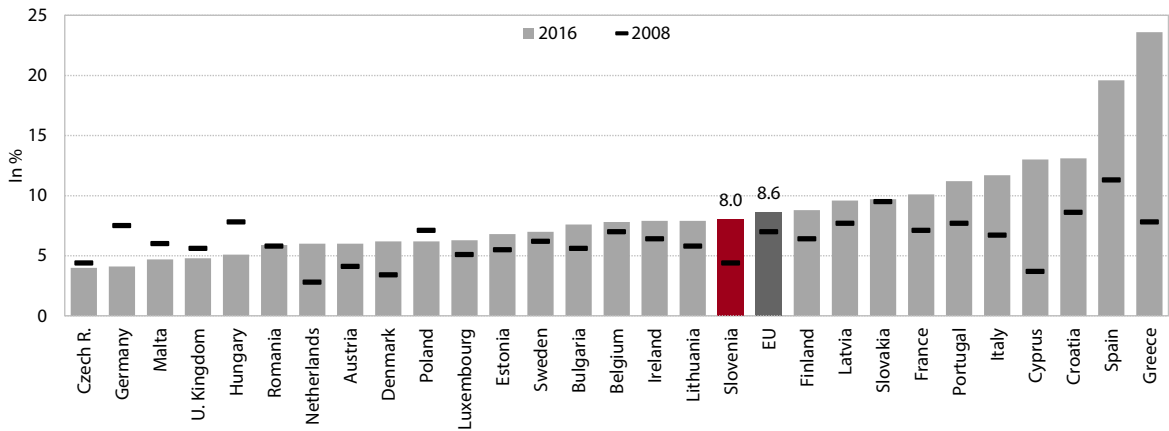
Dropping for the third year in a row, the long-term unemployment rate fell to the EU average in 2017. As a result of weak labour demand, the long-term unemployment rate rose sharply in 2009–2014. At the beginning of the economic rebound, the situation first only improved for those unemployed for shorter periods of time, but in the following years the number of long-term unemployed also started to fall thanks to strong hiring and active employment policies. During the crisis the long-term unemployment rate of young people rose the most. It has since also fallen the most in subsequent years. Despite a notable decline in long-term unemployment, every second unemployed person remains unemployed for more than one year.

Table: Unemployment and long-term unemployment rates (15–74 age group), in %

	2000	2005	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
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
EU	N/A	8.9	7.0	6.8	8.7	9.5	9.3	10.3	10.8	10.1	9.5	8.6	7.6
Long-term unemployment rate													
Slovenia	4.3	2.9	2.2	1.9	1.7	3.2	3.5	3.9	5.1	5.3	4.7	4.3	3.3
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

Source: Eurostat Portal Page – Population and Social Conditions – Labour Market, 2017.
Note: N/A – data not available; data for individual years refer to the second quarter.

Figure: Unemployment rate, annual average, in %



Source: Eurostat Portal Page – Population and social condition – Labour market, 2017.

¹ Particularly manufacturing and construction.
² This was a result of the high prevalence of temporary forms of employment in this group, as during the crisis enterprises were not renewing fixed-term employment contracts and also reduced the extent of student work.
³ We estimate that this may be mainly a result of the increased volume of student work and active employment policy programmes targeted at young people (for example the Youth Guarantee Scheme). The decline is also due to demographic factors, however, as the number of young people has already been falling for quite some time.

Young people not in employment education or training

3.13

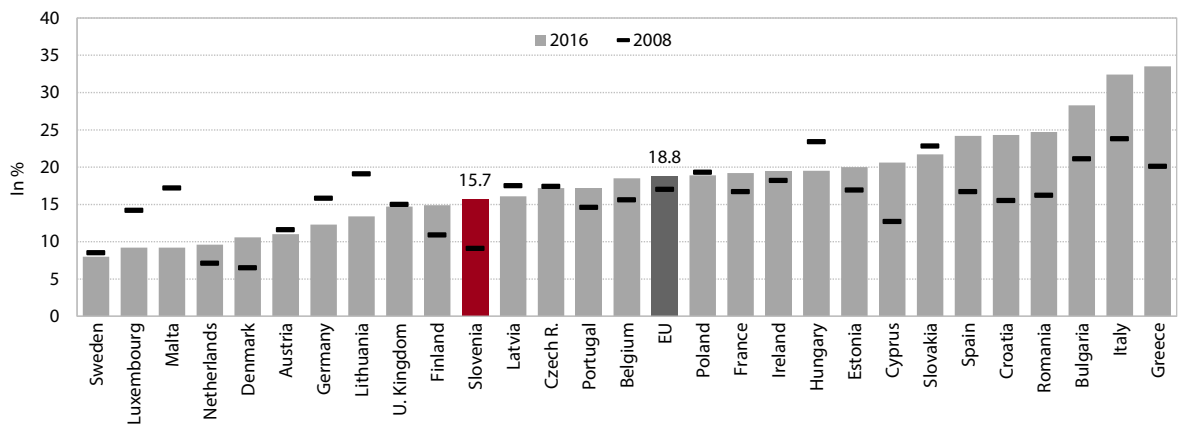
The share of young people neither in employment nor in education or training (the NEET rate) is below the EU average. Although it was increasing faster than in the EU as a whole in 2008–2016, it remained below the EU average throughout the period owing to the high participation of young people in upper secondary and higher education. In the last two years it fell due to the recovery of the labour market and lower labour supply owing to demographic change (i.e. smaller generations of young people). In 2016 the NEET rate was highest for those aged 25–29 (Slovenia: 15.7%; EU: 18.8%), which is when many young people complete their studies. Young people are facing difficulties when transitioning from education into employment, which reflect the skills mismatch and a lack of jobs for graduates. In the last year the NEET rate dropped particularly for the age groups 20–24 and 25–29, which might be attributed to government measures taken to promote youth employment,¹ given that the NEET rate for those aged 30–34, i.e. the group that is not reached by these measures, remained approximately the same. A further decline in the NEET rate could be achieved by stepping up measures strengthening the links between upper secondary and tertiary education and enterprises amid the anticipated further recovery of the labour market. Women tend to face more problems in transitioning from education into employment than men and the NEET rate (20–34 years) among women is higher than among men.² In 2016 the gender gap was wider than at the beginning of the crisis.

Table: Share of young people (20–34) neither in employment nor in education or training, in %

	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016
Slovenia	10.4	8.4	10.5	11.1	11.1	13.5	15.4	15.9	14.4	13.4
EU	18.7	16.5	18.5	19.1	19.3	19.9	20.1	19.4	18.9	18.3

Source: Eurostat Portal Page – Population and social conditions – Education and training, 2017.

Figure: Share of young people (25–29) neither in employment nor in education or training



Source: Eurostat Portal Page – Population and social conditions – Education and training, 2018.

¹ The Youth Guarantee Scheme.
² In 2016 the NEET rate (20–34 years) for women was 15.2% and for men 11.7%.

Precarious and temporary employment

3.14

The share of precarious employment,¹ one of the indicators of the quality of employment, rose slightly in Slovenia in 2008–2016 and was significantly above the EU average. In 2016 the share of precarious jobs among women aged 20–64 totalled 4.6% (EU: 2.1%) and among men 3.8% (EU: 2.2%). As in other Member States, precarious jobs are most prevalent among young people, women and low-skilled workers.² The European Commission finds that in Slovenia older non-standard workers are at much higher risk of labour market precariousness than younger people (25–39 years), which might be attributed to the better educational structure of younger age groups and to the poorer opportunities of older people for transition into employment and their higher share in low-paid jobs. Besides by the relatively high share of precarious jobs, the relatively low quality of employment in Slovenia is also indicated by the indicator of the share of low-quality jobs according to the Eurofound survey.³

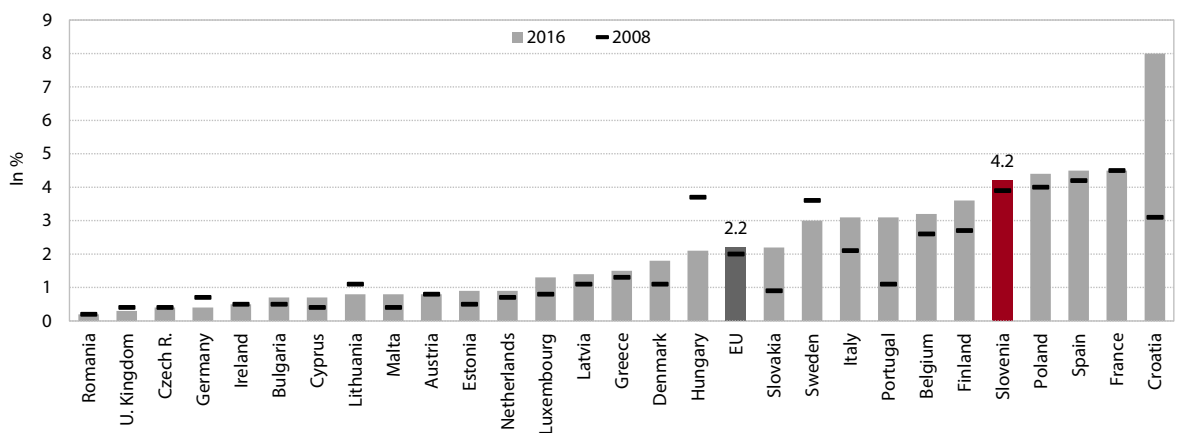
The share of temporary employment⁴ also rose slightly in 2008–2016 and is above the EU average. Slovenia is one of the countries with the largest shares of temporary jobs, which indicates job uncertainty for a significant share of employed persons and employers' caution in hiring for an indefinite period of time due to employment protection. This is also reflected in the frequent hiring of workers through employment agencies,⁵ which in Slovenia also include agencies specialised for student work. In 2016 the share of temporary employment in the 20–64 age group was 16.4%, which is 0.5 pps more than ten years before. As in precarious employment, the share is higher for women and young people. The share of temporary jobs in the 15–24 age group is the highest among EU Member States, to a great extent owing to the prevalence of student work. In terms of temporary employment, Slovenia exceeds the EU average in all age groups except for those aged 55–64 years.

Table: Shares of precarious and temporary employment in total employment

	2000	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016
Precarious employment											
Slovenia	3.6	4.0	3.9	4.1	4.3	4.8	4.4	3.9	4.1	4.6	4.2
EU	N/A	2.1	2.0	1.9	2.0	2.2	2.1	2.0	2.1	2.2	2.2
Temporary employment											
Slovenia	12.0	16.1	15.9	15.2	16.2	17.2	16.5	15.8	16.0	17.1	16.4
EU	N/A	12.8	13.0	12.5	12.9	13.1	12.8	12.7	13.0	13.2	13.3

Source: Eurostat Portal Page – Population and social conditions – Labour Market, 2017.
Note: N/A – data not available.

Figure: Share of precarious employment, in %



Source: Eurostat Portal Page – Population and social conditions – Labour Market, 2017.

¹ Although there is no established definition for the term precarious employment, which is characterised by low job and income security, Eurostat and the EC defined precarious employment as employment with low earnings (lower than two-thirds of the median hourly earnings) in atypical work arrangements (all forms of employment other than full-time employment with a permanent contract).
² Employment and social developments (EC, p. 82), 2017.
³ Sixth European working conditions survey (Eurofound, p. 131), 2017.
⁴ The term temporary employment refers to fixed-term employment or other forms of employment that are considered to be temporary work in Slovenia.
⁵ In 2016 the share of agency workers in the 20–64 age group totalled 4.6% (EU: 1.7%).

Absence from work due to illness

3.15

After declining during the crisis, absenteeism¹ has again started to rise in Slovenia in recent years. In the period of the crisis, absence from work declined, which can be attributed mainly to the decline in employment and to a higher risk of losing employment. In 2015–2017 it was again rapidly rising, the main reasons being growth in employment, later retirement, prolongation of waiting times and increased participation in kindergartens. Absenteeism is significantly higher among women than men and the gap is widening every year. In 2016 persons employed were on average absent from work for 14.5 calendar days, the share of sick leave from work² averaging 4.0% (NIJZ, 2018).

In terms of working days lost Slovenia exceeds the EU average. After several years of decline during the crisis, the number of working days lost per worker due to sick leave as reported to international databases (excluding the first day of absence and absence to care for a family member) rose in 2015 and again in 2016. The

international comparability of this indicator is however limited because of methodological differences in data capturing and the differences in the health and social care systems and eligibility criteria for sickness benefits.

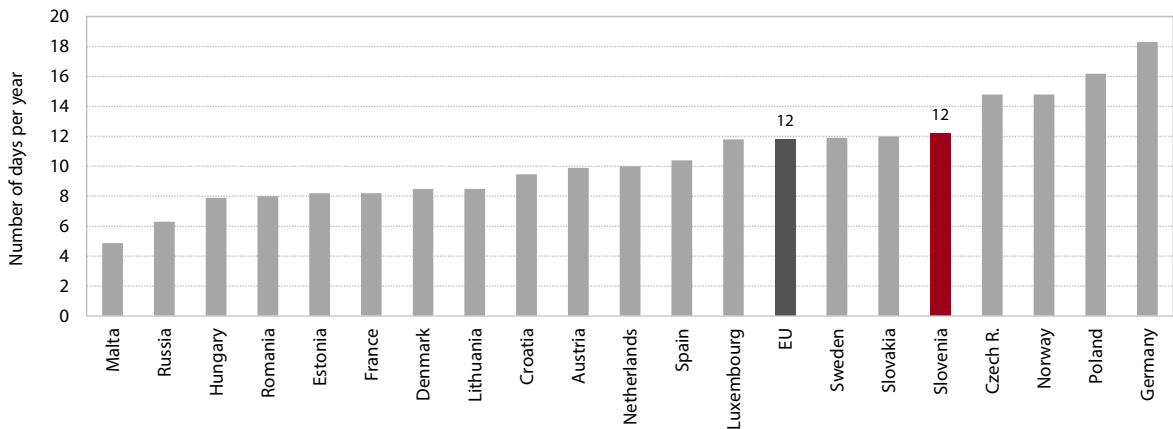
A further increase in absenteeism is also evident from data for 2017, according to which the number of working days lost increased strongly for the third consecutive year. The number of sick leave cases was up 25% in the last three years of the period analysed, compared to 2008 by more than 35%. In 2017 the number of working days lost increased to 11,396,629 (of which 2/3 were at the employer's expense and 1/3 at the expense of the HIIS). The share of absences chargeable to the HIIS has been rising ever since 2009. According to HIIS data, the number of long-term absences in particular has surged in recent years, which can be explained partly by the ageing of the active population and changes to pension legislation but also to the unlimited duration of receiving statutory sickness benefits.

Table: Absence from work due to illness

		2006	2010	2011	2012	2013	2014	2015	2016
Absence rate (percentage of calendar days lost per full-time worker, in %)	Total	4.20	4.09	4.05	4.23	4.08	3.75	3.97	3.96
	Men	3.66	3.53	3.45	3.63	3.46	3.12	3.29	3.24
	Women	4.89	4.80	4.79	4.97	4.84	4.52	4.80	4.83
Number of calendar days lost per worker	Total	15.34	14.94	14.77	15.44	14.90	13.67	14.48	14.45
	Men	13.35	12.87	12.59	13.25	12.63	11.39	11.99	11.84
	Women	17.85	17.53	17.50	18.12	17.68	16.48	17.51	17.63
Number of working days lost per worker	Slovenia	11.5	12.3	12.2	12.2	11.6	11.3	12.0	12.2
	EU	11.42	11.56	11.59	11.74	11.85	11.8	N/A	N/A

Source: NIJZ – <http://www.nijz.si/sl/podatki/bolniski-stalez>; WHO HFADB, 2017.
Note: N/A – data not available.

Figure: Number of working days lost per worker, 2015 (or latest available year)



Source: OECD Statistics Database – Health – Health Status; WHO HFADB.
Notes: The indicator is published by the OECD, WHO and Eurostat; year 2014: EU average (WHO estimate), Poland, Croatia, Lithuania, Russia, Malta; 2013: Israel; 2012: Romania.

¹ Temporary absence from work for justified medical reasons, also referred to as sick leave or absenteeism, is one of the indicators for monitoring the health status of persons employed (NIJZ, 2016).
² The percentage of calendar days of incapacity for work per person employed full-time.

Accidents at work and other work-related health problems3.16

The incidence rate for accidents at work has been declining for a number of years, though faster in the EU as a whole than in Slovenia. Accidents at work are an indicator of health and safety at work. The incidence rate for accidents at work, although declining, is still relatively high in Slovenia (19th place in the EU). Overall 13,044 accidents at work were reported in Slovenia in 2016, 1.6% fewer than in 2015. The proportion of injured workers is almost three times higher for men, the 15–19 age group being at the highest risk, as younger people are more likely to lack experience or training and perform more hazardous tasks than older workers. The most accidents at work occur in the sectors of mining, water supply, sewerage, waste management and remediation activities and construction.¹

In 2015 Slovenia recorded many more fatal accidents at work than the EU average. The high incidence rate for fatal accidents significantly diverges from the EU average. There were 23 fatal accidents at work in Slovenia in 2015. In the 2008–2015 period the largest share was in construction (33% of all fatal accidents).²

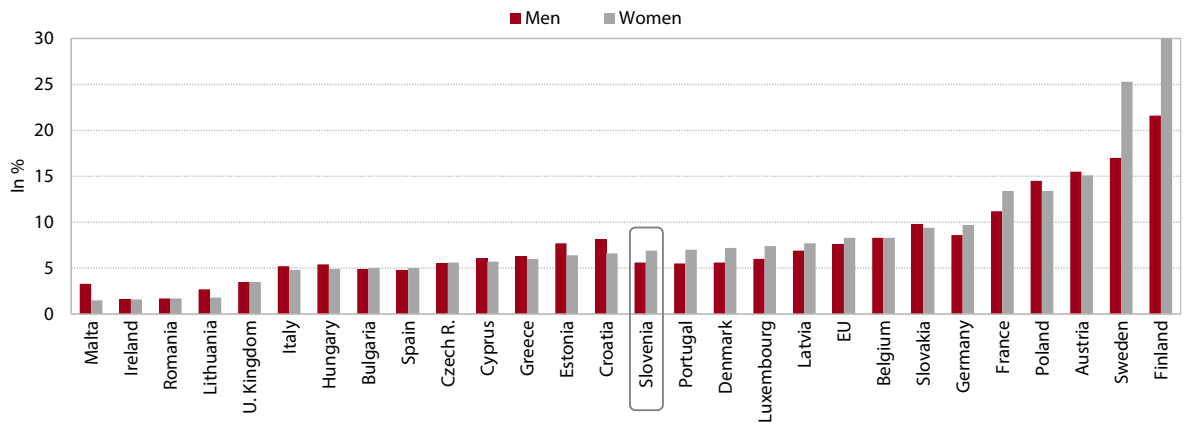
In 2013 the proportion of persons employed who reported physical or mental health problems caused by work was smaller than the EU average. In the 26 countries that participated in the Labour Force Survey ad hoc module in 2013, 7.4% of workers in the 15–64 age group reported one or several work-related physical or mental problems (11.9% of workers aged 55–64). In Slovenia these proportions were somewhat lower, at 6.2% and 10.5% respectively. While accidents at work tend to be more common for men, health problems are more frequently reported by women (EU: women 8.4%, men 7.6%; Slovenia: women 6.9%, men 5.6%). The most frequent health issues are musculoskeletal and mental health problems (stress, depression or anxiety). In almost 50% of cases, people who suffered from illnesses or other health problems were also absent from work. Their share in Slovenia was approximately the same as in the EU as a whole (EU: 41.1%; Slovenia: 41.4%).

Table: Non-fatal accidents at work that result in at least four full calendar days of absence from work and fatal accidents at work, standardised incidence rates per 100,000 persons employed

		2008	2009	2010	2011	2012	2013	2014	2015
Accidents at work	Slovenia	2447.7	1805.6	1971.5	2006.8	1787.7	1594.7	1627.1	1658.8
	EU	2210.2	1842.6	1961.1	1885.6	1717.2	1696.0	1666.8	1646.7
Fatal accidents at work	Slovenia	3.8	3.2	3.5	4.2	3.2	3.0	4.0	3.6
	EU	3.1	2.5	2.6	2.7	2.4	2.3	2.3	2.4

Source: NIJZ – <http://www.nijz.si/sl/podatki>; Eurostat Portal Page – Population and Social Conditions – Health – Health and Safety at work, 2018.
Note: Excluding accidents in commuting to and from work.

Figure: Share of persons employed who reported work-related physical or mental health problems, 2013, in %



Source: Eurostat Portal Page – The 2013 Labour Force Survey ad hoc module on accidents at work and other work-related health problems, 2018.
Note: Includes all physical or mental health problems during the past 12 months that were caused or made worse by work. The EU average is Eurostat's estimate; owing to methodological differences, the average does not include Germany and the Netherlands.

¹ NIJZ, 2017.
² NIJZ, 2017.

Healthy life years

3.17

A person born in Slovenia can expect slightly more than 58 years of healthy life,¹ which is significantly less than the EU average. Combining mortality and health status data, the indicator shows the number of remaining years a person of a certain age is expected to live without disability or the need of assistance. In 2010–2015 healthy life expectancy at birth increased by 4.1 years on average in Slovenia (significantly more for men, by 5.1 years, than for women, by 3.1) and by 0.8 years on average in the EU. Following a rapid improvement, in 2015 men could already expect to live free of disabilities longer than women. The gap between people with higher and those with lower education narrowed in 2005–2014. According to the most recent analyses, the gap is roughly the same as the average for those EU Member States for which data are available.² Increasing the number of healthy life years in the future would significantly contribute not only to the extension of an individual's activity, but also to slower growth in health and long-term care expenditure and hence sustainable financing of social protection systems in the long term.

In 2010–2015 Slovenia also reduced its lag behind the EU average as regards expected healthy life years at the age of 65. In 2015 a person aged 65 could expect to live another 7.9 years in a healthy state (one year more than in 2011), compared with 9.4 years in the EU (0.7 years more than in 2010). For Slovenia to further narrow the gap with more developed EU Member States, it will be necessary to increase investment in preventive care.

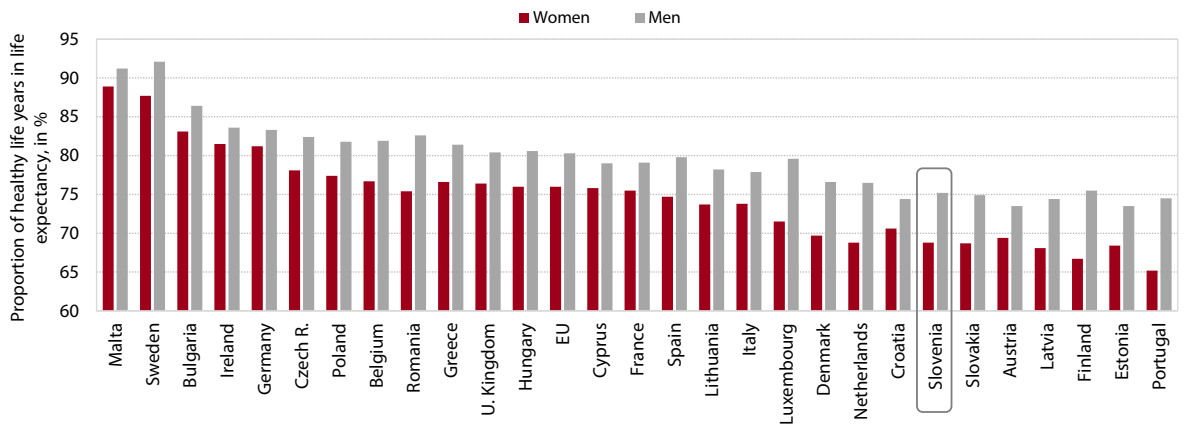
After a few years of improvement, the ratio of healthy life years to life expectancy deteriorated slightly in Slovenia in 2014 and 2015; in the EU it improved.³ In all EU Member States the ratio is more favourable for men, though largely as a consequence of their lower life expectancy, as the gender gap in the number of healthy life years is significantly smaller or even reversed than that in life expectancy (in 11 EU countries including Slovenia, men live longer in a healthy state than women). A worse ratio however means higher pressure on social protection systems because of early retirement and higher demand for health and long-term care services.

Table: Healthy life yeas at birth and at age 65

	Healthy life years at birth								Proportion of healthy life years in life expectancy, in %					
	Women				Men				Women			Men		
	2010	2014	2015	SDS 2030 target	2010	2014	2015	SDS 2030 target	2010	2015	SDS 2030 target	2010	2015	SDS 2030 target
Slovenia	54.6	59.6	57.7	64.5	53.4	57.8	58.5	64.5	65.7	68.8	75.0	69.8	75.2	80.0
EU	62.6	61.8	63.3		61.8	61.4	62.6		75.6	76.0		80.3	80.3	

Source: Eurostat Portal Page – Population and social conditions – Health – Public Health, 2017.

Figure: Proportion of years lived in good health, 2015



Source: Eurostat Portal Page – Population and social conditions- Health- Public Health, 2017.

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. In March 2012 Eurostat revised data for 2004–2010. For Slovenia, the translation of the EU-SILC survey question on limitations was corrected in 2010, so only the time series from 2010 is in fact comparable.

² Kofol Bric, T. and Zaletel, M. (2018).

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

Gender Equality Index

3.18

Slovenia made significant progress according to the Gender Equality Index¹ (GEI) in the ten years to 2015. The index is calculated based on 31 indicators for six domains: work, money, knowledge, time, power and health. Slovenia advanced by 7.6 scores during this period.² With an index value of 68.4, it ranked 10th among EU Member States in 2015.³ To meet the SDS target (at least 78), it will have to continue progressing at a similar pace.

In the last ten years Slovenia, like many other countries, made the most headway in the domain of power. This is reflected particularly in significant progress regarding the participation of women in decision-making,⁴ which is a consequence of changes to election laws (the introduction of gender quotas on candidate lists).⁵ Visible progress was also made in most

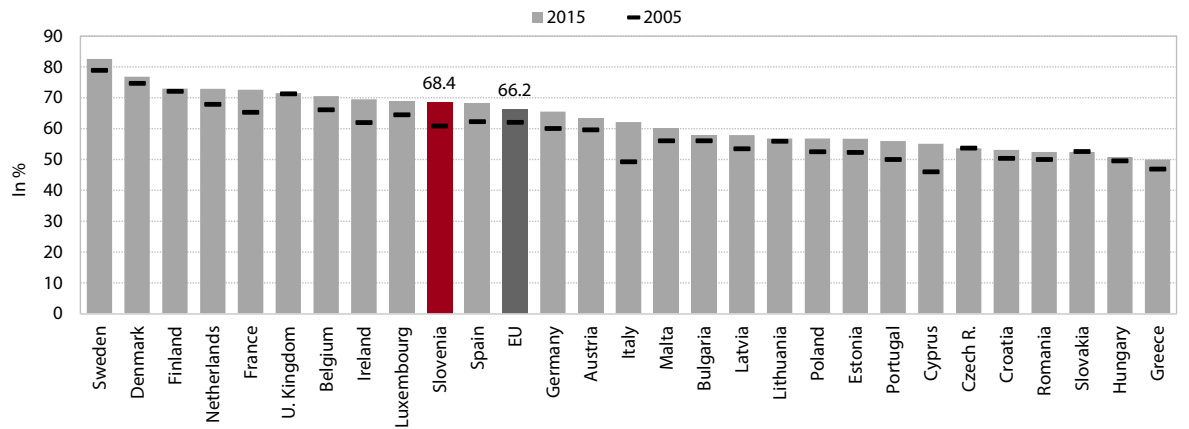
other areas. In most (except for knowledge), Slovenia exceeds the EU average. The indicators show the greatest gap in the domain of knowledge, given that Slovenia has a low share of men studying education, health, humanities and the arts. In both Slovenia and the EU as a whole, women tend to be better educated than men but are less frequently represented in better paying jobs and leadership positions, their average earnings therefore being lower than those of men. Both the pay gap and the gap in employment are however relatively small in Slovenia, which is reflected in favourable results in the domains of work and money. Slovenia, like other EU Member States, saw its scores deteriorate in the domain of time.⁶ The European Commission therefore proposed a set of additional directives for the reconciliation of family and professional life, particularly from the aspect of time dedicated to housework and caring for family members.

Table: Gender Equality Index (GEI) and its six domains

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

Source: Eige Report, 2017.

Figure: Gender Equality Index (GEI)



Source: Eige Report, 2017.

¹ An index value of 1 means total inequality and 100 full equality.
² Only Italy and Cyprus have made faster progress in this ten-year period, but these countries remain below the EU average.
³ The first two places are held by Sweden and Denmark.
⁴ In 2016 the share of women in the Slovenian parliament was 35.6%, compared with 13.5% in 2006.
⁵ For more see Bratuž-Ferk et al, 2017.
⁶ Time allocated to caring for children or grandchildren and older or disabled people, cooking and housework, sport, cultural and leisure activities, and voluntary and charitable activities.

Amenable mortality

3.19

Amenable mortality has improved since 2011 and was similar to the EU average in 2015. The indicator of amenable mortality shows the number of deaths that could have been prevented in a given year through effective and timely health care.¹ The performance of the Slovenian health system on this indicator improved slightly less than the EU average in 2011–2015. In Slovenia, 9 more deaths per 100,000 inhabitants were prevented in 2015 than in 2011, compared with almost 11 in the EU. The improvement was greater for men, but the lag behind the EU average is still smaller for women than men. Most of the gains (in both Slovenia and the EU) can be attributed to the steadily decreasing mortality caused by heart and cardiovascular diseases and treatment of more types of cancer.

Slovenia has made the most progress in the detection and treatment of breast cancer but could do more to improve cervical cancer treatment and reduce stroke-related mortality. The effectiveness of cancer prevention and treatment improved in 2010–2014, the most for breast cancer, where the 5-year survival rate reached 83.5% in 2014, placing Slovenia in the upper third of EU countries. Colon and colorectal cancer survival rates have also risen, but the survival rate for

cervical cancer fell to 65.6% in 2010–2014 even with a comprehensive screening programme in place. In acute care, Slovenia has relatively low 30-day mortality in patients admitted to hospital for acute heart myocardial infarction, but its 30-day mortality rate for strokes in 2014 was one of the highest among Member States for which data are available and almost twice that in Italy and Austria, despite a decline in the last few years.²

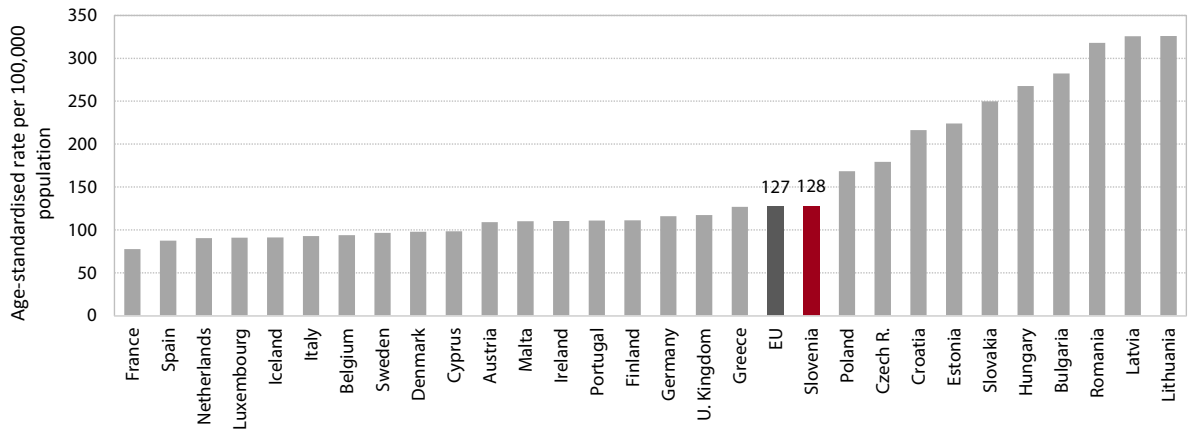
The number of preventable deaths due to alcohol abuse remains very high, but the number of deaths because of traffic accidents involving alcohol has decreased. Alcohol consumption has dropped somewhat in the last decade but remains very high especially among men; the situation regarding the prevention of alcohol-related deaths is also poor. Particularly mortality from chronic liver disease in men is among the highest in the EU, meaning that further policy measures should be considered to reduce alcohol-related harm. Through drink-driving policies, Slovenia managed to significantly reduce the number of deaths resulting from traffic accidents involving alcohol in the 2011–2015 period. Mortality from external causes has consequently declined, though it is still above the EU average.

Table: Amenable mortality, age-standardised rates per 100,000 population, 2015

	Total					Women			Men		
	2011	2012	2013	2014	2015	2011	2014	2015	2011	2014	2015
Slovenia	137.3	133.5	129.7	122.7	128.1	98.6	88.7	94.9	182.6	160.3	165.3
EU	137.9	135.3	131.1	126.2	127.1	106.3	97.5	97.6	173.2	158.5	159.9

Source: Eurostat Portal Page – Population and social conditions – Health – Public Health, 2018.

Figure: Amenable mortality, Slovenia and EU, 2015



Source: Eurostat Portal Page – Population and social conditions – Health – Public Health, 2018.

¹ A higher indicator value means poorer health system performance. The indicator of amenable mortality combines standardised mortality rates for a selected group of diseases that are directly influenced by the health system and thus measures its quality.
² State of Health in the EU: Slovenia, Country Health Profile 2017 (EC, OECD, European Observatory on Health Systems and Policies), 2017.

Health expenditure

3.20

Following a significant decline during the crisis, public health expenditure rose significantly in real terms in the years to 2017. During the crisis public health expenditure had been increasing slightly in real terms up to 2011, before dropping sharply in 2012 and 2013 following the adoption of the ZUJF and other measures for balancing the HIIS budget.¹ The main measures for reducing HIIS expenditure in this period included raising co-payments for health services and medicines, which are covered by complementary health insurance. The latter significantly increased expenditure from complementary health insurance but at the same time also preserved the low level of out-of-pocket expenditure and the relatively good financial access to health services even during the crisis. Since 2014 public health expenditure has been rising in real terms, underpinned particularly by stronger growth in employment and wages and hence higher inflows into the health insurance fund. The stronger growth in revenue in recent years has allowed for the expansion and a more effective evaluation of certain priority programmes (such as model practices, oncology, nursing homes and biological medicines), the reduction of waiting times and the coverage of the increasing expenditure on sickness benefits. In 2017 the additional funds for health care were also due to part of the salaries for physicians in training and those undergoing specialisation being covered from the state budget.² According to a first estimate, current public expenditure accounted for 5.9% of GDP in 2016 and 2017; meanwhile the share of public health expenditure in total current

health expenditure rose to 72.9% in 2017.³ The shares of both total and public health expenditure relative to GDP in Slovenia are somewhat lower than the OECD average. In 2015 current health expenditure amounted to 8.6% of GDP, the OECD average being 9.0% (EU: 8.5%). In 2009–2016 expenditure per capita in Slovenia rose by only 0.9% in real terms, while the OECD average increased by 1.4%. In 2016 it was PPS USD 2,835 according to the first estimate, which is only 71% of the average for the OECD (2014: 73%; 2008: 77%).

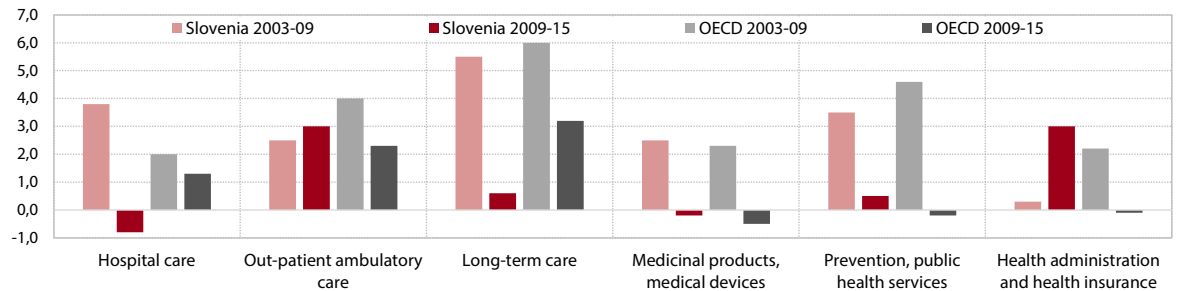
The measures taken during the crisis have contributed to a change in health expenditure structure. A breakdown of health expenditure movements by function shows a significant turn during the crisis, which was positive in terms of recommendations for restructuring expenditure to increase the efficiency of the system: growth in expenditure on out-patient care strengthened, while expenditure on in-patient care declined. It is however less encouraging that Slovenia lags further and further behind in terms of the share of expenditure on long-term health care, particularly on home-nursing services and attendance allowances for help at home, this not only as the majority of more advanced OECD countries had already intensified public funding for these functions before the crisis, but also as during the crisis Slovenia reduced this expenditure's growth significantly more than the OECD average. Following an increase in public sector wages, public expenditure on system administration also rose significantly in 2016 and 2017.

Table: Health expenditure⁴

	Health expenditure, as a % of GDP				Public health expenditure, as a % 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	2015	2016	2017	2005	2015	2016	2017	2005	2015	2017	2005	2015	2017
Slovenia *	8.0	8.5	8.2	8.1	5.9	6.1	5.9	5.9	26.5	28.3	27.1	13.0	12.5	12.0
EU 27** (common average)	7.7	8.5	N/A	N/A	6.0	6.2	N/A	N/A	25.0	27.2	N/A	21.5	21.7	N/A

Sources: OECD Statistics, Eurostat, SI-STAT Data Portal – Health Expenditure and Sources of Funding, 2017. For 2017: HIIS, 2018. Notes: * In the calculation of the share of GDP for Slovenia, the revision of GDP in September 2017 is taken into account (SURS, National Accounts), for 2017 the autumn estimate by IMAD, 2017; ** EU-27 is the EU average excluding Malta; the data for health expenditure in Slovenia for 2016 and 2017 is a first estimate (see note 3). N/A – data not available.

Figure: Growth rates of health expenditure by function, per capita



Sources: OECD Statistics – Health – Health Expenditure and Financing, 2017; OECD Health at a glance 2017.
Note: Owing to the change in SHA methodology in 2014, the figures for "prevention and public health services" for Slovenia are for 2003–2009 and 2009–2013.

¹ The HIIS is required to have a balanced budget and may not borrow or raise the contribution rate.
² Amendments to the Medical Practitioners Act adopted in July 2017 shifted the obligation for financing medical and specialist training from the health insurance fund back to the state budget (EUR 23 million in 2017, EUR 40 million in 2018, EUR 60 million in 2019 and EUR 80 million in 2020).
³ HIIS (Health Insurance Institute of Slovenia) Business Report for 2017, 2018. The estimate of health expenditure for 2016 and 2017 is made in collaboration with SURS.
⁴ In 2011 a revision of the manual of the System of Health Accounts was adopted (OECD, Eurostat and WHO: SHA 2011). This changed the basic indicator of health expenditure, which now shows only current expenditure on health excluding capital formation.

Expenditure on long-term care

3.21

Slovenia is widening its gap with the OECD average in terms of total expenditure on long-term care (LTC). In the OECD, LTC expenditure is, on average, rising much faster than in Slovenia. Expressed as a share of GDP, LTC expenditure across the OECD increased from 1.1% of GDP to 1.6% of GDP on average in 2005–2015, in Slovenia half less, only from 1.1% to 1.3% of GDP. While LTC expenditure per capita in the OECD almost doubled in the above period, it rose by just above 50% in Slovenia. Moreover, according to sources of funding, the share of public expenditure dropped by as much as 5.0 pps in the ten-year period of 2005 to 2015; broken down by function, there was a decline in the share of expenditure on the health component of LTC, which is mostly financed by public funds (96% in 2015, of which 52% financed by HIIS funds).

In 2005–2015 Slovenia recorded more than half lower growth in public LTC expenditure than OECD countries as a whole and mainly invested in

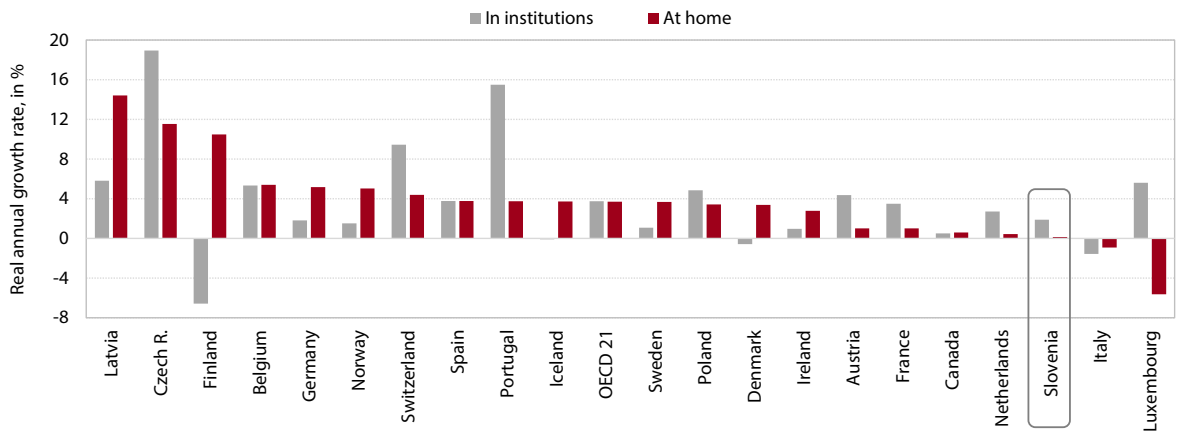
institutional care. Public LTC expenditure in Slovenia rose only by 2.1% per year in real terms, while the OECD average rose by as much as 4.6%.¹ Slovenia saw its gap widen in both the share of public expenditure on LTC health services (2015: Slovenia 0.8% of GDP; OECD: 1.3% of GDP; these mainly include community nursing, nursing allowances and institutional health care) and the share of public expenditure on social LTC services (2015: Slovenia 0.1% of GDP; OECD (16 countries) 0.4% of GDP; particular care at home). While more advanced OECD countries have primarily increased public funding for long-term care at home, Slovenia's investment in this type of care is minimal and the ratio between institutional care and care at home deteriorates from year to year. In 2015 Slovenia allocated as much as 73% of public expenditure for LTC care in institutions (retirement homes, special social welfare institutions, care and working centres, and hospitals) and only 27% for LTC care at home, the OECD average ratio being 65:35.

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 %
	2005	2014	2015	2005	2014	2015	2005	2014	2015	2015/2014	2005–2015
Long-term care	314	487	489	1.08	1.31	1.27	100.0	100.0	100.0	–0.6	2.5
By source of funding											
Public expenditure	245	356	356	0.84	0.95	0.92	77.8	73.1	72.8	–1.0	2.1
Private expenditure	70	131	133	0.24	0.35	0.34	22.2	26.9	27.2	0.6	4.9
By function											
Healthcare	230	328	327	0.79	0.88	0.85	73.3	67.3	66.9	–1.2	1.6
Social care	84	159	162	0.29	0.43	0.42	26.7	32.7	33.1	0.7	4.7

Source: SI-STAT Data Portal – Long-Term Care, 2017.
Note: The conversion into constant prices was made using the GDP deflator.

Figure: Real annual growth in public LTC expenditure per capita in 2005–2015



Source: OECD Statistics database – Health – Health expenditure and financing, 2017.
Note: Podatki niso razpoložljivi za države OECD.

¹ OECD Health at a glance 2017, 2017.

Overweight and obesity in adults

3.22

The share of obese adults is still significantly higher than the EU average, despite a decline. Overweight¹ and obesity, usually a consequence of excessive food intake and insufficient physical activity, are important risk factors for the development of chronic health conditions and premature mortality. The burden of non-communicable chronic diseases such as hypertension, diabetes and cardiovascular diseases is rapidly rising in the EU and worldwide. Cardiovascular diseases are the main cause of mortality in Slovenia and most developed countries. Obesity moreover has not only medical but also socioeconomic consequences (social exclusion, lower income, higher unemployment and more working days lost). The proportion of overweight persons among adults actually fell in Slovenia between 2007 in 2014;² but that of obese person rose and significantly exceeded the EU average in 2014. The proportion of persons overweight, including obesity, among people aged 15 years and over was 55% in Slovenia in 2014, compared with 50% in the EU. Among those over 65 years old, as many as 67% were overweight (EU: 63%), the share

of obese people standing out significantly in this age group, at 24% (EU: 20%), while the share of overweight people equalled that in the EU (43%).

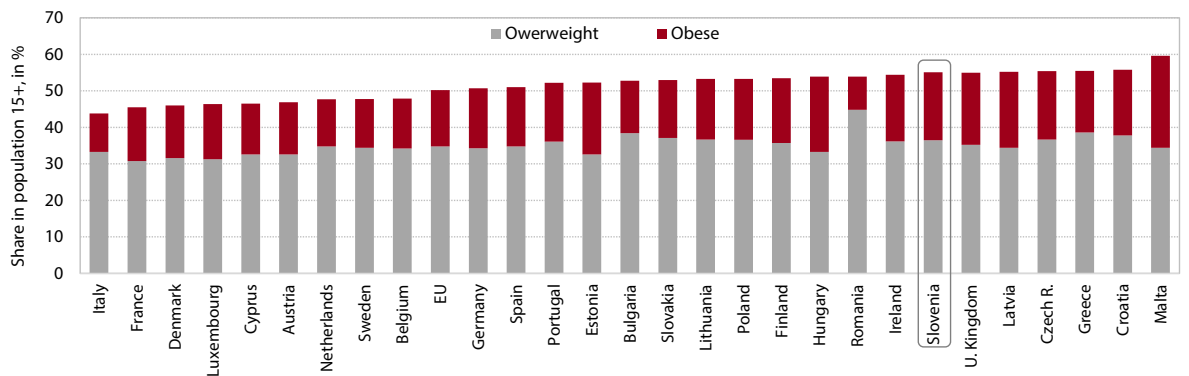
Slovenia diverges from the EU average particularly in the high prevalence of obesity in men of all levels of education and women with low education. The differences in overweight and obesity are significantly related to educational attainment. In both 2007 and 2014 the obesity rates were notably higher among persons with lower education (over 23%). The educational gap remained unchanged on average during this period. In 2007–2014, the share of obese adults increased the most among people with an upper secondary education (both women and men) and among men with higher education. Women with higher education tend to be the most aware of the importance of a healthy diet, the share of obese women thus being significantly lower in Slovenia than on average in the EU. In many EU countries (indeed in the majority of OECD countries³), the obesity rate is otherwise higher among women than among men.

Table: Share of overweight and obese population, by gender and educational level, Slovenia and the EU average, 2007 and 2014

	Level of education attained	Overweight, in %						Obese, in %					
		Total		Women		Men		Total		Women		Men	
		2007	2014	2007	2014	2007	2014	2007	2014	2007	2014	2007	2014
Slovenia	Total	39.8	36.5	30.7	30.3	49.0	42.7	16.8	18.6	16.3	17.0	17.3	20.3
	Low	41.9	34.2	41.5	35.9	42.5	31.5	23.8	23.1	25.9	25.0	20.2	20.3
	Upper secondary	40.4	39.6	28.2	32.2	49.7	45.2	16.9	19.5	14.3	15.8	18.9	22.3
	Higher	35.3	31.7	20.9	19.9	53.3	46.8	7.3	10.8	7.2	8.5	7.5	13.8
EU	Total	N/A	34.8	N/A	28.4	N/A	41.7	N/A	15.4	N/A	15.3	N/A	15.6
	Low	N/A	35.5	N/A	32.0	N/A	39.8	N/A	18.1	N/A	19.4	N/A	16.6
	Upper secondary	N/A	35.7	N/A	28.8	N/A	42.8	N/A	15.9	N/A	15.2	N/A	16.7
	Higher	N/A	32.4	N/A	23.1	N/A	42.2	N/A	11.5	N/A	10.4	N/A	12.7

Source: Eurostat Portal Page – Population and Social Conditions – Health – Public Health, 2018. Note: Data according to EHIS; N/A – data not available. For 2007 comparable data according to EHIS are available only for 18 EU Member States; the averages for the EU could therefore not be calculated.

Figure: Share of overweight and obese people aged 15 and over, Slovenia and EU Member States, 2014



Sources: Eurostat Portal Page – Population and Social Conditions – Health – Public Health, 2018; data according to EHIS (European Health Interview Survey) 2014. Note: Overweight: a body mass index (BMI) from 25 to 29; obesity: a BMI of 30 or over.

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). While the BMI is a good indicator of the amount of body fat, it says nothing about the distribution of body fat or functional muscle mass.
² The European Health Interview Survey (EHIS) was conducted in 2007 and 2014.
³ OECD Health at a glance 2017

Life expectancy

3.23

Life expectancy at birth¹ in Slovenia surpassed the EU average in 2014 and 2015.² Life expectancy is higher for women than men (by six years), but in the last few years it has been rising faster for men, reaching the EU average in 2014 (life expectancy for women has exceeded the EU average since 2008). Life expectancy in Slovenia increased by almost three months per year in the ten years to 2015 (in the EU by two). This can be attributed to various factors, such as higher education, better socio-economic conditions, healthier lifestyles and advances in medicine. In general, life expectancy depends on several factors which are intertwined, such as national and personal income, health expenditure, education, lifestyle, and working and living conditions.³

Life expectancy at birth is highest in the Osrednjeslovenska region. Women born in the Osrednjeslovenska and Gorenjska regions in 2016 could expect to live for almost 85 years, in the Pomurska region more than two years less. The Osrednjeslovenska region also has the highest life expectancy for men (almost 80 years), while Posavska is the region where life expectancy for men is the lowest. In 2011–2016 the

differences between the two regions with the highest and lowest life expectancy dropped for women but increased slightly for men.

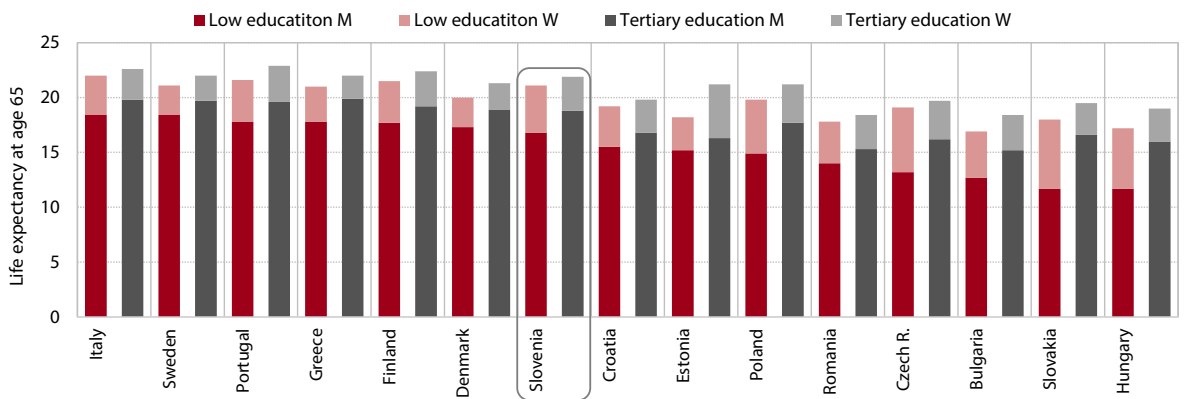
Broken down by educational attainment, life expectancy at age 65 is lowest for low-skilled men; other EU Member States also have considerable gender gaps. In Slovenia, women at age 65 can expect to live for a further 21.4 years on average compared with 17.6 years for men. Remaining life expectancy among women with low education is 21.1 years and among those with tertiary education 21.9 years. For men, the educational differences are significantly more pronounced (remaining life expectancy for less educated men is 16.8 years; for those with tertiary education it is two years longer). The gender gap is widest for those with low education, where women can expect to live as many as 4.3 years longer than men. In 2015 life expectancy at age 65 in Slovenia reached the EU average; it is lower for men and higher for women, indicating there is still room for improvement in the lifestyles especially of men. Gender differences in life expectancy by educational attainment are also relatively large for younger people.⁴

Table: Life expectancy at birth

		2000	2005	2008	2009	2010	2011	2012	2013	2014	2015
Slovenia	Life expectancy	76.2	77.5	79.1	79.4	79.8	80.1	80.3	80.5	81.2	80.9
	Men	72.2	73.9	75.5	75.9	76.4	76.8	77.1	77.2	78.2	77.8
	Women	79.9	80.9	82.6	82.7	83.1	83.3	83.3	83.6	84.1	83.9
EU	Life expectancy	N/A	78.5	79.4	79.6	79.9	80.2	80.3	80.5	80.9	80.6
	Men	N/A	75.4	76.3	76.6	76.9	77.3	77.4	77.7	78.1	77.9
	Women	N/A	81.5	82.3	82.6	82.8	83.1	83.0	83.3	83.6	83.3

Source: Eurostat Portal Page – Population and social conditions – Population – Demography – Mortality, 2017.
Note: N/A – not available.

Figure: Life expectancy at age 65, by gender and educational attainment, 2015



Source: Eurostat Portal Page – Population and Social Conditions – Population – Demography – Mortality, 2017.
Note: Countries are ranked with regard to the values for men with low education. The figure includes countries for which data are available.

¹ Life expectancy is the average number of years that a person (at birth or at age 65) can expect to live, assuming that age-specific mortality rates remain unchanged during their lifetime.
² SURS does not publish data on total life expectancy and its data on life expectancy by gender differ slightly from those published by Eurostat due to the different methodologies used.
³ Health at a Glance: Europe 2016. State of health in the EU cycle (OECD), 2016; Health at a Glance 2017 (OECD), 2017.
⁴ 40-year-old women can expect to live 5.6 years longer than 40-year-old men; women with low education can expect to live as many as 7.1 years longer than men, the gap between the low-educated and the average being only 1.2 years for women and as many as 2.7 years for men.

Unpaid voluntary work

3.24

The proportion of people who carry out unpaid voluntary work on a regular basis is slightly above the EU average.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 both increased in 2016 relative to 2012. In Slovenia, 34% of respondents carry out some type of unpaid voluntary work, of which 12% on a regular basis. The most volunteers are 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 is the

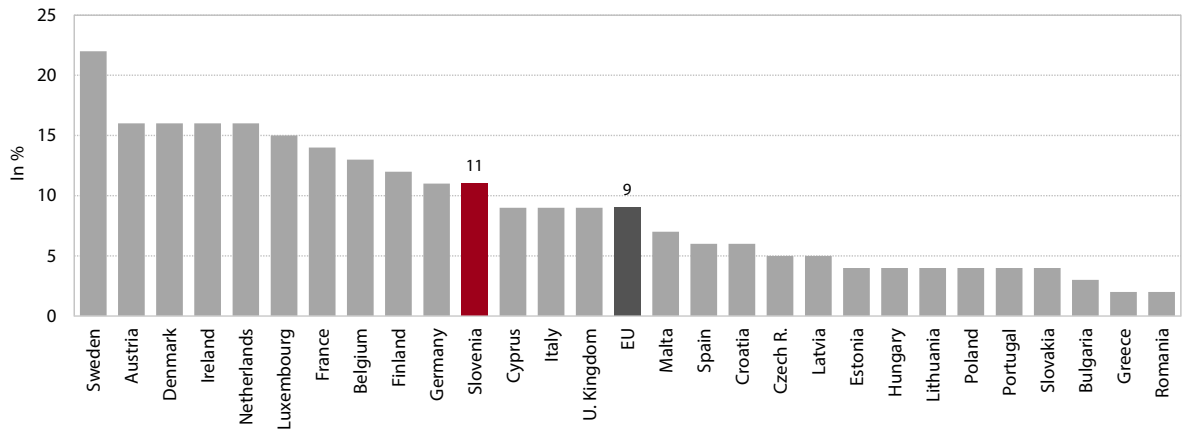
highest among young people (18–24 years) and more voluntary work is carried out by men. The proportions of respondents doing voluntary work at least every month in community and social services² (3.9%), social movements³ (2.4%), and political parties and trade unions (1.1%) are lower (and also lower than the EU average). The proportions of those volunteering in community and social services and political parties and trade unions are the highest in the 25–34 age group; the proportion is slightly higher for men. Women perform more voluntary work through social movements, the proportion of those involved in regular voluntary activity being the highest in the 65+ age group.

Table: The 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 Survey 2011/2012 and 2016.

Figure: The proportion of people doing unpaid voluntary work through educational, cultural, sports or professional associations, 2016



Source: Eurofound, European Quality of Life Survey 2011/2012 and 2016.

¹ Source: 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 twelve months?" "Regularly/at least once a month" encompasses 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).

4 A preserved healthy natural environment

A low-carbon circular economy

4.1	Resource productivity	◆ SDS 2030 PERFORMANCE INDICATOR
4.2	Share of renewable energy sources in final energy consumption	◆ SDS 2030 PERFORMANCE INDICATOR
4.3	Emission productivity	◆ SDS 2030 PERFORMANCE INDICATOR
4.4	Energy efficiency	
4.5	Modal split of transport	
4.6	Waste	
4.7	Environmental taxes	

Sustainable natural resource management

4.8	Utilised agricultural area	◆ SDS 2030 PERFORMANCE INDICATOR
4.9	Quality of watercourses	◆ SDS 2030 PERFORMANCE INDICATOR
4.10	Ecological footprint	◆ SDS 2030 PERFORMANCE INDICATOR
4.11	Air quality	
4.12	Agricultural intensity	
4.13	Intensity of tree felling	
4.14	Functionally derelict areas	

Resource productivity

4.1

The resource productivity of the economy, having risen sharply with reduced construction activity during the crisis, continues to improve. Productivity expressed as a ratio of GDP over material consumption had been rising faster than in the EU overall in 2007–2012, then followed rather closely the fluctuations of construction activity and, consequently, the consumption of non-metallic mineral products.¹ In 2016 Slovenia ranked in the middle third of EU Member States on this indicator. It lagged 15% behind the EU average, which is not much considering the significant divergences between individual Member States. Owing to the rebound of construction activity in 2017, it can be assumed that productivity growth eased again. Slovenia will be able to achieve the SDS goal, i.e. a further increase in material productivity, assuming that it retains roughly the same growth as in the past 15-year period (i.e. a slightly higher GDP growth and a slightly faster decline in material consumption than in the EU), whereby material productivity would reach the EU average in the target year.

Material consumption per capita and its structure in Slovenia are comparable with the EU average. Material consumption had been rising until the onset of the crisis, then fell sharply and is now around two-tenths lower than at the beginning of the previous decade. The level of material consumption was significantly affected by economic activity, particularly in construction,

a sector that uses a large amount of raw materials, particularly gravel and sand. In the breakdown of domestic resources, 52% is sand, gravel, limestone and gypsum, 18% crop residues, and 15% 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. Lower material consumption per capita than in Slovenia is recorded by only ten EU Member States, meaning that Slovenia is not a very wasteful country in terms of raw materials consumed.

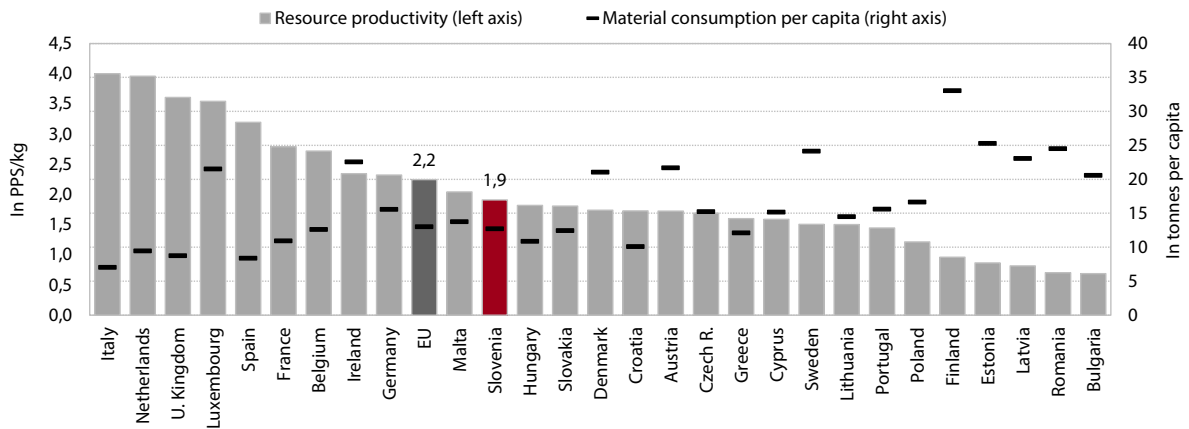
Slovenia's self-sufficiency in terms of raw materials rose relative to the pre-crisis level and is slightly higher than the EU average. Like most other EU Member States, Slovenia is a net importer of raw materials, its imports accounting for around 13% of consumption (in the EU overall 3 pps more). While the bulk of net imports are oil derivatives and gas, in the last few years following the glaze ice damage, net exports of wood have risen significantly. This is favourable from the aspect of material consumption, though economically less desirable from the aspect of efficient use of the scarce domestic resources, where value added could be created by domestic manufacturing industry. While most EU Member States are net importers particularly of raw materials, the bulk of Slovenia's net imports are processed materials (more than half of EU Member States are net exporters of such materials).

Table: Resource productivity, in PPS/kg

	2000	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016	SDS 2030 target
Slovenia	0.92	1.10	1.13	1.23	1.32	1.51	1.75	1.79	1.75	1.81	1.91	3.5
EU	1.27	1.46	1.58	1.69	1.81	1.79	1.97	2.03	2.08	2.21	2.24	
Slovenia / EU, index	72.3	75.3	71.3	72.6	73.3	84.3	89.1	88.5	84.2	81.9	85.0	

Sources: SI-STAT Data Portal – Environment, 2017; Eurostat Portal Page – Environment and Energy, 2017; Eurostat Portal Page – Economy and Finance, 2017; 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, 2016



Source: Eurostat Portal Page – Environment and Energy, 2017.

¹ Non-metallic minerals significantly determine the overall material consumption because of their specific weight. In 2007, a year of intense motorway construction, they accounted for two-thirds of total consumption; in 2016 they still represented more than half. Sand and gravel alone made up a 40% share, one of the highest in the EU. In 2014 three-quarters of non-metallic minerals were used as raw materials in construction, a further 17% as raw materials for the building material industry and only 7% in manufacturing (source: the Geological Survey of Slovenia).

Share of renewable energy sources in final energy consumption

4.2

The share of renewable energy sources (RES) in final energy consumption is above the EU average, but it has more or less stagnated for the last several years. In the last decade it rose more markedly only in 2009, when final energy consumption fell by almost one-tenth because of the crisis while RES consumption increased by around one-fifth.¹ Up to 2016 it had only grown by around another 1 pp. The interim minor changes in the share were due to fluctuations in RES consumption for heating (owing to milder winters) and the use of hydro power (owing to great differences in annual river levels); in recent years the growth of RES consumption has also been impeded by declining consumption of biofuels. In terms of the share of RES, Slovenia ranks just behind the first third of EU Member States, while it is in the last third according to its growth. Between 2004² and 2016, RES consumption rose by one-third in Slovenia while doubling in the EU. For Slovenia to reach its long-term goals for increased consumption of RES, more radical moves will be required, alongside activities to facilitate and shorten the siting procedures.

Slovenia still has a relatively large share of traditional RES but a significantly lower consumption of other RES. Traditional RES (solid biomass and hydropower) still account for around 90% of total RES consumption in

Slovenia, compared with less than 60% in the EU overall. The extensive consumption of biomass, which is mainly used for heating, is however not favourable from the point of view of particle pollution. The share of other RES (wind, solar and geothermal energy, biofuels, heat pumps, and biogas) is among the lowest in the EU. Slovenia lags behind the EU average particularly in the use of wind farms and heat pumps, which account for almost one-fifth of RES consumption in the EU. The share of RES in transport is also significantly below the target, but since the adoption of a new decree,³ distributors are a much greater extent bound to increase the share and approach the target level.

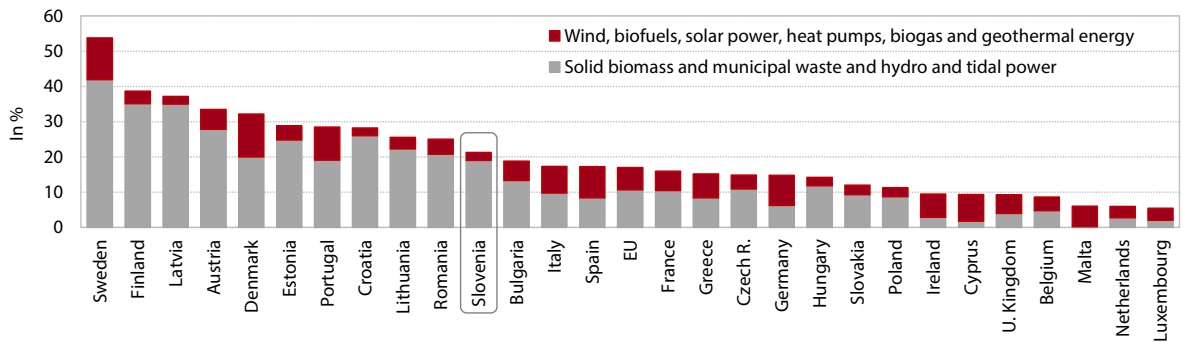
Within the support scheme for electricity from RES, in recent years as much as three-fifths of support has been granted for solar energy. The most support per unit of power generated being given to solar energy production (supports are also provided for electricity generation from biogas, wind, biomass and hydropower plants), the expansion of the share of solar power production in the 10-year period since the scheme was established also led to a significant increase in the average amount of support per unit of electricity generated (in comparison with the beginning of the ten-year period, when support for small hydropower plants predominated).

Table: Share of RES in gross final energy consumption, in %

	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016	2020 target*	SDS 2030 target
Total												
Slovenia	16.0	15.0	20.1	20.4	20.3	20.8	22.4	21.5	21.9	21.3	25.0	27.0
EU	9.0	11.1	12.4	12.9	13.2	14.4	15.2	16.1	16.7	17.0	20.0	
In electricity												
Slovenia	28.7	30.0	33.8	32.2	31.0	31.6	33.1	33.9	32.7	32.1		
EU	14.8	17.0	19.0	19.7	21.7	23.5	25.4	27.4	28.8	29.6		
In transport												
Slovenia	0.8	1.8	2.3	3.1	2.5	3.3	3.8	2.9	2.2	1.6	10.0	
EU	0.6	3.9	4.6	5.2	3.9	5.6	5.9	6.5	6.6	7.1	10.0	
In heating												
Slovenia	18.9	19.2	27.6	28.1	30.3	31.5	33.4	32.4	33.9	34.0		
EU	10.9	13.3	14.9	15.0	15.6	16.4	17.0	18.1	18.7	19.1		

Source: Eurostat Portal Page – SHARES (Renewables), 2018. Note: * One of the EU 2020 Strategy targets.

Figure: Share of RES in final energy consumption, 2016



Source: Eurostat Portal Page – SHARES (Renewables), 2018; calculations by IMAD.

¹ Also as more data were statistically captured in this period.

² The year when Eurostat data became available for all EU Member States (calculated according to the same methodology, SHARES (Renewables)).

³ Decree on renewable energy sources in transport (Official Gazette of the RS, No. 64/2016).

Emission productivity

4.3

The emission productivity of the economy, though rising, still lags behind the EU average. After increasing in times of economic growth owing to faster growth in GDP than greenhouse gas (GHG) emissions, productivity as measured by the ratio of GDP to GHG emissions remained almost unchanged in the first years of the crisis. However, as the EU average increased further during the crisis, Slovenia saw its gap with the EU widen. In 2014 and 2015, on the other hand, productivity improved faster in Slovenia than in the EU overall. The gap with the EU narrowed significantly and in 2015 Slovenia generated around 13% less GDP per unit of GHG emissions than the EU average.

Having declined during the crisis, the volume of GHG emissions has again been slightly rising in recent years. After increasing relatively fast during the times of economic boom, emissions dropped owing to the crisis and the shutdown of one of the thermal power plants. In 2014 they were around one-quarter lower than their peak in 2008. In 2015 they rose somewhat again, largely owing to the consumption of fuels by industry. According to preliminary data, they increased further in 2016, with emissions from transportation (accounting for one-third of total emissions) alone growing by around 6%.¹

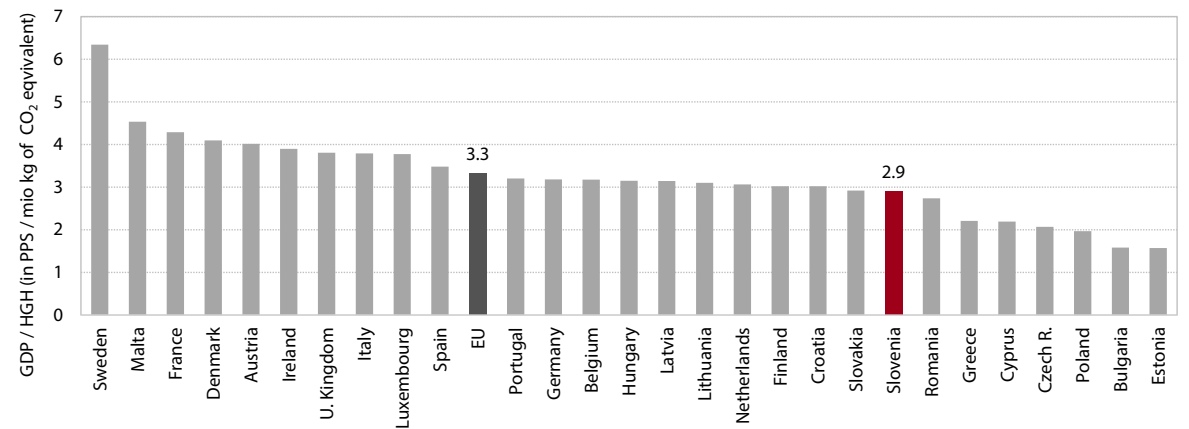
Over the longer term, emissions have been falling across all sectors but transportation. The total decline was mainly due to the *energy* sector. The fall in this sector, where emissions are almost entirely due to thermal electricity generation, followed the shutdown of one of these plants. The top position in terms of emissions is now occupied by the *transport* sector. Transport emissions had been rising relatively rapidly during the time of economic growth, then fell somewhat during the crisis, though remaining high by international comparison. Since 1990 they have nearly doubled, in part owing to strong international trade flows through Slovenia and the relatively favourable competitive conditions established through tax policies such as the refund of excise duties. Approximately one-fifth of total emissions come from *agriculture* and the *consumption of fuels in industrial processes*, the share of emissions from other activities being relatively modest. The main component of GHG emissions is carbon dioxide, which is generated mostly by the combustion of fuels; this is followed by methane and dinitrogen monoxide, which mainly derive from agriculture and landfilled waste.²

Table: GHG emissions and emission productivity (GDP/GHG emissions ratio)

	2000	2005	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	SDS 2030 target
GHG emissions, index 1990=100													
Slovenia	103	110	112	116	105	106	106	102	99	89	91	95	
EU	92	94	93	91	84	86	83	82	80	77	78	N/A	
Emission productivity in PPS/million kg of CO ₂ equivalent													
Slovenia	1.6	2.0	2.2	2.2	2.2	2.2	2.3	2.4	2.4	2.8	2.9	2.8	EU average in 2030
EU	1.8	2.2	2.5	2.5	2.6	2.6	2.8	2.9	3.0	3.2	3.3	N/A	
Slovenia/EU, indeks	89.6	91.2	89.5	86.8	84.6	84.6	81.7	82.0	82.9	88.5	87.3	..	

Sources: Eurostat Portal Page – Environment and Energy, 2018; Eurostat Portal Page – Economy and Finance, 2018; for 2016 preliminary data by ARSO; calculations by IMAD. Notes: 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; N/A – data not available.

Figure: Emission productivity, 2015



Sources: Eurostat Portal Page – Environment and Energy, 2018; Eurostat Portal Page – Economy and Finance, 2018; calculations by IMAD.

¹ ARSO and the Ministry of the Environment and Spatial Planning, Second annual report ... until 2020.
² The records of GHG emissions include not only carbon dioxide (CO₂), methane (CH₄) and dinitrogen monoxide (N₂O), but also fluorinated gases (F-gases).

Energy efficiency

4.4

Primary energy consumption has declined by around one-tenth in Slovenia in the last few years but, judging by the year 2016, may start increasing again with higher GDP growth. Energy efficiency has thus been rising, meaning that energy consumption is being reduced compared with the projected consumption under the no-policy change scenario. A faster decline in energy consumption is impeded by high energy consumption in transport, which significantly contributed to the renewed increase in total energy consumption in 2016 (by 3.4%). For Slovenia not to exceed the 2020 energy efficiency target,¹ energy consumption should not increase by more than 2.2% per year in the four years to 2020.

Though mostly rising, energy productivity has fallen somewhat behind the EU average in the last few years. The growth of energy productivity (defined as the ratio of GDP² to total energy consumption) eased more notably (and also declined) only in the first years of the crisis. The lag behind the average energy

productivity in the EU rose in this period from around 15% to around 20%.

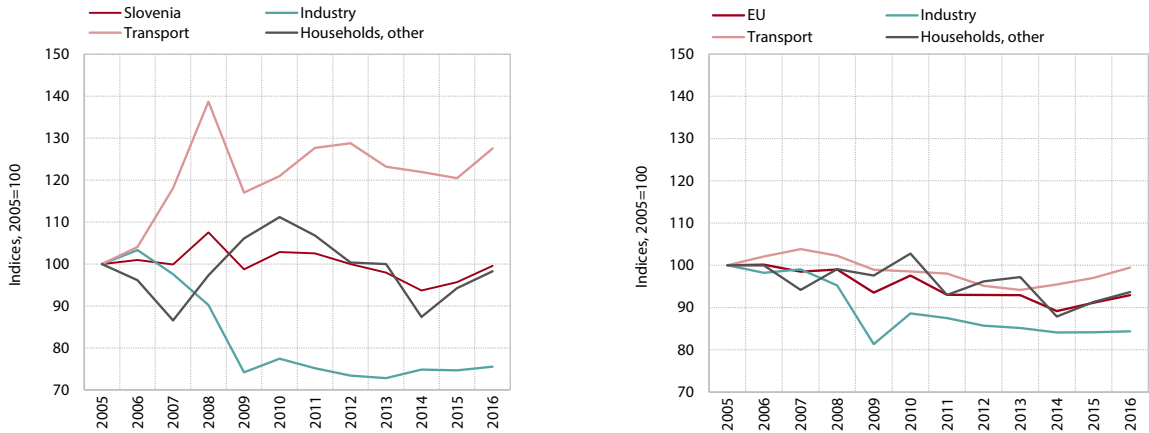
Final energy consumption is significantly influenced by high energy consumption in transport and, in recent years, fluctuations in the use of energy for heating. After falling from 2008, final energy consumption³ rose sharply in 2015 and 2016, meaning that it remained almost unchanged in the 2005–2016 period as a whole (in the EU it dropped by one-tenth during this period). Broken down by sector, energy consumption fell considerably only in industry,⁴ while rising notably in transport, mainly owing to increasing transit through Slovenia.⁵ The decline in household consumption was attributable to the mandatory installation of heating cost dividers, more efficient heating appliances and energy renovation of buildings and, even more, to higher temperatures during the heating season especially in 2014.⁶ In 2015 and 2016 winter temperatures were again lower and, in turn, energy consumption higher.

Table: Primary energy consumption

2005 = 100	2000	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016	Target for 2020*
Slovenia	88.6	100.0	106.5	98.7	101.6	102.8	98.7	96.2	92.8	92.0	95.5	104.2
EU	94.4	100.0	98.8	93.3	96.7	93.1	92.5	91.6	88.0	89.3		86.6

Source: Eurostat Portal Page – Europe 2020 indicators, 2017; EC Energy Efficiency, Reporting targets; calculations by IMAD.
Note: * One of the EU 2020 Strategy targets.

Figure: Final energy consumption by consumer sector



Source: Eurostat Portal Page – Environment and Energy, 2017; calculations by IMAD.

¹ 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 the projected consumption according to the baseline scenario with no additional measures. Most EU countries must actually reduce their energy consumption by 2020, while some, including Slovenia, are only required to limit its growth.
² The calculation takes into account GDP in purchasing power standards (PPS).
³ Final energy consumption is primary consumption of energy, excluding energy used by energy transformation processes, by the energy sector itself and losses.
⁴ The reduction in Slovenia was mainly due to the transition to a less energy-intensive process of aluminium production.
⁵ See also Indicator 4.5. Energy consumption in road transport accounts for 37% of final energy consumption in Slovenia (in the EU, 27%).
⁶ According to ARSO, 2014 was the warmest year since the beginning of continuous measurements.

Modal split of transport

4.5

In the previous decade the share of road freight transport in total freight transport was rapidly rising and was significantly above the EU average, but in the last few years the gap has been narrowing. In the previous decade freight transport by road had been rising much faster than freight transport by rail, but in 2009–2016 freight transport by rail increased twice as much as transport by road. It was also rising faster than road transport in 2017, the share of road transport thus dropping below 80% according to our estimate. In the EU – where Slovenia ranks below the upper third of Member States – this share is a few percentage points lower, although it has been rising in recent years. From the environmental perspective, an even faster shift from road to rail transport is desirable, to which the construction of the planned second track of the Divača–Koper railway would contribute. Slovenia has very high levels of both road and rail freight transport per inhabitant (2.5-times as high as the EU average), primarily owing to its transit location and the density of road and rail transport infrastructure. Traffic intensified especially with the recent enlargements in the EU and the completion of Slovenia's motorway network.

Slovenian hauliers perform more and more of their activities abroad; at the same time, more and more foreign hauliers operate on Slovenian roads.¹ This trend has to do with the liberalisation of transport in the EU and the competition of hauliers from different Member States. In 2016 the distance of journeys performed in the territory of Slovenia again approached the high level from 2008 (in the

interim it had declined due to the crisis, the most in 2013, this by one-tenth). The distance of journeys performed by Slovenian hauliers abroad (i.e. cross-trade) increased by around a half, while their journeys that are at least partly connected to the territory of Slovenia dropped by around one-seventh. This indicates an increase in transport activities by foreign hauliers on Slovenian roads, which is also confirmed by data from toll stations.² According to the latest data, in 2008–2012 alone the share of foreign freight vehicles on Slovenian motorways rose by 15 pps to 68%, and it is still rising.

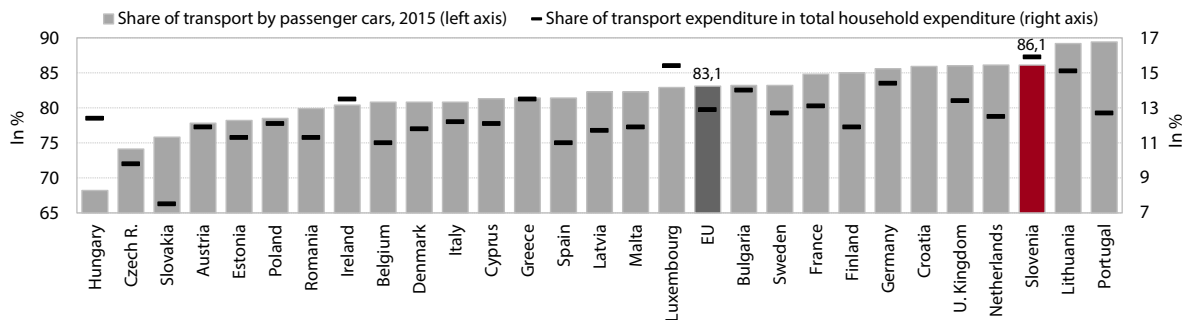
Passenger transport is marked by a high reliance on the use of passenger cars. Slovenia has one of the highest shares of transport by passenger car in total passenger transport in the EU. This is in part attributable to the diversity of its landscape and its dispersed settlements, which – in spite of subsidies – makes it difficult to extend the network of public transport and increase its profitability. According to a 2012 survey,³ one-quarter of Slovenians have 'high' or 'very high' levels of difficulty in accessing public transport (more people have difficulty in accessing public transport in only four other EU Member States; in the EU as a whole the share is one-fifth). People with lower incomes and those living in remote rural areas tend to have the most problems in accessing public transport. Under such conditions, passenger transport is generally also more expensive. The share of transport expenditure in total household expenditure in Slovenia is the highest among all EU Member States.

Table: Transport by road freight vehicles and passenger cars in total land freight/passenger transport, in %

	2000	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016
Share of transport by road freight vehicles in total land freight transport, measured in tonne km											
Slovenia	71.9	77.3	82.2	84.0	82.3	81.4	82.1	80.7	79.8	81.1	81.1
EU*	73.7	76.4	76.3	77.5	76.2	75.6	75.3	75.5	75.4	75.9	76.6
Share of transport by passenger cars in total passenger land transport, measured in passenger km											
Slovenia	82.9	85.6	86.4	86.7	86.8	86.6	86.7	86.3	86.3	86.1	
EU	82.4	83.3	82.8	83.6	83.5	83.2	82.8	83.0	83.1	83.1	

Source: Eurostat Portal Page – Transport, 2017; calculations by IMAD.
Notes: the rest being transport by rail; in passenger transport, also public transport by road; * for some Member States data from previous years are taken into account.

Figure: Passenger transport



Sources: Eurostat Portal Page – Transport, 2017; Eurostat Portal Page – Economy and Finance, 2017.
Note: Data for Croatia not available.

¹ This can be inferred from a comparison of vehicle-kilometres driven by domestic freight vehicles (source: SURS) and by vehicle-kilometres travelled by all freight vehicles on Slovenian roads (source: the Slovenian Infrastructure Agency (DRSI)).
² Freight vehicles counted at toll stations in the entire territory of Slovenia (DARS), 2009; proposals for the new price list (DARS), 2013.
³ Sustainable Development in the European Union – Monitoring Report (Eurostat).

Waste

4.6

The quantity of total waste generated, which was declining during the crisis, has been rising in the last few years. In 2016 the quantity of waste was, for the fourth consecutive year, higher than one year previously and around one-quarter higher than in 2012.¹ Waste from *production and service activities*, which accounts for four-fifths of total waste, was rising more slowly during this period. The vast majority – around nine-tenths of waste – is usually generated by four sectors: (i) manufacturing, (ii) construction, (iii) electricity, gas and steam supply, and (iv) water supply, sewerage, waste management and remediation activities.² The largest share is accounted for by construction waste, as this has a high specific weight. The remaining fifth is *municipal waste*, i.e. waste from households and other waste of similar origin managed by the providers of mandatory municipal public services for environmental protection. The quantity of this waste increased by one-third in 2012–2016 and approached the EU average. *Hazardous waste*, where chemical compounds and other chemical waste predominate, account for 2% of total waste generated.³

With increased waste recovery, the quantity of landfilled waste is decreasing relatively rapidly. The total quantity of waste recovered in 2016 was around three-quarters higher than a decade before.⁴ Recycling, a very desirable form of recovery from an

environmental perspective, has risen slightly in recent years, but it is still significantly lower than during the crisis. In the period since the crisis, its share has more than halved, to 46% of total recovery. Landfilling, which is the least favoured option in the waste management hierarchy, continues to be successfully reduced. Having been rising until the crisis, the quantity of landfilled waste then dropped sharply and accounted for only 2% of the total amount recovered in 2016. The share of landfilled municipal waste also continues to decrease, as more than two-thirds of municipal waste is already collected separately and as residual mixed municipal waste must be treated before going to landfill; in 2016 it totalled around 8%.

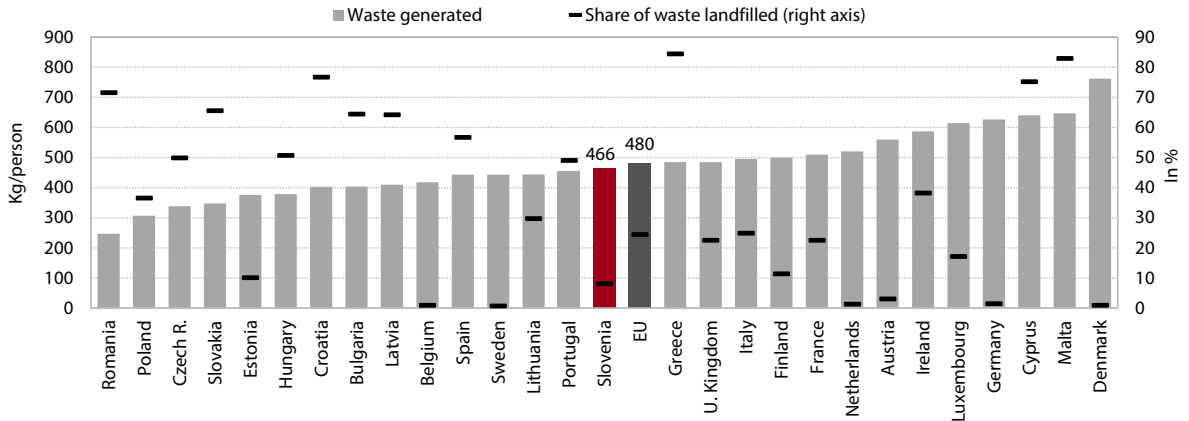
IN the area of municipal waste, Slovenia performs better than the EU as a whole. Despite the increase in recent years, the quantity of municipal waste generated per person is close to the EU average, though still slightly lower (in 2016 by 14 kg or around 3%).⁵ Waste management structure in Slovenia is also better than in the EU as a whole, a larger share of municipal waste being recycled (in Slovenia 54%; in the EU as a whole 46%) and a smaller share landfilled. However, as many as six EU Member States have already reduced their shares of landfilled municipal waste to below 3% of total waste generated.

Table: Municipal waste generated per person, 2000=100

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Slovenia	96	101	102	106	102	96	81	71	81	84	88	91
EU	99	100	101	100	98	97	96	93	92	92	92	92

Source: Eurostat Portal Page – EnSourceonment and Energy, 2017; calculations by IMAD.

Figure: Municipal waste generated and landfilled, 2016



Source: Eurostat Portal Page – Environment and Energy, 2018.

Note: Data for some countries are for previous years.

¹ According to statistical data, the quantity of waste generated declined by around one-quarter in 2012, which was, in addition to methodological changes (some waste categories having been reclassified as by-products), also due to a reduction in construction waste.

² Exceptionally, in 2016 a relatively large quantity (as much as 17%) of total waste was generated in public administration and defence.

³ This being particularly problematic waste including, for example, waste oils, salts, acids, alkalis, waste from organic solvents, paints, varnishes and resins.

⁴ However, with the share of backfilling or pre-treatment increasing, the actual amount recovered was half lower.

⁵ The most waste per person was generated in the Obalno-kraška region, at 577kg/person (partly on account of tourism), and the least in the Zasavska region, at 329 kg/person.

Environmental taxes

4.7

In the last few years, the level of environmental taxes has been stable and higher than before the crisis. The rise in environmental taxes – which include energy taxes, transport taxes, and taxes on pollution and the use of natural resources – in 2008–2016 (from 2.95% of GDP to 3.87% of GDP) arises from the increased taxes on energy, which accounted for 85% of all environmental taxes in 2016. This is primarily a result of the higher amounts of excise duty on energy (motor fuels) in 2009 and 2012 and the introduction of a CO₂ tax on energy in 2012, which mitigated the decline in general government revenue in the first years of the crisis. Over a longer period (2000–2016), this also led to an increase in the effective tax rate on energy consumption amid a decline in the effective tax rate on employed labour.¹ In 2016 revenues from transport taxes and taxes on pollution and the use of natural resources reached the same nominal values as in 2008, their share in total environmental taxes falling to 15%. In spring 2017 the Government started to prepare a strategic development project, the Green Budget Reform, which is aimed at better aligning tax policy measures with environmental goals. It focuses on an overview of various subsidies and tax breaks with regard to their impact on the environment. Subsidies that do not help lower the environmental burden include, for example, the existing refunds of excise duties for commercial and industrial-commercial purposes,² exemptions from the payment

of excise duties for energy-intensive companies, lower excise duties on diesel than on unleaded petrol,³ and exemption from the payment of taxes on CO₂ emissions. The effectiveness of environmental taxes to protect the environment is, besides by subsidies which are not contributing to the reduction of environmental harm, also impaired by the ineffectiveness of the European Emissions Trading Scheme, with many companies being allocated more CO₂ emission allowances than they actually need; moreover, in recent years the effect of higher taxes on oil consumption and incentives for the use of cleaner energy sources was also reduced by falling oil prices.⁴

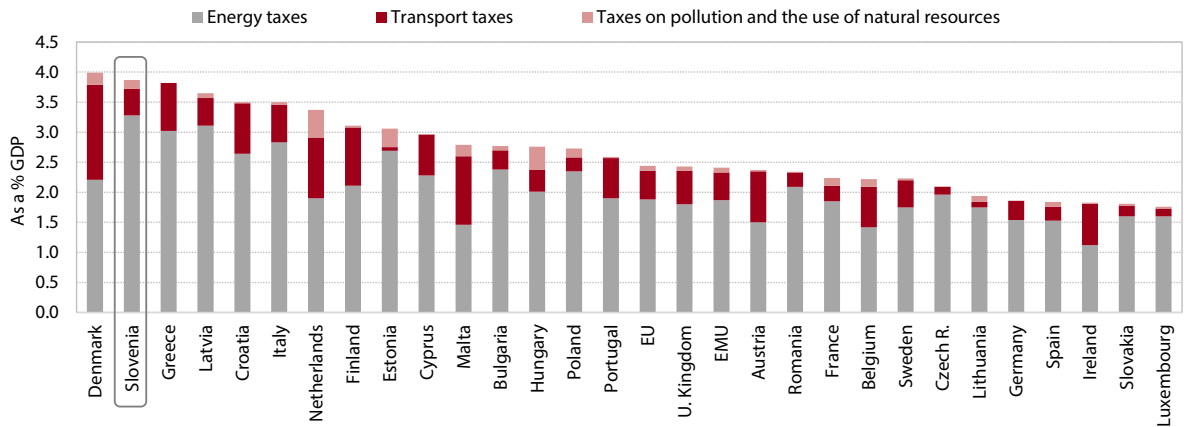
Revenue from environmental taxes as a percentage of GDP had already exceeded the EU average before the crisis. Already in 2008 the gap between the levels of environmental tax revenues in Slovenia and the EU as a whole arose from higher purchases and consumption of energy in Slovenia, which is related to the latter's large volume of transit traffic, strong transport sector, extensive use of motor fuels due to dispersed settlement and poorly developed public transport infrastructure. With a considerable increase in the level of excise duty on energy in Slovenia, much greater than the EU average, the share of environmental taxes in GDP has risen even more than in the EU as a whole since 2008.

Table: Environmental tax revenues in Slovenia and the EU as a % of GDP

	2000	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016
Slovenia	2.88	3.15	2.95	3.49	3.62	3.46	3.85	3.94	3.86	3.89	3.87
EU (weighted average)	N/A	2.49	2.28	2.35	2.37	2.40	2.43	2.45	2.45	2.43	2.44

Source: Eurostat Portal Page – EnSourceonment and Energy, 2018.
Note: N/A – not available.

Figure: Revenue from environmental taxes, 2016



Source: Eurostat Portal Page – Environment and Energy, 2018.

¹ Measured by the implicit tax rates. The effective taxation of capital also rose in this period.
² After the sharp increase in excise duties in 2009, the possibility to obtain a partial refund of excise duty paid on diesel fuel used for commercial purposes was introduced (up to the minimum level set in the EU energy directive).
³ As in most other OECD countries. The amount of excise duty on diesel is higher than on unleaded petrol only in Switzerland, Mexico and the US (OECD, 2017).
⁴ Fricke, 2016, and the Framework Programme for the Transition to a Green Economy (MOP), 2015.

Utilised agricultural area

4.8

Agricultural area in Slovenia accounts for less than one-quarter of the total area and this share is decreasing. The utilised agricultural area (UAA)¹ covers around 480,000 hectares and is decreasing over the long term. Since 2005 alone it has decreased by 6.5%, around 2 pps more than in the EU as a whole. The decline is mostly due to the abandoning of agriculture and the consequent overgrowth of land by trees and shrubs. Forests cover approximately two-thirds of the total land area, which places Slovenia among the most forested countries in the EU. The share of other land categories, which is high particularly in countries with a lot of infertile land or with high population density, is relatively low in Slovenia.

In the structure of agricultural land, 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 to a great extent a consequence of natural conditions. The relatively large total production of fodder crops is also reflected in the relatively large share of livestock breeding in Slovenia's agriculture. Since 2005 permanent grassland has declined the most of all categories of agricultural land, this by around one-tenth. The area taken up by fields, which is relatively low, has also decreased further, although this type of

land is vital for food production. Slovenia is one of the EU countries with the least arable land per person, at 8 ares (it is less than 10 ares in only five Member States). The share of fields dedicated to vegetables is particularly low. The area taken up by permanent crops is relatively stable (around 6% of agricultural area; owing to natural conditions, vineyards predominate).

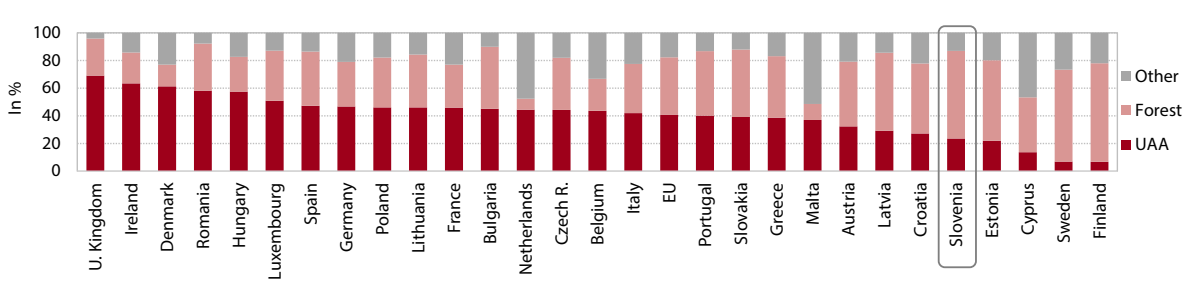
Organic farming, the best form of agricultural production from an environmental perspective, is more widespread in Slovenia than in the EU as a whole. Around 5% of all agricultural holdings were involved in controlled organic farming in 2016, this on an area of around 44,000 hectares or around 9% of the total agricultural land. This is more than on average in the EU and the share is relatively rapidly rising. Permanent meadows and pastures dedicated to the production of fodder crops account for by far the largest share in the structure of this land, the shares of other categories being relatively low. This is not in line with consumer demand, however, which is greatest for fresh vegetables, fruit and vegetarian processed food. There is still significant room for 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), growth and share of organic farming

	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016	SDS 2030 target
UAA, share in total area, in %											
Slovenia	25.1	24.3	23.1	23.8	22.6	23.7	23.6	23.8	23.5	23.6	>24.0
UAA, growth and structure 2005=100											
Slovenia, total	100.0	96.4	91.7	94.5	89.7	93.9	93.8	94.4	93.4	93.5	
of which: arable land	100.0	101.1	98.3	95.4	94.6	96.3	97.7	98.2	96.0	97.5	
permanent grassland	100.0	93.8	87.7	93.7	86.1	92.2	91.0	91.8	91.4	90.6	
land under permanent crops	100.0	95.1	94.5	97.5	97.6	97.6	99.3	99.1	98.3	100.5	
EU total	100.0	97.9	100.5	96.2	96.0	95.7	95.4	95.4	95.8	95.6	
UAA under organic farming, share, in %											
Slovenia	4.6	6.1	6.3	6.4	7.0	7.3	8.1	8.6	8.8	9.1	
EU	N/A	N/A	N/A	N/A	N/A	5.6	5.7	5.8	6.2	6.7	

Sources: Eurostat Portal Page – Agriculture, Forestry and Fisheries, 2018; SI-STAT Data Portal; calculations by IMAD.
Note: N/A – not available.

Figure: Share of utilised agricultural area (UAA) in the total area of countries, 2015



Source: Eurostat Portal Page – Tables on EU Policy in Agriculture, Forestry and Fisheries, 2018; calculations by IMAD.

¹ The utilised agricultural area (UAA) refers to the land used for farming; it includes arable land, kitchen gardens, permanent grassland, intensive and extensive orchards, olive plantations, vineyards, nurseries, vine and root-stock nurseries used by the agricultural holding, regardless of the type of tenure and excluding common pastures and meadows.

Quality of watercourses

4.9

Slovenia is a country rich in water resources. The high freshwater supply is a consequence of Slovenia's diverse natural conditions. The abundance of water is also indicated by the amount of freshwater resources available per capita. its long-term average totalling around 15,600 m³, almost twice as much as the EU average; it is higher in only four Member States. However, Slovenian watercourses are characterised by significant fluctuations in annual flows, which is attributable not only to climatic factors, varied topography and geological structure of the land, but also to human interventions. Despite the abundance of water, Slovenia thus also has to cope with water shortages and floods.

A great majority of water is abstracted from surface water sources; around one-tenth of wastewater is not treated before discharge. Around 890 million m³ of water in total was *abstracted* in 2016, three-quarters of which was from surface waters and used primarily in industry and for irrigation. The remainder was abstracted from groundwater. Most of it was intended for the public water supply system, i.e. final consumers such as households, kindergartens, schools and other activities. Around 900 million m³ of waste water was *discharged* to the environment.¹ Approximately one-tenth of this water

was discharged without treatment and approximately one-fifth was treated, while the remaining majority was polluted only by heat (used mainly to drive turbines in hydropower plants). Around three-quarters of wastewater was released into surface waters directly, the remainder mostly through the public sewerage system.

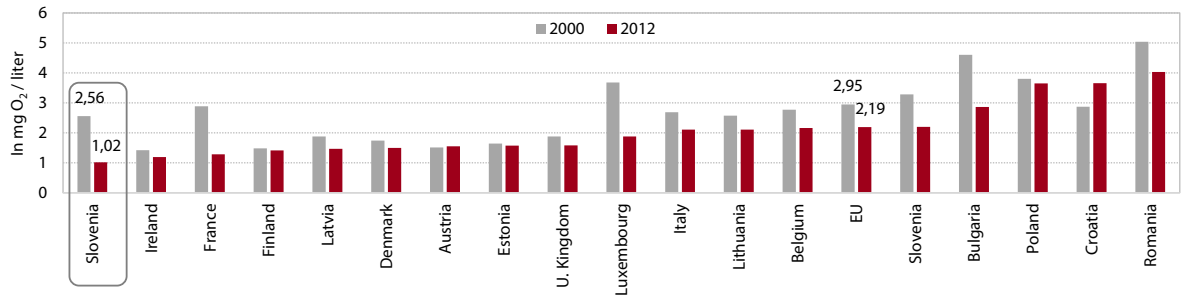
The quality of rivers, as measured by biochemical oxygen demand, is relatively good in Slovenia; the concentrations of nitrates in groundwater and phosphates in rivers are also below the EU average. At the beginning of the previous decade, the value of the first indicator was above the EU average in Slovenia owing to the relatively high organic pollution. This is usually a consequence of municipal and industrial waste water discharges and runoff from agricultural land.² After 2005 the value of this indicator dropped substantially owing to the improved wastewater treatment and the abandonment of economic activities whose waste waters had been a significant source of pollution in previous years. According to the latest data (for 2012), Slovenia performed the best of all EU countries for which data are available in this regard. The concentrations of nitrates in groundwater and phosphates in rivers are also declining and are lower than the EU average.

Table: Selected water quality indicators

	2000	2005	2006	2007	2008	2009	2010	2011	2012	SDS 2030 target
Biochemical oxygen demand in rivers, in mg O ₂ /l ¹										< 1
Slovenia	2.6	1.8	1.0	1.2	0.9	0.9	0.9	1.0	1.0	
EU	3.0	2.3	2.3	2.4	2.2	2.2	2.2	2.1	2.2	
Nitrates in groundwater, in mg NO ₃ /l										
Slovenia	21.9	21.8	25.3	19.4	20.6	20.4	19.2	18.7	18.5	
EU	19.1	19.9	20.4	20.4	19.7	19.7	19.3	19.0	19.1	
Phosphates in rivers, in mg PO ₄ /l										
Slovenia	0.04	0.03	0.04	0.03	0.02	0.02	0.01	0.02	0.02	
EU	0.11	0.09	0.09	0.09	0.08	0.08	0.07	0.07	0.07	

Source: Eurostat Portal Page – tables on EU policy, 2018.
Notes: ¹ Lower = better; N/A – data not available.

Figure: Biochemical oxygen demand in rivers



Source: Eurostat Portal Page – Tables on EU policy, 2018.
Note: data for other EU countries not available.

¹ Wastewater is not only the amount of water that is released back into the environment after use, but also runoff rainwater, which flows back to the environment through the sewerage system or is captured and then discharged directly to rivers, streams or soil.
² Environmental indicators, ARSO.

Ecological footprint

4.10

The ecological footprint, a composite indicator of environmental development, is relatively high in Slovenia and similar to the EU average. It is expressed in standardised units of biologically productive area, i.e. global hectares (gha).¹ 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, which is a result of high carbon dioxide and other GHG emissions. This is 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 (infrastructure). The ecological footprint in Slovenia declined during the recession, following a rapid increase in the period of economic growth. In 2014 it was at approximately the same level as in 2001, similar to the EU average yet larger than in most neighbouring Member States (being larger only in Austria). This indicates economic development amid a relatively high level of natural resource use and environmental pollution.

The ecological footprint should be compared with biological capacity (biocapacity), which is considerable in Slovenia due to its high share of forest area. Biological capacity, i.e. biological areas with regeneration capacity, is also 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 area they do not suffice to absorb carbon dioxide emissions, the largest contributor to the ecologic footprint.

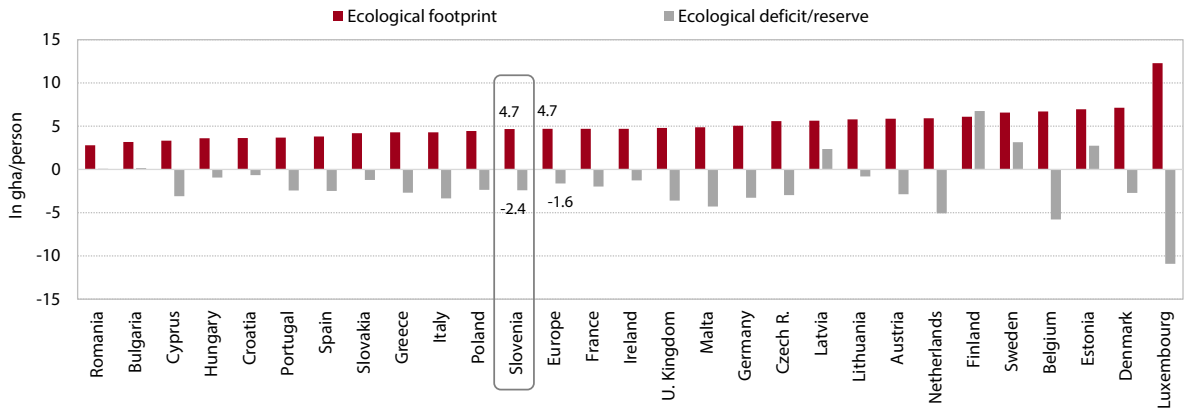
The difference between ecological footprint and biocapacity has been decreasing in Slovenia since the crisis but is still relatively significant. Calculations show that the difference between the two (i.e. the ecological deficit) in Slovenia is higher than the EU average. With the current lifestyle in Slovenia, 2.8 planet Earths would be needed to provide the resources we use and to absorb our waste.

Table: Ecological footprint in gha/person

	2000	2005	2007	2008	2009	2010	2011	2012	2013	2014	SDS 2030 target
Slovenia	4.6	5.4	6.0	5.8	5.0	5.2	5.2	4.9	4.7	4.7	3.8
Europe	4.9	5.2	5.4	5.4	4.9	5.0	5.0	4.7	4.8	4.7	
World	2.6	2.8	2.8	2.8	2.8	2.9	2.9	2.8	2.9	2.8	
Slovenia / EU, index	92.9	104.2	111.7	107.4	101.0	102.6	103.4	103.0	99.8	99.8	

Source: National Footprint Accounts, (Global Footprint Network) 2018.

Figure: Ecological footprint and the ecological deficit/reserve, 2014



Source: National Footprint Accounts (Global Footprint Network), 2018.

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 1961–2014 period.
² The total biologically productive area accounts for approximately a quarter of the Earth's surface, excluding glaciers, deserts and oceans, where renewable resources are not concentrated enough to contribute significantly to the overall biocapacity.

Air quality

4.11

The quality of ambient air in Slovenia is strongly related to excessive particulate matter (PM) pollution, which in turn reflects the needs for heating and the wind pattern of the area. Exceeding the PM daily limits¹ is typical for the cold part of the year when there are prolonged temperature inversions. Particle pollution during the heating season is mainly due to emissions from households' outdated wood biomass furnaces, followed by particle emissions caused by energy use in industry and transport, particularly diesel-fuelled vehicles. Particulate matter concentrations in Slovenia are highest in poorly ventilated basins, where even relatively low emissions can cause excessive pollution. The general exposure of the urban population to particle pollution, having been declining in the last few years, partly also as a result of milder winters, rose slightly again according to the most recent data for 2015. Household particle emissions have increased, contributing around 70%

of total emissions, as have emissions caused by energy production. Average annual PM₁₀ and PM_{2.5} concentrations are relatively high and significantly higher than the EU average.

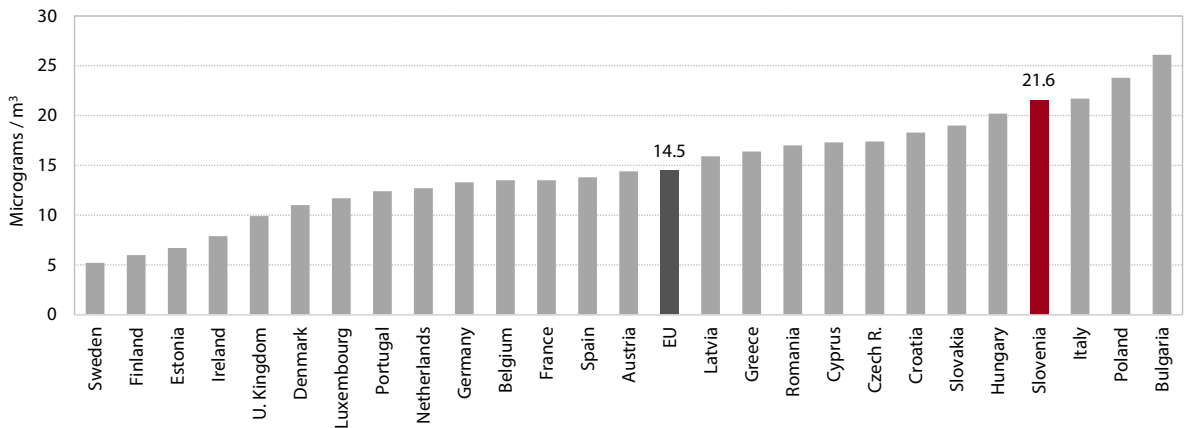
Another problem is the locally high presence of ground-level ozone. As the formation of ozone² requires sufficient sunlight, the excessive concentrations of ozone – in contrast to particulate matter – mainly occur in the summer months. They are primarily the result of road traffic, the main source of ground-level ozone precursors. The ambient concentration of ozone in Slovenia (which is significantly affected by transboundary air pollution and highly dependent on winds from the west) is the highest in the Primorska region.³ Owing to strong dependence on weather conditions, the multi-annual series of data does not indicate a clear trend. In recent years the urban population's exposure to ozone has decreased, but is still higher than the EU average.

Table:Urban population exposure to particulate matter and ozone, in micrograms per m³

	2000	2005	2007	2008	2009	2010	2011	2012	2013	2014	2015
PM ₁₀											
Slovenia	N/A	36.8	32.3	29.1	27.5	28.2	31.0	25.4	24.9	22.5	27.4
EU	28.7	28.4	28.8	26.5	26.5	26.2	27.3	24.8	24.0	22.5	22.8
PM _{2.5}											
Slovenia	N/A	N/A	N/A	23.9	18.7	21.8	24.1	20.4	20.1	17.5	21.6
EU	14.4	15.6	16.8	17.2	17.4	18.1	18.3	16.6	15.5	15.1	14.5
Ozone											
Slovenia	6,806	6,017	6,514	5,838	4,959	4,497	6,615	6,699	5,528	3,812	N/A
EU	3,000	3,669	3,648	3,609	3,698	3,432	3,749	3,530	3,373	3,243	N/A

Source: Eurostat Portal Page – Environment and Energy, 2018.
Note: N/A – not available.

Figure: Urban population exposure to PM_{2.5}, 2015



Source: Eurostat Portal Page – Environment and Energy, 2018.
Note: for Hungary and Bulgaria data for 2014

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 of 50 µg/m3 is not to be exceeded for more than 18 days in a calendar year, while 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/).

² Long-term exposure also has a significantly harmful effect on human health, as it may lead to respiratory diseases.

³ Kakovost zraka v Sloveniji v letu 2016 (Air quality in Slovenia in 2016), ARSO, 2017.

Agricultural intensity

4.12

The consumption of main agricultural inputs, mineral fertilisers and pesticides, has declined significantly over the long term, but since 2013 particularly the consumption of pesticides has again been rising. The decline had been similar for both inputs, only that *fertiliser* use ceased to fall somewhat earlier. Agricultural producers had been reducing fertiliser use until 2009, when one-third less main macronutrients (NPK, i.e. nitrogen, phosphorus and potassium, fertilisers) per unit of utilised agricultural area (UAA) were used than a decade earlier. After that, fertiliser consumption per unit of UAA rose slightly and was roughly the same in 2016 as in 2008. The *total quantity of all active ingredients in pesticides sold*¹ had been declining, albeit with significant annual fluctuations, until 2013, when it was also around one-third less than ten years before. In the following three years it returned to a level similar to that in 2009. The consumption of both inputs is higher than the EU average, but international comparisons are difficult to make, particularly for pesticides, where the figure on the quantity sold is the sum of active ingredients with different toxicity levels.

Slovenia is not among countries with high farming intensity as measured by yield and number of animals per unit of agricultural area. The average yield per hectare for Slovenia's two most important crops, wheat and grain maize, is rising. An increase in the yield – as long as it is not too large – may be a sign of better exploitation of natural

resources than in previous years. A comparison with the EU, however, paints a different picture. The yield per hectare tends to be lower than the EU average for wheat and higher for maize, but in maize the annual fluctuations due to weather conditions are more pronounced. The *environmental burden of livestock production* as measured by the number of animals per unit of agricultural area (which is relatively high in Slovenia partly as a result of its natural conditions) has declined slightly according to the latest survey results. The relatively low average milk yield per animal is therefore rising, which is favourable from the perspective of the environmental burden per unit of GDP generated. A long-term improvement in agricultural efficiency is related to a decline in the number of agricultural holdings and the concentration of crop and animal production, this contributing to the desired sustainable productivity growth.

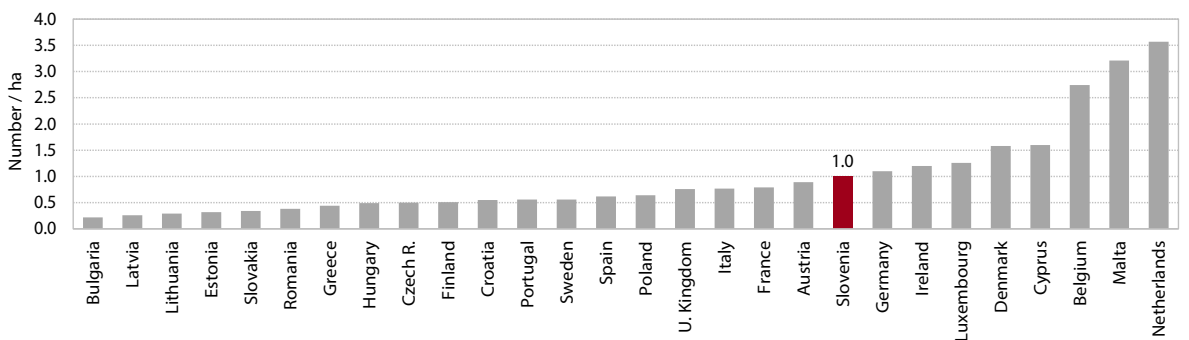
Of particular importance is organic farming, which is increasing yet still lags significantly behind the level planned.² Around 5% of all agricultural holdings were under the organic farming control system in 2016, only one-third of the targeted 15%. Approximately 9% of the utilised agricultural area was cultivated organically (target: 20%; see Indicator 4.8), the share of all organic products sold on the market standing at around 1% (target: 10%). Moreover, nor does the structure of organic production meet the demand, meaning there is still significant room for improvement in this area.

Table: Consumption of NPK fertilisers and pesticides in Slovenia and average yields of the main crops

	2005	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Fertilisers and pesticides, Slovenia, growth, 2005=0												
NPK fertilisers, total consumption	0.0	0.1	-9.7	-20.3	-11.8	-12.2	-14.1	-12.8	-9.0	-9.0	-13.4	N/A
Pesticides sales, in tonnes of active ingredient	0.0	-18.3	-13.8	-17.8	-19.8	-20.7	-28.1	-35.1	-28.6	-26.0	-18.2	N/A
Average yield of wheat, tonnes/ha												
Slovenia	4.7	4.2	4.5	4.0	4.8	5.2	5.4	4.4	5.2	5.1	5.2	5.0
EU	N/A	4.8	5.7	5.4	5.3	5.3	5.2	5.6	5.9	5.7	5.3	N/A
Average yield of wheat, tonnes/ha												
Slovenia	8.3	7.5	7.3	7.8	8.5	8.7	7.1	5.4	9.2	9.0	9.5	6.6
EU	N/A	5.8	7.2	6.9	7.2	7.6	6.1	6.9	8.1	6.4	7.4	N/A

Source: Eurostat Portal page – Agriculture, Forestry and Fisheries, 2018; calculations by IMAD.

Figure: Number of livestock units¹ per hectare of utilised agricultural area, 2013



Source: Eurostat Portal Page – Tables on EU policy, 2018.

Note: ¹ A livestock unit is a reference unit which facilitates the aggregation of different livestock categories.

¹ According to estimates, around two-thirds of pesticides are used in agriculture. The rest is used on non-agricultural land such as railway tracks, roads, parks and other green areas, and golf courses and other sports fields.

² The targets were set in the Action Plan for Organic Farming until 2015, 2005.

Intensity of tree felling

4.13

Tree felling has been increasing over the long term, but in the last few years it has been particularly pronounced as a result of emergency removals in the aftermath of the ice storm. Following the severe glaze ice damage in early 2014, around half more wood mass has been cut in Slovenian forests per year than in previous years and twice the amount felled at the beginning of the previous decade. In the last few years annual tree felling has come close to the maximum felling level determined in forestry management plans, having previously lagged considerably behind.¹ The relatively low *tree felling intensity*, expressed as the rate of annual felling to annual wood increment, has risen to more than 70%. This is close to the level envisaged in the Action Plan, according to which tree felling intensity could be increased to 75% and 6.5 million m³ could be cut without jeopardising sustainable development.² However, the structure of cut wood has changed following the ice damage: felling for tree-tending purposes, which normally accounts for the largest share and was on the rise in the previous decade, has declined, while the scope of sanitary cuts has risen notably. In 2015 and 2016 the severe tree damage caused by the ice glaze was exacerbated by the rapid spread of the spruce bark beetle. As a result, three times as much wood had to be cut as ten years before, when the spruce bark beetle had previously caused the greatest tree damage until that time. Sanitary fellings because of the ice glaze damage are however not yet completed.³

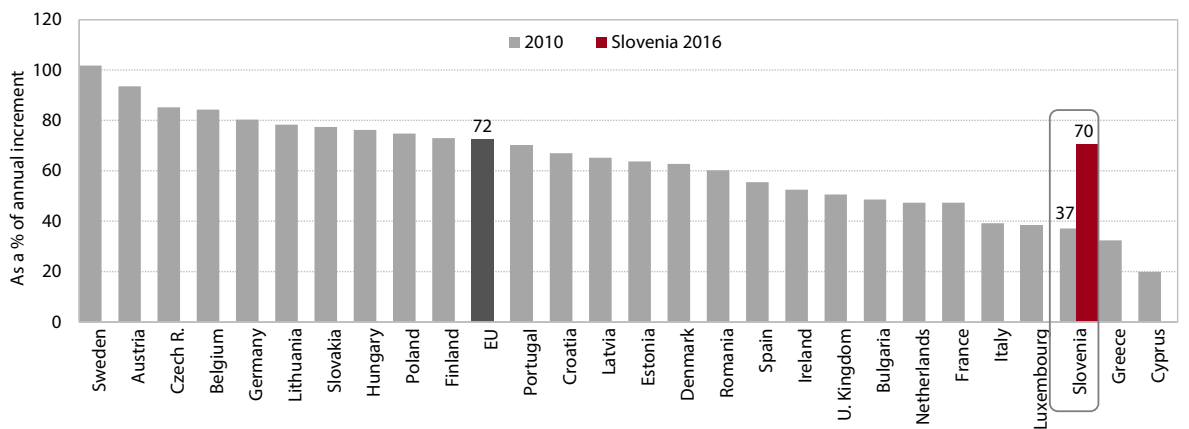
The increased felling is reflected not only in higher production of raw wood categories but also in rapidly rising exports particularly of the highest-quality wood, which is an untapped potential for Slovenia. The utilisation rate of felled wood measured by the ratio between the production of raw wood categories and felled wood dropped in the first year after the ice glaze damage, before improving again in the following years.⁴ After the 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. At the same time, *external trade* in unprocessed wood increased much more than its total production. While imports of unprocessed wood dropped by almost a fifth, exports thereof almost doubled. Exports of the highest-quality wood rose steeply. Particularly the exports of this wood category rose considerably more than production. The share of total export-oriented wood production rose by 12 pps, while the share of the highest-quality wood alone rose by 13 pps more, to 65 % of total unprocessed wood exports. The rapidly rising exports of this high-quality raw material 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	2005	2010	2011	2012	2013	2014	2015	2016
Forest area (thousand ha)	1,134.2	1,169.2	1,185.2	1,184.4	1,184.5	1,183.4	1,181.9	1,182.0	1,182.3
Growing stock (million m ³)	262.8	300.8	331.0	334.1	337.8	342.4	346.1	348.2	350.4
Annual wood increment (million m ³)	6.9	7.6	8.1	8.3	8.4	8.5	8.6	8.6	8.7
Removals (million m ³)	2.6	3.3	3.4	3.9	3.9	3.9	6.3	6.0	6.1
Tree felling intensity	38.0	43.0	41.6	47.1	46.4	46.2	74.0	70.1	70.4

Source: SI-STAT Data Portal – Environment and Natural Resources – Forestry and Hunting, 2018; calculations by IMAD.

Intensity of tree felling, 2010



Sources: Eurostat Portal page – Agriculture, Forestry and Fisheries, 2018; for 2016 SI-STAT; calculations by IMAD.

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. While in the years before the ice damage was sustained only around two-thirds of the allowable felling was carried out, tree felling rose to 103%, 95% and 94% of the allowable cut in 2014, 2015 and 2016 respectively.

² Akcijski načrt za povečanje konkurenčnosti gozdno-lesne verige v Sloveniji do leta 2020 (Action Plan to Increase the Competitiveness of the Forest–Wood Chain in Slovenia by 2020), 2012.

³ Report of the Forest Service of Slovenia for 2016, 2017.

⁴ The utilisation rate of felled wood also depends on the structure of raw wood categories and the types of trees felled. In 2014 it dropped from 90% to 83% of the volume cut, before improving to 86% and 90% respectively in the following two years.

Functionally derelict areas

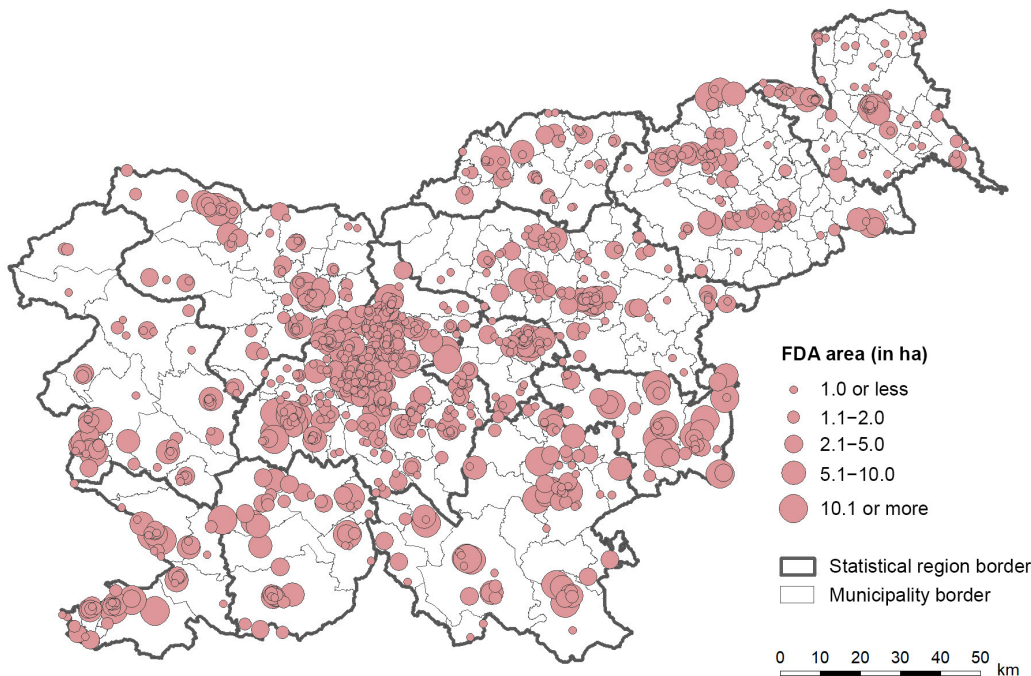
4.14

The spatial pattern of functionally derelict areas¹ reveals the great extent of functionally degraded land in Slovenia. Although land degradation is usually mainly associated with explicitly urbanised areas, functionally derelict areas (FDAs) have been identified all over Slovenia, which indicates increasing encroachment of various activities into rural areas. In 2017, 1,081 FDAs were recorded in Slovenia, in a total area of 3,423 ha². The majority, around one-fifth in terms of number or one-third in terms of surface area, are sites degraded by former industrial and commercial activities. The average FDA size is 3.2 ha, FDAs of industrial and commercial activities being the largest (5.1 ha) and FDAs for housing the smallest (1.1 ha). The total area of derelict land differs significantly between regions. It is largest in the Osrednjeslovenska region, which is characterised by the most intense development dynamics, followed by Jugovzhodna Slovenija and Posavska, and smallest in Koroška and Pomurska. FDAs are in as many as four-fifths of Slovenian municipalities (even in many small ones).

An overview of rehabilitation plans for functionally derelict areas shows that a development plan is in place for a mere 15% of all FDAs, while for as much

as 44% of derelict land no plans have been adopted yet. Functionally derelict areas represent spatial development potential for re-use or new investment which does not require expansion of built-up area to vacant land. As agricultural land protection is important from the points of view of rational and responsible spatial management, production potential and the provision of ecosystem services, it is sensible to place new development projects to already degraded sites. An area can be restored, i.e. returned to the condition it was in before it was degraded by human activities, but rehabilitation and revitalisation is a difficult task requiring investment and cooperation between the numerous stakeholders involved. The revitalisation plans – which have been adopted for a mere 15% of all FDAs – often even lack the timeframes for implementation. In initiatives for investment in new production activities, large geographically coherent areas are often sought, but studies³ show that there are few very large FDAs in Slovenia.⁴ In revitalising a FDA it is also important to consider its type and the possibility of integrating activities into those areas that are partially already operational.⁵ One of the greatest obstacles to the remediation of FDAs is heterogeneous ownership.

Map 2: Location and size of all FDAs recorded in the territory of Slovenia, 2017



Source: Lampič and Bobovnik, 2017.

¹ Functionally derelict areas (FDAs), i.e. brownfields, are underused or abandoned areas with visible signs of former use and a reduced economic value. The basic criterion for identifying an FDA is abandonment of activities. Nine types of functionally derelict areas have been identified in Slovenia: (i) areas of industrial or commercial activities; (ii) areas of infrastructures; (iii) areas of agricultural activities; (iv) areas of defence, protection and rescue services; (v) areas of transitional use; (vi) areas of mineral extraction; (vii) areas of service activities; (viii) areas of tourist and sports activities; and (ix) areas for housing (Lampič, B., Kušar, S. and Zavodnik Lamovšek, A., 2017).

² Situation as on 30 September 2017.

³ Lampič and Bobovnik, 2017.

⁴ There are only 16 FDAs larger than 30 ha and only 65 larger than 10 ha.

⁵ The sale of still vacant land inside the formerly functionally coherent FDAs is often subject to uncontrollable development, finally leading to low-quality structures in space.

5 A high level of cooperation, training and effective governance

Efficient governance and high-quality public service

- 5.1 Trust in institutions ◆ SDS 2030 PERFORMANCE INDICATOR
- 5.2 Executive capacity ◆ SDS 2030 PERFORMANCE INDICATOR

A trustworthy legal system

- 5.3 Rule of law index ◆ SDS 2030 PERFORMANCE INDICATOR
- 5.4 Expected time needed to resolve civil litigious and commercial cases ◆ SDS 2030 PERFORMANCE INDICATOR
- 5.5 Corruption Perception Index

A safe and globally responsible Slovenia

- 5.6 Share of households reporting crime, vandalism, or violence in the local area ◆ SDS 2030 PERFORMANCE INDICATOR
- 5.7 Global Peace Index ◆ SDS 2030 PERFORMANCE INDICATOR
- 5.8 Expenditure on official development assistance

Trust in institutions

5.1

The level of trust in institutions¹ remains low. It was highest in 2006; since then it has dropped significantly, particularly during the crisis, and is now among the lowest in the EU. Trust in most institutions was the lowest in 2013. Since then it has since been rising, which can be attributed to the improvement in macroeconomic indicators and lower dissatisfaction with the current economic and general situation in Slovenia.² The exception is trust in political parties, this improving slightly only in 2017. Of all institutions, political parties are trusted the least, people placing the most trust in local authorities. Despite the improvement in the last few years, trust in all institutions remains lower than the EU average, in contrast to the peak year 2006, when it was higher than in the EU generally. Trust in the government, parliament and political parties is also among the lowest in the EU.

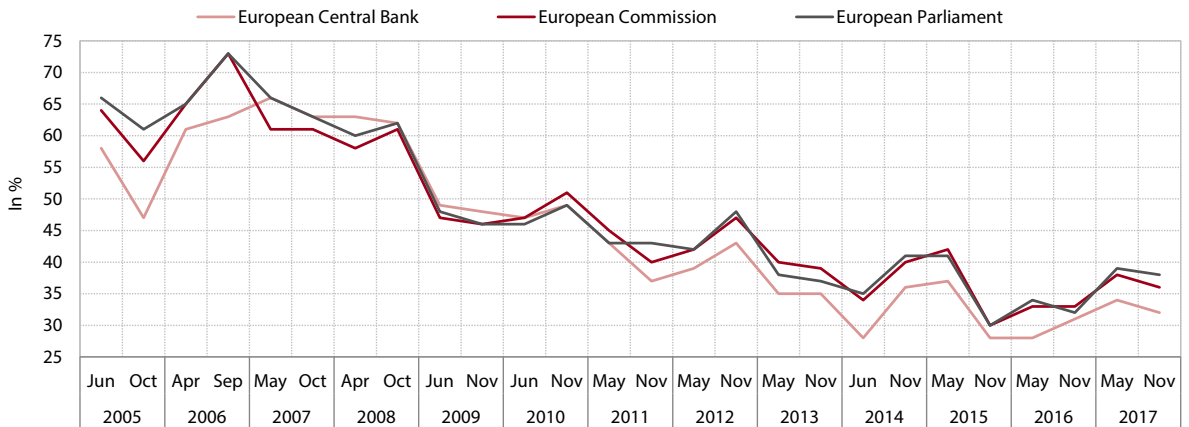
Trust in the EU and its institutions has increased but remains below the EU average. It was the highest in 2006, but since 2008 it has dropped strongly. In 2017 trust in the EU and its main institutions increased slightly relative to 2016. In Slovenia 38% of respondents trust the EU, which is still less than the EU average. Slightly more than one-third of respondents trust the European Parliament, the European Commission and the European Central Bank. All these shares remain lower than the EU average. Despite a decline in their share, as many as 40% of Slovenians still believe that things in the EU are heading in the wrong direction. Respondents in Slovenia see terrorism (46%) and (im)migration (43%) as the two most important issues currently faced by the EU, followed by crime (14%).

Table: Trust in institutions, in %

		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	SDS 2030 target
Parliament	Slovenia	33	42	31	34	19	23	10	12	6	9	11	14	17	At least half of the population trust public institutions (average of the last three years)
	EU	35	33	35	34	30	31	27	28	25	30	28	32	35	
Government	Slovenia	39	43	32	36	29	27	12	15	10	13	16	17	17	
	EU	31	30	34	34	29	29	24	27	23	29	27	31	36	
Political parties	Slovenia	14	20	13	17	9	11	7	9	6	6	6	6	8	
	EU	17	17	18	20	16	18	14	15	14	14	15	16	18	
Local parties	Slovenia	N/A	N/A	N/A	39	40	39	36	34	29	31	27	38	43	
	EU	N/A	N/A	N/A	50	50	47	45	43	44	43	42	47	51	
EU	Slovenia	55	70	65	60	50	47	38	39	37	40	30	37	38	
	EU	45	45	48	47	48	42	34	33	31	37	32	36	41	

Source: Eurobarometer Standard Survey 88, 2017.
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 2017 are for the EU-28; N/A – data not available.

Figure: Trust in EU institutions, Slovenia



Source: Eurobarometer Standard Survey 88, 2017.

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 See Indicator 3.14.

Executive capacity

5.2

The executive capacity indicator, which measures strategic governance of public institutions, is very low in Slovenia compared with other EU Member States. It 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. In the last few years its value has been slightly rising, but Slovenia still lags significantly behind the EU average. Its ranking in comparison with other EU Member States remains low and almost unchanged (25th; on the composite sustainable governance index, Slovenia is in 15th place in the EU). Slovenia lags behind the EU as a whole in all index dimensions.

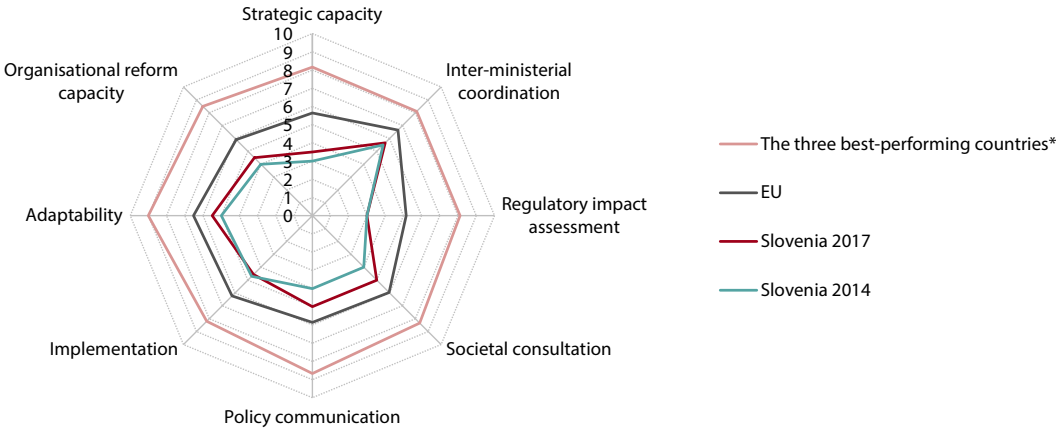
The low executive capacity score is a consequence of inefficient government and institutional performance in several areas. The absence of regulatory impact assessment (RIA) stands out in particular, as no detailed and systematic analyses of potential regulatory impacts on public finances, the economy and society as a whole are yet being carried out. Other factors are the absence of effective strategic planning and the low participation of different expert groups in government decision-making processes; inter-ministerial cooperation is also weak (particularly the participation of the Prime Minister's Office in the preparation of legislation). The assessment of policy implementation at various government levels (both central and local) is also significantly lower than for other EU Member States.

Table: Indicator of executive capacity, Slovenia and the EU

	2014	2015	2016	2017	SDS 2030 target
Slovenia*	4.4	4.6	4.7	4.7	EU average in 2030
EU	6.1	6.1	6.1	6.1	

Source: Sustainable governance indicators 2017, 2017; calculations by IMAD.
 Notes: A higher score indicates a better outcome; the highest score is 10; * for Slovenia, the index was calculated for the first time in 2014.

Figure: Indicator of executive capacity by dimension, 2017



Source: Sustainable governance indicators 2017, 2017; calculations by IMAD.
 Note: The top three countries are Sweden, Finland and Denmark. A higher score indicates a better outcome; the highest score is 10.

Rule of Law Index

5.3

Slovenia's ranking on the Rule of Law Index shows weaknesses in the adherence to the rule of law. The rule of law highlights the principle of equality before the law, emphasising the inviolability of the authority of law and rules. This means that the government respects the law, that the functioning of government bodies is bound by law, and that fundamental human rights and freedoms are ensured. In 2017 Slovenia ranked 15th in the EU¹ according the Rule of Law Index,² its ranking not having changed much in the last few years. Adherence to the rule of law is highest in the Scandinavian countries. Index values in the EU are on average significantly higher than elsewhere in the world. Slovenia is ranked

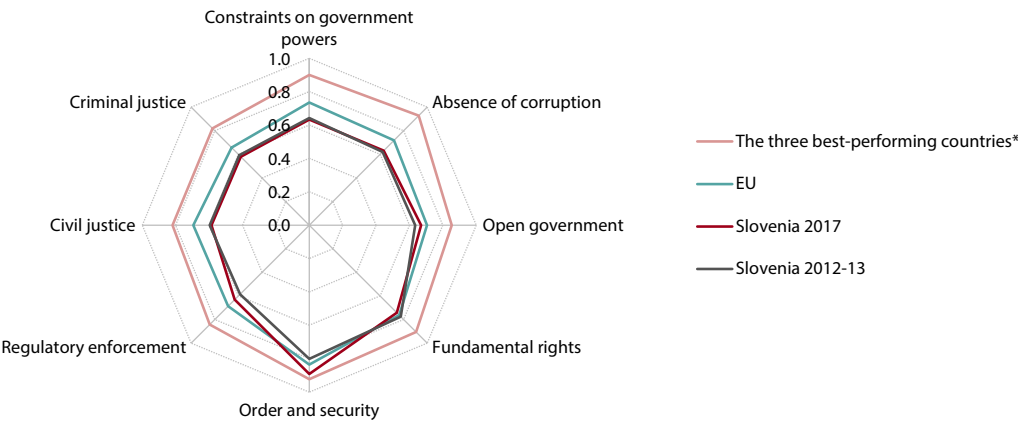
around the EU average only in the fundamental rights area, where it scores well on the indicators of absence of discrimination, equal treatment, and freedom of expression and religion. On the other hand, it lags significantly behind the EU particularly in the areas of constraints on government powers,³ political system and civil justice. The risk of corruption also represents a problem. This reveals weaknesses relating to the adherence to the rule of law (particularly regarding the extent to which government officials are sanctioned for official misconduct), the risk of corruption of officials in the executive and judicial branches of the government, and the duration of legal procedures.

Table: Rule of Law Index, Slovenia and the EU

	2012/13	2014	2015	2016	2017	SDS 2030 target
Ranking among 21 EU Member States						
Slovenia	15	15	15	15	15	To be ranked among the first half of EU Member States
Scores						
Slovenia	0.66	0.65	0.66	0.67	0.67	
EU*	0.72	0.72	0.72	0.73	0.73	

Source: WJP Rule of Law Index 2017–2018, 2017.
Notes: Scores range from 0 to 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 Lax Index by sub-components, 2016



Source: WJP Rule of Law Index 2017–2018, 2017.
Notes: Scores range from 0 to 1, higher meaning better; the three best performing countries are Denmark, Finland and Sweden.

¹ The survey covers 113 countries (of which 21 from the EU).
² The Rule of Law Index was developed by the World Justice Project, 2017 <https://worldjusticeproject.org/our-work/wjp-rule-law-index>. It comprises 47 qualitative (survey) indicators grouped in nine dimensions: constraints on government powers, absence of corruption, open government, fundamental rights, order and security, regulatory enforcement, civil justice, and criminal justice.
³ The government is limited by law and held accountable to the judiciary and independent institutions, government officials are held accountable for their actions and decisions, etc.

Expected time needed to resolve civil litigious and commercial cases

5.4

The estimated time needed to resolve civil litigious and commercial cases has been shortening in recent years but remains longer than the EU average. Since 1993 excessive length of proceedings has been one of the human rights violations most frequently found by the European Court of Human Rights. The Court has established that the duration of proceedings can be imputed to the state, as it does not provide conditions for exercising the right to a trial within a reasonable time. By launching the Lukenda Project and adopting structural changes (such as new insolvency legislation), Slovenia implemented a number of measures in this area and shortened the expected duration of civil litigious and commercial cases by around 40% (to 277 days) between 2008 and 2015. The expected length of proceedings indicates the estimated¹ 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. Despite the shortening of the length of proceedings, Slovenia still lags behind the EU average. In contrast, administrative cases take only 122 days to resolve, which ranks Slovenia among the most efficient EU Member States (EU average: 414 days). However, owing to the method of its calculation,

the expected disposition time does not reflect the time actually taken by the courts. It is also calculated using different data and methodology.

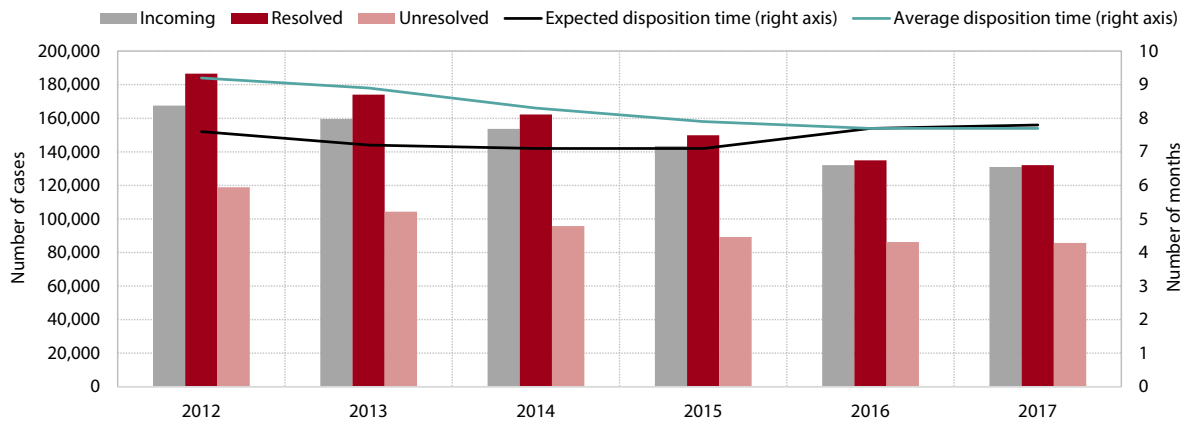
The average actual disposition time for major cases² is shortening; in 2017 it was 7.7 months (237 days). This is largely a consequence of a smaller incoming caseload and greater efficiency on the part of the courts: in 2016 the clearance rate³ for major cases exceeded 100%, which means that the courts are resolving more cases than come in. The number of pending cases is also declining, but the share of pending major cases in the total caseload is increasing (54% in 2016). While it is reasonable to expect that the average time needed to resolve a case will shorten further, it should be borne in mind that excessive shortening of the length of proceedings may be detrimental to the parties concerned (violating their right to be heard, for example) and have a negative effect on the quality of justice (proceedings conducted in a fair and reasonable manner to reach a fair decision). The average time needed to resolve a case totalled 2.6 months.

Table: Estimated time needed to resolve civil litigious and commercial cases, in days

	2008	2010	2012	2013	2014	2015	SDS 2030 target
Slovenia	460	315	318	301	270	277	200
EU	299	288	278	300	253	244	

Source: The 2017 EU Justice Scoreboard (CEPEJ), 2017.

Figure: Major cases at courts, Slovenia



Source: Opening of the Judicial Year 2018 (Supreme Court), 2018

¹ The indicator of “time taken by the court to reach a decision” (disposition time) is the ratio of the number of unresolved cases over the number of resolved cases at the end of the year multiplied by 365 (days).
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 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 over the number of incoming cases in the last 12 months expressed in %.

Corruption Perception Index

5.5

Slovenia is one of the countries where less corruption has been perceived in recent years, but it still lags behind the EU on this indicator. The Corruption Perception Index (CPI) is based on the rate of public sector corruption as perceived by businesspeople, experts and analysts. Between 2011 and 2014, the perceived level of corruption rose significantly in Slovenia, partly owing to the greater exposure of the Commission of the Prevention of Corruption in the media and hence greater awareness of corruption and more corruption cases being 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 healthcare and pharmacy. Persons most frequently involved in corruptive acts tend to be public servants and officials. In 2017 Slovenia was ranked 31st among

176 countries and 15th in the EU. The level of corruption is lowest in Scandinavian and highest in some Mediterranean Member States (Greece, Spain).

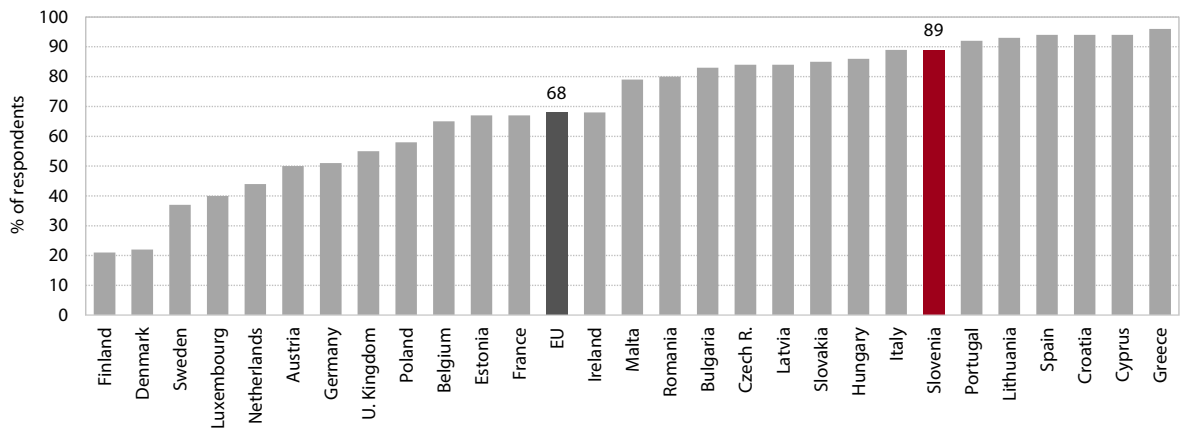
In Slovenia there is a general feeling that corruption is widespread. According to Eurobarometer,¹ 89% of persons asked think that corruption is very common in Slovenia; in the EU as a whole, this share is much smaller (68% of respondents). At the same time, as many as 92% respondents have no experience with corruption. The share of people perceiving corruption has otherwise decreased in the last few years. More than half hold the opinion that corruption is the most widespread in health care and within political parties (58%) and in public procurement (50%). The respondents are mostly dissatisfied with the effectiveness of government measures in this area (74%) and above all believe that high-profile and major cases of corruption are not sanctioned adequately (75%).

Table: Corruption Perception Index, index

	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016
Slovenia	61	67	66	64 (13)	59 (16)	61 (16)	57 (17)	58 (17)	60 (16)	61 (15)
EU	62	64	63	62	62	63	63	64	66	65

Source: WJP Rule of Law Index 2017–2018 (Transparency International), 2017.
Note: 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: Perception of corruption among the respondents of the Eurobarometer survey



Source: Special Eurobarometer 470: Corruption, 2017.

¹ Special Eurobarometer 470, 2017.

Share of households reporting problems with crime, vandalism or violence in the local area

5.6

The share of households¹ reporting problems with crime, vandalism or violence in the local area was below the EU average in the last ten-year period. In 2016 it totalled 8.5% and was 4 pps lower than in 2009, when it had been the highest since 2005. Problems with crime, violence or vandalism in the local area were most frequently experienced by single persons with dependent children (12.2%), followed by households of two adults and two children (10.3%), single women (9.9%), and persons older than 65 years (9.8%). All these shares are below the EU average. The share of persons that have problems with crime, vandalism or violence in the local area is lowest in the Pomurska and Zasavska regions (3%) and highest in Jugovzhodna Slovenija and

the Osrednjeslovenska regions (13%), where it equals the EU average.

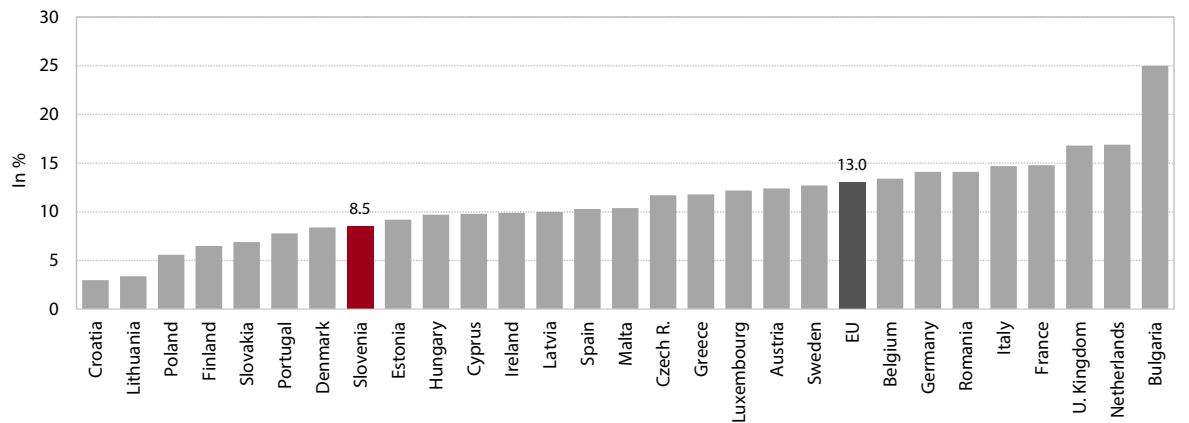
Slovenia remains a safe country compared with other countries in the EU, which has a positive impact on the quality of life. The results of the European Social Survey indicate that 9% of respondents had a personal experience with burglary or physical assault in 2016, which is less than in previous years and lower than the average for countries included in the Social Survey.² In 2017, 97% of Slovenians said that their immediate neighbourhood was a secure place to live in; 95% said that Slovenia was a secure place to live in, which is more than in 2015 and more than on average in the EU.³

Table: Crime, vandalism or violence in the local area, in %

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	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	< 10
EU	N/A	N/A	15.9	14.7	16.0	14.3	14.1	13.6	14.5	14.0	13.6	13.0	

Source: Eurostat, EU-SILC, 2017.
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, 2016



Source: Eurostat, EU-SILC, 2017.

¹ I.e. the share of households having problems with crime, violence or vandalism in the neighbourhood where they live. The sampling unit described in the Survey of Living Conditions (Eurostat, EU-SILC) is private households or individuals living in these households in Slovenia.
² The survey of the group of EU countries shows the average result for selected countries regardless of the size of national samples or the size of the country. It covers the countries whose data were available at the time of the survey (Belgium, Germany, Finland, France, Great Britain, Ireland, the Netherlands, Poland, Sweden and Slovenia).
³ Special Eurobarometer 464b: Europeans' attitudes towards security, 2017.

Global Peace Index (GPI)

5.7

Slovenia is ranked among the most peaceful countries in the world. According to the 2017 GPI, it is in 7th position among 163 countries and 5th among EU Member States.¹ The index value in 2017 was the lowest in ten years, but Slovenia was again ranked higher on the Global Index scale than in the previous five years. While Slovenia is among the 10 best-performing countries in the areas of militarisation, societal safety and security, it ranks lower (66th position) in the domestic and international conflict domain, this owing mainly to the lower scores on the indicators of relations with neighbouring countries and intensity of

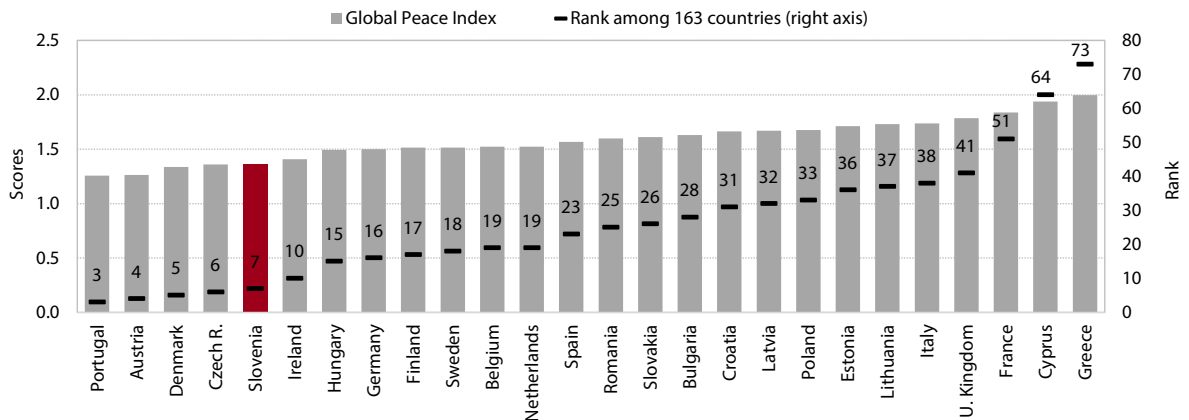
organised internal conflict. It also scores slightly lower on the number of internal security officers and police per 100,000 people, the level of perceived criminality in society, and the likelihood of violent demonstrations. The Global Peace Index shows that Europe remains the most peaceful region in the world, with eight of the ten most peaceful countries coming from this region (of which six are EU Member States). Iceland remains the most peaceful country in the world and Syria the least. The global index otherwise deteriorated over the ten-year period, primarily owing to the intensifying of conflicts in the Middle East and terrorism.

Table: Global Peace Index, Slovenia

Scores	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	SDS 2030 target
Global Peace Index	1.392	1.398	1.376	1.392	1.452	1.450	1.444	1.434	1.408	1.364	To maintain the ranking among the top 10 countries in the world and the top 5 in the EU.
Ranking among 163 countries	7	6	5	5	10	11	11	11	10	7	
Militarisation	1.2	1.2	1.2	1.2	1.4	1.4	1.4	1.4	1.3	1.2	
Societal security and safety	1.5	1.5	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	1.4	

Source: 2017 Global Peace Index (Institute for Economics and Peace), 2018.
Note: number of scores from 1 to 5; a lower score indicates a better outcome.

Figure: Global Peace Index, EU Member States, 2017



Source: 2017 Global Peace Index (Institute for Economics and Peace), 2018.
Note: Data for 26 EU Member States (data for Malta in Luxembourg are not available).

¹ The Institute for Economics and Peace (IEP), in cooperation with the Economist Intelligence Unit (EIU), produces the Global Peace Index each year; this evaluates countries according to their levels of peacefulness. The GPI 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).

Expenditure on official development assistance

5.8

Although increasing in recent years, expenditure on official development assistance remains significantly lower than international commitments. Official development assistance is defined as assistance provided by advanced countries to support the sustainable development of developing countries. Slovenia allocated EUR 73.6 million for development assistance in 2016, almost 30% more than in 2015. It dedicates a higher share of gross national income (GNI) for this purpose than most countries that acceded to the EU in 2004 or later. Despite the increase in expenditure, the gap with the EU average has widened and is larger than a decade ago. Official development assistance expenditure still falls considerably short (0.19% of GNI) of international commitments, according to which Slovenia is obliged to increase the share of GNI for official development assistance to 0.33% by 2030.

The bulk of the increase in development assistance in the last few years is related to the refugee and migrant crisis. Development assistance is a sum of multilateral assistance (funding provided for regular development activities of international organisations)

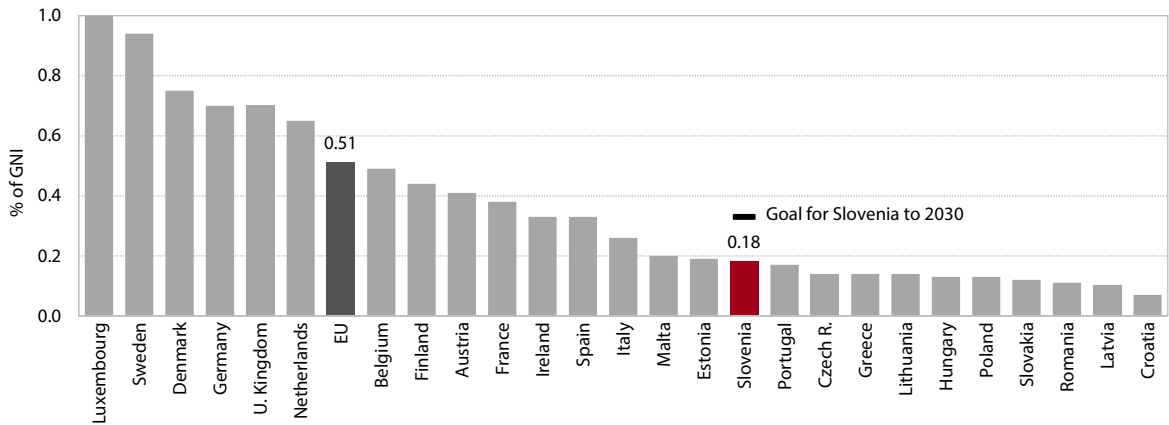
and bilateral assistance (where Slovenia, as a donor, has control over the use of donated funds). Two-thirds of assistance is accounted for by multilateral assistance, most of which is dedicated to EU development cooperation programmes. The rest is bilateral assistance, the priority development cooperation regions being the Western Balkans and Turkey,¹ where Slovenia places around 60% of disposable bilateral development aid. In the last decade most of this aid has been focused on projects in the area of social services, particularly in education. Migration developments related to the situation in the Middle East have significantly influenced the structure of assistance in the last two years, which is reflected in increased costs of caring for refugees and migrants in Slovenia, a higher contribution to the EU Facility for Refugees in Turkey, and higher dedicated humanitarian contributions to other international organisations. Expenditure on exemptions from tuition fees for citizens from target countries for study in Slovenia has also increased significantly in this period. Within bilateral development assistance, the share of expenditure on humanitarian and post-conflict aid is declining amid an increase in other expenditures.

Table: Official development assistance as a share of GNI, in %

	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016
Slovenia	0.11	0.13	0.15	0.13	0.13	0.13	0.13	0.12	0.15	0.19
EU	0.42	0.40	0.42	0.44	0.42	0.39	0.41	0.41	0.46	0.51

Source: Eurostat Portal Page – Sustainable Development Indicators, 2018.

Figure: Official development assistance as a share of GNI in EU Member States in 2016, in %



Source: Eurostat Portal Page – Sustainable Development Indicators, 2018.

¹ The Western Balkans region includes Bosnia and Herzegovina, the Former Yugoslav Republic of Macedonia, Serbia, Montenegro, Kosovo and Albania.

Bibliography and sources

10. poročilo o realizaciji ukrepov iz enotne zbirke ukrepov za boljšo zakonodajno in poslovno okolje ter dvig konkurenčnosti (Tenth report on the implementation of measures from the Single Document to Ensure Better Regulatory and Business Environment and Increase in Competitiveness). (2018). Ljubljana: Ministry of Public Administration.
- 2016/2017 Manpower Talent Shortage survey. (2017). Manpower group.
- Akcijski načrt razvoja ekološkega kmetijstva v Sloveniji do leta 2015 (Action plan for the development of Organic Farming in Slovenia until 2015). (2005). Ljubljana: Ministry of Agriculture, Forestry and Food.
- Akcijski načrt za povečanje konkurenčnosti gozdno-lesne verige v Sloveniji do leta 2020 (Action plan to increase competitiveness of forest-wood chain in Slovenia by the year 2020). (2012). Ljubljana: Ministry of Agriculture and the Environment and Ministry of Economic Development and Technology.
- Analysis of statistics 2017. (2017). Strasbourg: European Court of Human Rights – Council of Europe.
- Atlas okolja (Environmental Atlas). (2017). Ljubljana: Slovenian Environmental Agency. Obtained at: http://gis.arso.gov.si/atlasokolja/profile.aspx?id=Atlas_Okolja_AXL@Arso.
- Banka družboslovnih podatkov (Social Science Data Archive). (2010, 2012, 2014). Ljubljana: Public Opinion and Mass Communications Research Centre at the Faculty of Social Sciences, University of Ljubljana.
- Barbutovski, D., Bucik, M., Lange, S. (2017). (Contribution to the debate on the future of Europe and Slovenia's role: Recommendations of Think Europe. Ljubljana: mimeo.
- Baza podatkov WIOD (WIOD database). (2016). WIOD. Obtained at: <http://www.wiod.org/release16>.
- Bilten Banke Slovenije (Monthly Bulletin of the Bank of Slovenia). Various issues. (2017, 2018). Ljubljana: Bank of Slovenia.
- Bratuž-Ferk et al. (2017). (Overview of the current situation of gender equality in selected areas) Ljubljana: IMAD. Working Paper No. 3/2017.
- Breznikar, A. (2016). Čas preizkušenj za slovenski gozd. (Testing times for Slovenian forest). Published in: S podeželja.si, January 2016.
- Cecchini, M., M. Devaux in F. Sassi. (2015). Assessing the impacts of alcohol policies: A microsimulation approach. Paris: OECD. OECD Health Working Papers, No. 80. Obtained at: <http://dx.doi.org/10.1787/5js1qwkvx36d-en>
- Europa 2020 Strategy Targets. Brussels: European Commission. Obtained at: Cilji strategije Evropa 2020. Bruselj: Evropska komisija. Pridobljeno na: http://ec.europa.eu/europe2020/europe-2020-in-a-nutshell/targets/index_sl.htm.
- Corruption Perception Index 2017. (2017). Berlin: Transparency international. Obtained at: <https://www.transparency.org/>.
- Čelebič, T. et al. (2017). Položaj žensk na trgu dela v primerjavi s položajem moških v Sloveniji (Gender gap on the Slovenian labour market). Ljubljana: IMAD. IB-revija 2/2017.
- DESI 2017. (2017). Brussels: EC. Obtained at: <https://ec.europa.eu/digital-single-market/en/news/digital-economy-and-society-index-desi-2017>.
- Diet, nutrition and prevention of chronic diseases. Report of a Joint WHO/(FAO Expert Consultation. (2003). Geneva: WHO.
- Directive of the European Parliament and of the Council on the reduction of national emissions of certain atmospheric pollutants, amending Directive 2003/35/EC. (2016). Brussels: European Parliament.
- Doing Business 2018. (2017). Washington: The International Bank for Reconstruction and Development, The World Bank. Obtained at: <http://www.doingbusiness.org/>.
- Access to services, Slovenia, 2016. (2017). Ljubljana: Statistical Office of the Republic of Slovenia.
- Draft 2018 Ageing Report: Economic and budgetary projections for the EU Member States. (2018). Brussels: EC.
- Drobne, S. (2016). Povprečna dostopnost do najbližjega priključka na avtocesto ali hitro cesto po občinah Republike Slovenije v letu 2015. Projektna naloga (Average transport accessibility of the Slovenian municipalities to the nearest motorway or expressway access point). Terms of reference. Ljubljana: Faculty of Civil and Geodetic Engineering, University of Ljubljana.
- Drugo letno poročilo o izvajanju Operativnega programa ukrepov zmanjšanja emisij toplogrednih plinov do leta 2020 (Second annual report on the implementation of the Operational Programme for Limiting Greenhouse Gas Emissions until 2020). (2017). Ljubljana: Ministry of the Environment and Spatial Planning.
- DRZNA Slovenija (DARING Slovenia). (2011). Nacionalni program visokega šolstva 2011—2020 in Raziskovalna in inovacijska strategija Slovenije 2011–2020 (National Higher Education Programme 2011–2020 and Research and Innovation Strategy 2011–2020). Ljubljana: Ministry of Higher Education, Science and Technology.

- Government budget appropriations or outlays on R&D, final budget 2016 and initial budget 2017, Slovenia.** (2017). Ljubljana: Statistical Office of the Republic of Slovenia. Obtained at <http://www.stat.si>.
- Državna volilna komisija (National Commission for Elections).** (2014). Obtained at: <http://www.dvk-rs.si/index.php/si/arhiv-drzavni-zbor-rs/leto-2014-predcasne-volitve>.
- Two-year Action Plan for the Implementation of the 2015–2020 Public Administration Development Strategy for 2016 and 2017.** (2016). Ljubljana: Ministry of Public Administration.
- Eco-Innovation Scoreboard 2016.** (2017). Eco-Innovation Observatory. Brussels: European Commission. Obtained at: <https://ec.europa.eu/environment/ecoap/>.
- Education at a Glance 2017.** (2017). Paris: OECD.
- eGovernment Benchmark 2017.** (2017). Brussels: EC.
- Slovenian Economic Mirror.** (2009). Volume XV, No. 2, February 2009. Ljubljana: IMAD. Obtained at: <http://www.UMAR.gov.si/>.
- Slovenian Economic Mirror.** (2017). Volume XXIII, No. 3. Ljubljana: IMAD. Obtained at: <http://www.UMAR.gov.si/>.
- EPO Annual Report – statistics 2017.** (2018). Munich: European Patent Office. Obtained at: <https://www.epo.org/>.
- EPO Annual Report 2017.** (2018). Munich: European Patent Office. Obtained at: <https://www.epo.org/>.
- Erjavec, J., Manfreda, A., Jaklič, J. in Indihar-Štemberger, M.** (2018). Stanje in trendi digitalne preobrazbe v Sloveniji (Digital transformation of Slovenia, situation and trends).
- EUIPO Web Page.** (2018). Alicante: EUIPO. Obtained at: <https://euipo.europa.eu/ohimportal/>.
- Eurobarometer Standard Survey 88.** (2017). Brussels: European Commission. Obtained at: http://ec.europa.eu/public_opinion.
- European Innovation Scoreboard 2017.** (2017). Brussels: EC. Obtained at: ec.europa.eu/growth/industry/innovation/facts-figures/scoreboards_en.
- European Institute for Public Administration CAF Database.** (2018). Maastricht: European Institute for Public Administration.
- European Securities Exchange Statistics.** (2017). Brussels: Federation of European Securities Exchanges. Obtained at: <http://www.fese.eu/statistics-market-research/historical-data>.
- Eurostat Portal Page – Population and social condition – Income and living conditions.** (2018). Luxembourg: Eurostat. Obtained at: <http://epp.eurostat.ec.europa.eu>.
- Eurostat Portal Page (2017–2018).** Luxembourg: Eurostat. Obtained at: <http://epp.eurostat.ec.europa.eu>.
- European Social Survey 2016 (SJM 2016).** (2017). Ljubljana: University of Ljubljana, Faculty of Social Sciences – Public Opinion and Mass Communication Research Centre.
- European Quality of Life Survey 2012.** (2012). Dublin: Eurofound.
- European Quality of Life Survey 2016.** (2017). Dublin: Eurofound.
- Figures for the future. Sustainable development in our everyday lives – a guide for citizens. 2016 edition. (2016).** Luxembourg: Eurostat.
- Financial Soundness Indicators. (2016, 2017).** Washington: IMF. Obtained at: <http://data.imf.org/?sk=9F855EAE-C765-405E-9C9A-A9DC2C1FEE47>.
- Flash Eurobarometer 447: Perceived independence of the national justice systems in the EU among general public.** (2017). Brussels: EC. Obtained at: http://ec.europa.eu/public_opinion.
- Flash Eurobarometer 448: Perceived independence of the national justice systems in the EU among companies.** (2017). Brussels: EC. Obtained at: http://ec.europa.eu/public_opinion.
- Fran. Statistics.** (2017–2018). Ljubljana: Fran Ramovš Institute of the Slovenian Language. Obtained at: <http://www.fran.si/o-portalu?page=Statistics>.
- Fratnar, P. (Ed.).** (2008). Water Balance of Slovenia 1971–2000. Ljubljana: Ministry of the Environment and Spatial Planning, Slovenian Environmental Agency.
- Fricke, T.** (2016). The Right Incentives for a Low-Carbon Future. Obtained at: <http://www.project-syndicate.org/>.
- GERA. (2018). GEM - Global Entrepreneurship Monitor: Global Report 2017/18.** Babson College, Universidad del Desarrollo, Universiti Tun Abdul Razak and Korea Entrepreneurship Foundation: GERA. Obtained at: <http://www.gemconsortium.org/>.
- Global Footprint Network.** (2016). Obtained at: <http://www.footprintnetwork.org/en/index.php/GFN/>.
- Government at a glance 2017.** (2017). Paris: OECD.
- Speech by the Prime Minister Miro Cerar at the consultation of Slovenian diplomats.** (2018). Ljubljana: Government of the Republic of Slovenia. Obtained at: http://www.vlada.si/predsednik_vlade/.
- RABA graphic data for the whole of Slovenia.** (2017). Ljubljana: MKGP. Obtained at: <http://rkg.gov.si/GERK/>. Calculations by Blaž Repe and Barbara Lampič, Faculty of Arts.
- Green Growth Indicators 2017.** (2017). Paris: OECD.
- Guidelines for Collecting and Reporting Data on Research and Experimental Development.** Paris: OECD.

- SMARS. Web Portal Prostor.** (2017). Ljubljana: Surveying and Mapping Authority of the Republic of Slovenia. Obtained at: <http://www.e-prostor.gov.si/brezplacni-podatki/>.
- Hašič, I. in Migotto, M.** (2015). Measuring enSourceonmental innovation using patent data. OECD EnSourceonment working Papers, No. 89. Paris: OECD.
- Health at a glance 2017.** (2017). Paris: OECD. Obtained at: <http://www.oecd.org/health/health-systems/health-at-a-glance-19991312.htm>.
- Health at a glance: Europe 2016.** (2016). Paris: OECD. Obtained at: <http://www.oecd.org/health/health-at-a-glance-europe-23056088.htm>.
- Historical dataset 2007–2017.** (2017). Geneva: WEF.
- High-growth enterprises, Slovenia, 2016 – final data.** (2017). Ljubljana: Statistical Office of the Republic of Slovenia. Obtained at: <http://www.stat.si>.
- Hojnik, J.** (2016). Model eko inovacij: določljivke, glavne dimenzije in posledice (Eco-innovation model: antecedents, main dimensions and consequences). Doctoral dissertation. Koper: University of Primorska, Faculty of Management.
- How good is your job? Measuring and asseseing job Quality.** (2017). Paris: OECD. Obtained at: <https://www.oecd.org/std/labour-stats/Job-quality-OECD.pdf>.
- ICTWSS Database.** (2017). Amsterdam: Amsterdam Institute for Advanced Labour Studies. Obtained at: <http://www.uva-aias.net/en/ictwss>.
- Implementation Plan on Security and Defence.** (2016). Brussels: Council of the EU.
- Industrial relations in Europe 2014.** (2015). Brussels: EC.
- Innovation activity in manufacturing and selected services, detailed data, Slovenia, 2012–2014 – final data.** (2016). Ljubljana: Statistical Office of the Republic of Slovenia. Obtained at: <http://www.stat.si/>.
- Insurance data.** (2017). Brussels: Insurance Europe. Obtained at: <https://www.insuranceeurope.eu/insurancedata>
- International Institute for Democracy and Electoral Assistance Database.** (2017). Stockholm: International Institute for Democracy and Electoral Assistance (IDEA). Obtained at: <https://www.idea.int/data-tools/data/voter-turnout>.
- Izpusti toplogrednih plinov, interni preliminarni podatki (Greenhouse gas emissions, internal preliminary data).** (2017). Ljubljana: Slovenian Environmental Agency.
- Jaklič, A., I. Koleča in M. Rojec.** (2016). Foreign investors on Slovenian business environment. FDI 2016 research for SPIRIT Slovenia). Ljubljana: Faculty of Social Sciences.
- Jankovič, M.** (2017). Gross domestic product by region, Slovenia, 2016. Release calender. SURS. Obtained at: <http://www.stat.si/statweb/News/Index/7131>.
- Javni razpis za sodelovanje srednjih poklicnih in strokovnih šol v programu dvig poklicnih kompetenc učiteljev v letih 2016 in 2017 (Public call for participation of secondary vocational schools in the programme for improving the professional competences of teachers in 2016 and 2017).** (2016). Ljubljana: Centre of the Republic of Slovenia for Vocational Education and Training.
- Kakovost zraka v Sloveniji v letu 2016 (Air quality in Slovenia in 2016).** (2017). Ljubljana: Agencija RS za okolje.
- Kazalci okolja v Sloveniji (Environmental indicators in Slovenia).** (2017). Ljubljana: Slovenian Environmental Agency. Obtained at: <http://kazalci.arso.gov.si>
- Kofol Bric, T. in Zaletel, M.** (2018). Life expectancy and healthy life years. Health inequalities in Slovenia during the economic crisis. Ed.: Lesnik, T. Gabrijelčič Blenkuš, M., Hočvar Grom, A., Kofol Bric, T. Zaletel, M. Ljubljana: National Institute of Public Health.
- Kogovšek, N. in Petkovič, B.** (2007). O diskriminaciji – Priročnik za novinarke in novinarje (About Discrimination. Manual for Journalists). Ljubljana: the Peace Institute.
- Končno poročilo o izvajanju Programa ukrepov Vlade Republike Slovenije za preprečevanje korupcije za obdobje 2015–2016 – Ničelna toleranca do korupcije (Final report on the implementation of the Programme of Anti-Corruption measures of the Government of the Republic of Slovenia for the period 2015–2016 – Zero tolerance for corruption).** (2017). Ljubljana: Ministry of Public Administration.
- Labour Market and Wage Developments in Europe: Annual Review 2017.** (2017). Brussels: EC.
- Lampič, B., Bedrač, M., Cundrer, T., Klun, M., Mrak, I., Slabe Erker, R.** (2016). Trajnostna naravnost kmetijstva v slovenskih regijah (Agricultural sustainability at regional level in Slovenia. GeograFF 20. Ljubljana: Scientific Publishing House of the Faculty of Arts, University of Ljubljana.
- Lampič, B., Bobovnik, N.** (2017). Dodatni popis funkcionalno degradiranih območij v petih statističnih regijah (Osrednjeslovenska, Savinjska, Primorsko-notranjska, Obalno-kraška, Koroška) (Additional inventory of functionally derelict areas in five statistical regions, Osrednjeslovenska, Savinjska, Primorsko-notranjska, Obalno-kraška, Koroška). Final report. Terms of reference. Ljubljana: Ministry of Economic Development and Technology and Faculty of Arts.
- Lampič, B., Kušar, S., Zavodnik Lamovšek, A.** (2017). Model celovite obravnave funkcionalno degradiranih območij kot podpora trajnostnemu prostorskemu in razvojnemu načrtovanju (A model of comprehensive assessment of derelict land as a support for sustainable

- spatial and development planning). Dela 48. Ljubljana: Faculty of Arts.
- Lange, S.** (2016). Pisni prispevek k razpravi o Brexitu pri predsedniku vlade RS (Written contribution to the debate on Brexit with the Prime Minister of the RS). Ljubljana: For internal use.
- Letni načrt upravljanja kapitalskih naložb.** (različni letniki) / **Annual State Asset Management Plan** (various volumes). Ljubljana: Slovenian Sovereign Holding (SSH).
- Letno poročilo Ministrstva za obrambo.** (različni letniki) / **(Annual Report of the Ministry of Defence)**. (various volumes) Ljubljana: Ministry of Defense.
- Letno poročilo o delu policije za leto.** (različni letniki) / **(Annual Report on the Work of the Police)**. (Various volumes). Ljubljana: Ministry of the Interior, Police. Obtained at: <https://www.policija.si/index.php/sl/statistika/letna-poroila>.
- Letno poročilo o državnih pomočeh za leta 2013, 2014 in 2015 (Annual survey on state aid for 2013, 2014 and 2015).** (2016). Ljubljana: Ministry of Finance.
- Letno poročilo o učinkovitosti in uspešnosti sodišč 2016 (Annual report on the efficiency and effectiveness of courts 2016).** (2017). Ljubljana: Supreme Court.
- SIPO Annual Report 2011.** (2013). Ljubljana: Slovenian Intellectual Property Office. Obtained at: <http://www.uil-sipo.si/>
- Letno poročilo Uprave RS za zaščito in reševanje za leto 2016 (Annual report of the Administration of the Republic of Slovenia for Civil Protection and Disaster Relief for 2016).** (2017). Ljubljana: Ministry of Defense.
- Mandič, S.** (2007). Dostopnost stanovanj in stanovanjska politika v Ljubljani: primerjalna perspektiva (Housing accessibility and housing policy in Ljubljana: a comparative perspective. Urbani izziv, Volume 18, No. 1. Ljubljana: Urban Planning Institute of the Republic of Slovenia.
- Mandič, S., Filipovič Hrast M.** (2015). Alternative socialnemu stanovanju: pogledi prosilcev o različnih možnostih (Alternatives to social housing: applicants' views of various policy options. Urbani izziv, Volume 26, No. 1. Ljubljana: Urban Planning Institute of the Republic of Slovenia.
- Mednarodna raziskava bralne pismenosti PIRLS 2016.** Povzetek rezultatov raziskave. (International survey on reading literacy PIRLS 2016. Summary of results.). (2017). Ljubljana: Educational Research Institute.
- Mesečna informacija o poslovanju bank.** Različne številke (Monthly Information on Bank Performance Various issues.) (2017, 2018). Ljubljana: Bank of Slovenia.
- Močnik D. et al.** (2017). Slovenska podjetja in družbena odgovornost (Slovenian companies and corporate social responsibility). Slovenian Entrepreneurship Observatory 2016. Maribor: University of Maribor Press.
- National environmental action programme 2030.** (2017). Under preparation. Ljubljana: Ministry of the Environment and Spatial Planning.
- Nagode, M. Zver, E., Marn, S. Jacovič, A. Dominkuš, D.** (2014). Dolgotrajna oskrba – uporaba mednarodne definicije v Sloveniji (Long-term care – use of the international definition in Slovenia). Working Paper No. 2/2014. Vol. XXIII. Ljubljana: Institute of Macroeconomic Analysis and Development. Obtained at: http://www.UMAR.gov.si/fileadmin/user_upload/publikacije/dz/2014/DZ_02_14p.pdf.
- Napovednik zaposlovanja 2017/I. Kaj delodajalci napovedujejo za slovenski trg dela za prvo polovico leta 2018? (Employment Forecast 2017/I survey. Employers' forecast for the Slovenian labour market for the first half of 2018)** (2017). Ljubljana: Employment Service of Slovenia. Obtained at: https://www.ess.gov.si/_files/10604/NAP-ZAP_Napovednik_zaposlovanja_2017_II.pdf.
- National Footprint Account.** (2018). Global Footprint Network. Obtained at: <https://www.footprintnetwork.org>
- Natura 2000 v številkah (Natura 2000 in figures).** (2017). Ljubljana: Ministry of the Environment and Spatial Planning. Obtained at: <http://www.natura2000.si/aktualno/novice-in-dogodki/novica/>.
- Illegal migration on the territory of the Republic of Slovenia.** (2017). Ljubljana: Ministry of the Interior, Police.
- Direct Investment.** (2014, 2015, 2016). Ljubljana: Bank of Slovenia.
- NIJZ Podatkovni portal – Poškodbe pri delu (NIJZ Data Portal – Accidents at work).** (2018). Ljubljana: NIJZ. (2018). Ljubljana: National Institute of Public Health. Obtained at: <https://podatki.nijz.si/pxweb/sl/NIJZ%20podatkovni%20portal/>.
- Media – European Environmental Agency.** (2016). Obtained at: <http://www.eea.europa.eu/sl..>
- Assessing the Effects of Some Structural Measures in Slovenia.** (2016). Ljubljana: IMAD. Obtained at: <http://www.UMAR.gov.si/>.
- Decision No 406/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020.** (OJ 140/136, 5.6.2009).
- Ordinance on State-Owned Assets Management Strategy.** (2015). Ljubljana: Official Gazette of the Republic of Slovenia, No. 53/2015.

- OECD Development Cooperation Peer Reviews: Slovenia. (2017). Paris: OECD.
- OECD Digital Economy Outlook 2017. (2017). Paris: OECD.
- OECD Economic Surveys: Slovenia. (2017). Paris: OECD.
- OECD Family database. (2017). Paris: OECD. Obtained at: <http://www.oecd.org/els/family/database.htm>.
- OECD Frascati Manual 2015. (2015). The Measurement of Scientific, Technological and Innovation Activities. Guidelines for Collecting and Reporting Data on Research and Experimental Development. Paris: OECD.
- OECD Oslo Manual. (2005). Guidelines for Collecting and Interpreting Innovation Data. 3rd Edition. A joint publication of OECD and Eurostat. Paris: OECD.
- OECD Patent Statistics Manual. (2009). Paris: OECD.
- OECD Road Safety Annual Report 2017. (2017). Paris: OECD.
- OECD Science, Technology and Industry Outlook 2014. (2014). Paris: OECD. Obtained at: <http://www.keepeek.com/Digital-Asset-Management/oecd/science-and-technology/>.
- OECD Science, Technology and Industry Scoreboard 2013. (2013). Paris: OECD.
- OECD Science, Technology and Industry Scoreboard 2015. Innovation for Growth and Society. (2015). Paris: OECD. Obtained at: <http://www.oecd-ilibrary.org/>.
- OECD Science, Technology and Industry Scoreboard 2017. (2017). The digital transformation. Paris: OECD.
- OECD Stat Database – Health-Health Status-Absence to work due to illness. (2018). Paris: OECD.
- OECD Statistics Health – Health expenditure and financing. (2017). OECD: Paris.
- Ogrin, M. (2017). KKomentar h kazalcem o kakovosti zraka (Comments on air quality indicators). For internal use. Ljubljana: University of Ljubljana, Faculty of Arts, Department of Geography.
- The 2030 climate and energy framework, European Council Conclusions of 24 October 2014. (2014). Brussels: European Council.
- Okvirni program za prehod v zeleno gospodarstvo – OPZG z Akcijskim načrtom izvajanja OPZG (Ani OPZG) in Načrtom aktivnosti resorjev (NAR) za leti 2015–2016 (Framework programme for the transition to a green economy – OPZG together with the OPZG Action Plan (Ani OPZG) and line ministries' operational plan (NAR) for 2015–2016. (2015). Ljubljana: operational plan (NAR) for 2015–2016. (2015). Ljubljana: Ministry of the Environment and Spatial Planning.
- Open Data Maturity in Europe 2017: Opean Data for a European Data Economy. (2017). Brussels: European Commission.
- Operativni program zmanjševanja emisij toplogrednih plinov do leta 2020 (Operational Programme for Reducing GHG Emissions by 2020. (2014). Ljubljana: Government of the Republic of Slovenia.
- Opravljen prometno delo 2005 – 2015 na državnih cestah v RS (Traffic work performed on Slovenian state roads in the period 2005–2015). (2017). Ljubljana: Slovenian Infrastructure Agency.
- Otvoritev sodnega leta 2018 (Opening of the Judicial Year 2018). (2018). Ljubljana: Supreme Court.
- PISA 2015 Results (Volume I): Excellence and Equity in Education. (2016). Paris: OECD.
- PISA 2015: Full selection of indicators. (2016). Paris: OECD. Obtained at: <http://www.oecd.org/pisa/data/>.
- Plut, D. (2014). Sonaravni razvoj Slovenije – priložnosti in pasti (Sustainable Development of Slovenia – Opportunities and Pitfalls). Ljubljana: University of Ljubljana, Faculty of Arts, Department of Geography.
- Po kreativni poti do znanja (PKP) (Creative Path to Knowledge). (2018). Slovene Human Resource Development and Scholarship Fund.
- Pobuda za povečanje učinka javnih naložb z učinkovitim in profesionalnim javnim naročanjem (Increasing the impact of public investment through efficient and professional procurement). (2017). Obtained at: <http://ec.europa.eu/growth/content/>.
- Podatki Ministrstva za finance o R&R olajšavah v letu 2016 (Data by the Ministry of Finance on R&D tax allowances in 2016). (2017). Ljubljana: Ministry of Finance.
- Podatki o škodi v gospodarstvu ob naravnih nesrečah (Data on economic damage caused by natural disasters). (2017). Ministry of Economic Development and Technology.
- Podmernik., D., in Kerma, S. (2013). Izzivi ekološkega kmetijstva in turizma na ekoloških kmetijah (The challenges of organic farming and tourism on organic farms). Koper: University of Primorska, Faculty of Tourism Studies.
- Polletno poročilo DUTB 2017 (BAMC 2017 half-year report). (2017). Ljubljana: Bank Assets Management Company (BAMC).
- Poročilo Mednarodne razvojne pomoči 2016 (Report on International Development Aid 2016). (2017). Ljubljana: Ministry of Foreign Affairs.
- Poročilo o finančni stabilnosti, junij 2016 (Financial Stability Report, June 2016). (2017). Ljubljana: Bank of Slovenia. Obtained at: <https://www.bsi.si/iskalniki/porocila.asp?Mapald=285>.
- Poročilo o izvajanju nacionalnega programa za kulturo 2014–2017 v letu 2016 (Report on the Implementation of the National Programme for Culture 2014–2017 for 2016). (2017). Ljubljana: Ministry of Culture.

- Poročilo o okolju v Sloveniji 2017 (Environmental report for Slovenia).** (2017). Ljubljana: Ministry of the Environment and Spatial Planning, Slovenian Environmental Agency.
- Poročilo o pregledu izdatkov s predlogi možnih ukrepov na področju kulture in civilne družbe (Report on the overview of expenditure with proposals for possible measures in the area of culture and civil society).**(2017). Ljubljana: Working group for the preparation of the Overview of general government expenditure on culture.
- Development Report 2013.** (2013). Ljubljana: IMAD.
- Development Report 2015.** (2015). Ljubljana: IMAD.
- Development Report 2016.** (2016). Ljubljana: IMAD.
- Development Report 2017.** (2017). Ljubljana: IMAD.
- Poročilo o stanju na področju energetike v Sloveniji v letu 2015.** (2016). Ljubljana: AGEN-RS.
- Slovenian Forest Service Report on Slovenian forests for 2015.** (2016). Ljubljana: Slovenia Forest Service.
- Pravilnik o razvrstitvi razvojnih regij po stopnji razvitosti za programsko obdobje 2014–2020 (Rules on the classification of regions by level of their development for the 2014–2020 programming period).** (2014)- Official Gazette of the Republic of Slovenia, No. 34/14.
- Prebil, R.** (2016). S trdimi delci onesnažen zrak (Air pollution by particulate matter). Published in: GEA, January 2016.
- The EU Environmental Implementation Review. Country Report – Slovenia.** (2017). Brussels: European Commission.
- Programme of the Government of the Republic of Slovenia to enhance integrity and transparency 2017–2019** (2017). Ljubljana: Ministry of Public Administration.
- Prvi rezultati mednarodne raziskave PIRLS 2016 (First PIRLS 2016 international results).** (2017). Ljubljana: Educational Research Institute. Obtained at: http://novice.pei.si/wp-content/uploads/sites/2/2017/12/PIRLS_povzetek.pdf.
- Prvo letno poročilo o izvajanju Operativnega programa ukrepov zmanjšanja emisij toplogrednih plinov do leta 2020 (First annual report on the implementation of the Operational Programme for Reducing GHG Emissions by 2020).** (2016). Ljubljana: Ministry of the Environment and Spatial Planning.
- Raziskave o onesnaženosti tal Slovenije v letu 2008 (Surveys of Soil Pollution in Slovenia in 2008).** Ljubljana: Biotechnical Faculty. Obtained at: http://www.arso.gov.si/varstvo%20okolja/tla/poročila%20in%20publikacije/ROTS2008_2.del.pdf.
- Research and development activity, Slovenia, 2016 – final data.** (2018). Ljubljana: Statistical Office of the Republic of Slovenia. Obtained at: <http://www.stat.si/>.
- Living conditions (SILC), 2016.** (2017). Ljubljana: Statistical Office of the Republic of Slovenia.
- Regional Dynamics of the Global Labour M. The Hays Global Skills Index 2017.** (2017). Hays.
- Repe, B., Lampič, B.** (2017). Dejanska raba tal po regijah (Actual land use by region). For internal use. Ljubljana: University of Ljubljana, Faculty of Arts, Department of Geography.
- Resolucija o mednarodnem razvojnem sodelovanju in humanitarni pomoči Republike Slovenije (Resolution on the International Development Cooperation and Humanitarian Aid of the Republic of Slovenia).** (2017). Official Gazette of the Republic of Slovenia, No. 54/2017.
- Resolucija o nacionalnem gozdnem programu (Resolution on the National Forest Programme).** (2007). Ljubljana: Official Gazette of Republic of Slovenia, No. 111/07.
- Resolucija o nacionalnem programu duševnega zdravja 2018–2028 (Resolution on a National Mental Health Programme 2018–2028).** (2018). Ljubljana: Ministry of Health. Obtained at: <https://e-uprava.gov.si/download/edemokracija/datotekaVsebinska/323441?disposition=inline>.
- Resolucija o nacionalnem programu varstva pred naravnimi in drugimi nesrečami v letih 2016 do 2022 (Resolution on the National Programme for Protection against Natural and Other Disasters 2016–2022).** (2016). Ljubljana: Official Gazette of the Republic of Slovenia, No. 75/2016.
- Resolucija o normativni dejavnosti (Resolution on Legislative Regulation).** (2007). Ljubljana: Official Gazette of the Republic of Slovenia, No. 92/2007.
- Resolucija o strateških usmeritvah razvoja slovenskega kmetijstva in živilstva do leta 2020 – »Zagotovimo si hrano za jutri« (Resolution on the Strategic Guidelines for the Development of the Slovenian Agriculture and Food Technology until 2020 – Ensuring Food for Tomorrow.** (2011). Ljubljana: Ministry of Agriculture, Forestry, and Food.
- Schmoch, U.** (2008). Concept of a Technology Classification for Country Comparisons. Final Report to the WIPO. Karlsruhe: Fraunhofer Institute for Systems and Innovation Research.
- Sendi, R.** (2013). The low housing standard in Slovenia: Low purchasing power as an eternal excuse. Urbani izziv, Volume 24, No. 1. Ljubljana: Urban Planning Institute of the Republic of Slovenia.
- Shared Vision, Common Action: A stronger Europe. A Global Strategy for the European Union's Foreign And Security Policy.** (2016). Brussels: European Commission.

- SI-STAT Data Portal.** (2016, 2017, 2018). Ljubljana: Statistical Office of the Republic of Slovenia. Obtained at: <http://www.stat.si>.
- Sixth European Working Conditions Survey – Overview report (2017 update).** (2017). Luksemburg: Eurofound.
- Skills Matter: Further Results from the Survey of Adult Skills.** (2016). Paris: OECD.
- Slabe, A.** (2015). Razvojni potencial ekološkega kmetijstva v Sloveniji v povezavi z doseganjem trajnostne samooskrbe s hrano: doktorska disertacija (Development potential of organic farming in Slovenia in the context of sustainable self-sufficiency in food: doctoral thesis. Ljubljana: University of Ljubljana, Faculty of arts.
- Slovenia: Towards a strategic and efficient state.** (2012). Paris: OECD.
- Slovenija – častna članica Mednarodnega knjižnega sejma v Frankfurtu leta 2022 (Slovenia – a guest of honour at the Frankfurt book fair in 2022).** (2017). Ljubljana: Ministry of Culture.
- Slovenija: safe, successful and globally respected.** (2015). Ljubljana: Ministry of Foreign Affairs.
- Slovenska strategija pametne specializacije S4 (Slovenia's Smart Specialisation Strategy S4), 2015.** (2015). Ljubljana: Government Office for Development and European Affairs. Obtained at: http://www.vlada.si/teme_in_projekti/strategija_pametne_s4/
- Social inclusion.** First Release, 27 September 2016. (2016). Ljubljana: Statistical Office of the Republic of Slovenia.
- Special Eurobarometer 464b: Europeans' attitudes towards security.** (2017). Brussels: European Commission. Obtained at: http://ec.europa.eu/public_opinion.
- Special Eurobarometer 470: Corruption.** (2017). Brussels: European Commission. Obtained at: http://ec.europa.eu/public_opinion.
- Srakar, A.** (2018). Ocena stanja slovenske kulture z vidika ekonomskih vidikov in kulturne politike (Assesment of the situation in Slovenian culture from economic and cultural policy aspects). For IMAD's internal use. Ljubljana: IER.
- Housing statistics.** (2017). Statistics Explained. Luxembourg: Eurostat. Obtained at: http://ec.europa.eu/eurostat/statistics-explained/index.php/Housing_statistics/sl.
- State of Health in the EU: Slovenia. Country Health Profile 2017.** (2017). European Commission, OECD, European Observatory on Health Systems and Policies. Obtained at: <https://ec.europa.eu/health/sites/>.
- Statistical data Warehouse.** (2017). Frankfurt: European Central Bank.
- Statistical data of the Digital Library of Slovenia** (2017). Ljubljana: National and University Library (NUK).
- Statistical Insurance Bulletin.** (2017). Ljubljana: Slovenian Insurance Association.
- Strategija Digitalna Slovenija 2020.** (2016). Pridobljeno na http://www.mju.gov.si/fileadmin/mju.gov.si/pageuploads/DID/Informacijska_druzba/DSI_2020.pdf
- Spatial Development Strategy of Slovenia** (2004). Ljubljana: Ministry of the Environment and Spatial Planning.
- Slovenia's Development Strategy 2030.** (2017). Ljubljana: Government Office for Development and European Cohesion Policy.
- Strategija upravljanja kapitalskih naložb.** (2015). Ljubljana: Government of the Republic of Slovenia.
- A European Strategy for Plastics in a Circular Economy.** (2018). Brussels: European Commission. Obtained at: <http://ec.europa.eu/environment/circular-economy/pdf/plastics-strategy.pdf>.
- Sustainable governance indicators – 2017 Survey.** (2017). Gutersloh: The Bertelsmann Stiftung. Obtained at: <http://www.sgi-network.org/2017/>.
- System of Health Accounts.** (2011). OECD, Eurostat in WHO. Obtained at: <http://www.oecd.org/els/health-systems/a-system-of-health-accounts-2011-9789264270985-en.htm>.
- Štipendije za deficitarne poklice (Scholarships for shortage occupations).** (2018). Ljubljana: Ljubljana: Slovene Human Resource Development and Scholarship Fund.
- The 2017 EU Justice Scoreboard.** (2017). Brussels: EC – CEPEJ.
- The 2017 Global Peace Index.** (2018). New York: Institute for Economics and Peace.
- The 2018 Ageing Report: Economic and budgetary projections for the 28 EU Member States (2013–2070).** (2018). Brussels: European Commission. Institutional paper – March 2018.
- The Cultural and Creative Cities Monitor.** (2017). Brussels: European Commission.
- The economic rationale for public R&D funding and its impact.** (2017). Brussels: European Commission.
- The Global Competitiveness Report 2017–2018.** (2017). Geneva: WEF.
- The Household Finance and Consumption Survey. Wave 2.** (2017). Frankfurt: ECB.
- The IMD World Competitiveness Yearbook.** (2017). Lausanne: Institute for Management Development (IMD). Obtained at: <https://www.worldcompetitiveness.com/>.

- Trends in job quality in Europe.** (2012). Luksemburg: Eurofound.
- Trobec, T.** (2017). Poraba vode in vodna produktivnost (Water consumption and water productivity). For internal use. Ljubljana: University of Ljubljana, Faculty of Arts, Department of Geography.
- Urek, G. et al.** (2012). Raba fitofarmacevtskih sredstev in preučitev možnosti za njihovo racionalnejšo uporabo v Sloveniji (The use of pesticides and identification of possible solutions for their rational use in Slovenia). Ljubljana: Agricultural Institute of Slovenia.
- Violations by Article and by State.** (various volumes). Strasbourg: European Court of Human Rights – Council of Europe.
- Vključevanje javnosti v pripravo predpisov: Priročnik za načrtovanje in izvajanje posvetovalnih procesov (Involving the public in the preparation of regulations: Manual for planing and implementation of processes of consultation).** (2015). Ljubljana: Ministry of Public Administration.
- Vodopivec, M., Laporšek S., Vodopivec M.,** (2016). Levelling the Playing Field: The Effects of Slovenia's 2013 Labour Market Reform. IZA DP No. 9783.
- WHO Technical Report Series: 916.** (2017). Geneva WHO. Obtained at: <http://www.who.int/dietphysicalactivity/publications/trs916/en/>.
- WJP Rule of Law Index 2017–2018.** (2017). Washington: World Justice Project. Obtained at: <https://worldjusticeproject.org/>.
- Working Guidebook to the National Footorint Accounts.** (2017). Working paper. Oakland, USA: Global Footprint Network.
- World Bank Governance Indicators Database.** (2017). Washington: World Bank. Obtained at: <http://info.worldbank.org/governance/wgi/>.
- World Insurance in 2016: the China growth engine steams ahead.** (2017). Zürich: Swiss Re. Obtained at: http://institute.swissre.com/research/overview/sigma/3_2017.html.
- Z evropskimi sredstvi do vzpostavitve sistema spremljanja zaposljivosti visokošolskih diplomantov** Novica 5. 9. 2017 (Establishing a system for monitoring employability of higher education graduates using EU funds. News 5.9.2017.) (2017). Ljubljana: Ministry of Education, Science and Sport.
- Zaključno poročilo delovne skupine za spremljanje izvajanja akcijskega načrta razvoja ekološkega kmetijstva do leta 2015 (Final report of the working group on the monitoring of implementation of the Action plan for the development of organic farming until 2015).** (2012). Ljubljana: Ministry of Agriculture and the Environment.
- Zakon o davku od dohodkov pravnih oseb (Corporate Income Tax Act).** (2006, 2008, 2009, 2010, 2012). Official Gazette of the Republic of Slovenia, Nos. 117/06, 56/08, 76/08, 5/09, 96/09, 43/10, 30/12.
- Zakon o dopolnitvi Zakona o Slovenskem odškodninskem skladu (Act Amending the Slovenia Compensation Fund Act).** (2017). Ljubljana: Official Gazette of the Republic of Slovenia, No. 55/2017.
- Zakon o integriteti in preprečevanju korupcije (Integrity and Prevention of Corruption Act).** (2011). Ljubljana: Official Gazette of the Republic of Slovenia, No. 69/2011.
- Zakon o izobraževanju odraslih (Adult Education Act).** (2018). Official Gazette of the Republic of Slovenia, No. 6/2018.
- Zakon o spremembah in dopolnitvah Zakona o ukrepih Republike Slovenije za krepitev stabilnosti bank (Act Amending the Act Regulating Measures of the Republic of Sovenia to Strengthen the Stability of Banks).** (2015). Ljubljana: Official Gazette of the Republic of Slovenia, No. 104/2015.
- Zakon o spremembah in dopolnitvah Zakona o uresničevanju javnega interesa za kulturo (ZUJIK-G) (Act Amending the Exercising of the Public Interest in Culture Act.** (2017). Ljubljana: Uradni list RS, št. 61/17.
- Zakon o spremembi Zakona o visokem šolstvu (ZViS-L) (Act Amending the Higher Education Act).** (2017). Ljubljana: Official Gazette of the Republic of Slovenia, No. 65/17.
- Zakon o vajeništvu (Apprenticeship Act).** (2017). Ljubljana: Official Gazette of the Republic of Slovenia, No. 25/17.
- Health Insurance Institute of Slovenia.** (2018). Business Report for 2017. Ljubljana. Health Insurance Institute of Slovenia.
- Health Statistics Yearbook 2016. Health status of the population. Bolniške odsotnosti (Absence from work).** (2017). Ljubljana: NIJZ. Obtained at: http://www.nijz.si/sites/www.nijz.si/files/uploaded/publikacije/letopisi/2016/2.6_bs_2016.pdf.
- Zver, E. in Srakar, A.** (2018). Finančna dostopnost do zdravstva v Sloveniji in njen vpliv na neenakosti v zdravju. V Neenakosti v zdravju v Sloveniji v času ekonomske krize (Financial accessibility of health in Slovenia and its impact on health inequalities. In Health inequalities in Slovenia during the Economic Crisis. Ed.: Lesnik, T. Gabrijelčič Blenkuš, M., Hočevar Grom, A., Kofol Bric, T. Zaletel, M. Ljubljana: National Institute of Public Health.

List of acronyms and abbreviations

LFS	Labour Force Survey
ARSO	the Slovenian Environment Agency
GDP	gross domestic product
GERD	gross domestic expenditure on R&D
GNP	gross national product
CAF	common Assesment Framework
CEPEJ	the European Commission for the Efficiency of Justice
CH ₄	methane
CO ₂	carbon dioxide
CPI	Consumer Price Index
DARS	the Motorway Company of the Republic of Slovenia
VAT	value added tax
DESI	the Digital Economy and Society Index
DRSI	the Slovenian Infrastructure Agency
BAMC	the Bank Assets Management Company.
ECB	the European Central Bank
EFQM	the European Foundation for Quality Management
EII	the European Innovation Index
EIPA	the European Institute for Public Administration
EC	the European Commission
EMMS	common methodology for measuring administrative costs
EMU	Economic and Monetary Union
EPO	the European Patent Office
ESC	the Economic and Social Council
ET 2020	Education and Training 2020
EU	the European Union
EUIPO	the European Union Intellectual Property Office
EUR	euro
EUROAC	The Academic Profession in Europe: Responses to Societal Challenges
EUROSTAT	the Statistical Office of the European Union
FDA	functionally derelict areas
FURS	the Financial Administration of the Republic of Slovenia
GEM	the Global Entrepreneurship Monitor
GFN	Global Footprint Network
Gg	gigagram (1000 tonnes)
SMARS	The 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

ITR	implicit tax rate (on labour, capital, consumption and energy)
IER	the Institute for Economic Research
ICT	information and communication technology
IMD	Institute for Management Development
IMF	the International Monetary Fund
ISCO	the International Standard Classification of Occupations
CPC	the Commission for the Prevention of Corruption
UAA	utilised agricultural area
MGRT	the Ministry of Economic Development and Technology
MJU	the Ministry of Public Administration
MKGP	the Ministry of Agriculture, Forestry and Food
MNZ	Ministry of the Interior
MRA	Master Restructuring Agreement
SMEs	small and medium-sized enterprises
MZZ	the Ministry of Foreign Affairs
N₂O	nitrous oxide
NATO	North Atlantic Treaty Organization
NKMB	Nova kreditna banka Maribor
NLB	Nova ljubljanska banka
NPK fertilisers	mineral fertilisers containing nitrogen, phosphorus and potassium
FDI	foreign direct investment
NUTS classification	the Nomenclature of Territorial Units for Statistics
PP	percentage point
OECD	the Organisation for Economic Cooperation in Development
OHIM	the Office for Harmonization in the Internal Market
OP ETID	the Operational Programme for Environmental and Transport Infrastructure Development
RES	renewable energy sources
UN	United Nations
PIAAC	the OECD Programme for the International Assessment of Adult Competences
PISA	the Programme for International Student Assessment
PPP	purchasing power parity
PM	particulate matter
PMR	product market regulation
PPS	purchasing power standard
RIA	Regulatory Impact Assessment
RISS	Research and Innovation Strategy of Slovenia
R&D	research and development activity
RS	the Republic of Slovenia
SSH	Slovenian Sovereign Holding
SHARE	the Survey of Health, Ageing and Retirement in Europe
SID	the Slovenian Export Corporation

SKD	Standard Classification of Activities
PPS	purchasing power standard
SPIRIT	the Public Agency for Entrepreneurship, Internationalisation, Foreign Investments and Technology
SEF	the Slovene Enterprise Fund
SRIP	Strategic Research and Innovation Partnerships
SDS	Slovenia's Development Strategy
SURS	Statistical Office of the Republic of Slovenia
TAXUD	the Taxation and Customs Union Directorate
TEA	total early-stage entrepreneurial activity
TEŠ	the Šoštanj thermal power plant
GHG	greenhouse gases
tkm	tonne-kilometre
SIPO	the Slovenian Intellectual Property Office
IMAD	Institute of Macroeconomic Analysis and Development
USD	US Dollar
WEF	the World Economic Forum
WIPO	the World Intellectual Property Organization
ZGD	Companies Act
ZPIZ	the Pension and Disability Insurance Institute of Slovenia
ZUJF	Fiscal Balance Act

development report 2018