development report 2016

IMAD

Development Report 2016
Ljubljana, June 2016

Published by: IMAD, Ljubljana, Gregorčičeva 27
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Introductory remarks

The Development Report is a document that monitors the fulfilment of the strategic guidelines for Slovenia's economic, social and environmental development. At a time when a new strategy for Slovenia's development is being drafted, the Development Report 2016 shows the baseline situation and development challenges, not only in terms of ensuring macroeconomic stability and the long-term sustainability of economic, social and environmental development, but also in terms of meeting the country's international commitments (e.g. within the Europe 2020 strategy, the Stability and Growth Pact and the mechanism for detecting excessive imbalances).

The Development Report analysis is based on selected development indicators, and focuses attention on areas that represent a particular development challenge. The findings rely on official data released by domestic and foreign institutions until 31 March 2016 and the revision of public finance data released on 20 April 2016. This year's report therefore presents a review of trends up to 2015 or up to the last year for which data are available. In areas where no relevant indicators exist owing to a lack of data, we have also consulted other sources, particularly analyses by national and international institutions and reports on the implementation of sectoral strategies and programmes. In the analyses conducted, Slovenia is mainly compared with EU Member States. Where we did not have data for the entire EU, the average of those EU Member States for which data were available was used. Slovenia is also occasionally compared with OECD countries, usually with the average of the 21 EU Member States that are also OECD members. The terms 'European average' or 'EU average' refer to the EU-28 group, whereas the term 'new Member States' means the EU-13 countries that joined the EU in the enlargements after 2004 (or the EU-12, without Croatia).

The Development Report is divided into two parts. The findings of the analysis are summarised in the main body of the Report, which is then followed by a detailed report on progress by individual indicators for Slovenia's development. The subject matter is divided into four sections: macroeconomic framework; competitiveness factors; the population and the welfare state; and environmental, regional and spatial development.

Main findings

In the past few years, Slovenia has taken a number of positive steps and slightly narrowed its development gap with the EU. During the crisis, Slovenia's economic development gap widened considerably in relation to the EU average. The economic downturn also disrupted macroeconomic balances and weakened the material welfare of the population. In recent years, however, the economic situation has been improving. The average annual growth of 3% of GDP in 2014 and 2015 was achieved in an environment of increased foreign demand, improved economic competitiveness and stronger government investment. The economic recovery was favourably impacted by the implementation of banking system stabilisation and the financial and ownership restructuring of companies. In 2015 the general government deficit dropped below 3% of GDP for the first time since the onset of the crisis. Economic growth has been accompanied by a recovery on the labour market. This led to renewed growth in disposable income, which is a significant factor in the material welfare of the population. Despite the decline in disposable income during the crisis, Slovenia, owing to its highly developed social protection systems, has managed to keep social inclusion and access to public services at a relatively high level, by international standards, and retain one of the lowest income inequality rates in the EU. Life satisfaction has also remained relatively high despite the crisis. Pressures on the environment have also eased in the past few years, but more as a result of lower economic activity during the crisis and some non-systemic factors than sustainable shifts towards the more efficient use of energy and commodities.

Regardless of these positive shifts, challenges remain in terms of ensuring a more sustainable improvement to Slovenia's growth potential and the welfare of its population, which will require more radical structural changes. To strengthen its growth potential and improve the quality of life and welfare of its population, it is vital that Slovenia increases its productivity and adjusts its social protection systems to demographic changes, i.e. the rising share of the elderly population. Both would also have a positive impact on fiscal consolidation, which is essential for Slovenia to create a stable macroeconomic framework as a basis for sustainable development. However, economic development must also pursue the goal of reducing the environmental burden, and the measures taken towards more efficient use of energy and commodities should be considered an opportunity to increase productivity and competitiveness.

Priority measures should be focused on:

- Establishing strategic development priorities and improving the efficiency of the government and its institutions responsible for making and executing coordinated development decisions;
- Increasing productivity by boosting the innovative capacity of businesses, providing a business environment that fosters entrepreneurship, developing human capital supportive to the competitiveness of the economy and encouraging the more efficient use of digital technologies;
- Ensuring sources of finance for businesses by establishing an effective banking system, faster restructuring of enterprises, improving access to funding for small and medium-sized enterprises and developing the non-bank segments of the financial system;
- Improving the governance of state-owned enterprises and restructuring their ownership;
- Continuing fiscal consolidation through more permanent measures for reducing the structural deficit, particularly in order to ensure the fiscal sustainability of the pension system;
- Adjusting social protection systems to the ageing population, establishing a comprehensive system of long-term care, improving the efficiency of the health system and strengthening its preventive activities;
- Improving the system of labour market flexicurity in order to improve the efficiency of labour force allocation and reduce labour market segmentation;
- Reducing environmental pressures through the more efficient use of energy and raw materials and a transition to sustainable mobility.

Summary

After the deterioration during the crisis, the economic situation and material living conditions have been improving in recent years, but a more lasting improvement to growth potential and the welfare of the population will require more radical structural changes. During the crisis, Slovenia significantly increased its gap in GDP pc in relation to the EU average. The economic downturn also disrupted macroeconomic balances and exacerbated the material welfare of the population. In the last few years, however, positive shifts have been recorded in a number of areas. As a result of economic growth boosted by exports and government investment, Slovenia stopped moving away from the EU average in terms of GDP pc in 2014 and brought the general government deficit below 3% of GDP in 2015. The material situation of the population also started to improve with the recovery of labour market conditions. However, since Slovenia's growth potential declined during the crisis, economic progress has been relatively slow; this has in turn diminished the possibilities for a greater improvement to the welfare of the population, which is increasingly jeopardised by society not adjusting sufficiently to demographic changes. This should be addressed by more radical structural changes, focused primarily on raising productivity and adjusting social protection systems to reflect the accelerating ageing of the population. These changes are also essential in order to consolidate the public finances and restore a stable macroeconomic framework as a basis for sustainable development. Economic development should also pursue environmental goals, and the measures taken towards the more efficient use of energy and commodities should also be considered an opportunity to raise productivity and improve economic competitiveness.

After deteriorating during the crisis, the competitiveness of exporters has improved and positively affected economic growth; however, in order to further improve the economic position, it is essential to boost productivity. Cost and price competitiveness factors, in particular, have strengthened in recent years. Several years of cost competitiveness gains have had a positive effect on the position of exporters on foreign markets. Higher export competitiveness has increased Slovenia's integration into international trade flows. The composition of exports is also improving. However, these positive shifts have yet to be supported by gains in productivity, which is low by international standards. Increasing productivity is essential for a more sustainable improvement in competitiveness and to hasten the closing of the development gap, particularly in light of rising limitations to labour force supply owing to population ageing. Alongside an urgent increase in investment, which could also accelerate productivity growth in the short term, Slovenia also faces a number of challenges regarding investment in longer-term productivity factors such as innovation capacity, the digital economy and human capital. Competitiveness should also be boosted by creating an environment that is conducive to the establishment and growth of businesses. In recent years, Slovenia has made particular headway regarding the ease of starting a business; it is also improving the regulatory environment for start-up enterprises, but excessive red tape, especially the lengthy procedures involved in obtaining permits, remains a significant burden on business operations.

The investment climate is improving, but investment that is essential to increasing productivity has yet to be revived. Private investment, a key factor in raising productivity and preserving economic competitiveness, is recovering only gradually; nevertheless the investment environment has improved over the past few years owing to increased banking system stability, the deleveraging of companies and their increased profitability. Lending activity, however, continues to contract owing to limited corporate demand and the persistent risk aversion of banks. Given the high reliance of enterprises on bank funding owing to the poor development of other segments of the financial system, this makes it very difficult for them to secure financing. In order to accelerate investment activity, it is also necessary to expedite the ownership and financial restructuring of companies; with a view to achieving this goal, the government has also strengthened the institutional framework in the past few years. By privatising some of its companies, Slovenia has also increased the inflow of foreign investment over the last two years, which is a welcome development in terms of strengthening the country's growth potential, as foreign investment enables the corporate sector to gain access not only to fresh sources of funding but also to new know-how and markets. A rebound in investment activity would also help reduce the surplus of savings over investment, which has widened significantly in recent years.

While investment in some long-term factors of value added growth is relatively high by international standards, its efficient use in support of higher productivity remains a challenge. Slovenia's R&D investment is relatively high in comparison with investment in its international counterparts. Owing to the absorption of EU funds and boosted by tax relief, business sector investments, in particular, have increased since the beginning of the crisis. Expenditure on tertiary education is also high. The share of the population with tertiary education reached the EU average; the strengthening of human capital in science and technology is especially encouraging. Despite positive shifts, human capital, a significant factor of competitiveness and long-term growth, is not efficiently used in

Slovenia. The composition and skills of tertiary educated people often fail to match the business sector's demand. Moreover, Slovenia has also had to deal with human capital flight in recent years. At the same time, as the cohorts of prospective tertiary students are shrinking as a result of demographic changes, it will become increasingly difficult to ensure that staff are sufficiently educated to support the competitiveness of the economy in the future. The innovative capacity of the economy also remains weak, the main challenges being the insufficient transfer of knowledge from the research to the business sector, the low rate of innovation activity on the part of small businesses and the slow response to the rapid development of new technologies and process digitalisation. In recent years, a reduction in public R&D investment has also become a matter of concern.

The favourable developments in fiscal consolidation should be reinforced by more permanent measures for fiscal stability. After the significant deterioration in public finances in 2008, positive shifts have been witnessed recently, which arise from the improvement in the economic situation and government intervention measures. In 2015 the general government deficit dropped below 3% of GDP for the first time since the onset of the crisis. With a significant improvement in financing conditions in the last two years, expenditure on interest also fell in 2015. This is favourable in view of the necessary reduction in general government debt, which in 2015 was still rising and is already approaching levels which could have a negative effect on economic growth. In order to correct the structural deficit, which goes back to the pre-crisis period, Slovenia will have to adopt more permanent measures to stabilise the public finances. These should also tackle the areas where expenditure growth is also related to demographic changes that affect long-term fiscal sustainability. The pressures on the public finances will also have to be eased by boosting productivity and economic growth. On the revenue side, Slovenia could also make better use of the possibility to increase revenues by broadening the tax base, changing the taxation of property and improving the efficiency of state asset management.

The opportunities to improve quality of life increase as the economy recovers, but Slovenia must strengthen its growth potential and adjust to demographic changes in order to achieve a more sustainable improvement to the welfare of its population. Having contracted during the crisis due to the tightening labour market conditions, household disposable income has mainly been rising since 2014 owing to growing employment and earnings amid the recovering economy. Although during the crisis the material situation of the population deteriorated, owing to its well developed social protection systems, Slovenia has managed to retain the relatively high levels of the indicators of social inclusion, inequality and access to public services. Life satisfaction has also remained high by international comparison. Over the longer term, most composite indicators of health have improved, but the indicators for life-style related health status have deteriorated. However, in the years to come, it will not be possible for Slovenia to maintain or even improve the quality of life and welfare of the population without making major economic and social changes. In order to further improve basic material conditions, it is therefore vital to improve productivity as the basis for sustainable growth in population income and to establish a system of flexicurity on the labour market that reduces segmentation and is conducive to the efficient allocation of the labour force. However, the main challenge is adjusting social protection systems to demographic changes.

It is becoming increasingly important for Slovenia to adjust its social protection systems to its ageing population in order to further improve the quality of life and lower the pressures on the public finances. The ageing of the population is reflected in rising pressures on public expenditure for their financing. The number of older people per one working-age person will have doubled by 2060. Long-term projections indicate that age-related expenditures will increase more in Slovenia than for all other EU Member States by 2060. Although the 2013 pension reform temporarily decelerated growth in the number of old-age pensioners, it did not significantly improve the long-term sustainability of the pension system. The needs for health and long-term care services, areas in which reforms have been in preparation for more than ten years, are also rising rapidly. The challenges to social protection systems mainly involve adjusting their financing to the shrinking proportion of the active population (i.e. taking account of population ageing), continuously improving the efficiency of the health care system, strengthening preventive activities and establishing a comprehensive system of long-term care.

Slovenia has made progress in terms of reducing the environmental burden over the last few years, but long-term management remains a challenge, particularly in view of faster economic growth. Greenhouse gas emissions have been declining since 2008, largely as a consequence of lower energy consumption amid declining economic activity during the crisis, but also due to the mild winters in recent years and the shut-down of a thermal power plant. Despite this decline, the emission and energy intensities of the economy remain high, and so Slovenia has not narrowed its gap with the EU average since the beginning of the crisis. With faster economic

growth, it could therefore be more difficult to achieve further energy savings and emission reductions. Slovenia stands out particularly with regard to its extensive energy consumption for transport, which is attributable to the high level of transit through Slovenia and unsustainable mobility. More favourable developments are recorded in manufacturing, although this sector's energy consumption per unit of GDP also still exceeds the EU average. Slovenia's economy is characterised by low material productivity, meaning that it also has potential to increase its competitive position by more efficient use of raw materials and energy. In some areas Slovenia performs better than the EU. In view of its favourable natural assets, Slovenia not only has larger shares of renewable energy sources and organically farmed areas, but also generates less municipal waste per person than the EU average. Nevertheless, a transition towards a green economy, which will increase the competitiveness of the economy and the welfare of the population with minimum impact on the environment, will require a shift towards more sustainable production and consumption patterns.

Improvements in the efficiency of the government and its institutions would significantly contribute to the implementation of development-oriented changes towards more stable and welfare-oriented economic growth. Since the beginning of the crisis, Slovenia has slipped significantly on the international scales of institutional competitiveness, and the trust of its people and companies in politics, the government and its institutions is among the lowest in the EU. In the past few years, significant progress has been made towards improving the efficiency of the government, for example, by reducing the administrative burden and the grey economy and improving insolvency legislation; Slovenia has also adopted constitutional amendments to fiscal policy and referendum rules and increased the efficiency of its judiciary. However, in order to help the economy and society adapt to changes in the economic environment, Slovenia should increase the efficiency of the government and its institutions responsible for making and executing key development decisions. In recent years, the comprehensive and consistent planning of structural reforms has been increasingly impeded by the absence of a strategic development framework that defines the development priorities and their effective implementation. Development could also be boosted by establishing a more efficient spatial planning system, which is currently characterised by extremely lengthy procedures. Strategic decisions on development orientations are essential not only to formulate appropriate domestic development policies, but also for effective drawing on EU funds, which can make a significant contribution to Slovenia's development.

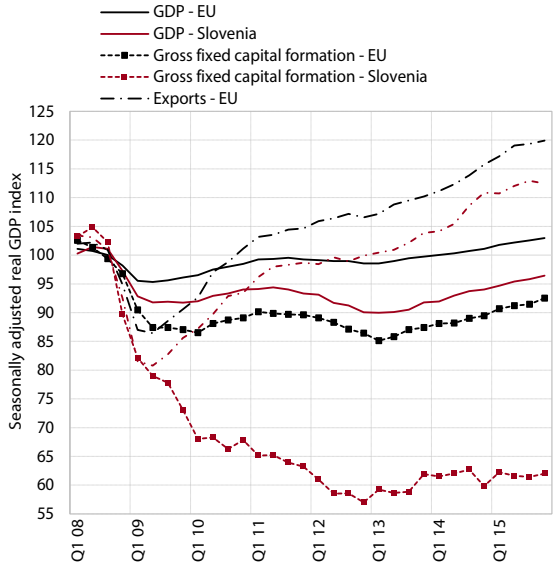
1 Macroeconomic framework

A stable macroeconomic environment is vital in order to rapidly improve competitiveness factors, generate sustained economic growth and create new jobs. Since the onset of the economic crisis, the decline in GDP has been accompanied by a deterioration in a number of macroeconomic indicators, and the imbalances in several areas have remained or only gradually improved. The public deficit has been relatively high throughout the entire period, but declined below 3% of GDP in 2015, primarily as a result of the influence of intervention measures. With the economic policy measures implemented and the gradual recovery of economic growth, imbalances related to a lack of capital and pressures on long-term fiscal sustainability are increasingly coming to the fore. Owing to the deleveraging of the private sector, the surplus of savings over investment has been increasing for several years, which is reflected in the wide surplus in the current account of the balance of payments. An intensive bank recovery process has been under way since the bank recapitalisation in 2013; however, lending activities have not yet started to recover, partly because of the cautiousness of banks and partly because of weak demand for company loans. With some positive shifts in the economic, fiscal and finance situation in 2014 and 2015, a further reduction to macroeconomic imbalances and the provision of stable financing resources for companies are vital in order to achieve sustained economic growth.

1.1 Macroeconomic stability and economic growth

The recovery of economic activity in the last two years has been encouraged in particular by the growth in exports and the gradual recovery of private consumption, which improved further last year. The economic growth recorded in the last two years is related to the improvement of economic conditions in the international environment, improved export competitiveness, the accelerated drawing of EU funds and the reduced uncertainty in the domestic environment. This was further supported by domestic economic policy measures, particularly the stabilisation of the banking system and the consolidation of the public finances. In 2014 GDP growth was supported by accelerated export and investment activities and in 2015 private consumption strengthened somewhat amid the continued high growth in exports, whereas the growth in investments slowed down considerably. Exports, which have had a positive impact on economic activities since mid-2009, rose more than the EU average in the last two years and are the only aggregate of consumption to exceed the 2008 level. This was a result of the recovery of growth in foreign demand and the increased competitiveness of the tradable sector. Until 2014 domestic consumption had been falling, at first mainly owing to a strong decline in investment, in 2012–2013 also due to a considerable reduction in private consumption. The recovery in private consumption, which began in 2014 after two years of decline, is related in particular to the improved labour market conditions. Consumer confidence, which was at its highest level since mid-2015, also improved considerably. Purchases of durable goods, which had decreased significantly during the crisis, rose during the period 2014–2015; the purchases of other goods and services, representing the dominant share of household consumption, also gradually increased. During the period 2014–2015, reductions in government spending came to a halt. Despite higher GDP growth than the EU average in the last two years, Slovenia remains among the countries which experienced the steepest decline in economic activity during the crisis. In 2015 the average GDP in the EU was slightly above the 2008 level, while the Slovenia' GDP was lagging behind by 4.2%.

Figure 1: **Gross domestic product, exports and gross fixed capital formation – a comparison between Slovenia and the EU**

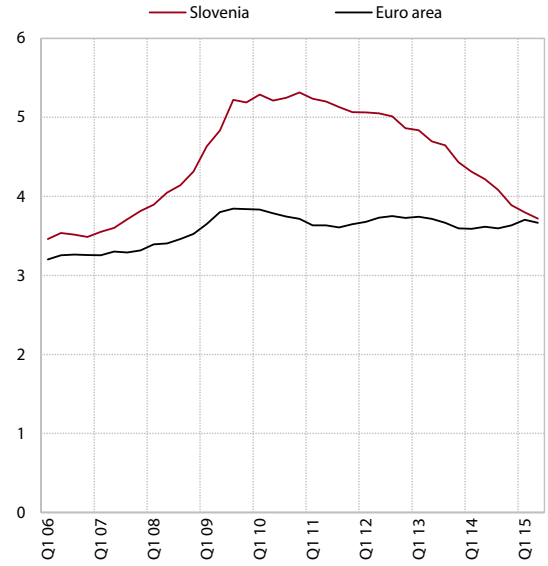


Source: Eurostat.

The growth in investment in the last three years was mostly stimulated by government investments, whereas private investments recovered only gradually, despite the improved financing conditions and the increase in companies' own funds. Following a 41% decrease in the period 2009–2012, investments started to increase only as recently as 2013; this rise was primarily supported by an investment in a major energy facility and by the increased drawing of EU funds mostly earmarked for public infrastructure. In 2014 the growth in these investments accelerated at the end of the financing period under the 2007–2013 financial perspective and they remained at a similar level in 2015. With the economic recovery and growth in orders, capacity utilisation also increased in 2014 and 2015, which contributed to a gradual recovery of private investment in machinery and equipment, particularly

in the tradable sector, according to our estimate. The improved operating results, especially those related to the deleveraging of the corporate sector (see Chapter 1.3) in recent years, have significantly reduced the debt-to-gross operating surplus ratio of non-financial companies, which was close to the entire euro area average in the first half of 2015. Along with the more favourable borrowing conditions (lower loan interest rates), this improved the environment for new investment decisions taken by companies which were increasing relatively modestly in 2015. This is also partly due to the extreme cautiousness of banks which is a limiting factor for those companies that have insufficient own resources available or no access to alternative sources of financing in the capital market or abroad. Furthermore, it is likely that this is also partly due to the reluctance of enterprises to increase demand for financial resources. Housing investments, which had reached almost half the level in the years before the crisis (2005–2007), began to grow towards the end of 2015 and are the main reason why, out of all the aggregates, joint investments continue to lag the most behind the pre-crisis level.

Figure 2: **Ratio of debt to gross operating surplus of the non-financial corporate sector**



Source: Eurostat, ECB; calculations by IMAD.

The continued recovery in economic activity caused a strengthening of employment growth in 2015, whereas the growth in wages eased owing to structural reasons and the need to maintain competitiveness[1]. The year 2014 witnessed the first positive turn in the labour market since the beginning of the crisis and in 2015 the growth of employment picked up pace (1.5%) by increasing in almost all private sector activities. The most significant contribution to this acceleration in employment growth was made by activities with relatively high growth in their value added (manufacturing, trade, transport, hotels and restaurants as well as ICTs). The growth in employment activities remained high, which is indicative either of the persisting cautiousness of companies regarding the recruitment of new employees or a desire for more flexible forms of employment. In 2015 the growth of the average gross wage per employee slowed down visibly after a significant rise in the previous year. As the tendency for companies to maintain their competitiveness continues, this is attributed to the increase in the share of employees with low wages and the absence of price pressures. Despite the slowdown, the increase in wages remained highest in manufacturing, pointing to the existence of a stronger base and the capacity of companies for further growth. After the decline during the period 2012–2013, the average wage in the public sector also increased slightly in 2014 and 2015. This was due to the commencement of the promotion payment, while wages in public corporations also continued to rise (see Chapter 3.1).

The growth in consumer prices has been very low since the onset of the crisis due to the weak economic activity and the process related to the internal adjustment of relative prices, whereas the considerable reduction in the price of raw materials in 2015 contributed to deflation for the first time since independence. In the period 2009–2013, the growth of prices eased due to economic growth and adjustment processes: particularly food and energy prices were rising, inflation being also due to measures related to fiscal consolidation and the introduction of certain environmental taxes. In the last two years, price growth slowed further due to the fall in raw material prices (in particular oil[2]) on the international markets, the lower prices of imported products and the smaller contribution of fiscal measures. At the end of 2015, the general price level was 0.5% lower than for the previous year. External environment factors also strongly affected the movement of the average prices in the EU, where prices increased slightly (by 0.2%) in 2015. The difference could be partly explained by a higher share of energy products in the structure of consumption in Slovenia (higher negative impact on the decrease in prices and vice versa). In the last two years, core inflation which does not include the prices of food and energy products has also been relatively lower in Slovenia. It is estimated that this was mainly a result of two groups of factors. Firstly, the process of adjusting the relative prices through the reduction of unit labour costs was carried out intensively, and was necessary in order to meet cost competitiveness requirements; therefore, there were no supply-side pressures for the rise in prices. Secondly, after a sharp fall, economic activity in Slovenia started to recover later than the EU average, with private consumption in particular recovering later and more slowly, which was reflected in the relatively slow growth in the prices of non-energy products and services.

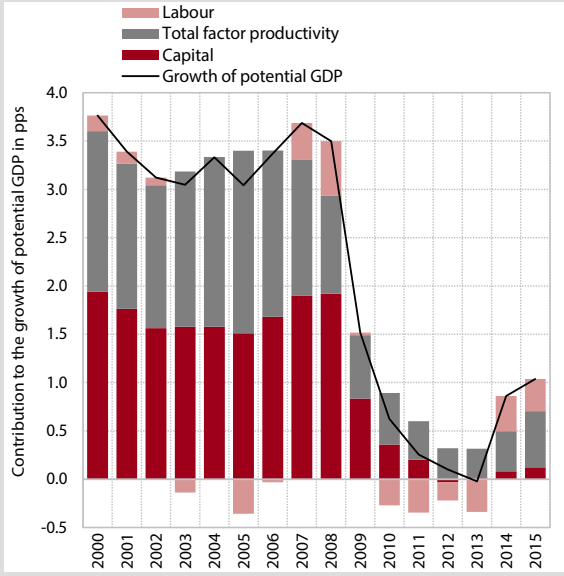
[1] For more details on labour market trends, see Chapter 3.1.

[2] In 2015 the price of Brent crude oil decreased by 47% and reached its lowest values in the last ten years.

Box 1: **Growth of potential GDP and output gap**

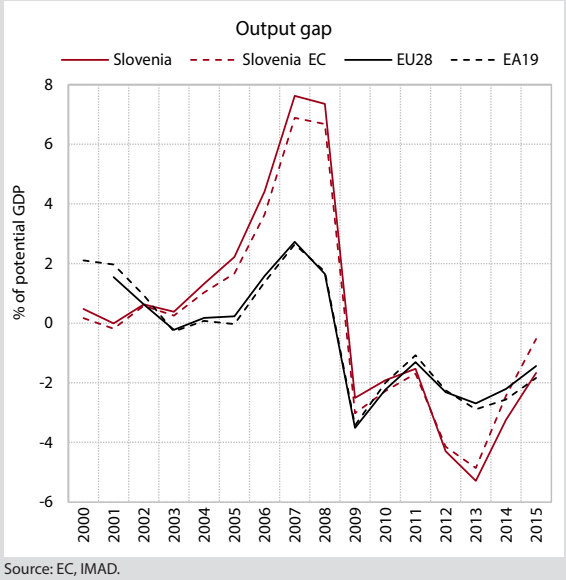
The growth of potential GDP had slowed at the beginning of the crisis, but was increasing gradually in the last two years.
In the period before the crisis (2000–2007), the growth of potential GDP was estimated at just above 3%, before declining rapidly and significantly. GDP started to rise again in 2014 and 2015, when it was estimated at 0.9%. The significant decline in potential growth in Slovenia is largely due to the structure of economic growth in the past. In addition to exports, it was largely based on investments in infrastructure and the high degree of dependence on foreign funding sources, which led to an immediate stagnation at the onset of the crises. Because of the insufficient structural adjustments aimed at increasing the resilience of the economy to shocks in the years before the crisis and not always appropriate or timely action during the crisis, a potential for GDP growth diminished. The decrease in potential GDP growth in comparison to the period preceding the crisis was due to a reduced capital contribution (in 2015, this was 1.5% lower than the pre-crisis average) and total factor productivity (by 1%). In 2015 the contribution of labour was above the pre-crisis average, and contributed significantly to lower potential GDP growth during the period 2010–2013 (on average, 0.3% per year).

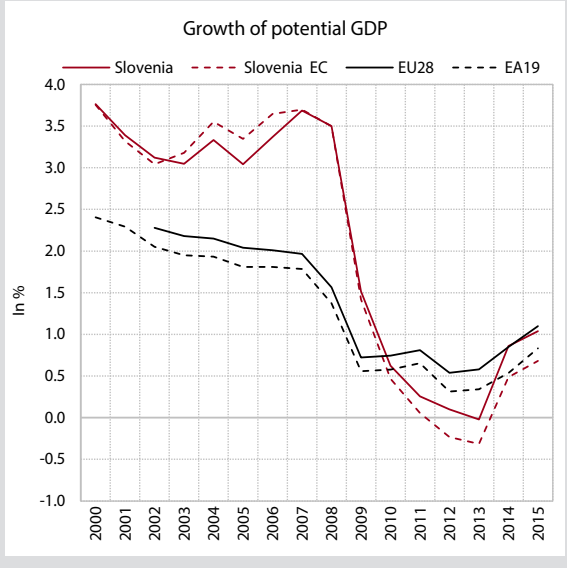
Figure: **Growth of potential GDP in Slovenia**



Source: calculations by IMAD.

The output gap has been negative since the onset of the crisis, and began to close considerably in 2014 and 2015.
The output gap,[1] which measures the utilisation of production capacities and shows price pressures in the economy, was positive in the pre-crisis period and particularly high in 2006 and 2007. Since the onset of the crisis, it has been negative. In the early years of the crisis, the decline in investment demand therefore significantly contributed to a sharp fall in foreign demand and to companies experiencing difficulties gaining access to financial resources, whereas in 2012 and 2013 there was a considerable decline in private consumption associated with the deterioration of the situation in the labour market and the austerity fiscal measures taken. The negative output gap widened further during these years. Since 2014, the production gap has begun to gradually narrow, primarily owing to increased government investments financed mainly from EU funds. This figure remains negative because of uncertain circumstances on the financial markets and consumer cautiousness exerting an influence on corporate investments and household spending.





Source: EC, IMAD.

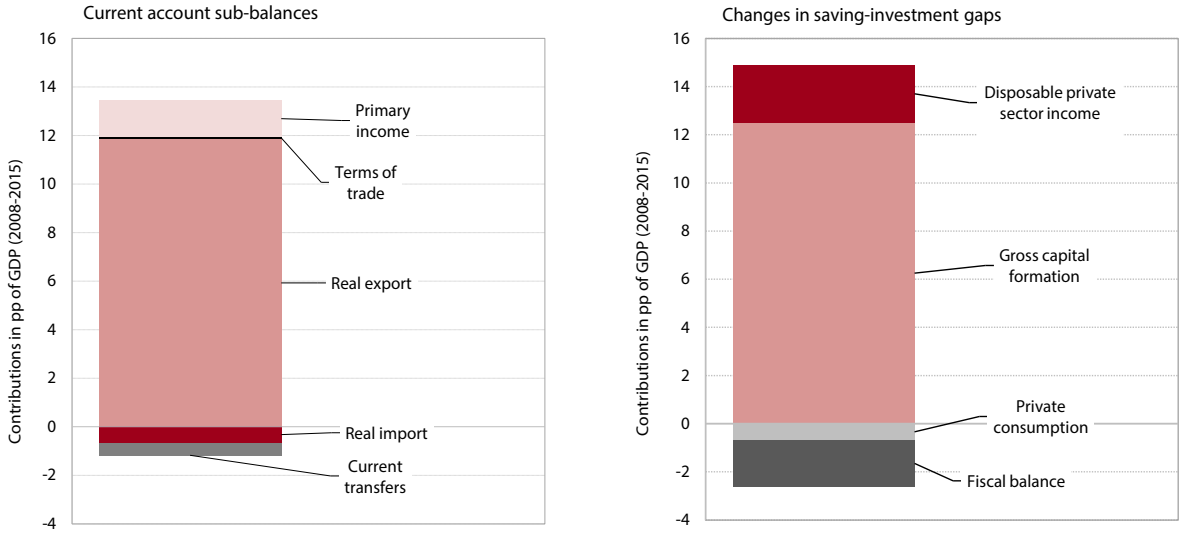
[1] The output gap is the difference between the actual and potential GDP, expressed as a percentage of potential GDP. Given the factors affecting the calculation of potential growth, in particular the changes in methodology, the estimated growth in the past and the GDP forecast, the output gap is a rather unstable macroeconomic indicator whereas, with the preparation of new calculations, its value may change considerably, also for the past periods.

The current account surplus of the balance of payments, which reflects the widening of the gap between saving and investments, reached 7.3% of GDP in 2015. After the high deficit in the pre-crisis years, the current account of the balance payments was roughly balanced during the first three years of the economic crisis. Given the accelerated deleveraging of commercial banks and the corporate sector, the surplus then started to rise in the following years, boosted by the increased competitiveness of the tradable sector (see Chapter 2.1) and the related strengthening of exports. Despite the considerable debt reduction (see Chapter 1.3) and improvement in business results, private sector investments did not yet start to increase noticeably, so that the savings-investment gap widened further. The restricted access to bank loans and lack of capital financing sources had a significant impact on the uncertain economic prospects at the time and the reluctance of enterprises to make major investment decisions. The current account surplus increased substantially in 2012, 2013 and 2015 (by approx. EUR 2 billion in total), mainly due to the growing surplus in the balance of trade in goods. This was due to price factors and better terms of trade in addition to a higher growth in exports than imports in the last years. The surplus has also been due to the accelerated drawing down of EU funds, especially in 2014. On account of private sector deleveraging abroad, net interest payments have decreased since 2009 despite the growth in external government debt financing expenses.

Adjustment of current accounts of the balance of payments in the euro area has been asymmetrical since the onset of the crisis and continues to increase the macroeconomic imbalance of the entire area. *A similar change or turn in the current account balance in Slovenia, resulting in a surplus, has been recorded in a number of euro area countries since the beginning of the financial crisis.* In 2009 and 2010 the current account deficit also began to decline in countries that had large fiscal imbalances and an increasing number of austerity measures in place. According to the European Commission, this was largely due to the fall in domestic spending, particularly private sector investments and private consumption, as the limited increase in disposable income resulted in higher savings on average. At the same time, most of the countries that had a surplus prior to the crisis either maintained or further increased it. Current account adjustments in the euro area were asymmetric, which increased the macroeconomic imbalance, i.e. the average surplus of savings over investment, for the entire area. In this regard, Slovenia, in particular, has a surplus of savings over investment in the private sector which has been net deleveraging abroad for the past seven years amid the limited access to sources of finance.

Gross external debt, having maintained a similar level since the onset of the crisis, changed its structure radically. The share of public debt increased considerably, rising by EUR 22.4 billion in comparison with the pre-crisis period, and accounts for more than half of the gross external debt (42.2 pps higher than in 2008). Significant growth in external government debt associated with the recapitalisation of state-owned companies, mainly of banks, the covering of the state budget deficit and the pre-financing of debtors' obligations has, in individual years, even greatly exceeded the net repayment of debts raised by the private sector in the pre-crisis period. In 2015, after an increase in 2014, it declined by EUR 1.5 billion and amounted to EUR 44.8 billion (116% of GDP) at the end of the year. This was largely a consequence of the slower growth in general government debt (see Chapter 2.1) with regard to the continued deleveraging of companies and banks abroad. At the end of the year the external debt of commercial banks fell by EUR 12.6 billion compared to 2008, while non-guaranteed private

Figure 3: **Changes to the current account of the balance of payments, Slovenia**



Source: SURS, BS, Eurostat, calculations by IMAD.

Box 2: **Assessment of Slovenia in the European Commission's excessive imbalance procedure**

Under the EU economic governance, the European Commission has devoted special emphasis to the early identification and correction of excessive macroeconomic imbalances in the EU Member States since 2012. The imbalance identification procedure is based on 14 imbalance indicators (see Table) and an in-depth analysis to establish the impact of the imbalances identified by the indicators on macroeconomic stability. If the European Commission finds that macroeconomic imbalances exist, it will issue policy recommendations for the Member State(s) concerned. In severe cases of excessive macroeconomic imbalances that could also put the operations of the Economic and Monetary Union at risk, the EU Council shall initiate a procedure which will, in addition to recommendations to a particular Member State, enhanced surveillance and monitoring, require that the State concerned submits a plan of corrective actions. If a euro area Member State fails to take appropriate corrective action on several occasions in succession, it may be fined up to 0.1% of its GDP.

According to the European Commission[1] report for 2015, the imbalances in Slovenia are no longer excessive; however, they still require careful monitoring and prevention. According to the data for 2014, Slovenia still exceeds the limit value in 5 out of 14 indicators (6 in the preceding year); however, their values (except for the general improvement debt) improved in 2014 and 2015. This is due to more favourable economic trends, including improved export competitiveness and measures taken in the area of bank rehabilitation, as well as the restructuring and privatisation of the financial and corporate sectors. The in-depth analysis of the European Commission[2] published at the beginning of 2016 shows that the positive economic trends have continued and that they are accompanied by a recovery in the labour market and private consumption growth. It also reports that there has been a certain level of progress regarding the 2015 recommendations in the corporate restructuring area and the labour market, and improved efficiency of justice, whereby the key challenges of Slovenia, according to the European Commission, remain associated with long-term fiscal sustainability (including the adjustment of social protection systems to demographic changes) and the establishment of an appropriate environment to revive investment activity.

Table: **Results of the macroeconomic imbalance indicators for Slovenia**

	Indicator/Limit value		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Indicators of external imbalances	Current account, % of GDP (three-year average)	+6/–4 %	-0.9	-1.8	-2.1	-2.6	-3.8	-3.3	-2.0	-0.2	0.9	2.8	5.1
	Net international investment position, % of GDP	–35 %	-8	-11	-17	-26	-39	-43	-47	-45	-50	-46	-44
	Real effective exchange rate (HICP deflator), three-year increase	+/–11 %	4.7	0.9	-2.9	-1.2	2.1	5.2	1.2	-1.1	-4.5	-0.7	1.2
	Share of the world market (goods and services), five-year increase	–6 %	18.3	30.0	21.4	23.6	16.0	9.5	-1.7	-5.5	-20.6	-17.6	-11.8
	Nominal unit labour cost index, three-year increase	+9 %	14.6	9.7	6.3	5.4	10.6	18.5	16.1	8.2	0.6	0.3	-0.2
Indicators of internal imbalances	Real estate prices, annual increase	+6 %	6.4	12.1	14.0	18.8	1.3	-10.3	-1.3	0.9	-8.1	-6.0	-6.6
	Private sector borrowing, credit, flow in % of GDP	15 %	8.5	12.4	13.6	21.5	15.5	2.9	1.9	0.4	-2.9	-4.0	-4.6
	Private debt, % of GDP	160 %	67	76	83	96	106	114	115	113	113	108	100
	General government debt, % of GDP	60 %	27	26	26	23	22	35	38	46	54	71	81
	Unemployment rate, three-year average	10 %	6.4	6.5	6.3	5.8	5.1	5.1	5.9	7.1	8.1	9.1	9.6
	Financial sector liabilities, unconsolidated, annual growth in %	16.5 %	11.5	17.7	13.8	28.6	6.6	7.7	-3.4	-1.2	-0.7	-10.3	-0.4
abour market indicators	Employment rate (15–64), 3-year change in pp	-0.2 %	1.7	2.9	3.8	1.5	1.1	0.9	0.2	-1.5	-1.4	-1.0	0.6
	Long-term unemployment rate (15–74), 3-year change in pp	0.5 %	-0.5	-0.4	-0.6	-1.0	-1.2	-1.1	1.0	1.7	2.5	2.0	1.7
	Youth unemployment rate (15–24), 3-year change in pp	0.2 %	-1.7	-0.6	-3.4	-6.0	-5.5	-0.3	4.6	5.3	7.0	6.9	4.5

Source: Eurostat Portal Page – Macroeconomic imbalance procedure statistics, 2015.
Note: Indicators found to exceed the threshold value in the EU excessive imbalance procedure are marked in grey.

[1] Alert Mechanism Report 2016, 2015.
[2] Country Report Slovenia 2016, Including an In-Depth Review on the prevention and correction of macroeconomic imbalances, 2016.

debt decreased by EUR 14.4 billion. Despite its growth in individual years, the publicly guarantee debt in 2015 was lower than in 2008.

Despite the deleveraging of the private sector, the net financial position deteriorated considerably since the onset of the crisis as a result of the increased borrowing by the general government; in 2015, this figure fell below 40% of GDP for the first time in this period. Since 2008, Slovenia has managed to exceed the limit of the EU indicator for external imbalances (35% of GDP) because of a considerable increase in total liabilities as external

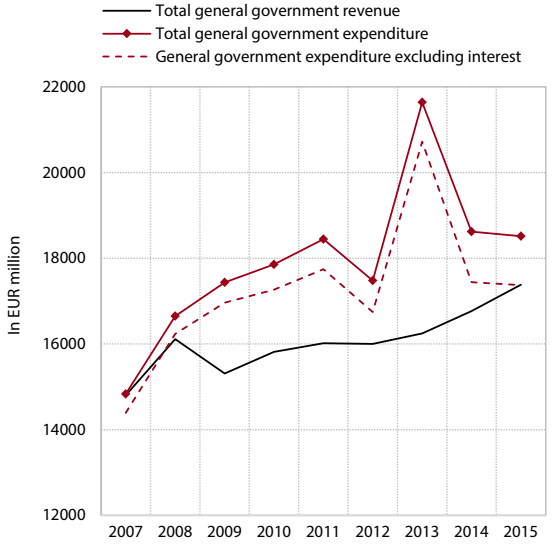
claims. The rise in obligations was driven exclusively by increased borrowing by the general government (see Indicators 1.4 and 1.7) which exceeded the scope of private sector debt repayment almost every year, particularly for banks abroad. With the exception of 2013 and 2015, particularly 2015, the further deleveraging of commercial banks abroad was the main reason for the decrease in joint liabilities. The growth in joint foreign claims, which was relatively slow, was primarily due to debt claims, particularly in 2014. In that year, the outflow of currency and deposits out of the country increased and, at the same time, portfolio investments abroad in connection with higher yields in international financial markets increased notably. Total foreign claims remained at the level attained, with a relative higher transfer of national funds to accounts abroad.[3] In 2015 the net improvement to the financial position was mostly a result of the decrease in total liabilities. At the end of 2015 the net international investment position recorded a net debt external position amounting to EUR 14.4 billion or 37.3% of GDP (43.6% of GDP in 2014). In 2015, Slovenia therefore came very close to the indicative limit for the EU indicator of external imbalances (35% of GDP), and was considerably below the level of the most indebted euro area countries.[4]

1.2 Stability and quality of the public finances

Fiscal stability represents one of the key elements of macroeconomic stability. Structural problems arising from the pre-crisis period along with the severe cyclical deterioration of the public finances during the crisis had an impact on the high deficits and considerable increase in public debt after 2008. In this way, Slovenia lost an important buffer to mitigate adverse economic fluctuations, while the debt financing costs began to crowd-out other expenditure, thereby increasing pressure on their restructuring. The delay in reform measures and an increasing number of people having reached retirement age, which coincided with the crisis period, strongly influenced the increase in pension expenses, permanently altering the structure of general government expenditure and increasing the transfer of the state budget to cover the pension expenses in recent years. Despite the improving fiscal indicators in 2014 and 2015, the long-term prospects underline the importance of implementing further and more permanent fiscal balance measures, which should be taken in the areas that pose major challenges to long-term fiscal sustainability (social protection systems, management of state-owned assets, measures to increase the potential growth).

In the last two years, fiscal indicators have improved on the basis of enhanced economic activity, a smaller impact of one-off factors and due to measures, which however were mainly temporary.[5] The measures were designed in emergency circumstances, and were not long-term oriented. It is therefore reasonable to retain them only for a short period until they are replaced by measures which do not pursue only short-term austerity goals but rather contribute to the long-term structural adjustment of the public finances. The effects of these measures, along with the renewed economic growth, significantly contributed to the reduction of the public deficit reaching the lowest level since the onset of the crisis (2.9% of GDP) last year whereas the primary balance[6] (0.0% of GDP) was balanced for the first time in this period. The measures adopted so far have only partially curbed the total rise in expenditure which, since the onset of the crisis, has been strongly affected by numerous one-off factors and growing interest expenditure as well as pension expenses, which have been financed by an increasing transfer from the state budget in recent years. Such trends strongly reduced the possible increase in other expenditure categories and therefore undermined the development role of the public finances.

Figure 4: **General government revenue and expenditure in Slovenia**



Source: SI-STAT Data Portal – National accounts – General government accounts – Main general government aggregates, April 2016.

[3] At the end of 2015 the amount of state funds abroad totalled EUR 3,888 million, representing EUR 2,415 million more than in 2014.

[4] At the end of 2015 Greece exhibited the negative international investment position, amounting to 126.2%, Ireland: 81.0%, Portugal: 116.5%, Spain: 91.0% and Cyprus: 138.1% of GDP.

[5] Temporary measures in terms of expenditure had an impact on the wage policy, the employment of civil servants, social benefits and transfers. In recent years, fiscal consolidation has also been carried out by restricting expenditure on goods and services; these effects were mostly achieved through linear approach-based measures and not on the basis of systemic expendiutre reviews. Moreover, in order to support consolidation, subsidies were reduced and largely replaced by other instruments (see Box 3) of support to the corporate sector. Most of the permanent measures were adopted in order to support an increase in revenues; moreover, activities to enhance tax collection were also introduced.

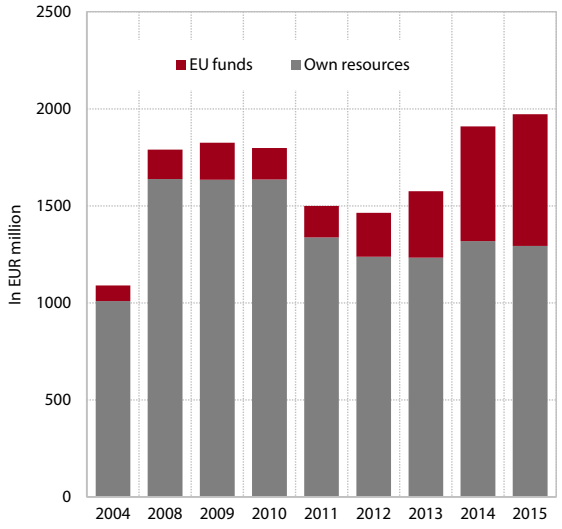
[6] General government balance, excluding interest expenditure.

Table 1: **Absorption of EU sources by fund in the period 2007–2015* in Slovenia, in EUR million**

Funds/policies	2007	2008	2009	2010	2011	2012	2013	2014	2015
European Regional Development Fund	0.0	0.0	78.8	308.2	382.3	326.0	277.5	276.7	186.2
European Social Fund	0.0	0.0	6.4	104.7	134.3	107.4	155.5	127.0	77.9
Cohesion Fund	0.0	0.0	104.9	99.4	60.2	107.0	193.3	348.5	375.4
Agriculture and Fisheries Policy	0.1	208.3	220.3	217.9	220.2	267.5	271.7	263.5	200.4
Other	0.0	15.8	35.9	20.3	15.1	33.7	35.7	20.5	38.8
Total	**0.0**	**224.1**	**446.3**	**750.5**	**812.1**	**841.6**	**933.7**	**1.036.2**	**878.7**

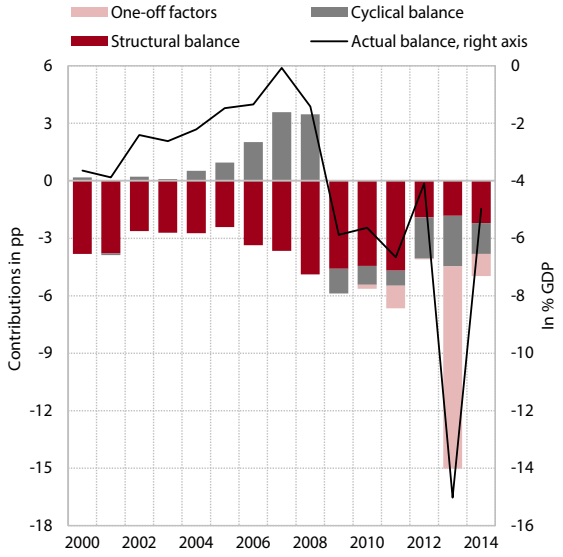
Source: The Ministry of Finance. Note: *Funds through which the cohesion policy is implemented in Slovenia. The financial resources represent Slovenia's budget revenues and are not all allocated to the general government sector.

Figure 5: **Sources of financing gross general government investment**



Source: SURS.

Figure 6: **Actual and structural general government balance, Slovenia**



Source: SI-STAT Data Portal – National accounts – General government accounts – Main general government aggregates, April 2016. IMAD, calculation of the structural balance.

General government investment supported by EU funds had a positive effect on the economic recovery in recent years. The high level of investment, particularly in 2014 and 2015, is related to the conclusion of the programming period for drawing EU funds under the 2007–2013 EU financial perspective. Last year, a large increase was recorded in the absorption of funds from the Cohesion Fund, where the largest absorption lags were recorded in previous years and the funds were earmarked in particular for financing state investment in the construction of environmental protection infrastructure and the modernisation of rail and transport infrastructure. The level of state investment in the period 2014–2015 has been the highest so far, and EU funding represented approximately 30% of its value. During the economic crisis, when private investment was low (see Chapter 1.1.), the increase in state investment co-financed by EU funds thus contributed to the strengthening of economic activity.

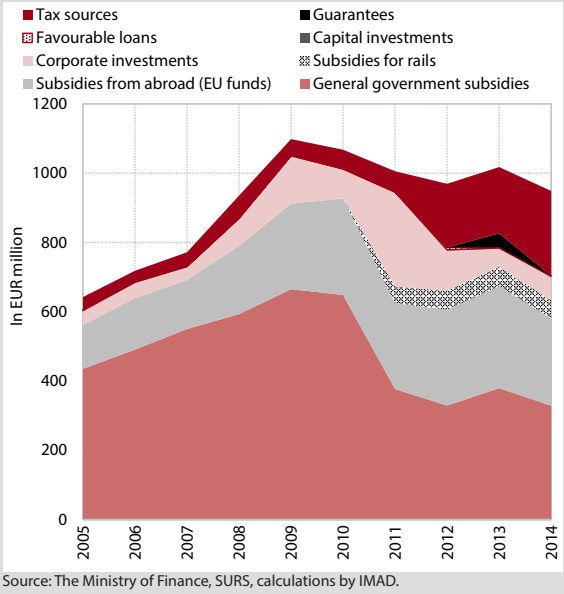
Slovenia already had a deficit in the pre-crisis period, which was primarily structural. The estimate provided by the IMAD demonstrates that, in the years of the highest economic growth just prior to the crisis, the structural deficit even increased and, during the crisis, it fell significantly for the first time in 2012 (from –4.7% to –1.9% of GDP) and remained at a similar level in 2015 (–2.1% of GDP). Over the last three years, Slovenia therefore did not achieve the recommended fiscal effort under the excessive deficit procedure measured by reducing the structural deficit. The discretionary measures adopted in this period (via the bottom-up assessment) that complement the estimate of fiscal effort measured on the basis of the output gap estimate in the corrective part of the Stability and Growth Pact also fell short of recommendations[7].

[7] According to the European Commission's assessment (Analysis of the 2016 Draft budgetary plan of Slovenia, November 2015), the difference between the recommended discretionary measures and the measures adopted for the period 2013–2015 amounts to 2% of GDP. The European Commission highlights the fact that revisions to national accounts (particularly the increase in nominal GDP when changing from ESA 1995 to ESA 2010) have a considerable effect on this difference; however, even when taking these factors into consideration, the scope of the discretionary measures is smaller than that which is recommended.

Box 3: **Scope and efficiency assessment of government financial support to the non-financial corporate sector**

Support to the corporate sector has only gradually decreased since 2008. With the onset of the economic crisis, the previously high amounts of government financial intervention[1] in the economy continued to increase, not only owing to the recapitalisations of the banking sector but also the increased support to other companies. In the period 2009–2014, under a scheme termed "aid to remedy a serious disturbance in the economy during the crisis" (primarily for the bank recapitalisation), Slovenia allocated EUR 4.7 billion (12.9% of the average GDP in this period); the amount of this intervention was one of the largest in the EU. The already high level of financial support to the non-financial corporate sector before the crisis (2005: 2.2% GDP) began to rise further in 2006 and peaked in 2009 when, with additional measures to mitigate the consequences of the crisis, it reached 3% of GDP amid a fall in GDP. Later on, the support started to gradually decline; however, it remained at a high level in 2014 (2.5% of GDP).

Figure: **Assessment of government financial support, Slovenia, current prices**



Source: The Ministry of Finance, SURS, calculations by IMAD.

Among instruments of the government's financial support to the non-financial corporate sector (excluding recapitalisations of the banking sector), particularly tax instruments which are considered less transparent, have increased considerably. As a result of the elimination of special measures to mitigate the crisis, different classification of transactions to Slovenian Railways, and the introduction of austerity measures, general government subsidies have gradually decreased since 2010. After 2007, their decrease has been partially replaced by increased subsidies from funding of the European Structural Funds. Since 2011, subsidies have also been increasingly replaced by tax instruments. The tax instruments which have the nature of state aid, focus on tax reliefs in paying environmental taxes and reducing social contributions (see Indicator 1.11). General tax exemptions and reliefs which are not state aids and derive from tax liability arrangement from corporate income tax also provide support to the economy. In 2006, tax reliefs for R&D, for employment of disabled persons, and for carrying out practical training in professional education were introduced, while in the following years reliefs for investment and employment were also introduced. The amount of these reliefs has gradually increased, too. In the early years of the economic crisis when the corporate income tax rate decreased, the total amounts of these tax reliefs did not increase significantly; however, since 2012, the growth of tax reliefs has accelerated and they are estimated to have exceeded 0.4% of GDP in 2014. Supports through tax instruments are considered less transparent and less target-oriented; it is also difficult to control and reduce them.[2]

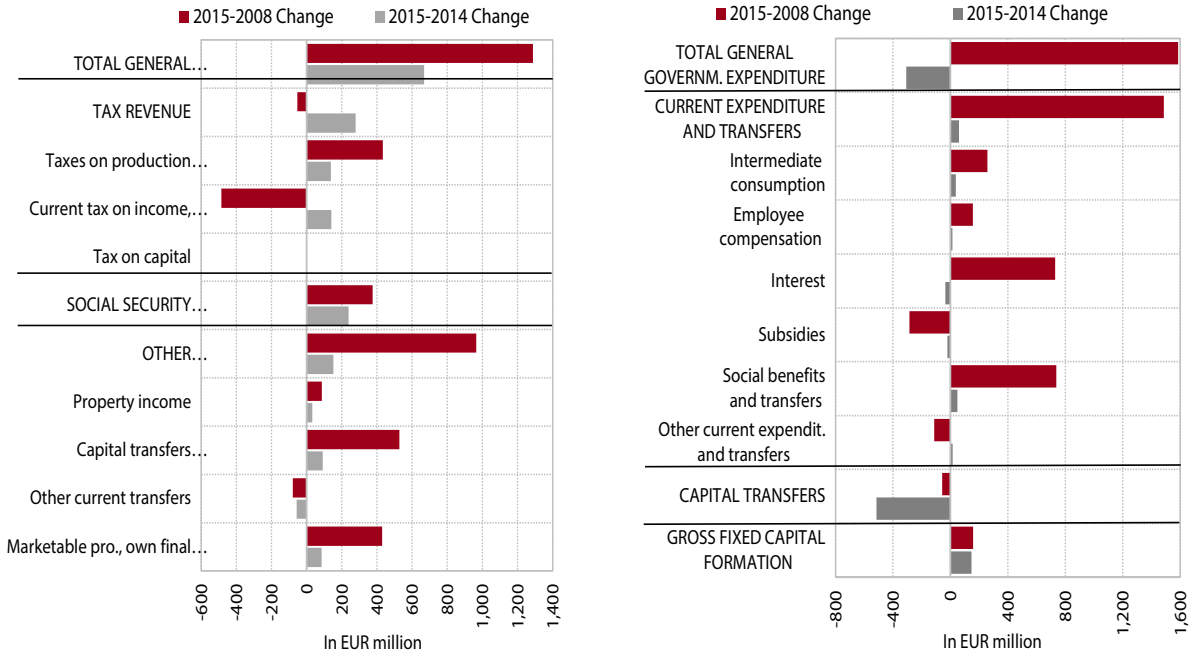
Given the insufficient target-orientation, the efficiency of government financial support in Slovenia is considerably low compared to other EU Member States. Analyses based on state aid data show that the forms of support are less efficient in Slovenia than in other countries due to insufficient orientation to development targets and poor selection of recipients and allocation of amounts of aid (fragmentation).[3] As a rule, subsidies are more efficient than tax instruments, which are on the rise. In the period 2007–2013, with regard to the increased tax relief for R&D, gross domestic expenditure on research, development and innovations by business sector increased significantly in nominal terms (see Chapter 2.3), which may have a favourable influence on the entire society and may also reflect these reliefs. On the other hand, under the impact of other corporate sector issues (indebtedness, access to financial sources), the increased investment tax reliefs until 2012 failed to boost the investments. Considerable support to the corporate sector constitutes a redistribution of funds from very successful to less successful companies, which is not encouraging for the development of the economy and society in the long run and is not in accordance with Slovenia's industrial policy and its Smart Specialisation Strategy.

[1] Our assessment of government financial support included data on the following: (i) the general government subsidies; (ii) the subsidies obtained from the EU structural funds; (iii) the state aid for instruments such as: rail grants (under the general government, rail grants have no longer been shown among the subsidies since 2011), grants for corporate investments, tax reliefs from environmental taxes and reduction in social contributions, favourable loans and guarantees; and (iv) the general tax reliefs from corporate income tax for R&D, investments, employment, employment of disabled persons and provision of practical training in professional education.

[2] Klemm, 2009, Niche, Heidhues, 2006, Hyman, 1993, Aronson, 1985.

[3] Rojec et al., 2008; Rojec et al., 2010; Burger et al., 2012; and Murn, 2015, Ministry of Finance, 2016.

Figure 7: **Structure of general government revenue and expenditure in Slovenia**

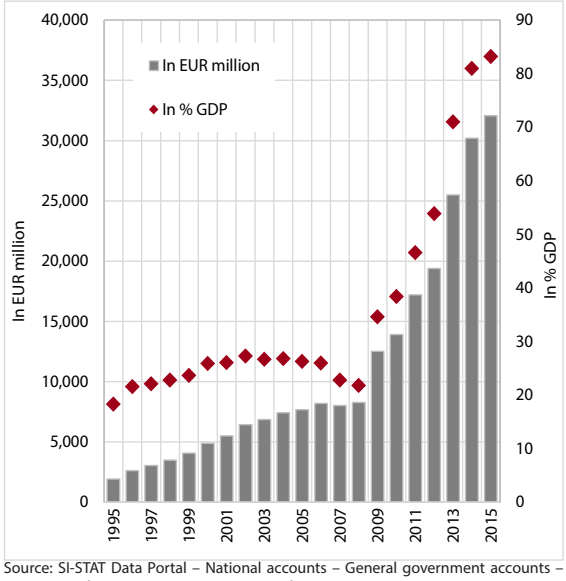


Source: SI-STAT Data Portal – National accounts – General government accounts – Main general government aggregates, March 2016.

The main challenge for the years ahead remains the need to replace the intervention measures with more permanent measures supporting further fiscal effort. The documents adopted[8] in 2015, which define the fiscal policy, indicate a gradual release of temporary measures in terms of expenditure, which have helped reduce the deficit in recent years. Therefore, the main challenge for the coming years remains their replacement with more permanent measures. Otherwise, the fiscal effort will be insufficient to reach structural balance by 2020 and achieve fiscal stability. Fiscal policy aimed at more permanent structural adjustments should focus on several areas and systemic measures to curb the growth of expenditures and support the growth of revenues. This refers primarily to the following: (i) the renewal of social protection systems and their adjustment to demographic changes; (ii) the systemic rationalisation in individual areas of general government expenditure based on the detailed review of expenditure; (iii) the management of state assets to guarantee their higher profitability, thereby reducing the risks which caused a huge increase in public debt during the last crisis; (iv) the active management of debt with a view to reducing the debt and interest incurred, including through revenues from the privatisation; and (v) the improvement of the tax revenue structure. The latter has slightly improved in terms of competitiveness since 2008 by reducing taxes on corporate earnings and increasing taxes on consumption.[9]

Restructuring tax burdens by reducing tax on labour and replacing a part of this loss by increasingly taxing wealth could bring about additional improvements.[10] Additional tax savings could also result from curbing or reducing state financial support to the corporate sector, which has recently increased through tax instruments (see Box 3 and Indicator 1.11).

Figure 8: **General government debt, Slovenia**



Source: SI-STAT Data Portal – National accounts – General government accounts – Main general government aggregates, April 2016.

[8] Stability Programme 2015, 2016 and 2017 state budgets, Draft budgetary plan 2016

[9] Studies show that taxes on property and consumption have a smaller negative impact on economic growth than taxes on corporate profits and taxes on income from labour (IMF, 2015, p. 28).

[10] Austria, for example, plans to finance its reduced tax burden on labour with the income from improvements in collecting existing duties (since the introduction of cash registers).

Box 4: **Snowball effect and public debt**

Given a low rate of nominal economic growth, a high level of public debt may cause the increase in the general government debt-to-GDP ratio, also when there is a surplus of the primary budget balance. This happens when the debt financing costs adjusted to the nominal GDP growth exceed the primary balance. This phenomenon is called the "snowball effect". It usually occurs when a larger amount of the general government debt having a high expected yield is accumulated, while at the same time the economy faces low nominal GDP growth. The opposite happens when the nominal GDP growth exceeds the nominal interest rate on the debt. The difference made in this way is called the "growth dividend" because the debt-to-GDP ratio is reduced due to economic growth even in the circumstances of the primary balance deficit.

Despite the reduction in the primary balance, the "snowball effect" in Slovenia in the last period has been contributing to the increase in the general government debt-to-GDP ratio. Due to the limited access to markets or borrowing at high interest rates in a period of crisis, the importance of interest payments, being neutralised by inflation only to a small degree, has been increasing while a relatively low economic growth also contributes its share. Despite this fact, the pre-financing with lower required yields being particularly extensive in 2014 and 2015 and the gradual recovery of economic growth in the future could decrease or even eliminate the "snowball effect" contribution to the persistence of the high share of debt in GDP. For this reason, in situations when the "snowball effect" still exists and the growth of nominal GDP is relatively low, the creation of primary budget surpluses is of paramount importance for reducing the public debt-to-GDP ratio.

Table: **Contributions to the creation of public debt**

	2009	2010	2011	2012	2013	2014	2015
Public debt (% of GDP)	34.6	38.4	46.6	53.9	71.0	81.0	83.2
Change in debt (pp of GDP)	13.0	3.7	8.3	7.3	17.1	9.9	2.3
Contributions (pp of GDP):							
1. Primary balance (-)	**4.6**	**4.0**	**4.8**	**2.1**	**12.5**	**1.8**	**0.0**
2. Snowball effect	**2.3**	**1.5**	**1.2**	**3.2**	**2.7**	**0.5**	**0.4**
of which:							
- interest payments	1.3	1.6	1.9	2.0	2.6	3.2	3.0
- GDP growth effect	1.8	-0.4	-0.2	1.3	0.6	-2.1	-2.3
- inflation effect *	-0.8	0.3	-0.4	-0.1	-0.5	-0.6	-0.3
3. Stock-flow adjustment**	**6.0**	**-1.8**	**2.3**	**2.0**	**2.0**	**7.6**	**1.9**

Source: SI-STAT Data Portal – National accounts – General government accounts – Main aggregates of the general government, April 2016; calculations by IMAD.
Note: *Measured with GDP deflator: **Change in the public debt-to-GDP ratio not resulting from the primary balance and snowball effect. Some calculations do not add up due to rounding.

After the rapid increase since the onset of the crisis, the high level of general government debt represents a loss of a significant buffer to mitigate adverse economic fluctuations while the high costs of financing crowd-out other types of fiscal expenditure. In 2015 general government debt rose further, to 83.2% of GDP. A high public debt, which quadrupled during the crisis, exceeds the reference value of 60% of GDP in accordance with the Stability and Growth Pact and is close to the level which may have a negative impact on the economic activity.[11] Therefore, fiscal policy lost an important instrument of managing aggregate demand or the possibility of implementing major interventions in the economy in the event of adverse economic conditions. Due to the considerable interest expenditure on the existing debt amounting to approximately 3% of GDP or 6% of total general government expenditure, it is necessary to limit other expenses. A debt is already mostly of long-term nature; its maturity is being even extended, with Slovenia having issued its first 30-year bond in 2015.[12] For two years in a row a considerable part of the increase in public debt results from the extensive pre-financing of liabilities driven by favourable financing conditions. The low required yield of new borrowing in comparison to the costs of the outstanding debt results in the decline in the implicit interest rate on the entire debt, amounting to 3.6% last year. This is the lowest level of the implicit interest rate so far; however, it remains high with regard

[11] The threshold associated with the negative impact is estimated at 85–95% of GDP. A high debt raises the cost of financing business entities and interest payment, limiting other expenditure of the private sector and government. Certain authors stress a strong negative influence of the debt on the economy activity in the first years after exceeding this limit; however, the adverse debt dynamics poses a greater problem than the amount of debt. See, for example, Fournier in Fall (2015), Kumar in Woo (2010) and Pescatori et al. (2014).

[12] In addition to the 30-year bond, a 10-year bond and a 5-year bond as well as an 18-month treasury bill were issued. The government's short-term borrowing requirements were financed by the issuance of 12-, 6- and 3-month treasury bills. All the instruments were issued in EUR.

to the current and the expected nominal GDP growth (see Box 4).

Slovenia has been gradually complementing the institutional framework which could contribute to the achievement of fiscal objectives. Constitutional amendments in 2013 were followed by the adoption of the Fiscal Rule Act in 2015. It defined in detail the implementation of the constitutional provisions relating to the medium-term balance of state budgets (fiscal rule), provided a legal basis for establishing the Fiscal Council and a mechanism for handling the deviations from the medium-term balance and determined exceptional circumstances in which such a deviation may be possible. In addition to the Fiscal Council, which has not yet been established, additional changes in the institutional framework to modify the preparation of medium-term planning and establish mechanisms for effective determination of priorities regarding public expenditure and adjust the procedure of adopting or amending the state budget would contribute to attaining the medium-term fiscal objectives.

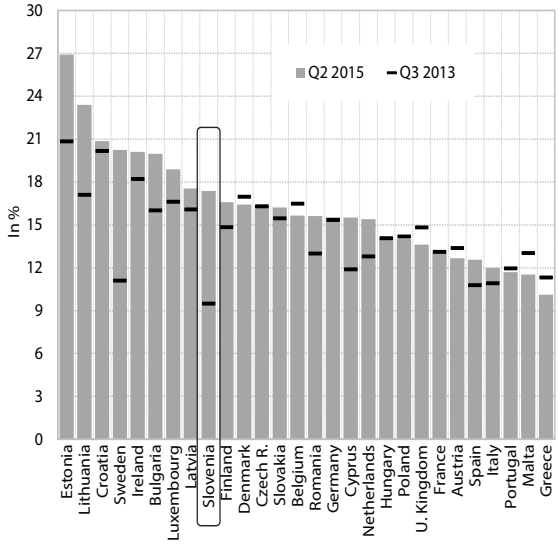
1.3 Financial system and corporate sector indebtedness

An effective financial system is vital in order to ensure a stable climate for financing the economy and providing support for development and investment decisions. The situation in the credit markets and in the banking system seriously deteriorated at the outbreak of the crisis whereas in highly indebted companies, the ability of companies to repay debts deteriorated. Although the indicators of business performance and capital adequacy of banks significantly improved after the recovery of banks at the end of 2013 and the high corporate debt level is on the decline, the lending activity continues to decrease. Given the high degree of dependence of businesses on bank financing due to the poorly developed other areas of the financial sector, this renders access to sources of corporate financing extremely difficult, in particular for SMEs. After the decrease at the beginning of banking system stabilisation, the level of non-performing claims still remains high and represents further risks to the financial stability of banks. The deterioration of the situation in the financial sector and corporate over-indebtedness in recent years have also revealed the inadequacies of the institutional framework; therefore, measures to support corporate deleveraging and restructuring were adopted in the last three years. Further measures, especially to deepen financial markets and to provide access to loans and other financing resources for all business entities will be necessary.

1.3.1 The situation of the financial sector and deleveraging of the corporate sector

The situation in the banking system has stabilised considerably after the rehabilitation of banks, but the further contraction in bank activity has started to show in a gradual decline in bank revenues. Since the onset of the financial crisis, the capital adequacy ratio of the banking system has gradually decreased and in the third quarter of 2013 (prior to the banking sector stabilisation) reached the lowest level (9.5%) among all EU Member States, for which data were available.[13] As a result of bank recapitalisations in the amount of EUR 3.6 billion by December 2014, it improved significantly and in the third quarter of 2015, it amounted to 17.4% being among the highest in the EU. In 2015 the banks made a profit of EUR 195 million, which is the highest profit since the start of the financial crisis. Such a result was largely due to creating a smaller extent of additional provisions and impairments as the scope of operations of banks continues to decrease. Net financial revenues were more than a tenth lower. This was largely due to the reduction of net interest income as the consequence of a more rapid decrease in interest income owing to lower active interest rates, a gradual maturing of securities with high interest rates and weak lending activity.

Figure 9: **Capital adequacy (TIER 1) of the banking systems**



Source: IMF, ECB (data for Finland and France). Note: *Data for Bulgaria, Finland, France and Ireland refer to the last quarter of 2014.

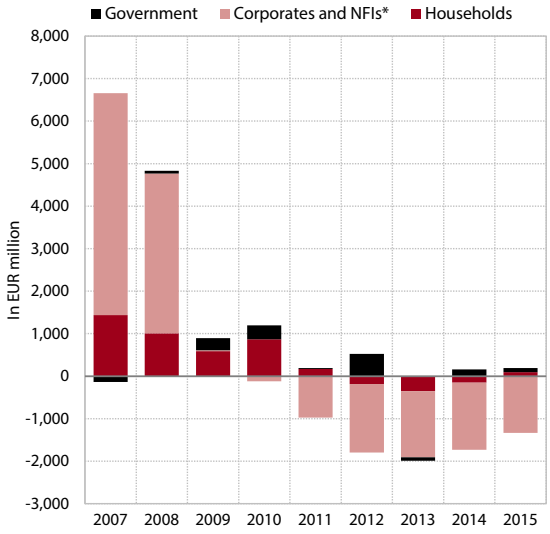
The structure of sources of banking system financing has changed significantly in recent years, foreign liabilities and ECB funds decreased whereas the share of deposits increased. The share of foreign liabilities, which amounted to more than 35% of the total assets

[13] Data for Bulgaria, France, Italy, Luxembourg, Spain and the United Kingdom is not available; therefore we used data for the second quarter of 2013 in order to compare the data between the countries.

of the banking system in 2008, decreased to 13.3% (EUR 5.5 billion) by the end of 2015. The banks made a net repayment of EUR 13.6 billion in foreign liabilities between September 2008, when the international financial crisis worsened, and the end of 2015. As late as in the second half of 2015, the deleveraging started to decrease noticeably. The assets of the central bank, which have been a significant source of financing since December 2011 when the first long-term refinancing operation was carried out, decreased. The share of liabilities to the ECB thus fell from EUR 3.7 billion to less than EUR 1 billion. Deposits by the non-banking sectors (mainly domestic) continue to increase, but at a slower pace than in previous years. As a result of the decline in other sources compared to 2008, their share in the structure of sources increased by approximately 20 pp and amounted to 63.2%. The decrease in inflows of non-banking sectors in the last year is due to the contributions made by the government and households. Inflows of government deposits which had, prior to the bank rehabilitation, increased with a view to maintaining the liquidity of the banking system, declined substantially in 2015 and are earmarked for meeting own liquidity needs. Inflows of household deposits also decreased last year, which is estimated to have been the result of: (i) high inflows from 2014, after confidence in the banking system was restored and savers returned part of deposits that had been withdrawn in 2013; and (ii) low passive interest rates due to which, according to our estimates, part of the savings were also transferred to the capital market.[14] Corporate deposits have increased at a steady pace (between EUR 400 and 600 million per year) in the last three years. Despite a slowdown in growth since 2014, their volume has exceeded the volume of loans, but with impaired maturity, as, due to low rates of interest on deposits, the overnight deposits are predominating.

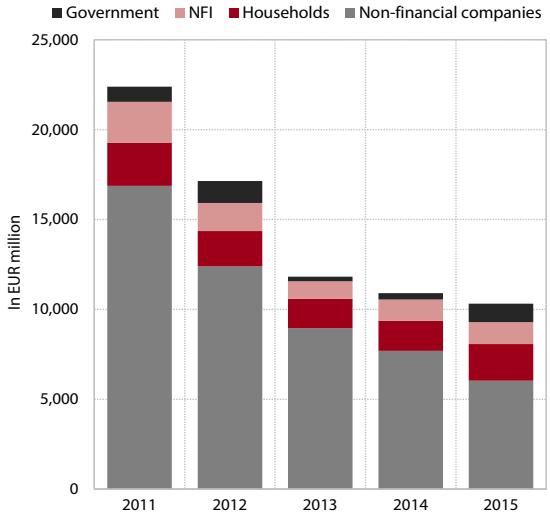
After the strong growth of loans prior to the escalation of the crisis, the provision of loans to the domestic economy is on the sharp decline, remaining at the low level, while the volume of loans to households and the government is on the rise. In the pre-crisis period, the volume of loans to non-banking sectors was rapidly rising, only in the period from 2006 to 2008, their volume almost doubled. During the economic crisis, the conditions on the credit markets deteriorated at an accelerated pace. In mid-2010 the volume of loans to corporates and NFIs started to decline and had more than halved by the end of 2015[15]. The total volume of all loans to domestic non-banking sectors decreased by more than one third in this period. The volume of loans to domestic non-banking sectors, which has been on the decline since 2011, decreased by EUR 1.1 million (approximately 30% less than in 2014) in 2015.[16] This was primarily due to the deleveraging of companies and NFIs throughout the period.[17] In 2015 the total volume of lending to households rose slightly, while housing loans have been on the increase since the second quarter of 2014. This is partly a consequence of the improvement in the overall

Figure 10: **Change in the volume of loans to households, corporates and NFIs and the government, Slovenia**



Source: Bank of Slovenia, calculations by IMAD.

Figure 11: **Volume of newly granted loans to non-banking sectors in Slovenia**



Source: Bank of Slovenia.

[14] In 2015 only the inflows in Slovenian mutual funds exceeded EUR 140 million, reaching the highest level since 2007. Low passive interest rates have a strong impact on the maturity structure of deposits of non-banking sectors, as only the volume of overnight deposits has been increasing whereas the volume of deposits with agreed maturity has been decreasing rapidly.

[15] It is estimated that approximately two-fifths of a decrease in the volume of loans to corporates and NFIs is due to the transfers to the BAMC.

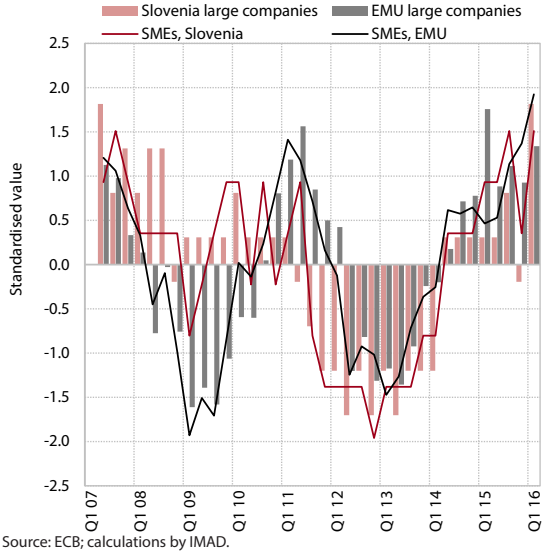
[16] The impact on the transfer of claims to the BAMC was eliminated in September, October and December 2014 in a total amount of EUR 1.7 billion.

[17] The volume of loans for commercial real estate and business activity was on the decrease. In the last months in 2015, the volume of loans for other purposes started to increase.

economic conditions, the growth in household incomes and the gradual improvement to the real estate market situation, whereas the nominal increase in loan volumes is partly attributed to the depreciation of the Swiss franc at the beginning of 2015. Positive trends associated with loans to households are also shown by the data on new lending where the volume of housing loans amounted to approximately EUR 900 million, representing 40% more than in the previous year. A slightly less distinct increase is recorded in the volume of lending to households in a form of consumer credit. However, the volume of loans to corporates and NFIs continues to decrease. In 2015 it amounted to EUR 7.3 million, which is almost 20% less than in 2014 and 60% less than in 2011, when it had peaked.[18]

Lending activity remains low due to supply and demand factors. Supply is limited in particular due to the extreme cautiousness of banks which, given the relative slow decrease in the share of non-performing claims, are still not willing to assume additional risks. This is also a limiting factor for those companies that are creditworthy and do have business opportunities but cannot fully exploit them because of the limited availability of financial resources. On the other hand, banks are very cautious in lending activity because they assess that the credit worthiness of companies is still relatively weak despite the recent positive trends. A survey on the lending activity of banks shows that the corporate demand for loans increased more significantly in micro, small and medium-sized enterprises (SME). The increase in the demand for loans in large enterprises was relatively small which may indicate that those companies which are sufficiently large and financially stable to take advantage of favourable borrowing conditions abroad or have access to other sources of financing are withdrawing gradually from the Slovenian banking system. The differences between domestic and foreign interest rates[19] continue to gradually decrease but are relatively high, amounting to more than 120 basis points in January 2016. The net borrowing in a form of short-term loans abroad was increasing, while companies and NFIs were still making net repayments of their long-term loans.

Figure 12: **The corporate demand for loans by size of enterprises, Slovenia and the EMU**



Source: ECB; calculations by IMAD.

[18] The data has been available since 2011.

After completing the transfers to the BAMC[20] the decline in the level of non-performing claims continued, more significantly towards the end of 2015. A significant risk for financial stability is still a relatively high level of non-performing claims. Prior to the rehabilitation of banks, the level of non-performing claims amounted to EUR 7.8 billion, then with transfers made to the BAMC, it decreased to EUR 4.4 billion by the end of 2014. In 2015 the decrease in the level of non-performing claims continued although no new transfers were made. In January 2016 this figure amounted to EUR 3.4 million, reaching 9.7% of the total banking system exposure. The sharpest decrease was recorded in the level of non-performing claims against foreign entities and domestic non-financial companies. In the case of the latter, it is estimated that this is also due to the successful restructuring of companies under the Master Restructuring Agreements (MRA). These agreements have so far mainly involved only large companies whereas the major part of the SMEs was not yet included. In mid-2015 non-performing claims against SME amounted to approximately EUR 1.8 billion or more than 40% of all bank system non-performing claims.[21] The speed at which non-performing claims (expressed in relative terms) were reduced also reflected the further contraction in bank lending activity. Given the deteriorated loan portfolio (the outflow of high-grade customers) and the decline in interest income, such trends represent an additional risk for the stability of banks.

The significance of other segments of the financial system in financing Slovenia's economic activity has remained rather modest. Financial resources of monetary financial institutions represent approximately a 75% share of the entire financial system, which is much higher than in the EU[22] where this share is approximately 50%. The share has been gradually growing due to the shrinking of the banking sector and to a lesser extent, due to the growth of financial assets of other financial institutions which increase at a slower pace. Despite some positive trends in 2015[23], financing through the

[19] Interest rates on loans over EUR 1 million with a variable interest rate and a fixed interest rate up to one year.

[20] By the end of 2014, EUR 5 billion of banking system claims had been transferred to the BAMC.

[21] Information on the implementation of the measures for systemic deleveraging of micro and small enterprises, 2015

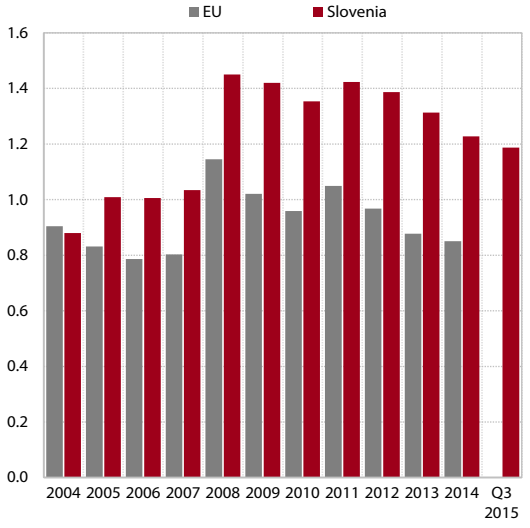
[22] Data not available for the Czech Republic.

[23] The volume of transactions in debt securities in the first three quarters of 2015 was above the average in comparison to the period since 2010.

capital market remains relative low and inaccessible for SMEs facing relative big problems in providing sources of financing. The non-banking system could gradually be strengthened and provide additional supply of long-term sources of financing to the economy by eliminating barriers to provide greater access to capital markets (see Chapter 1.3.3.) and promoting savings for old age in the form of life and pension insurance.

The structure of sources of financing non-financial companies is unfavourable also due to the insufficiently developed other segments of the financial market. Insufficient importance is given to equity and debt securities. The ratio between debt and equity of non-financial companies is still significantly above the EU average, indicating a low capitalisation of Slovenian companies. In the period 2010–2014, the volume of transactions related to the increase in equity, on average, amounted to 0.5% of GDP while in the EU, it amounted to 2% of GDP. The same applies to financing with debt securities. The share of financial liabilities of non-financial companies in the form of equity and debt securities in Slovenia has achieved slightly more than 45% and is approximately 10 pps below the EU average.

Figure 13: **The ratio between the debt and equity of non-financial companies**



Source: Bank of Slovenia, Eurostat; calculations by IMAD.

1.3.2 Indebtedness of the corporate sector

The indebtedness and over-indebtedness[24] of the corporate sector,[25] which has decreased only in recent years, are largely due to the previous inadequate policies which were based on the development with the help of domestic bank loans which were not properly allocated and were insufficient. Corporate indebtedness increased significantly in the period before the crisis. Foreign debt financing started to grow after Slovenia's accession to the EU and under favourable economic conditions. Additionally, in that period, the concept of national interests allowed for the management buyouts of Slovenian companies which, with the help of domestic banks, took place particularly through financial holding companies. As a result, bank financing was not always allocated in an appropriate manner, since it was insufficiently directed at increasing productive investments. The reliance of the Slovenian economy on debt financing caused a sudden increase in over-indebtedness in circumstances of declining economic activity at the outbreak of the economic crisis and limited access to bank financing. This has considerably contributed to the continuation of adverse economic conditions as companies have mainly dealt with financial problems rather than with their main activities.

According to the majority of indicators, the indebtedness and over-indebtedness of companies in Slovenia reached its peak in 2009; since then, they have been on the wane, especially in 2013 and 2014. The reduction in total debt[26] is mostly due to the decrease in bank debt, especially in 2014. In the first years, it decreased mainly as a result of the winding down of companies,[27] and since 2012, it has also been due to the companies that continued to operate and actually repaid the debt. It is encouraging to note that among the less and least[28] indebted conventional companies, the number of export-oriented companies has been growing.[29] Over-indebted companies are mainly oriented toward the domestic market;[30] micro, small and medium-sized enterprises predominate. About half of them are the so-called "problem companies"; these are companies which in addition to the financial debt, have negative EBITDA[31] and represent a significant burden in bank balance sheets.[32]

[24] Over-indebtedness is calculated as the sum of all financial debts, exceeding EBITDA by a factor of five (if FV≥5) or as the overall financial debt (if EBITDA <0).

[25] Source: AJPES. For a more detailed analysis of corporate sector indebtedness, see Lušina, U., Kušar, J., 2015.

[26] Overall debt comprises financial (within the bank), operational and other liabilities of companies.

[27] The term "wound down" is used for all companies that did not submit their final accounts.

[28] Export-oriented companies are those companies whose sale revenues on foreign markets exceed the sales revenues on the domestic market. They are divided into: (1) primarily and (2) moderately export-oriented companies Primarily export-oriented companies have a share of the revenue from sales on the domestic market in total turnover of less than 30%, while moderately export-oriented companies have a share of the revenue from sales in total turnover between 30 and 50%

[29] Financial leverage, less than 1.

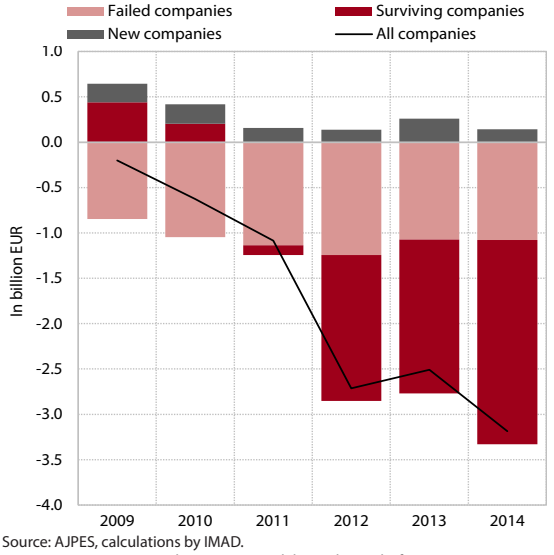
[30] Domestic market-oriented companies are those companies whose sales revenues on the domestic market exceed the share of sales revenues on foreign markets.

[31] EBITDA (Earnings Before Interest, Taxes, Depreciation and Amortisation) – positive cash-flow from operation (earnings before interest, taxes, depreciation and amortisation).

[32] The data does not allow for a separation between the debt of domestic and foreign banks.

The process of deleveraging was carried out in all groups of companies. *Conventional companies,*[33] which constitute the largest group, reached, on average, the 2007 level of (over)-indebtedness in 2014. In 2014 these companies generated two-thirds of the total financial debt (EUR 20.2 billion) and half of the total over-indebtedness (EUR 8.8 billion).[34] Less indebted companies among conventional companies were deleveraging, on average, until 2013; however, in 2014, their debt increased again while over-indebted conventional companies were reducing their debt during the whole period 2010–2014. *Unconventional companies*[35] reached the 2006 level of (over)-indebtedness in 2014. Although they are of less significance for the entire economic activity (they generated only 3.6% of total value added and employed less than 1% of all employees), they generated a half of the total over-indebtedness (EUR 8.6 billion) and a good third of the total financial debt (EUR 10.8 billion) in 2014. Among these companies, there is a significant proportion of problem companies which generated 18% of total financial debt in the corporate sector in 2014.

Figure 14: **Change in bank debt of the entire corporate sector, Slovenia**



Source: AJPES, calculations by IMAD.
Note: New companies – the increase in debt at the end of two consecutive years, due to new companies (i.e. companies that have been newly established in the last consecutive year); failed companies – the reduction of debt at the end of two consecutive years, as a result of the winding down of companies; surviving companies – change in the debt of the companies which operated in both consecutive years, All companies – joint change in the debt at the end of two consecutive years (new companies + failed companies + surviving companies).

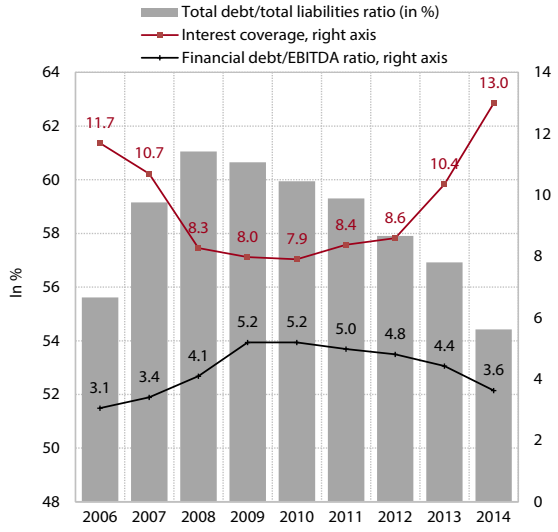
[33] All companies which, according to the Standard Classification of Activities, do not fall within the activities of holding companies and financial leasing, have no employees and are other than DARS. There were 40,776 such companies in 2014.

[34] Of these, there is the amount of EUR 3.9 billion of such debt that cannot be currently financed by companies (an interest coverage ratio below 1 (IC<1)). The financial debt of conventional companies with negative EBITDA amounted to EUR 2.8 billion in 2014.

[35] Companies which, according to the Standard Classification of Activities, do not fall within the activities of holding companies and financial leasing, have no employees and DARS. There were 22,814 such companies in 2014.

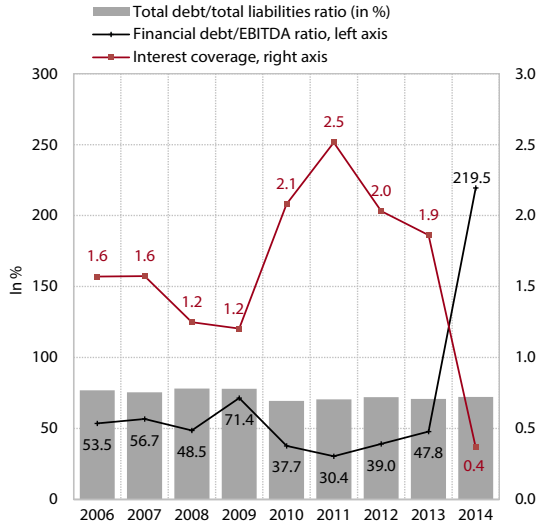
Concentration of the debt of over-indebted conventional companies is rather high; in over-indebted conventionally companies it is even higher. *Over-indebted conventional companies* which mainly focus on the domestic market, accounted for approximately two-thirds of the financial debt of over-indebted companies in 2014. Ten of the most indebted conventional companies had about 30% while 50 of the most indebted companies had almost 50% of the financial debt of over-indebted conventional companies. Given the size groups of companies, the concentration

Figure 15: **Indicators of the ability of corporate sector conventional companies to repay their debts, Slovenia**



Source: AJPES, calculations by IMAD.
Note: Financial debt/EBITDA ratio - financial leverage specifying how long a company will have to repay the financial debt with generated cash flow, Interest coverage ratio - EBITDA/Interest Expense ratio.

Figure 16: **Indicators of the ability of corporate sector unconventional companies to repay their debts, Slovenia**



Source: AJPES, calculations by IMAD.
Note: Financial debt/EBIDTA ratio – financial leverage specifying how long a company will have to repay the financial debt with generated cash flow, Interest coverage ratio – EBITDA/Interest Expense ratio.

of the debt was the highest in large companies where by activities[36] two-thirds of over-indebtedness were concentrated in wholesale and retail trade and in the sale of motor vehicles, manufacturing, professional, scientific and technical activities as well as in energy supply in 2014. *Over-indebted unconventional companies* which also mainly focus on the domestic market, accounted for approximately 99% of the total financial debt of unconventional companies in 2014. Ten of the most indebted unconventional companies had about 50% of the financial debt of over-indebted unconventional companies. By activities, a good two-thirds of the over-indebtedness were concentrated in holding and leasing companies (approximately 43%), real estate activities (18%) and transport (15%) in 2014.

The ability of companies to repay debt has improved in conventional companies in recent years, while the ability in unconventional companies has deteriorated, more significantly in 2014. The ability to repay debt significantly improved in conventional companies in 2014. This applies particularly to less indebted companies where all indicators are already at the pre-crisis level while some (the interest coverage ratio, the total debt-to-liabilities ratio) achieved the most favourable values in the entire period of observation (since 2006). In addition to deleveraging, EBIDTA of companies which, in less indebted conventional companies, increased on average in the five years to 2014, had a considerable impact on the trends of some indicators of the ability to repay debt. On the other hand, in over-indebted conventional companies, EBIDTA had decreased for six consecutive years. By 2014 this had had a negative influence on relative indicators of indebtedness (companies deleveraged to a lesser extent than a decrease in EBIDTA); however, in 2014, the ability of these companies to repay debt improved according to all indicators. In *unconventional companies*, most indicators of the ability to repay debt deteriorated, significantly in 2014 when all indicators deteriorated, most considerably those related to EBIDTA which decreased considerably (by 80%; in two companies, there was a noticeable decrease).

1.3.3 Strengthening of the institutional framework for the operation of the financial system and corporate restructuring

In recent years, several measures for a system-wide deleveraging of companies have been adopted; in 2015 the upgrade of this institutional framework continued and greater attention has been devoted to implementing measures for a system-wide deleveraging of SMEs. Among the measures to support the corporate deleveraging and restructuring, several legal bases and different other measures were provided in recent years.

- Legal bases: *(i) Act Governing the Rescue and Restructuring Aid for Companies in Difficulty* according to which state aid is granted to companies in difficulty by the Ministry of Economic Development and Technology; *(ii) Act on Financial Operations, Insolvency Proceedings and Compulsory Winding-up* regulating: (a) financial operations of legal persons, (b) insolvency proceedings against the legal and natural persons and (c) the proceedings of compulsory winding-up of legal persons; and *(iii) Measures of the Republic of Slovenia to Strengthen the Stability of Banks Act* that was completed by providing more clearly a legal basis for the operation of the BAMC which is important to define the role of the BAMC in restructuring companies.
- The Slovenian principles of financing debt restructuring in the economy prepared by the Bank Association of Slovenia define the approach which the banks should voluntarily observe during the financial restructuring of companies with a large number of creditors. The basic assumption is to maintain economic activity wherever there is a reasonable chance of survival in the market. The Bank of Slovenia assessed on the basis of the agreements of financial restructuring[37] and other reports that 71 companies, in particular large companies, were restructured on this restructuring basis in the period 2013–2015. The Bank of Slovenia adopted several measures to reduce the non-performing exposure and to improve the efficiency of restructuring process; some of them have already started to implement them.
- Due to the unmet corporate demand for financing and with a view to promoting development investments and the development of SMEs in cooperation with the Ministry for Economic Development and Technology, Slovenian Development Bank (SID) began to carry out measures of financial engineering, namely in the form of the loan funds: (1) financial engineering to promote technological development projects 2011–2013, (2) financial engineering to promote the development of small and medium-sized enterprises and (3) financial engineering to promote investments, operation and capital strengthening of micro, small and medium-sized enterprises. The deadline for placing funds to final beneficiaries from the first two measures, originally foreseen by the end of 2015, was extended by the beginning of implementation of financial instruments from the European Cohesion Policy funds under the current financial perspective, but no longer than by the end of 2016. The third measure which is intended only for undercapitalised companies, is to be implemented by 2018, its objective being in particular the capital strengthening of SMEs capable of accessing the sources of financing with commercial banks at the end of the on-going financial assistance.

[36] Financial and insurance activities (K) are not exposed (included in the group "Other"); the data acquisition in the database of AJPES is modest (banks and insurance companies are not included, while the activities of holding and financial leasing companies were classified into unconventional companies).

[37] Ang. Master Restructuring Agreement.

- The Slovenian Enterprise Fund with its own instruments provides favourable financial resources for SMEs; these are primarily the measures of debt financing of companies - guarantees and micro loans for companies.

A major step in providing greater support to SMEs at the EU level will be the *establishment of a capital union.* In September 2015 an action plan for the establishment of capital union at the EU level was presented[38]; an important part of the document is also intended for financing SMEs which by establishing the capital union should have access to financing resources comparable to large enterprises. SMEs are now the most dependent on bank financing[39]; therefore, banking system problems make access to new financial resources more difficult. In order to have better access to capital markets, the action plan provides for the adoption of measures such as: (i) the modernisation of regulations which would reduce the cost of financing via capital markets and eliminate regulatory barriers for the inclusion of small enterprises in capital markets; (ii) a package of measures for financing via venture capital funds and equity financing including the EU resources and establishing good practices related to taxation; (iii) the promotion of innovative methods of financing (crowd-funding); and (iv) the examination of the possibility for establishing a pan-European approach to better connect SMEs and providers of different financial resources.

In 2015, under macro-prudential supervision,[40] two additional measures to provide financial stability were adopted in Slovenia: the counter-cyclical capital buffer[41] and the capital buffer for other system-relevant banks.[42] In the event of a perceived increased risk, capital requirements will increase for the entire banking sector and individual banks. The purpose of the counter-cyclical capital buffer is to protect the banking system against potential losses in the case of increased risk arising from excessive credit growth. As a key indicator for determining the value of the buffer, the deviation of the relationship between the loans to the private sector and GDP from the long-term trends is taken into consideration; besides, five additional indicators are determined.[43] The value of the buffer varies between 0 and 2.5% of the total exposure (exceptionally also higher). The current value of the buffer for exposures in the Republic of Slovenia is 0%. The capital buffer for other system-relevant banks is intended to increase the ability to cover losses and thus to reduce the likelihood of the occurrence of stressful events and their consequences. The criteria for determining the importance of the bank system are set out in the guidelines of the European Banking Authority and consist of four sets: (i) the size of the bank (total assets); (ii) significance (the value of domestic payment transactions, the deposits of the private sector, loans to the private sector); (iii) complexity (the value of derivative financial instruments traded on the markets, liabilities and claims under the jurisdiction of another country); and (iv) interconnection (liabilities and assets available within the financial system, outstanding debt securities). The value of the capital buffer varies between 0 and 2%, depending on the result achieved by an individual bank in the procedure of determining the importance of the banks within the system.

1.4 Challenges

After a significant deterioration in the first crisis years, improvement has been recorded with regard to some macro-economic indicators, but many imbalances remain. In recent years, in relation to the gradual revival of economic activity and the economic policy measures implemented, positive steps have been made regarding fiscal consolidation and the rehabilitation of the banking system, while the creation of more sustainable solutions will be required for the development of the financial system as a whole and in order to ensure fiscal sustainability. Imbalances associated with the lack of sources of financing for companies become increasingly prominent while in the area of public finance, the pressures related to a high level of general government debt and in the medium and long terms, the urgent need to create a solution to reduce the pressures on the sustainability of social protection systems are being placed in the foreground.

A stable macroeconomic environment is vital for a rapid strengthening of competitiveness, sustained economic growth and creation of new jobs. Besides strengthening of the capital contribution that will

[38] For more details, see the Action Plan on Building Capital Markets Union.

[39] See, for example, the Survey on the Access to Finance of Enterprises in the Euro Area – April to September 2015.

[40] On the recommendation of the European Systemic Risk Board on the macro-prudential mandate of national authorities ESRB/2011/3 regarding the establishment of an effective system of macro-prudential supervision of the financial system, the Macro-prudential Supervision of the Financial System Act was adopted at the end of 2013, establishing the Financial Stability Board and defining the method of implementation and operation of supervisory bodies in the field of macro-prudential supervision. The main objective of macro-prudential supervision is to prevent and reduce systemic risks within the financial system.

[41] It must be complied with by the banks as of 1 January 2016.

[42] It must be complied with by the banks as of 1 January 2019. On the basis of scoring carried out in accordance with the guidelines of the European Banking Authority, the Bank of Slovenia decided that NLB d.d., SID banka, d.d., Ljubljana, Unicredit banka Slovenija d.d., Abanka d.d., Nova KBM d.d., SKB d.d., Sberbank d.d. and Banka Koper d.d. are determined as other system-relevant banks.

[43] These are: (i) the annual real estate price growth; (ii) the annual growth rate of loans to the domestic private non-financial sector; (iii) the relationship between the private non-banking sector credits and loans; (iv) return on capital; and (v) the relationship between loans and the gross operating surplus.

increase the production capacity and lower the current surplus of savings over investment, the introduction of structural reforms is also important for boosting the economic growth, since it will improve the conditions of conducting business and enable the creation of products and services with high value added (see Chapter 2). Further improvement of private consumption that will follow the improvement of the labour market conditions due to faster economic growth will also reduce deflation risks that could derive from the domestic environment.

The adoption of measures addressing the areas which will pose major long-term challenges to Slovenia remains at the core of economic policies for the further consolidation of the public finances. The general government deficit which increased considerably during the crisis, decreased below 3% last year, while the public debt continues to increase. The measures taken so far have been mostly interventionist and temporary in nature, thus the main challenge of the coming years remains their replacement with more permanent measures, which should include measures for adapting the systems that represent the biggest risk for long-term sustainability of public finances (pension, healthcare and long-term expenditures). In order to increase our revenues, we should take advantage of the possibility of extending the tax bases, implementing changes in property taxation and improving the efficiency of state property management. The financial support to the corporate sector should be renewed or systems should be established, increasing their efficiency and effectiveness and thus making a larger contribution to the long-term economic growth and not redistributing funds from the more successful to less successful.

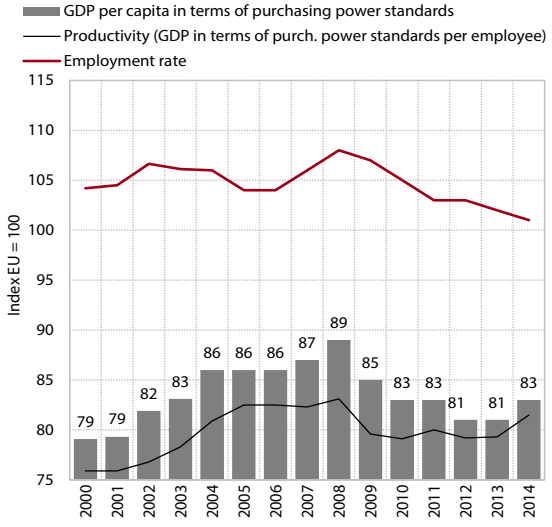
Successful completion of the banking sector rehabilitation, rapid restructuring of businesses, enhanced volume of equity capital and development of non-bank segments of the financial system are of vital importance for securing financial resources for the corporate sector and faster revival of economic activity. Encouraging lending activity, particularly to promising companies among the SMEs is an important factor in improving the economic growth. Greater access to bank financing will improve the operating conditions of companies with a healthy financial structure and good business opportunities. An increase in the volume of loans to prospective customers would have a positive effect on the operation of banks, in particular on the interest income. This could reduce more quickly the proportion of non-performing claims where the challenge remains the creation of systemic solutions for SMEs. A further decline in the total share of non-performing claims and efficient implementation of risk management measures would provide a more stable banking system, one that would be capable to deal with pressures in the event of a renewed tightening on international financial markets. Given the further deleveraging and the financial restructuring of companies, it will be crucial to ensure additional equity capital. Additional incentives to investors, such as tax relief for pension funds and promotion of old age saving would contribute to an easier access to fresh capital on the market and the deepening of financial markets. To ensure a better financial structure of companies, it will be crucial to enhance the role of other segments of financial services that are based on long-term sources of financing, particularly on deepening the capital market and increasing access to sources of financing for SMEs as well as increasing the stock of foreign direct investment (FDI).

2. Factors of competitiveness

One of the priorities is to strengthen the competitiveness of the economy in order to catch up with advanced economies. In addition to a stable macroeconomic environment, it is vital to improve productivity and, consequently, the competitiveness of the economy in the long term in order to increase GDP. In the short term, the increased investment activity indicated by the improved investment environment could contribute towards achieving this goal. In the past Slovenia has been increasing its investments into long-term factors of added value creation (such as knowledge and R&D) too. They are relatively high by international comparison, but the key issue remains their effective use. Priority areas of future action thus include increasing the economy's innovation capacity and its human capital. Competitiveness should also be enhanced by increasing the efficiency of the general government and its institutions, including ensuring a stimulating environment for business formation and growth.

The economic development setback of Slovenia that was the result of the crisis has begun to diminish since 2014, however, the lagging behind the more developed countries remains important due to low productivity. Slovenia is ranked among medium developed EU countries with a GDP per capita below the EU average, and with a discontinued process of catching up with more developed countries hit by the crisis. The GDP per capita (in terms of purchasing power parity), after several years of falling behind the EU average, saw a greater increase in comparison with the EU only in 2014, and the data on economic growth show that the process of closing the gap has continued also in 2015. However, at 83% of the European average (data 2014), Slovenia remains far behind the more developed countries and the 2008 peak (89%). It lost its advantage in the most recent period (over the Czech Republic and Malta) and it has weakened considerably in relation to some of the new EU members (in particular Slovakia, Estonia, Lithuania, Poland). The key reason for this lagging behind is low productivity, i.e. low value added per employee. The productivity has become to slow down already before the onset of the crisis, and has remained relatively low (below ten -year average before the crisis) also in the recent period. Increase in added value and, consequently, the productivity, will be of utmost importance for further development, taking into consideration the ageing of the population and the resulting shrinking of the labour force contribution to GDP growth.

Figure 17: **GDP per capita in terms of purchasing power parity and its components (productivity and employment)**



Source: Eurostat Portal Page – National accounts, 2015; calculations by IMAD.

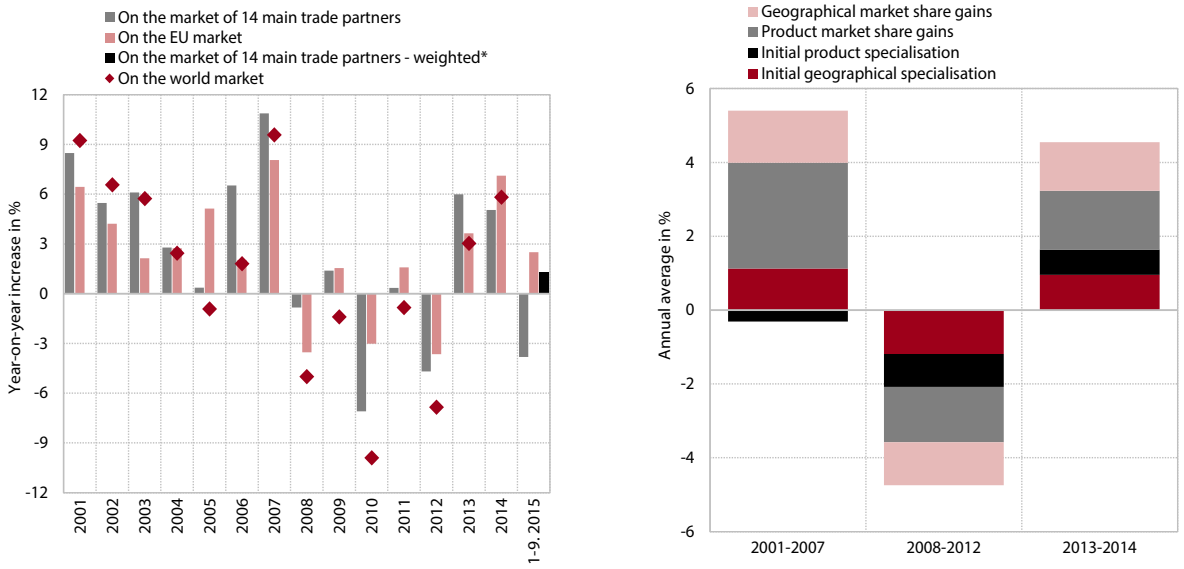
2.1 Competitiveness of the corporate sector

A competitive corporate sector is a basis for increased exports and integration into global value chains with products and services in the higher price bracket. After a significant deterioration during the crisis, the cost and price indicators of competitiveness have recently much improved. The composition of exports is also gradually improving and shows increase in the share of high-tech products and knowledge-intensive services. However, productivity remains the area where there is much to be done, with possibilities for improvement in particular in strengthening long-term, non-price factors, such as innovation capacity and human capital.

In 2013 and 2014 Slovenia regained the market share it lost in the most important export markets between 2008 and 2012. In 2014 Slovenia's market share in the EU commodities market exceeded the pre-crisis level by approximately 3%, while in the markets of the fourteen main trading partners, which include also non-EU countries, has reached the 2007 level. In the global market, where the extent of the market share is more significantly affected by the difference between domestic exports and the global imports structure, the share remains below the pre-crisis level, as is also the case for the whole EU. However, in 2013–2014 Slovenia was the third best within the EU in terms of the global market share increase; and was in the middle of EU countries (behind most of the new countries and in front of the majority of more developed countries) in the period after the onset of the crisis (2008–2014). Data for the first nine months of 2015 show a slowed down growth of the EU market share, as the share in the three main trading partners (Austria, Italy and Croatia) diminished after the steep rise in recent years, but remained considerably higher in relation to the pre-crisis level.[44] Slovenia's market share in the global market and in the markets of the fourteen main trading partners was slightly lower in year-on-year terms in the first nine months, due mainly to the steep rise of those import

[44] In most other EU markets favourable trends continued also in 2015.

Figure 18: **Slovenia's share of merchandise in foreign markets (left) and shift-share decomposition**analysis of Slovenia's global merchandise market share (right)**

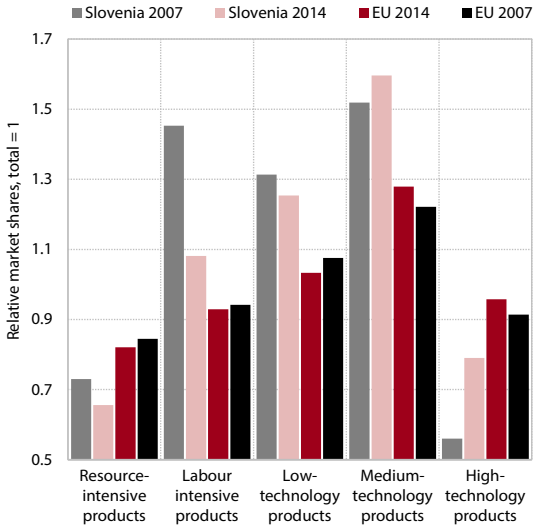


Source: UN, SURS, Eurostat, WIIW, US Census Bureau, calculations by IMAD.
Note: *With shares of Slovenia's exports in the fourteen main trade partners. **The product and geographical composition in the base year (initial product and geographical specialisation) indicate whether a country is specialised in fast-growing product markets and whether trade partners are fast-growing geographical destinations. The remaining two components, market share gains in geographic destinations or in product markets, show whether market shares increased within geographical markets and product markets. The latter two components represent the export competitiveness in the period analysed. Shift-share decomposition is made separately for the geographical and product component. Therefore the change in the market share as shown in the figure is equal to the sum of all four components divided by two (A Closer Look ... V. Quarterly Report on the Euro Area, 2012).

markets that are relatively less important in Slovenia's exports structure (structural effects)[45]. The calculation (dismissing structural effects) shows a steady increase of Slovenia's market share in the fourteen main trading partners, however, this increase was, as in the EU market, smaller than in the past two years. Export performance index also shows an upward trend in 2015.[46]

The increase in market share since 2012 has been the result of improved cost competitiveness, while in 2013 and 2014 it was also the result of the exports structure. This improved competitiveness was notably impacted by the decline in unit labour costs in the tradable sector, in particular in manufacturing, present in the past five years. The period since 2012 has also benefited from improved terms of trade connected to low prices of raw materials in the global market. It is estimated that lower costs of firms (labour and material) have partially resulted in lower prices. They also made possible higher profits, which in conditions of limited access to other sources of financing represent an important potential for new investments necessary for further maintain and enhance the competitive position of firms. The structure effect is the result of differences between the structure of domestic exports in relation to the composition of the global demand. While in 2008–2012 the structure of Slovenia's exports (production and geographical orientation) had a strong adverse effect on the market share growth, in 2013–2014 more than one-third of market share increase (on the global market) was due to structural effects, i.e. due to a relatively higher rise of import demand on Slovenia's main export markets in comparison with less important markets.

Figure 19: **Relative* market shares by structure of merchandise exports according to factor intensity**

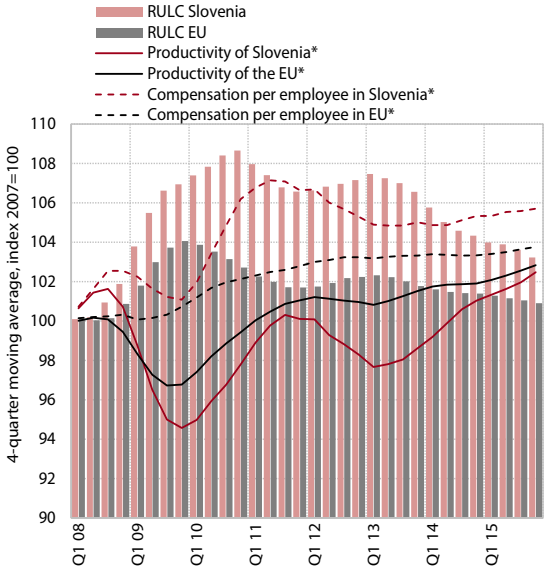


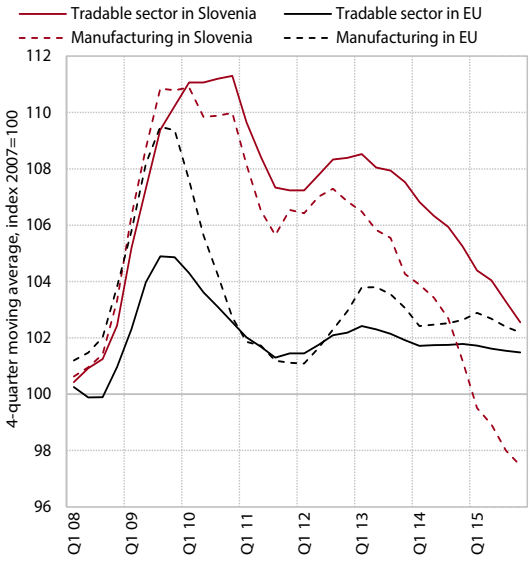
Source: UN, Unctad, calculated by IMAD.
Note: *A relative market share is the market share of a specific group of products compared to the total share of such goods on the world market.

[45] The North and South American imports stand out in particular, which resulted in the decrease of Slovenia's market share due to the much greater share of these countries in the global imports and in the imports of our fourteen main trading partners (including the USA) in comparison to the share in Slovenia's exports.

[46] The export performance increased in 2015 by 1.5%, less than in 2014 (2.6%).

Figure 20: **Real unit labour costs, Slovenia and the EU**





Source: Eurostat Portal Page – National accounts, 2016.
Note: *Real, GDP deflator.

Changes in the composition of goods exports after the onset of the crisis are favourable in terms of competitiveness of the economy, but are still not intensive enough to enable Slovenia to match the technology intensity of EU exports. The expansion of technology intensive products contributed significantly to the increase of exports in recent years, while at the outbreak of the crisis they dimisished the least in comparison to other products. This resulted in a significant change in the composition of merchandise exports, with the expansion of high-technology products (by approx. 5 pps) and reduction of mainly low-technology and labour-intensive products. In 2012, the share of high-technology products was higher that the average in new Member States, yet considerably lower than the EU average (see Indicator 2.5). This contributed to improve the structure of the market share in goods exports too. In comparison to the pre-crisis year 2007 Slovenia increased its global market share of high-technology products, and decreased its market share of labour-intensive products (by one-third in 2007–2014). However, the relative market share[47] of high-technology intensive products remains considerably lower than in the EU, while the relative share of medium-technology products, which remains stable, is quite high by international comparison.

Cost competitiveness continued to improve in 2015. After a sharp decline in 2008–2010 the cost competitiveness of Slovenia's economy has been on the rise since 2011. Positive trends were the result not only of the depreciation of the nominal rate, but also of the decline in the unit labour costs. In 2011–2013 this decline was mainly due to the adjustment of the labour market (wages and employment) to the poor economic activity in the tradable sector, in particular in manufacturing. In 2014–2015 this downward trend continued, due to higher economic activity and poor growth of labour costs. Cost adjustment continued to be more intensive in the manufacturing industry. In 2015 unit labour costs in manufacturing fell far below the pre-crisis level (2007), while in the EU they were slightly higher, which shows a major increase of the cost competitiveness of goods exporters in this period.

The gap of productivity in manufacturing with EU average has been narrowing since 2012, but remains high in high-tech activities that are the main driver behind goods exports growth. Manufacturing industries have contributed the most to the improved productivity in the entire economy after 2009. Until 2012 its growth had primarily been due to technology-intensive and export-oriented activities, which was in turn the result of growth of productivity within the sector and the increase of their share in the structure of the sector. Later (2013–2014) the productivity growth in manufacturing was mainly due to the contribution of the medium-low tech and low-tech activities. In this period the productivity growth in manufacturing improved more than the EU average, attaining 65% of the EU average in 2014, after persevering in a state of stagnation of approx. 60% before 2013. Despite the improvement, the gap with the average EU productivity remains large, with technology-intensive activities lagging behind the most. The lagging behind the EU even increased in the two technology-intensive sectors (pharmaceuticals and vehicles) that are of utmost importance for Slovenia's export. However, the productivity of manufacturing industries remains the highest among the new Member States, which have, with the exception of the Baltic States, progressed more slowly since the beginning of the crisis.

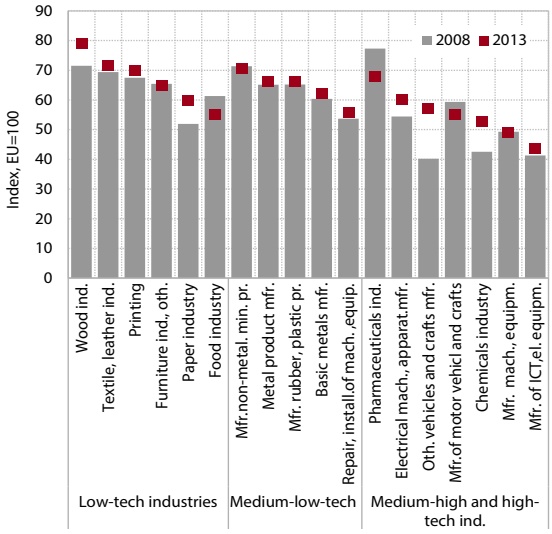
[47] Ratio between the share of high-technology products on the global market and the total share of goods on the global market.

Table 2: **The market share of Slovenian exports of services in EU service imports**

In %	Share in service exports, 2014	Market share				
		2010	2011	2012	2013	2014
Services	100.0	0.33	0.33	0.32	0.32	0.31
of which: Transportation	27.5	0.40	0.43	0.43	0.42	0.45
Travel	37.0	0.70	0.69	0.66	0.65	0.61
Knowledge-intensive services	**22.3**	**0.16**	**0.16**	**0.15**	**0.16**	**0.16**
telecom, computer, IT services	8.2	0.24	0.28	0.27	0.26	0.26
Other business services	14.0	0.14	0.13	0.11	0.12	0.12
Other services*	13.2	0.15	0.16	0.17	0.18	0.16

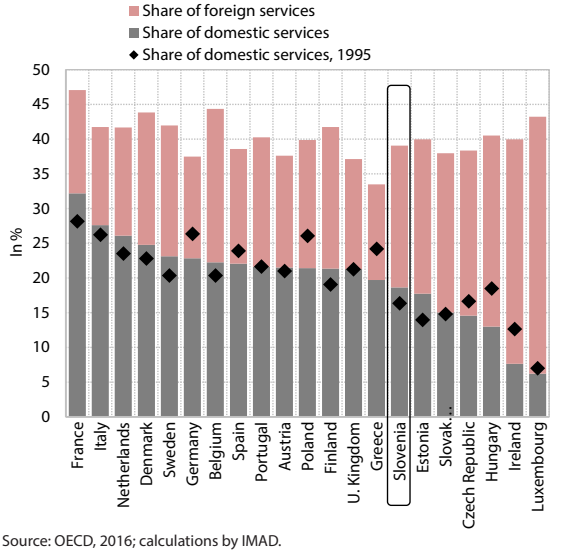
Source: Eurostat portal page – Economy and Finance, 2016; calculations by IMAD
Note: *The "Other services" group comprises services of transformation, maintenance and repair of goods, construction services, insurance services, retirement and financial services, royalties and license fees, personal services, cultural and recreational services, and government services.

Figure 21: **Productivity of manufacturing industries in comparison with the EU**



Source: Eurostat Portal Page – National accounts, 2016; calculations by IMAD.
Note: TZ – technology intensity.

Figure 22: **Services value added share in manufacturing industry exports, 2011**



Source: OECD, 2016; calculations by IMAD.
Note: Data are available for EU Member States that are members of OECD.

In recent years, knowledge-intensive services gain importance within service exports, while the competitiveness of the service sector remains poor. Services, in particular knowledge-intensive ones,[48] may decisively contribute to the competitiveness of the economy, both directly through exports and indirectly by their use in the manufacturing of products.[49] In Slovenia the share of services in value added of the economy is considerably below the EU average, and the gap has even widened in the recent period.[50] Only the share of traditional services (trade, transport, accommodation and food service activities) is higher than in the EU; while lately positive trends have been seen in knowledge-intensive services.[51] This recovery is mainly due to their increased orientation to foreign markets, especially in 2013 and 2014. However, their share in the total exports of services is still small, below the EU average by more than 10 pps (see Indicator 2.6). Export competitiveness of the service sector is also poor, with its foreign market share lately more or less fixed at a level below the one before the beginning of the crisis. Unused potential also remains in the area of inclusion of services in manufacturing and exports of other services. Although the share of services in the manufacturing sector exports is relatively high by international comparison, the importance of domestic services in them remains low. It is rising, but the rise since 1995 has been modest and reflects the poor competitiveness of domestic services. This is partly due to the small volume of foreign direct investment (see Indicator 2.8), as analyses indicate that

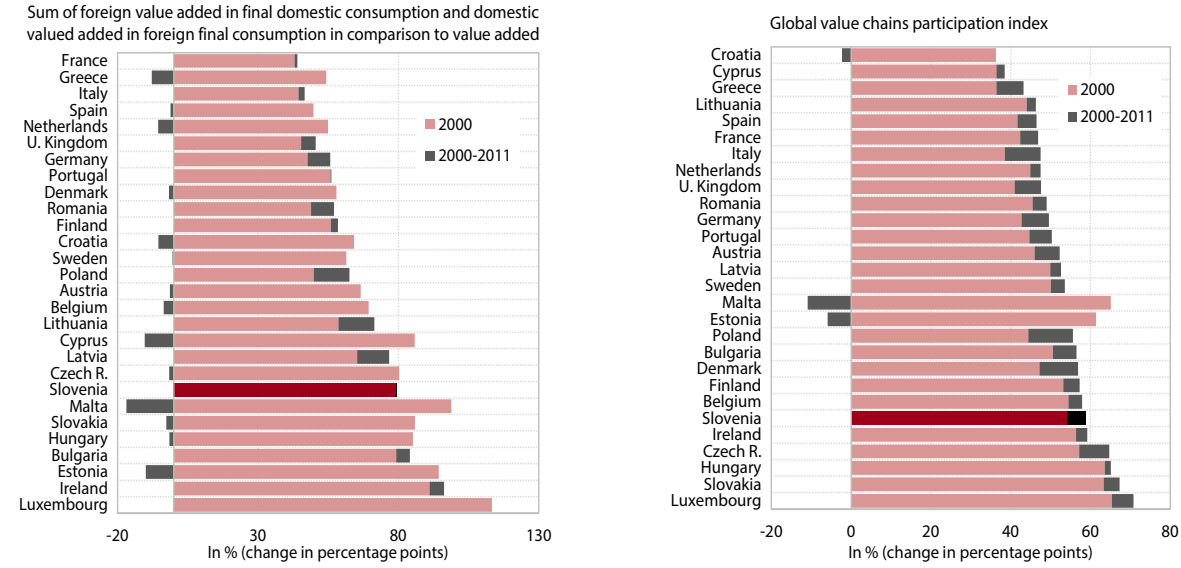
[48] Knowledge-intensive non-financial market services include information and communication (NACE J) and professional, scientific and technical activities (M).

[49] These services enable greater differentiation of products on the market, presentation of comprehensive offers to customers and introduction of new business models (European Service Innovation Centre, 2014). European Service Innovation Centre, 2014).

[50] To 7.2 pps in 2014 (the latest available data).

[51] The share of financial services (K) and of real estate activities (L) have diminished the most since the onset of the crisis. Financial services are analysed in detail in chapter 1.3.

Figure 23: **Degree of foreign trade integration in terms of value added**



Source: Trade and value added (OECD), 2015; calculations by IMAD

barriers for FDI are the major hindrance for increasing the multifactor productivity in services.[52] FDI in services are of major importance in view of acquisition of specific service marketing skills, introduction of innovative business models and increasing the use of digital services.

Further deregulation of services would have a positive impact on the competitiveness of the economy and the level of GDP. Analyses show that liberalisation has s positive impact on the efficiency of services and consequently, on the economy as a whole.[53] Between 2010 and 2015 the number of regulated professions in Slovenia dropped considerably mainly due to deregulation in crafts, but continues to be considerably above the EU average. According to OECD, regulation is especially high in professional services, with high barriers that impede entry. Our simulation indicates that a reduction of barriers that discourage entry to markets of the most regulated professional services (according to OECD these are architectural, legal, accounting and technical services) to the OECD average would positively affect the economic growth in the mid- and long run.[54]

In other often regulated services, such as retail trade and network industries, Slovenia does not have in place any particular legislative barriers to entry; however, in network industries the share of state ownership remains above average.[55] Various indicators of competition that are improving show a satisfactory degree of competition on these markets.[56]

Slovenia as a small country belongs to more open economies, but lags behind some of the new Member States in terms of the level and pace of its integration in international trade flows. The rate of integration, measured in terms of the average share of foreign trade (exports and imports) in GDP has been on the increase since 2009 and was, in 2014 and 2015, higher than ever before (72.6%). However, according to this indicator Slovenia was still only in 11th place among the EU Member States, although as a rule the level of trade integration is higher for small countries. It performed even worse in terms of the pace of integration,[57] ranking behind numerous new Member States, although many of them were more integrated in international trade flows already in the baseline year. Slovenia performs slightly better in terms of some indices that are being developed lately and measure participation in value added, but are not available for recent years. According to the latest

[52] Van der Marel, 2012.

[53] Monitor on competitiveness and trade performance (EK), 2015.

[54] The simulation was carried out by using the dynamic stochastic general equilibrium model QUEST. The shock was defined on the basis of the OECD index of product market regulation (PMR) converted into an adequate reduction of the margin on intermediate products in the model. Reduction of major barriers to entry (mandatory membership in professional chambers, years of mandatory practical training and number of services requiring specific professional qualifications) to the average OECD level would lower the PMR index value by approx. 1 point, which would be equivalent to the reduction of the margin in the area of intermediate products by 0.36 pps; in the long run, the GDP would increase for almost 0.1% (for more, see Assessing the Effects of Some Structural Measures in Slovenia, IMAD, 2016).

[55] Koske et al., 2015.

[56] In retail trade, concerning mostly foodstuffs, concentration measured in terms of the Herfindahl-Hirschman Index dropped from the maximum value of 3,387 in 2006 to 2,117 in 2014 (the high concentration limit being the value of 1,800), while the share of the main provider dropped from 53% to 38%. For network industry see Indicator 2.7.

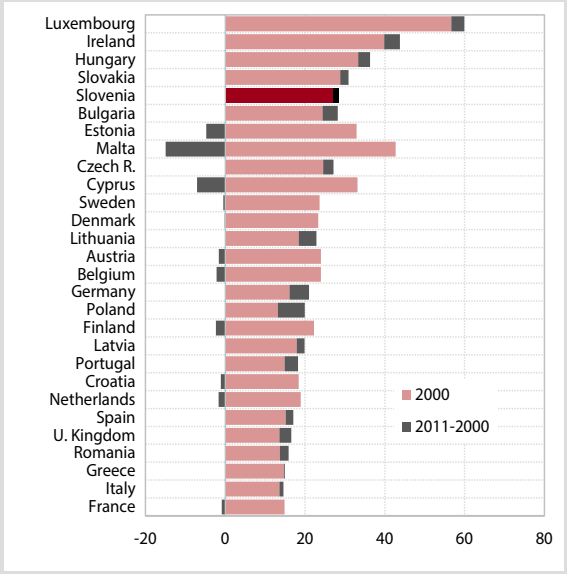
[57] In 21st place in terms of increase of participation in GVCs after the beginning of the crisis.

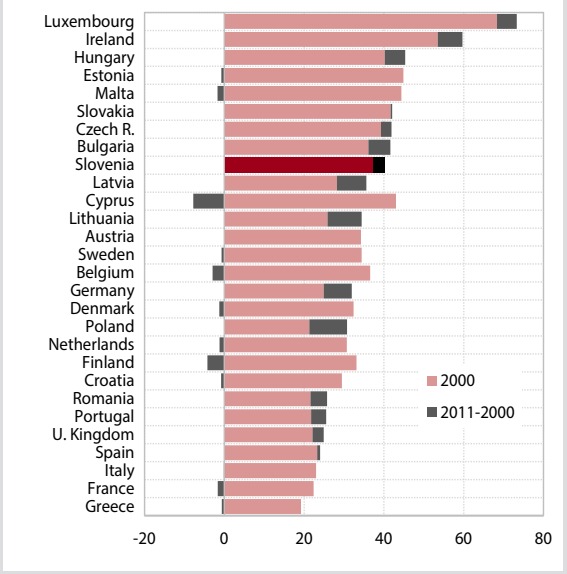
Box 5: **Export-oriented Slovenian economy - comparison of gross exports and value added exports**

Measuring export orientation of the economy in terms of the share of gross exports in GDP has several shortcomings, so lately additional criteria have been introduced. The first shortcoming is that gross exports also include foreign inputs. The higher the share of foreign inputs in gross exports, the worse criterion of export orientation is gross exports. In principle, the smaller the country, the higher the share of foreign inputs in gross exports. The second shortcoming is that gross and net values are being compared when using the share of gross exports in the GDP. For this reason, the analysis of export orientation of the economy resorts more and more to the use of the criterion of value added exports, which better reflects the actual exports orientation of the economy and the importance and effects of exports on economic growth. In terms of effects of exports on economic growth the most appropriate indicator of exports orientation is the share of export-related value added in the total value added.

According to the criterion of gross exports and of value added exports, Slovenia is among more export-oriented EU economies; however, quite some new Members States perform better. In 2011, Slovenia was, with the share of gross exports in total output[1] of 28.3%, at the fifth place among EU Member States; while in terms of the increase in the period 2001-2011, it was somewhere in the middle. As Slovenia is a small country, a considerable part of gross exports is accounted for by foreign inputs, while the share of domestic value added in gross exports is commensurately lower. In 2011 gross exports contained 63.8% of domestic value added, which is the eight lowest share among the EU Member States. In 2000–2011 it decreased in most EU Member States, but remained almost unchanged in Slovenia. Despite the below-average share of domestic value added in gross exports, in 2011 the share of export-related domestic value added in total output of Slovenia's economy was 18.1%, which is among the highest in the EU. The same is true for the share of export-related value added in the total value added, which in 2011 was 40.3%, the ninth highest in the EU. In terms of indicators of added value exports, Slovenia is a relatively highly export-oriented economy; on the other hand, it is evident that after a larger increase in 2000–2011 more and more new Member States show a better export-orientation performance.

Figure: **Share of gross exports in gross output (left) and share of export-related value added in the total value added (right)**





Source: Trade and value added (OECD and WTO), 2015; calculations by IMAD

[1] Total gross production including intermediate consumption.

available data (2011), Slovenia ranked 8th in the EU in terms of the ratio of the sum of foreign value added in domestic final demand and domestic value added in foreign final demand to the total value added of the country, and 6th in terms of the GVC participation index.[58]

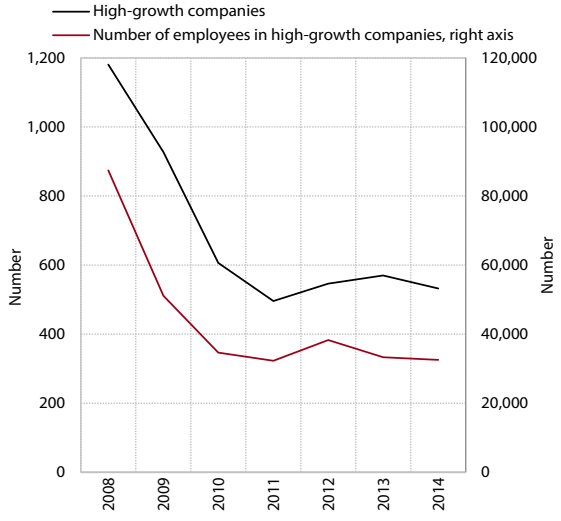
This shows that Slovenia's economy is among the more open ones; however, the high participation in GVCs of some other new Member States indicates that Slovenia has a certain, yet unused, potential in this area. This is even more true considering the fact that the picture is almost the same as far as exports are concerned (see Box 5), which are the key factor of Slovenia's recovery in recent years.

[58] The so-called Koopman's participation index (Koopman et al., 2010) is composed of backward participation and forward participation in GVCs. Backward participation captures the import content of exports, forward participation captures the value of inputs produced domestically that are used in other countries' exports.

The process of privatisation and restructuring of the corporate sector resulted in a major increase of inward FDI in Slovenia in 2014 and 2015. This increase which followed a period of poor growth was mainly due to extensive inflows of equity resulting primarily from the renewal of privatisation process and corporate restructuring (see Chapter 2.4) and generally increased sales of equity stakes in Slovenian companies. Expectations of foreign owned enterprises are also favourable. The SPIRIT survey shows an increase in sales and employment in a large number of these companies; approximately one-third of them are also expected to expand their activities in 2016. Because of modest FDI inflows in recent years, in 2014 (last available data) Slovenia was among the EU countries with the lowest stock of FDI as a share of GDP and the smallest increase of this ratio over a longer period. Unlike the inward FDI, in the last two years the outward FDI was below the level of the previous years, but in comparison with other Central European Member States, Slovenia's outward FDI to GDP ratio is second only to Hungary and Estonia.

Indicators of entrepreneurial activity have shown no signs of recovery in recent years. After the increase since the beginning of the crisis due to large subsidising of self-employment, early-stage entrepreneurial activity (measuring the share of the population getting involved in entrepreneurship) has been decreasing since 2013. The share of early-stage entrepreneurs driven by identified business opportunities remains modest since the beginning of the crisis, while the share of necessity-driven entrepreneurs has increased considerably. This indicates that in the past period new enterprises were established mostly as a necessity-driven opportunity of self-employment and less as opportunities to put in practice innovative solutions with a potential of expansion. Consequently, the number of high-growth enterprises that normally bring about investments and create employment has remained at an extremely low level, and their share is among the lowest in the EU (see Indicator 2.9). Data on start-ups are more encouraging, as in 2014 and in particular in 2015 the volume of investments in start-ups owned by Slovenians increased considerably. For the time being most investments have been collected by enterprises operating abroad, but improved support environment for entrepreneurship could result in a larger number of start-ups also in Slovenia (see Box 6).

Figure 24: **High-growth enterprises*, Slovenia**



Source: SURS.
Note: *A high-growth enterprise is an enterprise with an average growth rate of employment of 10% per year over a three-year period, and which had 10 or more employees in the first year of the three-year period.

2.2 Human Capital

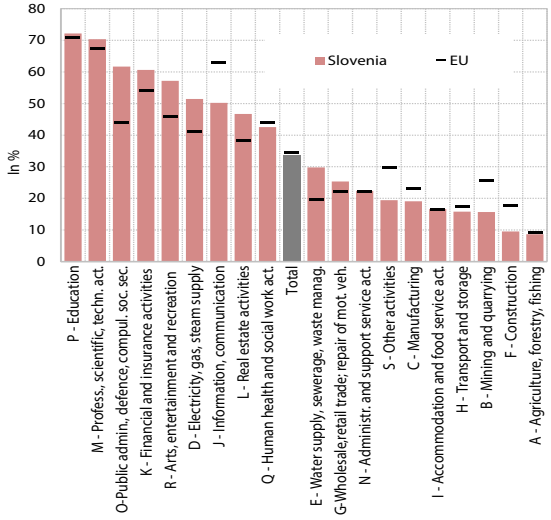
An increased and more efficient investment in knowledge is one of the main levers for strengthening the potential of economic growth. In Slovenia, human capital, one of the key factors of competitiveness and long-term growth, is too low and insufficiently used. The share of population with tertiary education is, by international comparison, relatively high, but its distribution in terms of orientations and skills does not meet the demands of the corporate sector. In recent years Slovenia has also been experiencing an increased outward migration of highly educated persons. Taking into consideration the decline in the size of generations for enrolment in tertiary education (demographic changes) and the anticipated growing needs of the industry for highly educated workforce, the major future challenge will be to ensure a sufficient number of persons with appropriate qualifications and skills.

The share of the population with tertiary education has attained the EU level, but insuring a sufficient number of adequately educated workforce remains a challenge. The improvement to the education structure of the adult population (aged 25–64) and of the active working population in recent years (see Indicator 2.10) is the result of a long period of participation of the young in tertiary education and of the structural impact of retirement of the elderly and employment of the young which are, proportionally, better educated. Despite the increased share of highly educated workforce, enterprises still underexploit the opportunity to fully use the knowledge of tertiary educated persons to boost their value added. Since the beginning of the crisis the share of persons with tertiary education, as the public sector was hit by austerity measures, has mostly increased in the private sector but remains much lower than in the public sector and considerably below the EU average. Ensuring sufficient adequately educated workforce remains a challenge for the future, as Slovenia faces not only demographic changes (smaller young generations to enrol in tertiary education) but also a growing outward emigration of tertiary education persons. Demand for tertiary educated workforce is expected to grow in the future as according to Cedefop[59]

[59] Slovenia Skills forecasts up to 2025, 2015.

forecast the greatest number of jobs is expected to be available in Slovenia for people with tertiary education.

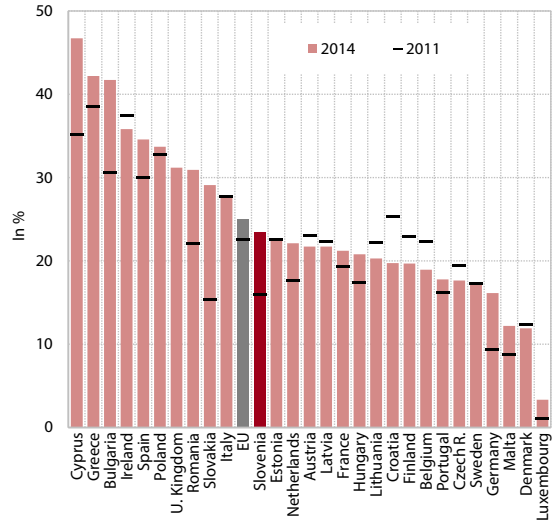
Figure 25: **The share of employed persons (aged 25–64) with tertiary education, 2014**



Source: Eurostat; calculations by IMAD.
Note: O, P and Q are public sector activities, A-N and R-S are private sector activities.

Tertiary education also responds too slowly to the needs of the corporate sector. During the crisis it has become increasingly hard for people with tertiary education to find employment. Since the onset of the crisis, their unemployment rate has increased more than the EU average (see Indicator 3.5). Between 2010 and 2014 also sharply increased the share (in relation to the EU) of young persons with tertiary education (aged 25–34) who were employed in professions for which they are overeducated.[60] One of the main reasons for this, besides the modest demand due to the crisis, is the lengthy period of insufficiently balanced structure of supply and demand for graduates from various programmes. The significant decrease of enrolment in social and administrative sciences and law in the past ten years has somewhat reduced the educational imbalances. In addition, major mismatch remains in terms of skills provided, which are due to insufficient consideration of long-term needs of businesses. Slovenia, unlike several Member States, does not systematically monitor the transition of tertiary-educated graduates from education to the labour market[61]. An upgrading of the records of students and graduates with a system of monitoring the employability of tertiary-educated graduates would be necessary. In 2014 and 2015 a measure to increase cooperation between the higher education sphere and the entrepreneurial sector was implemented to tackle the problem of employability of tertiary-educated graduates, yet it included a very limited number of participants.[62]

Figure 26: **Employed tertiary-educated graduates (aged 25–34) overqualified in their current job**



Source: Education and Training Monitor 2015, 2015.

Tertiary education enrolment system anomalies are being eliminated, but progress in quality is slow. In post-secondary vocational education programmes, fictitious enrolments have, since the academic year 2014/2015, been prevented by the Post-Secondary Vocational Education Act, while in higher education programmes they were limited by means of online application, which makes it possible to control data from the records of students and graduates. As a consequence, this year's enrolment figures are substantially lower, but this may not be attributed exclusively to demographic causes. The share of candidates for graduation and of students who had been granted terms of extension of time, has also dropped radically since the academic year 2012/2013 due to restrictions concerning student status extensions. There have been major advancements in this field, however, weaknesses remain in relation to transition of students from the first to the second year, and in relation to a systemic regulation of repeated enrolment in the second year of study in higher vocational colleges[63], where there is ample room for implementing better solutions. A systematic monitoring of graduation and drop-out rates and implementation of measures to improve student achievement could have a positive impact on the efficiency of studies[64]. In the

[60] Education and Training Monitor 2015, 2015.

[61] Eurydice Brief. Modernisation of Higher Education in Europe, 2015.

[62] The purpose of the measure 'A creative path to practical knowledge' was to support the development of skills, the acquisition of practical knowledge and experience through projects implemented in partnership between higher education institutions and the entrepreneurial sector.

[63] It amounted to 40.4% in the academic year 2014/2015 due to the standards applying to financing of higher vocational colleges that take into consideration students that are enrolled for the second time in the second year because of modifications of study obligations.

[64] In several EU Member States higher education institutions carry out tutoring or mentoring programmes to help students to acquire learning and/or organisational skills (The European Higher Education Area in 2015, 2015).

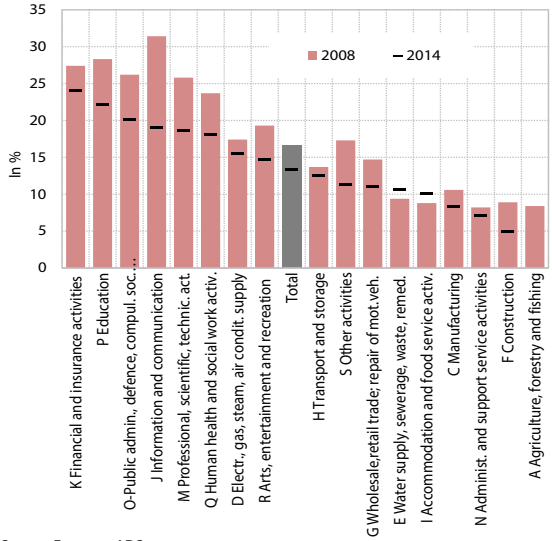
academic year 2014/2015, the ratio of the number of students to the number of teaching staff, which is one of the quality indicators, improved (16.8) and is now closer to the average of EU Member States that are also OECD members (16.0 in 2013). As this shift is mainly due to the reduction of fictitious enrolment, we consider that its actual impact in terms of higher quality will only be seen in a long term. In 2012–2015 two-thirds of the enrolled in tertiary education were satisfied with the quality of teaching, which places Slovenia in the lower half of participating EU Member States.[65]

The system of higher education financing does not sufficiently encourage higher quality and efficiency, and employability of graduates. The share of public expenditure for tertiary education in GDP has been decreasing since 2012 (to 1.06% of GDP in 2014, multi-annual average: 1.28%) as the adoption of new social legislation and fiscal balance measures resulted in a reduction of transfers to households or students. Public expenditure, like private expenditure, is comparable to the average of 21 EU OECD countries. As in Slovenia the number of students enrolled in tertiary education is above average, expenditure, although rising, remains low in terms of expenditure per participant in education (see Indicator 2.11), which reduces the possibility for increasing quality. Higher quality could be achieved mainly through a better use of public funds and higher private expenditure. This has partly been achieved by the limitation of fictitious enrolment, yet Slovenia, unlike some other Member States, lacks financial incentives for increasing the efficiency of studies (for instance partial recovery of the cost of study in cases of the non-completion of tertiary education, fees).[66] The current system of higher education financing does little to encourage higher quality and efficiency, and to enhance employability of graduates.[67] Higher efficiency of using public funds could be achieved, along with the reduction of the number of enrolled students also by rationalizing the network of higher education institutions and reducing the number of study programmes.

Vocational and technical upper-secondary education also responds insufficiently to the needs of the labour market. The problems are the following: shortage of certain occupational profiles,[68] mismatch between educational programmes and the needs of the corporate sector, and modest volume of sponsorship scholarships. These problems could be efficiently addressed, and students more motivated to enrol in vocational education by establishing a system of apprenticeship and providing more scholarships for shortage occupations,[69] considering that in 2015 the number of applications was largely above the number of scholarships available.

Participation of employed persons in lifelong learning has declined since the onset of the crisis. As a result of the need to reduce expenditure during the crisis it declined in both in the public and private sectors. This unfavourable trend persevered in most sectors throughout 2014. In most private sector activities participation of employed persons in lifelong learning is lower than in the public sector. It is particularly low in sectors with a prevalence of low-skilled workers, as Slovenia does little to encourage their participation, unlike some other EU Member States.[70] In recent years, adult participation has been encouraged by competence centres for staff development,[71] which have also produced a number of other positive developments.[72] Such mechanisms could be used also in the future to encourage participation of employed persons in lifelong learning.

Figure 27: **Participation of employed persons aged 25–64 in lifelong learning, Slovenia**



Source: Eurostat, ADS
Note: O, P and Q are public sector activities, A-N and R-S are private sector activities.

[65] Results of the Eurostudent Survey V (Hauschildt et al., 2015).

[66] The European Higher Education Area in 2015, 2015.

[67] In compliance with the Decree on Budgetary Financing of Higher Education and Other Institutions (2011) universities and independent higher education institutions established by the Republic of Slovenia and concessionary higher education institutions that carry out state-approved study programmes would be partly publicly funded depending on their efficiency, international cooperation etc. (see the Decree); however, this was never applied due to austerity measures.

[68] According to the Employment Forecast 2015/1 (2015) survey professions that are in most demand are welders, toolmakers, masons, waiters, etc.

[69] The Scholarship Policy (2015–2019), adopted in 2015, provides for incentives in the form of scholarships for enrolment in vocational and technical upper secondary education programmes for shortage professions.

[70] Adult Education and Training in Europe. Widening Access to Learning Opportunities, 2015.

[71] In 2010–2015 there were 19 competence centres for staff developmentwhich were active in more than 300 enterprises.

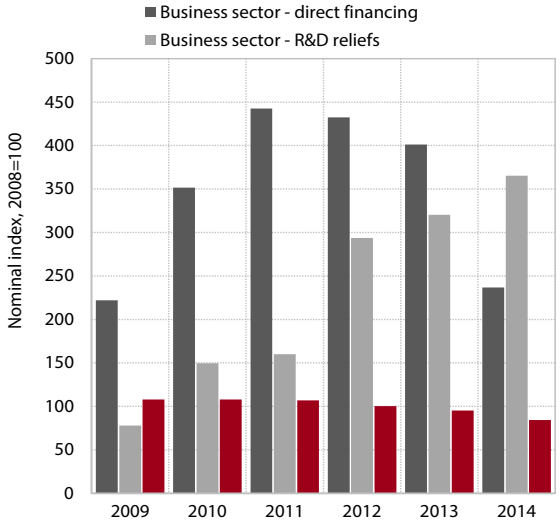
[72] They developed competences relating to cooperation among enterprises within the industry, building confidence, learning from one another, enhancing competitiveness (Vidmar, 2015).

2.3 Innovation capacity

Investment in research, development, innovations, human capital, digital economy and in enhancing of various forms of intellectual property increase the efficiency and the competitiveness of the economy and ensure a high level of wellbeing. Stable financing and coordinating of policies measures in different fields, close cooperation between the R&D sector and companies and networking among companies of different sizes are necessary for investments to produce results. Since the beginning of the crisis, the volume of R&D investments of the business sector has steadily increased, as has the share of human capital in science and technology. Even though progress has been made in some areas, some important weak spots remain: insufficient transfer of knowledge from research institutions to the business sector, reduction of public funding to enhance innovative capacity, weak innovation activity of small enterprises, and slow reacting to the rapid development of new technologies and digitalisation in both private and public sectors which requires a sufficient number of adequately skilled staff.

Investment in R&D as a share of GDP is relatively high. Gross domestic expenditure for R&D accounted for *2.39% of GDP*[73] in 2014, and has remained, since 2010, above the EU average (see Indicator 2.13). After several years of growth, gross expenditures in R&D declined in 2014, mainly due to lower public sector expenditure,[74] which was lower by EUR 85 million in comparison to 2011, and only attained the pre-crisis level. However, the government succeeded to compensate the drop of investments in the business sector by higher tax reliefs for R&D[75]; consequently, the reduction of public expenditure mainly hit public research institutions and higher education institutions. As this trend has been present since 2011, the capacity of public institutions to keep up with the rapid development in various science fields has been declining, as well as their possibilities to participate in international research projects and to cooperate with companies where own participation is required. The situation is particularly difficult for young post-doctorate researches who are unable to apply the knowledge acquired.

Figure 28: **Public expenditure for R&D performance in the business*and public sectors**



Source: Eurostat Portal Page – Science and Technology – Research and Development, 2015; Ministry of Finance, 2015; calculations by IMAD.
Note: *In accordance with the Frascati international methodology tax reliefs for R&D are not considered public expenditure for R&D (OECD, 2002), although they represent an incentive for companies to invest in R&D. The tax relief on investment in R&D was raised from 20% to 40% in 2010 and to 100% in 2012.

The business sector continues to increase investment in R&D, supported also by R&D tax incentives in recent years. In 2014 business sector investments amounted to 1.63% of the GDP, placing Slovenia at the 5th place among the EU Member States; this is the result of the high growth between 2009 and 2014, which accounted for 47% in real terms. The increase in the tax relief for R&D to 100% in 2012 resulted in a rise of the volume of claimed tax reliefs and of the number of companies claiming them. It is important that this instruments remains stable, so as to attract foreign investments in research departments, create jobs with high value added and enhance the innovative capacity, as among the companies claiming tax reliefs particularly the number of micro companies is rising. Slovenia's lagging behind the EU innovation rate is the greatest for small companies, which include most of the micro-companies that rarely claimed tax reliefs in the past. In 2014 the inflow of R&D funds from abroad slightly diminished due to the fact that projects under the financial perspective 2007–2013 were drawing to the close.

In 2014 the number of researchers[76] decreased for the second year in a row. In the last two years this number decreased in all sectors, but the least in the business sector, which increased its share in the total number of researchers (2014: 54.1%). In the government and higher education sectors in 2014, there were 325 less researchers than in 2012. As companies are also beginning to shrink the number of researchers employed, it is highly unlikely that redundant researches from the government and higher education sectors were able to find work there. We assume that they took jobs that do not require a doctorate degree, are unemployed or went abroad (since 2011 the number of tertiary educated people who left the country has

[73] The reduction of the share of R&D expenditure is partly also due to the faster growth of GDP, which increased by 3.9% in nominal terms in 2014. If the GDP remained unchanged, the share of investments in R&D would be 2.48% in 2014.

[74] Public sector expenditure includes government and higher education sectors' expenditure.

[75] In 2013 Slovenia ranked fourth among OECD countries in terms of direct and indirect (reliefs for R&D) financing of business sector expenditure for R&D (OECD STI Scoreboard 2015, 2015).

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

been steadily increasing). Encouraging the employment of young doctors introduced in 2015 has a very limited reach, given the declining public expenditure on R&D. The reduction of jobs for young researchers lowers the efficiency of public funds invested in their education, and at the same time jeopardizes the future development of research institutions, their international competitiveness and transfer of knowledge to the business sector, and deepens the gap in the age structure of researchers. In the mid- to long term, the falling behind of basic and applicative research in Slovenia is expected, and a stronger move of companies to seek cooperation with foreign research institutions.

Human capital in natural sciences and technology must be more involved in innovative processes in companies. Considering the rapid technological development an adequate number of highly educated staff in science and technology is of utmost importance, as the application and transfer of knowledge from universities to the business sector *increases the innovation capacity of companies and of the country in general. Since the beginning of the crisis* the number of doctors of science in science and technology has considerably increased, and their share in the total number of doctors of science remains high. The share of science and technology graduates of the total number of tertiary education graduates is also increasing and exceeds the EU average (see Indicator 2.14). Due to the decline of generation for enrolment in tertiary education, their number has been decreasing in recent years. This trend is expected to continue also in the future, so it is necessary to embrace innovative approaches to enable adoption of good practices in promotion activities aimed to increase the enrolment in science and technology studies, and for better cooperation with companies from the local environment (also in the form of scholarships). Encouraging entrepreneurial activities of students and graduates contributes to a better use of acquired knowledge; certain measures have already been adopted in this context. At the Universities of Ljubljana and Maribor, the Demola project has been carried out since 2014, which strengthens cooperation among students of various disciplines and companies, thus increasing the possibility for students to be later employed by these companies. It is imperative that such projects receive support, as currently the education and research spheres give too little consideration to the need of combining the knowledge of social sciences and of natural sciences and engineering in addressing economic, social and environmental issues. Another possibility for transfer of knowledge from universities to the business sector is to employ academic staff in the business sector[77].

Innovation activity of the business sector is modest, but the improvement of supportive environment for new high-tech companies could increase the innovative capacity of small companies. The latest data on innovation activity of companies in Slovenia for 2010-2012 point out two major weaknesses: a declining rate of innovation activity in comparison to the preceding period and low share of innovation-active small companies (Development report 2015, 2015). In addition to the Slovene Enterprise Fund which addresses the problem of low innovation activity of small enterprises with different measures, a series of mechanisms is being put in place to assist start-ups and young companies in getting funds and acquire entrepreneurial and marketing skills necessary for a successful access to markets and for expanding their operations (see Box 6). A gradual increase in innovation activity of small companies may be expected as most start-ups are involved in developing high-tech products and services. Alternative mechanisms are needed for other small companies, such as support in acquiring new knowledge and skills, the promotion of networking opportunities among small companies,[78] the introduction of new business models and the establishment of a stimulating business environment. There is a very limited possibility of increasing the innovation capacity of small companies by the creation of spin-offs at the higher education institutions, where much of the new knowledge is produced, as the legislation does not allow for it.[79] On the other hand, public procurement shows great potential for boosting the demand for innovative solutions, and examples from other EU Members States[80] show that public procurement targeting innovative solutions yields extensive social and economic benefits. Two directives[81] covering this field are applied in Slovenia as of April 2016.

Since the beginning of the crisis, Slovenia has achieved a major advancement in terms of registration of trademarks and designs, while in terms of patent applications it is still below the level of 2008. In 2015 Slovenia increased the gap with the EU average in terms of the number of applications filed with the European Patent Office per million population, but succeeded to narrow this gap for trademarks and designs (see Indicator 2.15). Developments in the field of patent protection are not favourable, and it should be noted that the structure of Slovenia's manufacturing industry (branches and level of product processing) does not

[77] A survey shows that almost two-thirds of academic staff in science and technology are considering finding a job outside the academic sphere (Klemenčič et al., 2015).

[78] In the field of tourism the web platform Bank of Tourism Potentials of Slovenia, an innovative instrument for connecting stakeholders, was acknowledged as an example of good practice for small companies by OECD in 2014.

[79] Applies to the University of Ljubljana. Centre for Technology Transfer (Center za Prenos Tehnologij), University of Ljubljana website.

[80] In 2013 Austria established a competence centre for public procurement of innovative solutions which provides training and assistance to authorities launching tenders, and offers them the possibility to apply for a sum of EUR 80,000 to cover the costs of carrying out the public procurement process.

[81] The Classical Directive on public procurement and the Directive on public procurement in infrastructure.

Box 6: **Characteristics of Slovenia's start-up entrepreneurship**

After modest beginnings start-up entrepreneurship is gaining momentum in the last two years.[1] In 2015, the start-ups in Slovenia[2] collected EUR 114 million from various investors, which is twice as much as the year before and as much as in the previous seven years together[3]. Most investments went to companies with Slovene citizens as co-founders and are mostly located abroad. These companies obtained most of the funds from venture capital funds (94%), and the rest from government funds, crowdfunding, angel investors and start-up accelerators. The majority of start-up entrepreneurs (69%) provide and develop technology solutions for Internet contents and technologies, and a smaller number for education, media and health.

For further development and growth of start-ups need not only financial, but also intangible resources and a supportive and stimulating environment. In the start-up phase of development own financing sources provided by founders are of utmost importance, which is confirmed by the survey on the characteristics of entrepreneurship in Slovenia.[4] The survey analysed 156 start-ups established between 2010 and 2015. Business networks, quality human resources and specialist knowledge are key intangible assets for a successful positioning of start-ups on the world market and producing high value added and new jobs. In parallel with the development of a product, start-ups build their trade or a service mark, where specialist skills in design, marketing and sales are vital. The State plays an important role in the financing of start-ups: through the Slovene Enterprise Fund it provides funds to start-ups at favourable rates, depending on their development phase (seed, start-up, growth). In 2007–2014 approx. EUR 60 million funds were granted, resulting in the creation of 1,624 new jobs. In 2016 further EUR 6 million are planned for investing in start-ups.[5] In 2015 the first privately funded entrepreneurial accelerator was established in addition to the existing ones, and has already carried out two programmes (smart cities, smart living and health). It is aimed at supporting early-stage companies that have developed an innovative product or service but lack funds to be able to enter the world market. At the beginning of 2016, a first platform for crowd investing was established in Slovenia that supplements the support environment for companies lacking sufficient own funds to finance the realisation of their innovative business ideas. At the same time, the platform enables small investors (EUR 100 to 5,000) to invest in development and knowledge of Slovenian companies and thus contribute to the implementation of innovative projects.

[1] Start-up entrepreneurship is based on innovations in products, processes, technology, services, business model or work organisation. These companies have a great potential for high growth, create high value added and new jobs. According to international studies, it is generally agreed that each year approx. 3% of start-ups are established in the total population of companies. For Slovenia, this would mean approx. 400 start-ups per year (Močnik in Rus, 2016).
[2] Considered are start-ups established in Slovenia and abroad by Slovenian citizens.
[3] Kupec, 2016.
[4] Močnik in Rus, 2016.
[5] Slovene Enterprise Fund -SPS, 2016.

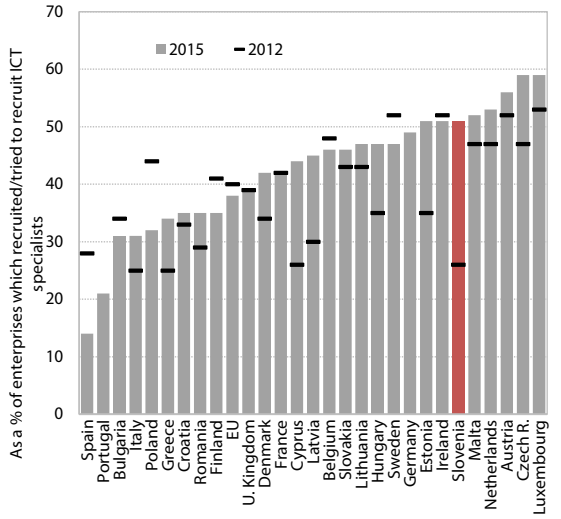
provide for extensive patenting. In the context of rapid technology advancements and sharp international competition companies prefer to place new products on the market as soon as possible instead of engaging in long and expensive patent application proceedings, which represent, in particular for small companies, a huge burden. On the other hand, Slovenia's companies are more and more aware of the importance of the protection of other aspects of intellectual property (such as trademarks and designs) which are relevant also for service activities.

Slovenia is slow to respond to trends of accelerated digitalisation with horizontal effect Although digital technologies are, because of their extensive use important for the business and public sectors, total investments in ICT are declining. According to latest available data,[82] their share in GDP was only 1.8% in 2013, which is approx. 1 pp less than ten years earlier. Information and communication industry (equipment production and services) also invests too little in R&D, its share in the total expenditure for R&D of the business sector was only 14% in 2013 (OECD countries average: 25%).[83] Internet access and use also fell behind the EU average in 2015, and the gap with the EU average is particularly evident in the usage of the Internet among less educated and older people. People in Slovenia use the Internet with the same frequency as other EU inhabitants for more simple services, while Slovenia legs behind the EU average in the more active use of e-services, such as e-banking, on-line shopping, submitting completed forms to government institutions, which is probably due to lack of appropriate ITC skills (see Indicator 2.16). According to the EU Digital Economy and Society Index Slovenia is ranked 18th among the EU Member States, which is largely attributable to the low share of Internet users that actively use e-government services.[84] The shortage of ITC personnel is present throughout the EU, and has become even more acute between 2012 and 2015 in some of the Member States, among which is Slovenia, where more than half of companies have

[82] OECD STI Scoreboard, 2015.

[83] OECD STI Scoreboard, 2015.
[84] Digital Economy and Society Index (DESI), 2016.

Figure 29: **Enterprises that had hard-to-fill vacancies for jobs requiring ICT specialist skills, 2012 and 2015**



Source: Eurostat portal page – Industry, Trade and services – Information society, 2016.
Note: *Data for Germany are for 2014.

a hard time to find ICT specialists. Urgent measures are needed for increasing ICT skills in all spheres of education. The level of education of ITC specialists also needs to be improved, as in 2014 in Slovenia only 40% of them had tertiary education, in comparison to 56% in the EU.[85] The Information Society Development Strategy to 2020 [86]identified the lack of human resources for the establishment of a digital economy and society as one of the key weaknesses of Slovenia; but the addressing of the problem will largely depend on the rapidity and effectiveness of the implementation of the strategy.

2.4 The role of the state and its institutions

The effective functioning of the state and its institutions is key for ensuring a stimulating business environment and the competitiveness of the economy. International comparisons show that the institutional competitiveness of Slovenia has deteriorated significantly in the post-crisis years due to a slow response to the changed circumstances during the crisis and the accumulated deficiencies in the operation of the legislative, executive, and judicial branches of power. The priority areas therefore include further implementation of measures to improve the management of state-owned assets, encourage the withdrawal of the state from the economy, improve the legislative and business environment, increase efficiency and ensure the transparent functioning of the public administration and the judiciary, which, in turn, will increase the trust of companies and citizens in the state and its institutions.

Despite the improvement in the last year, Slovenia remains among the countries where the institutional competitiveness has deteriorated significantly since the onset of the crisis. International institutions (IMF, WEF, World Bank) continue to underline the business sector's dissatisfaction with the operation of public institutions, in particular the Government, the National Assembly and the Central Bank, and point out the inefficiency of public expenditure and the high burden of government regulation. In comparison to the previous years, there is an improved confidence of the business sector in several areas, indicated by the slight increase in indicators of government and business legislation efficiency. After several years there is also an improvement in indices based on surveys, which is probably due to more favourable economic indicators and the implementation of certain measures aimed to improve the business environment in the last two years.[87] In the last year, World Bank governance indicators have also showed an improvement of the government efficiency,[88] but confidence in the rule of law remains at a relatively low level. Eurobarometer[89] data show that trust of the public in policies, the state and institutions and local authorities has slightly improved, but remains low and was among the lowest in the EU in 2015.[90] The trust in the EU and its institutions has also dropped considerably in the last year; surveys show that this is due to the issues linked to the solving of the immigration crisis.[91]

According to the business sector, the main obstacles to doing business in Slovenia are excessive bureaucracy, restrictive labour legislation and high tax rates. The results of various international competitiveness surveys (IMF, WEF, World Bank) show that, unlike in the previous years, lack of access to funds is no more the main obstacle impeding the operation of enterprises in Slovenia. As financial conditions for businesses have been less unfavourable in the last eighteen months, the business sector has begun to focus more on structural issues, such as restrictive labour legislation, low effectiveness of the state administration and inadequate tax policy (high tax rates and complexity of tax regulations). The Eurobarometer[92] survey among citizens indicated basically the same weaknesses, and identified two more: rapid changes of legislation and government. Lengthy procedures for starting business continue to constitute a significant obstacle for possible investors in Slovenia. It should be noted

[85] Eurostat, ICT Specialists, 2016.

[86] Information Society Development Strategy to 2020 - DIGITAL SLOVENIA 2020 was adopted in March 2016

[87] The measures that had been implemented are, in particular, the adoption of insolvency legislation, and measures aimed at reducing protracted court proceedings.

[88] World Bank Governance Indicators, 2015.

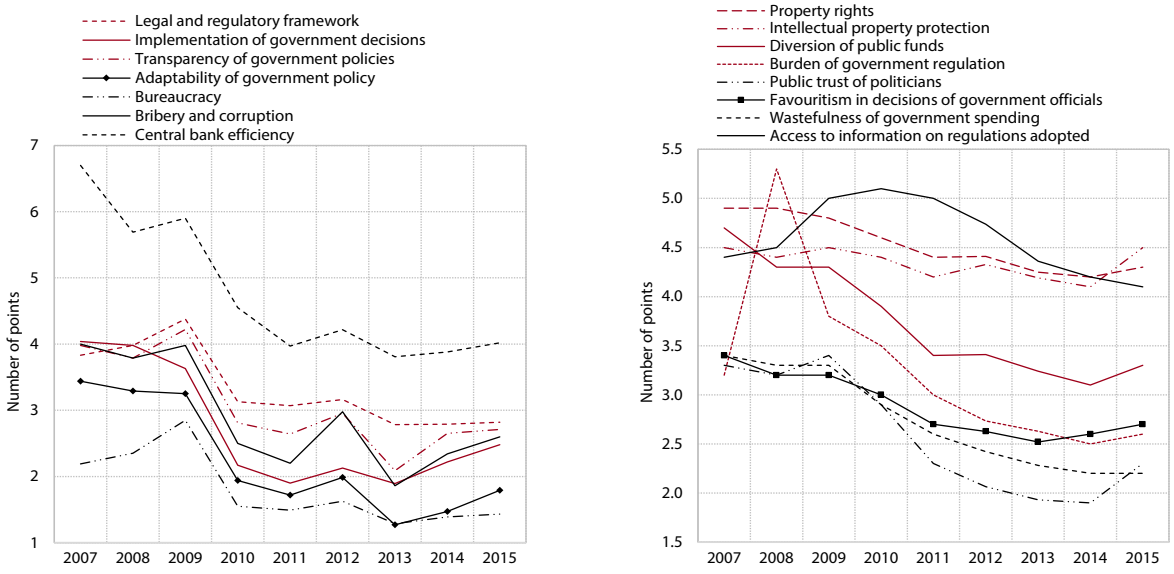
[89] Eurobarometer 84, 2015.

[90] The trust in national institutions is lower only in Greece. The trust in the government is lower in Greece and Spain, while in Slovenia the trust in the parliament is the lowest among all Member States.

[91] The last survey showed a considerable drop of trust in all Member States.

[92] Flash Eurobarometer 428, 215.

Slika 30: **Government efficiency according to the IMD (left) and the WEF (right)**

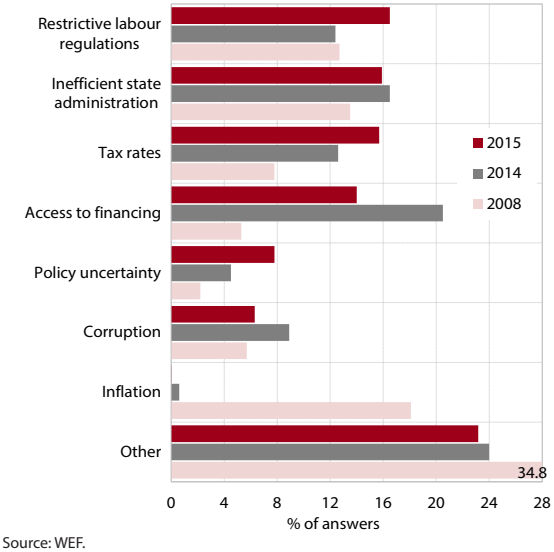


Source: IMD, WEF.
Note: Higher scores are better; maximum score in IMD (left) is 10, and in WEF (right) 7.

that they were considerably shortened in the last year. Especially time-consuming are procedures concerning public services that need to go through various levels of decision-making (in particular getting different permits and documents from local authorities) and procedures where numerous stakeholders are involved and there is the possibility of appeal (protracted court proceedings). On the other hand, Slovenia is more successful in terms of the ease of starting a business, highly skilled and educated workforce; in the last year doing business was also simplified by the amended insolvency legislation.

Amended insolvency legislation had a major positive impact on the facility of doing business in Slovenia.

Figure 31: **Major obstacles to doing business in Slovenia (WEF survey)**



Source: WEF.

The amended insolvency legislation[93] has restricted the protraction of bankruptcy proceedings and the depletion of insolvent debtors' assets. One of the novelties introduced by this Act is a faster and easier entry into business ownership by creditors as economic owners and consequently gaining control of businesses, which enables the company to continue operating. After the implementation of the new legislation in mid-2013 the number of initiated bankruptcy proceedings instituted against legal entities has risen sharply and has almost doubled last year in comparison to previous years; also the number of bankruptcy proceedings against sole trades has increased.[94] As a consequence, the number of non-payers and the volume of amounts due has decreased and payment delays were shortened; however, long-term outstanding liabilities,[95] which account for 70% of all outstanding liabilities, remain a big problem. The amended act had also a positive impact on the ranking of Slovenia on the Doing Business scale[96] (moving up 29 places to 12th place). The survey highlights a drastic shortening of insolvency proceedings (on average from two years to 0.8 years) and an increase in funds recovered in these proceedings (88.2%), which puts Slovenia among more effective countries. However, certain proceedings in connection with bankruptcy are still very lengthy (see Chapter 2.4.2).

[93] The Amending Act to the Financial Operations, Insolvency Proceedings and Compulsory Winding-up Act (2013) which stipulates that no creditor is requested to deposit an advance to cover the initial costs of the bankruptcy proceedings.

[94] Sole traders and other physical persons performing registered activities and are entered in the Business Register of Slovenia.

[95] Unpaid obligations exceeding one year.

[96] The Doing Business survey was carried out in the first half of 2015, considered were data until June 2015.

In the last two years, the perceived level of corruption in Slovenia has dropped slightly. The corruption level assessment in individual countries reflects, in particular, the functioning (or non-functioning) of institutions of the rule of law, and the integrity of the public sector. The Commission for the Prevention of Corruption indicated that the crisis has revealed the long-term development of systemic corruption which allows benefits to be gained to the detriment of public funds and the public interest. This resulted in high perceived levels of corruption, and in a rise of reports of suspected corruption filed with the Commission for the Prevention of Corruption. In the last two years, the perceived level of corruption, according to the Corruption Perception Index[97], in Slovenia has dropped but it remains higher than before the crisis. World Bank Governance Indicators which measure corruption show the same picture,[98] while the share of companies that were unsuccessful bidders due to corruption[99] has decreased in the last two years. This is mainly thanks to the adopted legislation[100] which regulated the area and enabled investigative bodies (Commission for the Prevention of Corruption, National Bureau of Investigation) to act more rapidly and efficiently. In January 2015 the Government adopted the updated Programme of Anti-Corruption Measures for 2015-2016, which contains measures addressing corruption risks in the public sector, in particular public procurement, management of public functions and management of state-owned companies. In this context was initiated the audit of certain very large infrastructure projects (TEŠ 6 – Unit 6 of the Šoštanj Thermal Power Plant) and investigation into previous corrupt activities in banking transactions.

2.4.1 The withdrawal of the state from the economy

The adoption of the State Assets Management Strategy in 2015 provided a legal and institutional framework for the withdrawal of the state from company ownership. This should enable the Slovenian Sovereign Holding (SSH) and the Bank Asset Management Company (BAMC) to carry out privatisation. Furthermore, the Amending Act Regulating the Measures of the Republic of Slovenia to Strengthen the Stability of Banks Act[101] was adopted, which enables the BAMC to participate more effectively in the procedures of restructuring of debtors and financing of companies in order to increase the economic value of claims. It also contains provisions for improving the management and supervision of the BAMC. The Amended Act has retained the provision that the BAMC must sell at least 10% of the assessed value of acquired assets each year; the life span of the DUTB has been extended by the end of 2022.

The Strategy classifies state assets as strategic, significant and portfolio assets based on the pre-determined criteria. The 24 companies considered strategic are those that carry out important infrastructure tasks for the state and manage natural monopolies with the aim of their optimal economic exploitation. In these companies the state will retain or acquire at least 50% ownership, plus one share. The 21 companies considered significant are those that are relevant for broader economic development and play an important role in the integration of companies in supply chains and the internationalisation of the economy. In these companies the state retains a controlling share (25% ownership, plus one share). Additionally, there is a ban on ownership concentration for five important companies – Krka, NLB, Petrol, Pozavarovalnica Sava and Sava – a requirement for dispersed ownership by private owners up to the amount of the total state equity share. The European Commission has noted that strategic and significant assets include companies that in other countries are not usually subject to state ownership.[102] The remaining 46 companies with state equity stakes are considered portfolio assets, where the state has no obligation to retain the controlling share. They are managed by the SSH with the sole aim to achieve economic objectives. However, the provision that strategic and significant companies require the SSH's consent in order to manage their assets may pose a problem. In companies where the state is not the sole owner the SSH has no power to oblige the Supervisory Boards to act accordingly, as it is on equal level with other shareholders.

In 2015 continued the sale of equity stakes in the 15 capital assets of the state which was authorized by the National Assembly. The SSH sold equity stakes in three companies from this list (Adria Airways Tehnika, Elan, Žito) and sales procedures are under way for two more (Nova KBM, Paloma)[103]. The contract for the sale of 91.6% share of Adria Airways was concluded at the beginning of 2015. The time schedule for the sale of other companies from this list will have to be extended, while two procedures were closed without sale being finalized (Telekom Slovenije, Cinkarna Celje). By end October the SSH managed equity stakes (assets owned by the SSH and state assets managed by the SSH) in 130 companies, of which 100 were the so-called active assets. The annual plan of asset management for 2016 (SSH, 2015) provides for the sale of shares in 33 companies, mostly those considered portfolio assets.

The indirect withdrawal of the state from ownership also continued. The BAMC, which sold 11.7% of its assets in 2014, thus exceeding the statutory requirement of selling one tenth of assets per year, in 2015 completed the transfer and purchase of assets of companies in its portfolio and continued with the process of restructuring

[97] Transparency International, 2016.

[98] World Bank Governance, 2015.

[99] Flash Eurobarometer 428, 2015.

[100] Integrity and Prevention of Corruption Act (ZIntPK), 2010.

[101] Amending Act Regulating Measures to Strengthen the Stability of Banks (ZUKSB-A), 2015.

[102] European Commission, 2015.

[103] The first three companies (Aerodrom Ljubljana, Fotona, and Helios) were sold in 2014.

of companies and debt to equity swaps[104]. By the year's end the sale of equity stakes was concluded in four companies, for four more companies the sale is under way, and for other companies the BAMC is accepting offers from potential investors.[105] Another channel of the state's withdrawal from company ownership is the sale of equity stakes and claims against companies owned by banks and other companies directly (the SSH, the BAMC) or indirectly state-owned (NLB, state-owned companies); and the sale of unnecessary assets by indebted companies at their creditors' request. The volume of transactions carried out in this context is not known, but a comparison between the values of annual FDI inflows[106] and of the sale of equity stakes of the SSH and the BAMC leads to the conclusion that the largest part of the withdrawal of the state from company ownership is carried out in this way. Under compulsory settlement proceedings indebted companies sell unnecessary assets and this often results in the take-over of the company.

The future withdrawal of the state from company ownership will depend, among other factors, on the consensus of politics with regard to the divestment of state ownership in companies. The key factor will be, in addition to the sale of the companies remaining on the list of 15 state assets, the effectiveness of the SSH and the BAMC in implementing the annual plan of sale of equity stakes and claims against companies. Equity stakes and claims against the same companies are now owned by the SSH, the BAMC, state banks and companies directly and indirectly-owned by the state. Consequently, their effective management, restructuring and sale will largely depend on good cooperation and coordination among owners, that is the SSH, the BAMC, state banks and companies. Guidelines for restructuring of micro, small and medium-sized enterprises were adopted within the Bank Association of Slovenia in 2015 (see Chapter 1.3.) In compliance with these guidelines the SSH, the BAMC and banks have already coordinated their activities when selling certain companies (Pivovarna Laško, Trimo). In addition to the actual political will to continue the withdrawal of the state from company ownership, further privatisation depends on the interest of foreign investors, which has been expressed for certain companies in the last year.

2.4.2 The functioning of the public administration and the judiciary

The implementation of the programme of measures aimed at eliminating administrative barriers and drafting better regulations continued in 2015. For the last ten years, numerous programmes aimed at eliminating legislative barriers have been implemented and succeeded to considerably reduce administrative barriers. Based on the EMMS methodology 3,500 regulations were reviewed in the period 2009–2010 and administrative burdens in the amount of approx. EUR 1.5 b were identified; the objective of the programme was to reduce administrative burdens by 25% by the end of 2015 (EUR 362 m) and by 5% yearly by the end of 2020. According to available data more than 300 measures have been carried out since 2009, most of them in the areas of finance, statistics, justice and agriculture. The umbrella document in this field is the Single Document for Ensuring Better Regulatory and Business Environment adopted in 2013.[107] Currently no estimates are available of the actual savings for businesses and households resulting from the implementation of these measures. Model simulations, however, show positive short and long term effects of reduced administrative barriers on the GDP. According to the IMAD simulation,[108] a reduction of administrative barriers by 10% would have a positive impact on the GDP already in the first year of implementation, and after five years the GDP would increase by 0.45%.

Last year, the measure aimed at increasing the efficiency in collecting VAT was implemented under the programme for combating the shadow economy. According to different estimates and methods, the shadow economy in Slovenia in 2010 amounted to between 8.3% of GDP (SURS)[109] and 24.3% (23.6% in 2012) of GDP (A. T. Kearney and Johannes Kepler University Linz). In comparison to other Member States Slovenia has good results concerning the tax gap, which shows the difference between the amount of VAT that should,

[104] BAMC's operative objective for 2015 was to conclude the stage of transfer of assets, to improve its strategies of maximising the value of assets by creating, managing and selling investment packages, and by accelerated restructuring of debtors. On 30 November 2015 BAMC owned assets in 26 companies (of which 4 bankrupt).

[105] On 30 November 2015 BAMC owned the assets in 26 companies (of which 4 bankrupt); in 2015 it concluded the sale of assets in 4 companies (Pivovarna Laško, Aha Emmi, Sistemska Tehnika Armas, Sistemska Tehnika d.o.o.) and is involved in the sale proceedings of assets of four more companies (Aha Plastik, Litostroj Ravne, Cimos, Adria Airways, Eti).

[106] As in most transactions buyers are foreign investors, the increase of annual FDI inflows is a good indicator of the actual extent of privatisation in Slovenia. FDI inflows in Slovenia in 2014 amounted to EUR 1,447 million, which is approx. EUR 1,000 million more than the preceding year, and attained EUR 1,184.8 million between January and October 2015.

[107] The programme is being consistently upgraded, and on 31 December 2015 there remained 224 measures to be implemented (fully or in part) for the period 2015-2016, while 157 measures were fully implemented (Sixth report on the implementation of measures under the single list of measures aimed at creating a more favourable environment for businesses and increasing competitiveness, 2016)

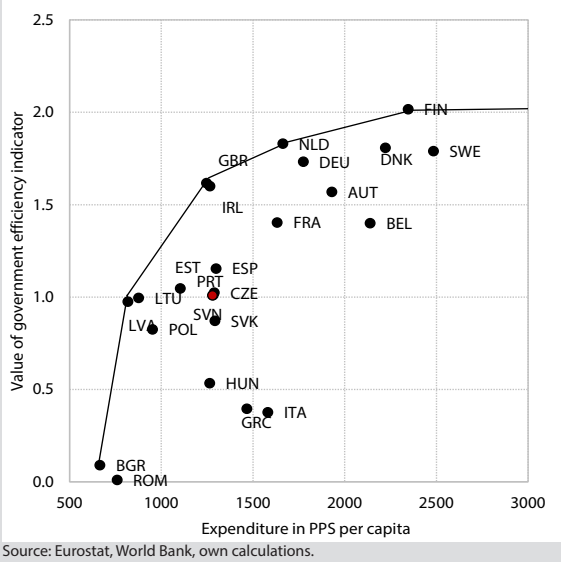
[108] The simulation was carried out by using the dynamic stochastic general equilibrium model QUEST developed by the European commission to assess the effects of structural reform measures and also a tool for evaluating the impact of individual structural measures from national reform programmes of EU Member States (Assessing the Effects of Some Structural Measures in Slovenia, 2016).

[109] Estimated according to exhaustiveness adjustments to GDP, about 80% are from shadow economy.

Box 7: **International comparison of public administration efficiency**

Public administration effectiveness has a major impact on development and social welfare. Businesses, in order to be effective, need efficient, cost-effective and quality public services which are also a prerequisite to cater to the needs of the public in general. Public spending is efficient and effective when producing maximum possible benefits for citizens, businesses and the state. Following the example of OECD research, the nonparametric method Data Envelopment Analysis was used to measure the effectiveness and efficiency of the public administration. As input we used data on government expenditure for public administration and public order and safety per capita in PPS, minus expenditure for public debt transactions and foreign economic aid. The choice of indicators on direct benefits or results of the public sector was done on the basis of the study by Afonso et al. (2005) which identifies state bureaucracy and administrative barriers, quality of the judiciary, corruption and shadow economy rates as key outputs. Among outputs was also a composite indicator[1] using data from product market regulation (OECD PMR indicator), independence and efficiency of the judiciary (WEF) and corruption perception index (Transparency International). Assessment of the tax gap (TAUD) was used as partial indicator of shadow economy. The sample covers 24 EU Member States for which all data are available.[2]

Figure: **Comparison of government efficiency in relation to public spending for public administration and for public order and safety**



Source: Eurostat, World Bank, own calculations.
Note: Comparison of government efficiency in relation to public spending for public administration and for public order and safety

The empirical study showed that Slovenia could increase the efficiency of public spending in public administration. Results indicate that Slovenia could achieve, with the same level of expenditure per capita, approx. 25% better results, which would be the EU average. At the same time, it could attain the same results by a reduction of funds. A comparison of the expenditure per capita with the World Bank indicator of government efficiency[3] shows that comparable Member States are more efficient, while Slovenia could, with the same level of expenditure, achieve results which are one-third better. The difference in results is the consequence of the composition of the indicator, which focuses on government efficiency and effectiveness of its policies that may be affected by the government performance (corruption, judiciary, shadow economy).

[1] Composite indicator (without weights) in compliance with OECD methodology – Handbook on Constructing Composite Indicators (http://www.oecd.org/std/42495745.pdf).
[2] Excluding Cyprus, Croatia, Luxembourg and Malta, due to the small size of these countries and a lack of data.
[3] More information available at: http://info.worldbank.org/governance/wgi/pdf/ge.pdf.

in theory, be collected and the amount of VAT that actually is collected and is the indicator of the efficiency of VAT collection in the part revealed through VAT.[110] According to the data provided by SURS, the estimated tax gap in Slovenia was 11.4% in 2012, which means that about 88.6% of theoretical VAT was collected.[111] Under the programme for combating the shadow economy in 2016, certified cash registers were introduced,[112] which will increase transparency of taxpayers' operations and make concealment of actual turnover more difficult. It is estimated that in the first year after the introduction of this measure tax revenue will increase by EUR 50 to 100 million.[113] In 2015 the Act Amending the Companies Act was also adopted with the objective to prevent unfair

[110] The VAT theoretical liability represents the tax that would be collected in the tax period if all economic entities calculated and paid VAT in compliance with the applicable legislation. The amount of VAT actually received or paid differs from the theoretical VAT liability because of deliberate or non-deliberate errors in payments, which taken together constitute tax evasion an are a partial indicator of the scope of the shadow economy (SURS, 2015).

[111] TAXUD data are internationally comparable; however, due to a different methodology used, the estimate differs slightly from the SURS estimate. According to these data the tax gap is among the lowest in the EU (Study to quantify and analyse the VAT Gap in the EU Member States, TAXUD, 2015).

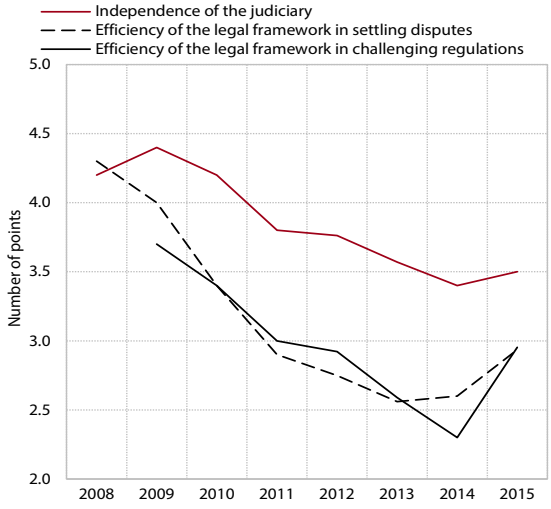
[112] In 2013 were introduced "virtual" certified cash registers and high penalties for those breaking the law. Following the coming into force of amendments to the Tax Procedure Act the Financial Authority of the Republic of Slovenia (FURS) obtained positive results in the fight against the shadow economy, in particular an increase of income from VAT and other taxes and enhanced voluntary payment of tax liabilities.

[113] National Reform Programme 2015–2016, 2015.

business practices when establishing new companies (such as chain creation of new businesses, establishing of companies by persons breaking the rules on payments for work and unregistered employment and similar).

Court Statistics indicate that the efficiency of courts is steadily rising, but the trust in the judiciary remains low. The number of unresolved cases dropped in almost all courts in 2015, and in general the number of resolved cases was greater than the number of incoming cases.[114] The average time for the adjudication of cases also continued to shorten, and was 2.7 months in 2015.[115] The length of proceedings for settling civil and economic litigations is similar to that in other EU Member States.[116] However, also in courts where proceedings are generally rapid, bankruptcy proceedings continue to be lengthy.[117] Bankruptcy-related cases are pending before the court as unresolved until the completion of the bankruptcy proceedings; the court has no direct influence on the course of the proceedings after the decision on initiating bankruptcy proceedings is issued.[118] Bankruptcy proceedings against a legal person last 20.9 months on average and personal bankruptcy proceedings last 61.5 months on average, while compulsory liquidation proceedings and simplified compulsory liquidation proceedings are considerably shorter. In compliance with the set goals the number of judges was also reduced in the past two years (2015: 44.3 per 100,000 population), but remains among the highest in the EU[119]. Public trust in the judiciary is relatively low.[120] Persons who are involved with the judiciary report that they have confidence in the system and are satisfied with the rapidity of solving cases, while certain survey-based international researches indicate that confidence in the judiciary is low. Particularly worrying, in comparison to other Member States, is the inefficiency of the legal framework in settling disputes. Good practices in the judiciary are also surveyed by the World Bank (Doing Business), Slovenia is within the EU average.

Figure 32: **WEF indicators of efficiency of the judiciary in Slovenia**



Source: WEF.
Note: A higher score is better; the maximum score is 7.

The Strategy for Development of Public Administration 2015–2020 could have a positive impact on the effectiveness of the public administration. The objective of the Strategy is to enhance the quality and efficiency, transparency and responsibility of the public administration, thus improving the business environment for the economy and encouraging competitiveness growth. The adoption of the Strategy was one of the conditions for Slovenia to be able to draw from EU structural funds.[121] It should be noted that the setting up of a system of indicators for regular monitoring of progress will be of paramount importance. The European Commission has also underlined the need for better coordination among stakeholders.[122]

2.5 Challenges

The key competitiveness challenge to be addressed is productivity growth, assisted by enhanced long-term factors such as innovations, human capital and stimulating business environment. After a significant deterioration during the crisis, the cost and price indicators of competitiveness have recently much improved. Higher exports competitiveness resulted in better inclusion in international trade flows, and export structure is also improving. However, these positive changes are still insufficiently supported by the rise in productivity, which would provide for a more lasting improvement in the competitiveness and would enable a swifter converging towards more developed countries. Corporate deleveraging, growing profits, and restored stability of the banking system has recently much improved the environment for

[114] In 2015 the clearance rate indicator exceeded 100%, which means that courts resolved more cases than they received; it was 107% for all incoming cases and 105% for cases of major importance.

[115] In 2011 the average time needed to resolve cases was 4.6 months (2014: 3.3 months). Between 2011 and 2015 the average time needed to resolve cases of major importance dropped from 8.7 to 7.4 months.

[116] EU Justice Scoreboard, 2015.

[117] In 2015 the procedure for issuing a decision on initiating bankruptcy proceedings (introduction of bankruptcy) lasted 49 days on average for bankruptcy proceedings against a legal person and 20 days for personal bankruptcy proceedings.

[118] Including realisation of a bankruptsy estate and repayment of creditors; or expiry of the period of suspension for write-off of debt for personal bankruptcy proceedings.

[119] The objective is to have 42 judges per 100,000 population by 2020.

[120] Public satisfaction with Slovenia's judiciary (Zadovoljstvo javnosti z delovanjem slovenskih sodišč), 2014.

[121] Partnership Agreement between Slovenia and the European Commission for the period 2014–2020, October 2014.

[122] Slovenia – Review of progress on policy measures relevant to the correction of macroeconomic imbalances, December 2015.

new investments; foreign direct investments have also increased and could boost productivity. Although Slovenia is witnessing a rise of these, mostly short-term, productivity growth factors, investments in long-term factors, such as innovation capacity, digital economy and human capital remain a challenge. It is essential to ensure that the government will play an effective role in supporting competitiveness.

Complementary, stable and systemic measures are needed to strengthen factors that have a bearing of innovation capacity. The present situation, in which public expenditure for R&D is decreasing and synergies between the scientific and research and the business sectors are underexploited, shows poor understanding of a long-term positive impact of investments on innovation capacity, which remains modest. Stopping the plunge of public sector expenditure for R&D is a must if we want to preserve the competitiveness of public research institutions, which through their basic and applicative research contribute to the transfer of knowledge in to the business sector and, consequently, to its increased value added. Support for employment of young researchers for whose education substantial funds have been invested is paramount for two reasons: use of their knowledge and addressing the issue of ageing research community. Another challenge to be tackled is strengthening cooperation among the research sphere and the business sector by greater inclusion of small companies and provision of a favourable business environment; this will enable a great number of high-technology companies a rapid growth in Slovenia, and also contribute to increase the share of products and services with greater value added. Rapid digitalisation trends demand higher investments in digital technologies; in this context providing an adequate number of ICT staff which would boost efficient use of these technologies and increase the information literacy competencies among the population remains a challenge. These issues could be effectively addressed also through the use of European funds earmarked for the implementation of Innovation Strategies for Smart Specialisation, which must start as soon as possible and be as effective as possible.

Better use of human capital is also needed for greater competitiveness. Efficient use of human capital remains an issue regardless of the fact that the educational structure of the population has largely improved in recent years. Not only there is a major imbalance of offer and demand of tertiary educated people, also the scope of their employment in the private sector is too modest; and the harsh conditions on the labour market resulted in a growing emigration of this population. Taking into consideration the decline in the size of generations for enrolment in tertiary education (demographic changes) and the anticipated growing needs of the industry for highly educated workforce, the major future challenge will be to ensure a sufficient number of persons with appropriate qualifications and skills. Addressing this challenge will demand: (i) greater attention to be paid to the needs for qualifications and skills in the planning of study programmes, and enhance acquisition of practical skills; (ii) an improvement to the quality of the study, including by increasing private expenditure; and (iii) the establishment of a close connection between the amount of public funds received by higher education institutions and their achievements in the field of quality, employability of graduates and efficiency.

Further reduction of administrative barriers and consistent implementation of the agreed measures are important to ensure good performance of the economy and a stimulating business environment. In the past two years there were advancements in certain key areas, such as lowering of administrative barriers and reduction of the shadow economy, amendment of insolvency legislation and increased efficiency of the judiciary. Despite the progress, institutional competitiveness remains low. The public administration strategy, adopted in 2015, is the first step in the right direction; however, any improvement of government efficiency will depend on how consistently the strategy is implemented. This is also true for the programme of lowering administrative barriers, where lengthy proceedings in a number of areas continue to be the most important issue. Progress with regard to the deregulation of professional services also remains too slow. Moreover, competitiveness has been hindered by the state's inadequate involvement in the economy. Establishing an effective state asset management system, including further privatisation of state-owned enterprises therefore remains an issue that urgently needs addressing.

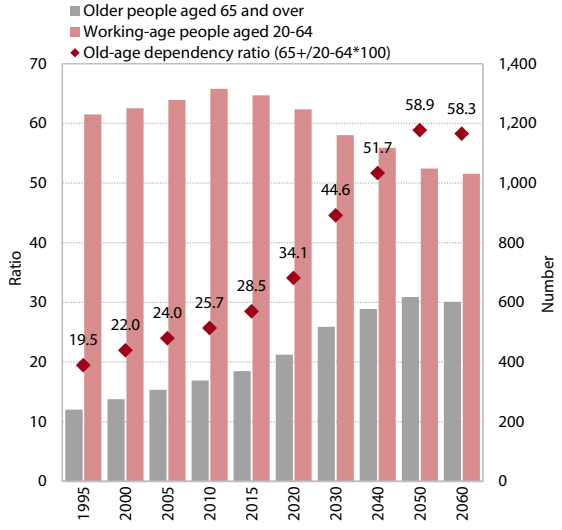
3. Demographic trends and the welfare state

Preserving the welfare state, while taking into account demographic trends, is one of the important factors in terms of improving the quality of life and well-being of the population. Despite the crisis, which led to a deterioration in the material living conditions, Slovenia has been able to maintain, by international comparison, a relatively high level of social inclusion and access to public services and low income inequality. In 2014, when the economic recovery began to take hold, the situation in the labour market began to improve, and the material situation of the population stopped deteriorating. The major challenge is to adjust social protection systems to the ageing population, so that they would continue to provide social security, access to public services and social inclusion for all population groups. With a view to achieving higher employment and improving quality of life, it is crucial to improve flexicurity in the labour market to ensure an effective allocation of labour force and reduce labour market segmentation.

There has been a shift in the demographics of Slovenia towards a higher proportion of older people in the population, which requires society as a whole to adapt accordingly. Like other developed countries, Slovenia is facing the challenge of an ageing population, which requires it to adjust its social protection systems and many other policies that may affect quality of life. In Slovenia, the proportion of older people (aged 65+) is currently lower than the EU average; however, EUROPOP2013 population projections forecast it to exceed the EU average in 2021. According to the long-term projections[123] of age-related expenditure (pension, health care and long-term expenditure), made under the assumption that social protection systems do not adapt to demographic changes, Slovenia is projected to see the largest increase in age-related expenditure by 2060 among the EU Member States. All of this points to the urgent need for a response to these changes, which, in addition to the adjustment of social protection systems, should include other relevant policies and systems, including the labour market policy, education policy and migration policy.

The proportion of older people (aged 65+) is increasing, while the number of working-age persons (aged 20–64), on the other hand, is decreasing – a trend that will increasingly affect the labour market in the future. *This is the result of a large number of births in the post-war period, the low birth rate since the beginning of the 1990s and a longer life expectancy.* Accordingly, the age-dependency ratio is increasing (see Indicator 3.3). Although it is currently lower than the EU average, EUROPOP2013 projections forecast that it will exceed the EU average in 2022. The number of working-age people (aged 20–64), which represent the potential of the economically active population, has been decreasing since 2012. By 2030, the number of older people in Slovenia is expected to increase by 10,000 on average each year, while the number of working-age people is expected to decrease by almost the same amount. Our estimates of the demographic effect show that, in the coming years, a decrease in the number of working-age people could slow down the growth of the number of persons in employment that is unrelated to the economic situation. Scenarios for demographic shifts in the population and the number of employed persons show that after 2020, despite an increase in activity rates, demographic effects will be an increasingly limiting

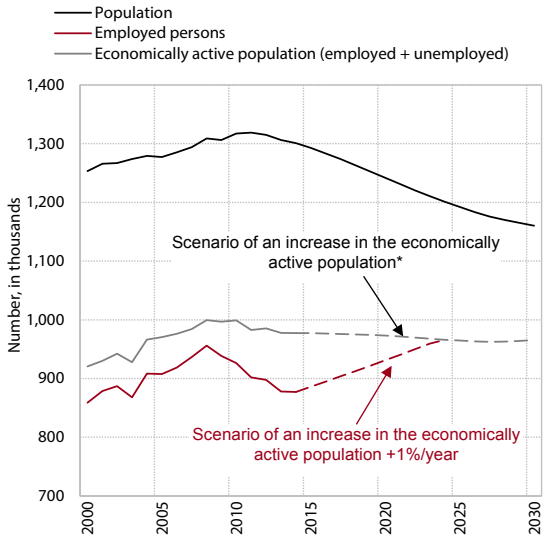
Figure 33: **The number of working-age people and older people and the old-age dependency ratio, Slovenia**



Source: SURS, EUROPOP2013, calculations by IMAD, 2015.

[123] Ageing report, 2015.

Figure 34: **Scenario for an increase in the number of active and employed persons, Slovenia**



Source: Eurostat, EUROPOP; calculations by IMAD.
Note: *The simulation of labour market participation is based on the following scenario of an increase in the active population due to: (i) the continuation of the upward trend in the number of highly educated people; (ii) an increase in the (lower) activity rate of women so that it will reach the (higher) activity rate of men by 2030; and (iii) an increase in the activity rate of older people by 20 pp by 2030.

factor in maintaining a moderate increase in the number of employed persons.

3.1 Labour market

The material living conditions have been improving and the welfare of the population has been increasing due to growth in employment and wages. A more effective allocation of labour force, together with the reduced age-based segmentation of the labour market can also contribute to this process. The situation on the labour market worsened during the crisis and somewhat improved in the last two years during the economic recovery. However, the segmentation of the labour market remains a problem despite changes relating to labour market regulation since new jobs are mainly due to the growth of temporary forms of employment. The challenge is establishing a system of flexicurity in the labour market which would contribute to an effective allocation of labour force and reduce segmentation.

After a decrease during the crisis, the number of employed persons again increased during the economic recovery in the last two years. In the period 2008–2013, the number of employed persons decreased the most in construction (by more than a third) and manufacturing (by a fourth), as these two sectors saw the largest decline in activity during the crisis. Following the improvement in economic conditions in 2014 and 2015, as in other countries in the EU, the number of employed persons increased particularly in medium-tech manufacturing industries, accommodation and food service activities, transport and trade. Employment through employment agencies increased significantly, with most labour being dispatched to manufacturing. The fact that in 2015 the employment activities sector, which includes employment agencies, still significantly contributed to the total growth in the number of employed persons indicates that there is still caution among employers when it comes to hiring workers and that there is a need for more flexible forms of employment.

Table 3: **Changes in the number of employed persons (in %), Slovenia**

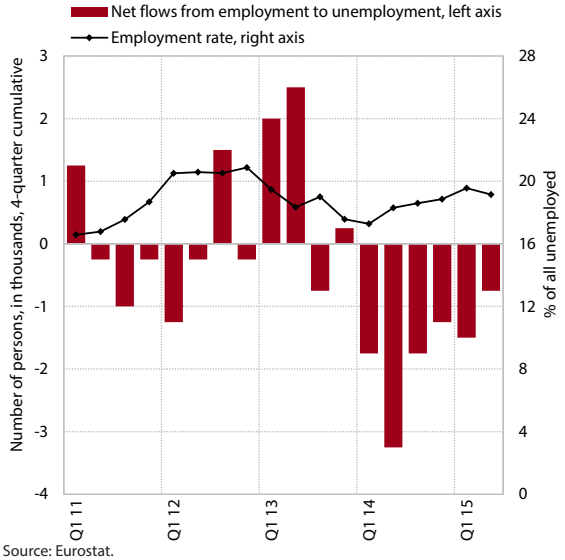
	2008	2009	2010	2011	2012	2013	2014	2015
Total	3.0	-2.4	-2.7	-1.3	-1.7	-2.0	0.5	0.9
Public services (O–Q)	1.8	2.0	2.1	0.8	0.8	-0.9	0.5	0.7
Private sector (A–N, R–T)	3.2	-3.4	-3.8	-1.9	-2.4	-2.3	0.5	0.9

Source: SURS.

After a decrease during the crisis, the employment rate is again on the increase, which may improve the material living conditions of the population. An increase in the employment rate is recorded in all age groups. A higher employment rate of people aged 55–64 was due to the pension reform and the demographic effect of employed people entering the group of older workers, thereby increasing the employment rate of older people. However, the employment rate of older people continues to be among the lowest in the EU, thereby undermining the long-term sustainability of the pension system. After significantly decreasing during the crisis, the employment rate of low-skilled workers has been increasing most rapidly in recent years. This is due to the structure of the economic recovery, which is based mainly on the export of manufacturing, which employs a large proportion of low-skilled workers. Accordingly, the proportion of low-wage earners increased,[124] slowing down the average wage growth in the private sector.

In line with the economic recovery, in 2015 the unemployment rate decreased for the second year in a row, although it remains twice as high as in 2008. The unemployment rate had increased considerably by 2013 due to a drop in economic activity (see Indicator 3.5). In response to the economic recovery in 2014 and 2015, unemployment decreased at a relatively fast rate, which was also characteristic of most other EU countries.[125] The rapid response of the labour market to the improved economic conditions is attributed to the improvement in domestic and international economic conditions, the increased competitiveness and a slower increase in the number of hours worked compared to the increase

Figure 35: **Employment and unemployment flows**

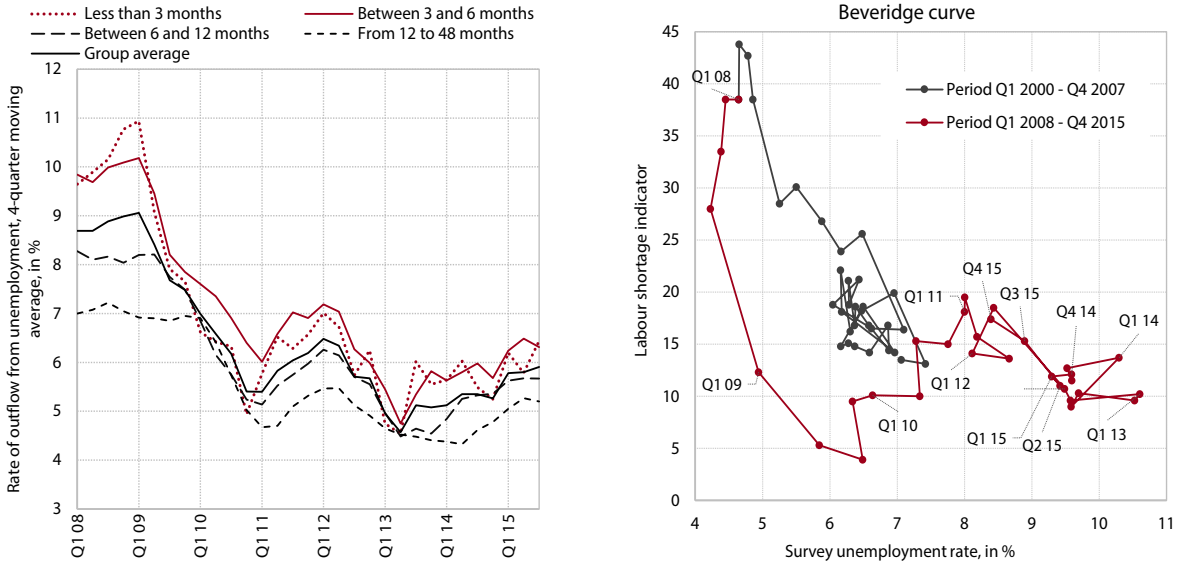


Source: Eurostat.

[124] According to OECD methodology, these are employees earning an amount equal to or less than two-thirds of the median income. According to the latest comparable data of Eurostat, the share of low-wage earners employed with legal entities (17.5%) ranks Slovenia near the EU average (17.0%; 2010).

[125] According to the EC analysis (2015), most EU countries unemployment decreased relatively more rapidly and to a greater extent than anticipated based on the historical empirical relationship between the GDP and unemployment (Okun's law). In Slovenia, the extent of the response of unemployment was similar to that anticipated considering the level of economic growth.

Figure 36: **Unemployment outflow rate with regard to unemployment duration (left), and the Beveridge curve (right), Slovenia**



in the number of employed people. The higher rate of transition[126] from unemployment to employment and the higher job-finding rate[127] indicate that prospects for employment have increased in the last two years. Despite the decrease in the last two years, the unemployment rate last year remained considerably above the pre-crisis level.

Although the unemployment rate of young people has decreased in recent years, the issue of young people struggling to enter the labour market is a burning one. During the crisis, the increase in the unemployment rate of young people (aged 15–24) in Slovenia exceeded the EU average; the unemployment rate reached its peak in 2013 (21.6%, based on an LFS) and, although remaining high, is on the decrease ever since (see Indicator 3.5). The worsening of the situation of young people during the crisis was, in addition to the general low demand for labour and the mismatch between the education system and labour market needs, also due to fact that young people are more likely to be employed under temporary contracts (fixed-term employment contracts and student work[128]). The reduction in the unemployment of young people in the last two years is attributed to the increased demand for student work, to the fact that the active labour market policy has focused more on young people,[129] and to demographic trends.[130] The persisting problem of young people struggling to enter the labour market is reflected in the still high unemployment rate and the proportion of people who are neither in employment nor in education, which remains higher than before the crisis (see Indicator 3.8).

Due to increased labour demand, the employment of long-term unemployed increased; however, the long-term unemployment rate still remains high. Due to the prolonged period of weak economic activity and modest demand for labour force, the long-term unemployment rate in Slovenia increased considerably after 2009, when it was at its lowest point, and remains considerably higher than before the crisis despite the decrease in 2015 (see Indicator 3.5). The share of long-term unemployed in total unemployment also remains high, with every second unemployed person being unemployed for at least one year. The rate of outflow

[126] The net flows of transition from employment to unemployment reflect the difference between the number of workers transitioning from employment to unemployment and the number of workers transitioning from unemployment to employment. The net flows are negative when the outflow from unemployment exceeds the inflow into unemployment, which is reflected in the reduction in the number of unemployed.

[127] The job-finding rate may be interpreted as the probability of transition from unemployment to employment in a particular quarter. It is expressed as a percentage of unemployed persons who were unemployed in the previous quarter and entered into employment in the next quarter.

[128] The volume of student work decreased by 35.7% in the period 2008–2013. In addition to reduced demand, the decrease in the volume of student work could be due to the increase in concession fees in mid-2012 and the restriction of student work in public service activities. In the period 2013–2015, however, the volume of student work increased by 8.5% despite the introduction of social contributions, which made this form of work more expensive in 2015.

[129] IMAD simulations show that increasing the amount of funds for active labour market policies to the average of OECD countries could in five years increase the employment rate of young people by 0.5 pp, total employment by 0.4% and the level of potential GDP by 0.2% (for more, see Assessing the Effects of Some Structural Measures in Slovenia, 2016).

[130] According to the LFS, the number of young people has declined in recent years, which together with an increase in the number of employed young people resulted in an increase in the ratio of the number of employed people to the number of all young people in this age group, which represents the employment rate.

from unemployment[131], which in the case of the long-term unemployed began to increase in mid-2014, indicates that the employment prospects for the long-term unemployed have improved. This is also confirmed by the movement of the Beveridge curve,[132] which measures the mismatch between labour supply and demand. Since 2013, the Beveridge curve has shifted to the left and upwards, indicating no increase in the mismatch, but rather a pro-cyclical and positive turn with a decrease in unemployment and a slight increase in the labour shortage indicator due to increased aggregate demand. The estimate of the natural unemployment rate,[133] which, besides the Beveridge curve, is most frequently used for estimating the structural component of unemployment, shows only a modest increase in the natural unemployment rate during the crisis.

Legislative changes in the labour market regulation had no substantial effect on reducing labour market segmentation.[134] Labour market segmentation has been a persistent problem. The main factors in the frequent use of temporary employment are the possibilities for using temporary contracts, the rigid regulation of hiring and dismissal, and the uncertainty regarding demand. High segmentation may lead to a greater inequality among workers, a higher volatility of hiring and dismissal, and reduced incentives for investing in workers by companies.[135] On the other hand, a segmented market is more susceptible to negative shocks. In 2013, new legislative amendments were adopted to reduce the segmentation of the labour market and enhance its flexibility.[136] They reduced the level of employment protection, which, according to the OECD's estimate, is reflected in the decrease in the employment protection legislation index for regular workers against individual dismissal (EPR) from 2.39 to 1.99, which is below the OECD average[137]. The share of temporary employment[138] in total employment decreased after legislative amendments were adopted in 2013 and again increased in 2014 and 2015, particularly among young people. The volume of student work is increasing despite the fact that this form of work was made more expensive for employers, and is the main reason why the share of temporary employment is highest among young people (aged 15–24) and is the highest in the EU. In our view, the new increase in temporary employment was also due to companies exercising caution when it comes to employment, which reflects the need for flexible forms of work[139] (see Indicator 3.6). Similarly, after decreasing in 2013, the share of new fixed-term contracts in the total number of employment contracts increased in the last two years.[140]

Table 4: **Share of fixed-term employment contracts in the total number of new employment contracts, Slovenia**

	Total	aged 15–29	aged 30–54	aged 55 years and over
2008	73.2	81.1	66.7	64.8
2009	72.0	81.9	65.3	62.2
2010	74.9	84.0	68.9	68.5
2011	75.0	84.8	69.4	66.4
2012	72.1	85.7	65.6	62.3
2013	73.2	82.3	68.5	70.6
2014	72.7	78.1	69.5	75.5
2015	74.7	81.1	70.8	77.1

Source: SURS, SRDAP, calculations by IMAD.

In 2015, the average wage was higher than before the crisis, which is favourable in terms of the material conditions of the population; its growth trend was influenced by certain legislative amendments and urgent austerity measures. The introduction of the renewed salary system in the public sector, which, by eliminating wage disparities, led to a significantly higher wage growth just before the crisis, contributed

[131] The rate of outflow from unemployment is calculated on the basis of the monthly probability that an unemployed person might exit unemployment and is expressed by the share of all unemployed persons. The calculation is made by way of aggregate data calculated from the number of unemployed persons with respect to the duration of unemployment; these data are obtained from the LFS. For methodology, see Elsby et al. (2011). The rate of outflow from unemployment is not the same as the job-finding rate, with the former being merely an indirect estimate of all outflows from unemployment, whereas the latter takes into account exclusively actual outflows to employment.

[132] The Beveridge curve shows a connection between the surveyed unemployment rate and the labour shortage indicator and represents labour demand and supply in consideration of the frictions in their matching. When economic activity declines, unemployment grows and reduces the labour shortage indicator, while the opposite happens in the event of recovery of economic activity. Such pro-cyclical movement is typical of movements along the Beveridge curve, with the curve shifting to the right and upwards, indicating greater supply and demand mismatch, and to the left and downwards, indicating that the mismatch has declined. In Slovenia, no significant movement in the Beveridge curve is evident in the long run.

[133] The natural rate of unemployment (NAWRU) is an unemployment rate which coincides with a stable inflation rate (stimulated by the growth in labour costs). It is estimated by using the New Keynesian Philips Curve method, which presumes a negative relationship between cyclical unemployment and the expected growth of real labour costs per unit of output. For a more detailed estimate of the cyclical and structural component, see Development Report 2014.

[134] Segmentation according to the type of employment (temporary employment or permanent employment).

[135] Lepage-Saucier, 2013.

[136] In April 2013, the new Employment Relationship Act (ZDR-1) and amendments to the Labour Market Regulation Act (ZUTD-A) entered into force.

[137] The employment protection legislation index runs from 0 to 6, with higher scores representing stricter regulation.

[138] In addition to fixed-term employment contracts, temporary employment includes student work and other forms of work (the source of data is the LFS).

[139] Employment through employment agencies and student work further increased.

[140] These are data on new employment contracts according to the Statistical Register of Employment.

Table 5: **Gross wage growth, private and public sector, Slovenia**

Year	Nominal growth in gross wage per employee (in %)				Real growth in gross wage per employee (in %)			
	Total	Private sector	Public sector	– of which the general government sector	Total	Private sector	Public sector	– of which the general government sector
2008	8.3	7.8	9.7	10.2	2.5	2.0	3.8	4.3
2009	3.4	1.6	5.3	7.0	2.5	0.7	4.4	6.0
2010	3.9	5.6	0.8	0.0	2.1	3.7	-1.0	-1.8
2011	2.0	2.6	1.0	0.0	0.2	0.8	-0.8	-1.8
2012	0.1	0.5	-0.9	-2.2	-2.4	-2.0	-3.4	-4.7
2013	-0.2	0.6	-1.3	-2.5	-2.0	-1.2	-3.0	-4.2
2014	1.1	1.4	0.9	0.6	0.9	1.2	0.7	0.4
2015	0.7	0.5	1.2	1.0	1.2	1.0	1.7	1.5

Source: SURS.

to maintaining the consumption level of the population during the first years of the crisis. In addition, growth in general government expenditure increased in the period when revenues were declining due to the worsening of the economic situation, thereby contributing to an increase in the general government deficit (see Chapter 1.2). Austerity measures that were urgently required to consolidate public finances were necessary in this area as well; however, they came into force relatively late (in mid-2012), terminating most of the stimulating wage system elements. These measures were then extended into the subsequent years, which poses a problem of a lack of an appropriate system for rewarding public sector employees. In recent years, private sector wage growth has been significantly influenced by the economic crisis and changes in employment structure,[141] in addition to the legislative amendments to the minimum wage regulation. A significant increase in the minimum wage in 2010 improved the material conditions of minimum wage earners on the one hand, and significantly impeded the adjustment of wages to the crisis on the other, thereby worsening the cost competitiveness of the economy and reducing employment. A high increase in the minimum wage also significantly increased the ratio between the minimum and average wage (see Indicator 3.7). This is high compared to other countries, also due to a relatively low average wage, which reflects the generated value added of the economy. The definition of the minimum wage changed at the end of 2015 with the exclusion of three bonuses for unfavourable working time; however, it turned out that a major part of the gross wage increase was offset by a higher income tax.

In terms of competitiveness and development, it is important that wage growth is in line with labour productivity growth. In the 2008–2010 period, wage growth was higher than productivity growth, which was mainly the result of the public sector wage system review, the high private sector wage adjustment (to past productivity and inflation) in 2008 and the statutory minimum wage increase in 2010. After 2013, wage growth again lagged behind productivity growth. The outpacing of productivity growth at the beginning of the crisis indicates the inadequate wage flexibility, which is also the result of the wage setting and adjustment method, including the minimum wage. The challenge is therefore to create a wage system in the public sector that will provide for appropriate performance-related incentives and sufficient adjustment of wages to the changed economic situation. In the private sector, development towards a greater extent of negotiations on wages at the level of enterprises would be desirable.

[141] In the first years of the crisis, the dismissal of low-wage employees led to higher average-wage growth, while in 2014 and 2015 the average wage growth slowed down due to new employment of low-wage workers.

3.2 Social protection systems and their long-term sustainability

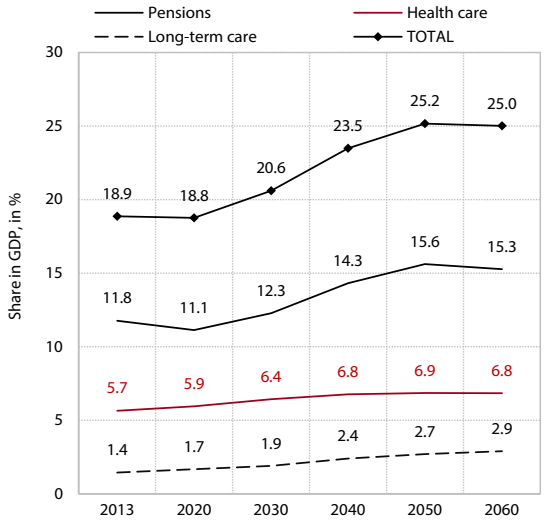
At present, social protection systems still provide a high level of social security, the above-average availability of the health care system and reduce the risk of poverty. However, due to a slowdown in economic growth and the ageing of the population, there have been growing pressures on public funds for the financing of such systems. The 2013 pension reform temporarily slowed down the rise in the number of old-age pensioners, but failed to considerably improve the sustainability of the pension system in the long run. Needs in health care and long-term care have been rapidly growing, whereas the reforms of the respective systems have been in preparation for over a decade. The challenges facing social protection systems are linked mainly to the adjustment of their financing to the reduction in the share of economically active population and the ageing of the population, continuous improvement in the efficiency of the health care system and the strengthening of preventive activities, and the regulation of a comprehensive long-term care system.

After increasing at the beginning of the crisis, social protection expenditure declined in 2012 and 2013 as a result of changes to social legislation and intervention measures. After a significant decline in economic activity at the beginning of the crisis, social protection expenditure, as a % of GDP, increased from 21% in 2008 to 24.9% in 2013. The largest share is accounted for by

expenditure on old age (42.3% or 10.3% of GDP), which increased significantly in the period 2008–2013 for demographic reasons and due to the increase in the number of pension recipients before the entry into force of the pension reform in 2013, with further increase being prevented by the restriction of pension indexation. The reduction in total expenditure in 2012 and 2013 was attributable to changes in social legislation and austerity measures to achieve fiscal balance.[142] Slovenia is one of the countries whose social protection expenditure is lower than the EU average (see Indicator 3.9) but nevertheless ensure a high level of social security and above-average accessibility of the health care system.

The population ageing, along with unchanged policies and systems, exacerbates the problems in ensuring stable funding of social protection expenditure. The transfer from the state budget to the Pension and Disability Insurance Institute of Slovenia (PDII), which accounts for 30% of all the revenue of the PDII, indicates that there are already problems with financing the pension system.[143] The projections of the European Commission generated in March 2015 (for more, see the 2015 Development Report) show that, without changes to the relevant policies, the effect of ageing on public expenditure would be very strong, because in 2013–2060 the share of age-related expenditure in GDP would increase the most among all EU Member States. Compared to other EU Member States, the increase in pension expenditure in Slovenia is significantly higher, and Slovenia also exceeds the EU average in the growth of expenditure on health care, long-term care and education. This is the result of Slovenia's demographic trend, as approximately by 2050 larger generations will be retiring, and they will be living longer in retirement because of higher life expectancy (under the current retirement conditions). At the same time, smaller generations will enter the labour market, which will significantly increase the ratio of the number of pensioners to the number of ensured persons. The new pension legislation has not yet tied the retirement age to rising life expectancy[144] and has not yet introduced other major limits on expenditure as is the case in some other EU Member States. The relatively high increase in expenditure on health care and long-term care has not only been affected by the ageing population but also by other non-demographic factors.[145]

Figure 37: **Projections of public expenditure on pensions, health care and long-term care, Slovenia**



Source: The 2015 Ageing Report, 2015.
Note: It shows the AWG base scenario, which is taken into account in assessing fiscal sustainability as part of the surveillance of fiscal policies of EU Members States.

Pension expenditure[146] has grown more slowly in recent years as a result of intervention measures; however, insufficient short-term and long-term sustainability of the pensions system remains a major problem. Pensions had not been indexed in accordance with the envisaged legislative provisions since 2012[147], and the annual allowance remained limited in 2015, but expenditure increased as a result of the increase in the pension threshold for entitlement. However, the budgetary transfer to the PDII budget accounts for around 30% of the revenues of the PDII (see Indicator 3.12), which is becoming an increasingly serious problem in terms of reaching the budget deficit target. Long-term projections of pension expenditure show that the latest reform, which became applicable in 2013, has only postponed the increase in expenditure, because

[142] The Fiscal Balance Act and the Exercise of Rights from Public Funds Act, which entered into force in 2012.

[143] In 2015, the total transfer from the budget to the PDII totalled EUR 1,461.4 million, of which EUR 298.6 million to cover the State's current obligations towards the PDII and EUR 1,162.8 million to cover additional obligations (mostly to cover the differences between the revenues of the Institute from contributions and from other sources and the expenditure of the Institute – Article 162 of the ZPIZ-2).

[144] IMAD simulations show that, compared to the current system, tying the retirement age to life expectancy (under the formula of increasing the retirement age and the years of pensionable service by 2/3 of the life expectancy gains every five years after 2020) would result in reduction in pension expenditure as a share of GDP by around 0.7 pp by 2060, and provided that pensions are indexed to 50%, by a good 4 pps (the simulation was made using the SURS microsimulation model). The aforementioned simulation shows that this measure could reduce expenditure, but is not sufficient to ensure the long-term sustainability of the system and should therefore be combined with other measures.

[145] Non-demographic factors in health care include, in particular, technological progress, institutional characteristics of health care systems, and the higher health expectations of the population. In addition to GDP growth per capita and changes in relative prices for long-term care services, non-demographic factors in long-term care include greater transition from informal to formal care and an increase in expenditure per long-term care recipient.

[146] According to data from PDII balance sheet of the Ministry of Finance, which cover the following types of pensions: old-age, disability, survivor's, farmer's and military pensions, pensions received from former states of Yugoslavia, pensions remitted to former states of Yugoslavia, pensions remitted abroad, recreation allowances to pensioners, other pensions.

[147] With the exception of 2013, when they were indexed by 0.1%

the expenditure as a share of GDP will start to increase after 2022. This will be mainly due to a rapid rise in the share of people aged 65 and over, which will exceed the average share of older people in the EU after 2020; at the same time, the working age population will decrease and the old-age dependency ratio (see Indicator 3.3) will significantly increase. This is why a new reform, one that will address the issue of long-term sustainability of the pension system to a greater extent, will have to prepared as soon as possible. In addition, it would be necessary to provide more comprehensive information to the Slovenian population about the consequences of the ageing populating and the rights arising from compulsory insurance, and encourage private saving for old age. From this point of view and in the light of providing decent pensions, the challenge that remains is the development of measures to encourage people to take greater personal responsibility for their own social status.

After the entry into force of the pension reform, the rise in the number of pensioners[148] slowed down, and the average pension was again lower. The number of old-age pensioners began to increase at a slower rate, while the number of other categories of pensioners is decreasing.[149] We estimate that the rise in the number of pensioners, which increased considerably before the adoption of the ZPIZ-2 and in the year following its adoption, slowed down due to the effect of (the adoption of) the reform. However, in the following years, this effect is expected to decrease gradually as people who had to postpone their retirement due to stricter retirement conditions after the adoption of the new Act will began to retire. This is why the retirement age of new pensioners is expected to slowly increase. Average pensions continue to decline due to the restrictive pension indexation policy.

After four years of decline, in 2014 and 2015 public expenditure on health care increased in real terms and did not change significantly relative to GDP. The increase in revenues for compulsory health insurance (in real terms by 3.3%) in 2015 mostly resulted from stronger growth in employment and the increase in contributions for student work.[150] In 2015 the Health Insurance Institute of Slovenia (HIIS) recorded a surplus of revenue over expenditure of EUR 5.2 million, which accounts for 0.2% of total expenditure in 2015.[151] Most of the measures aimed at balancing the operations of the HIIS which were adopted in the years of the crisis[152] remained in force; accordingly, higher revenues were allocated to the extension and improvement in the evaluation of certain priority programmes (model outpatient practices, oncology, homes for the elderly, biological pharmaceuticals) and the shortening of waiting times. At the end of the year, the expenditure of the HIIS was higher by 3.8% in real terms, and according to the first estimate, current public expenditure on health care (including the expenditure of the Ministry of Health, but excluding investments) in 2015 totalled 6.14% of GDP, which is the same as in 2014[153] (see Indicator 3.10). After several years, problems in the operation of hospitals were reduced slightly in 2015.

Several studies[154] show that the efficiency of the Slovenian health care system is somewhere in the middle of the scale and that, in order to increase the long-term sustainability of the system, structural measures need to be adopted as soon as possible. According to the latest estimate of the European Commission[155], which included a wide range of models, the Slovenian health care system is in the middle of the efficiency scale; pressures on the rise in the share of expenditure on health care in GDP[156] could be reduced in the long-term through appropriate structural measures aimed at increasing efficiency. The Health Care System Analysis[157] stressed that measures to increase the efficiency of the Slovenian health care system should be aimed, in particular, at establishing, as soon as possible, the system of Health Technology Assessment (HTA), overhauling payment models for service providers,

[148] On average, 615.1 thousand pensioners received pensions. The number of pensioners refers to the total number of recipients of old-age (432.3 thousand), disability, survivor's, widower's and military pensions, pension advances and farmer's pensions under the Farmers' Old Age Insurance Act (the SZK) (data obtained from the PDII).

[149] The number of beneficiaries of survivor's, disability, military and farmer's pensions is decreasing.

[150] Under the ZZVZZ-M (revenue arising from contributions is higher by EUR 35 million annually).

[151] HIIS 2015 Financial Report, March 2016.

[152] Austerity measures concerning wages in the public sector, the reduced prices of health care services, a reduction in the share of medical services covered by the compulsory health insurance (they were passed on to complementary health insurance), a reduction in expenditure on medicinal products and medical devices and sick leave compensation.

[153] HIIS 2014 Financial Report (proposal, March 2015). Data according to the SHA methodology are estimated in cooperation with SURS. Expenditure as a share of GDP for 2014 is calculated based on SURS's First Release in February 2014.

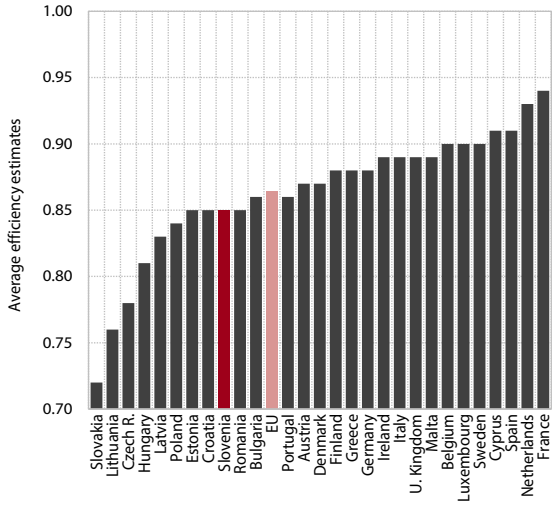
[154] Medeiros and Schwierz, 2015; Joumard et al., 2008;, Hribernik, M. and Kierzenkowski R., 2013; Medeiros J. and Schwierz C., 2015; IMF: Slovenia Selected Issues Paper, 2015; EC: MACELI report, 2015. The MACELI report shows that differences in lifestyle in EU countries do not have a significant effect on the results of the comparative analysis of the efficiency of health care systems.

[155] Medeiros and Schwierz, (2015).

[156] According to the European Commission (Medeiros and Schwierz, 2015), more efficient health care systems could reduce the growth of the share of health care expenditure in GDP in the EU by an average of 0.5% per year. According to the IER (Majcen, 2015) and IMAD (Assessing the Effects of Some Structural Measures in Slovenia, 2016), a more efficient health system in Slovenia could result in slightly more than 20 percent savings in public expenditure on health care by 2060, thereby considerably reducing pressure on age-related expenditure in the long-term.

[157] Ministry of Health, WHO, European Observatory on Health Systems and Policies, 2016.

Figure 38: **Average efficiency estimates*of health care systems in the EU**



Source: European Commission, 2015.
Note: *The average estimates take into account 21 DEA (data envelopment analysis) model scores, using different indicators of population health

introducing incentives to increase employee efficiency, strengthening the primary level and the 'system of gatekeepers'[158], investing in e-health, and establishing the long-term care system.

In order to increase the stability and long-term sustainability of the health care system, we need to reduce the dependence of public financing on employees' contributions and maintain the funds paid for health care by the economically non-active population through complementary health insurance. In order to improve the long-term sustainability of the public financing of health care, we will need to increase the diversity of sources and, in addition to broadening contributions bases and equalising contribution rates, gradually increase the share of other sources, in particular, tax sources. The problem is the large dependence of the compulsory health insurance scheme on employees' contributions, which account for 75% of all revenue from contributions for compulsory health insurance; however, in the next ten years, the structure of insured persons will change significantly due to a decrease in the number of working-age people. In the event of abolition of complementary insurance, the health care system should maintain the current volume of payments by the economically non-active population for complementary health insurance (see also Economic Issues 2014 and 2015; the 2014 and 2015 Development Reports). These findings were also confirmed by the Health Care System Analysis, which highlighted measures aimed at gradually increasing tax sources for financing health care, improving regulation and gradually reducing the role of complementary health insurance. At the end 2015, the Resolution on the National Health Care Plan 2016–2025 was adopted as the basis for the reform of the health care legislation.[159] The new Health Care and Health Insurance Act is to be prepared by the end of 2016.

Slovenia is increasingly lagging behind in terms of public resources for long-term care. According to the latest international comparison for 2013, public expenditure on long-term care in Slovenia is considerably lower than the OECD average[160] (see Indicator 3.11). After a long period of increase, in 2013 private expenditure also decreased alongside public expenditure, mainly due to a decline in co-payments in institutions. On the other hand, the number of long-term care recipients slightly increased in 2013 (see Chapter 3.3.2).

The growing needs in long-term care require systemic regulation of long-term care. In the future, pressure on the growth of expenditure is expected to be even higher, since many needs still remain to be covered. The comprehensive regulation of long-term care, which has been in preparation for as long as ten years in Slovenia, will have to combine different sources of public financing into a uniform system to ensure better coordination in the provision of services and a more equal access to them and to promote, through an altered system of financing, the development and performance of services at home. The systemic strengthening of less expensive social services in long-term care could significantly reduce the pressure on the growth of public expenditure on long-term care and along with it the growth of public expenditure on health care. The revision of financing will need to take into account that, in Slovenia, as much as 47% of the total public expenditure on long-term care is being financed from compulsory health insurance, and that, therefore, changes in the financing cannot be enforced without simultaneously implementing the health care reform.

3.3. Quality of life and social inclusion

Quality of life and social inclusion are important factors of well-being,[161] which is the principal objective of social development. Quality of life is affected by several factors, among them mainly material living conditions, health, access to public services, quality of the environment, social capital and social inclusion. The revival of economic activity and growing employment have halted the several year-long trend of a decline in the disposable income (material living conditions), indicating that there are prospects for a gradual improvement in the quality of life. The access

[158] The role of general practitioners as gatekeepers who limit the number of referrals to more expensive specialised outpatient clinics.

[159] Ministry of Health, 2015.

[160] In 2013, Slovenia's public expenditure on long-term care was 0.95% of GDP, and the OECD average was 1.66% of GDP.

[161] IMAD, together with a consortium of other institutions, has set a system of indicators of well-being, covering material, social and environmental well-being (see: http://www.umar.gov.si/publikacije/kazalniki_blaginje).

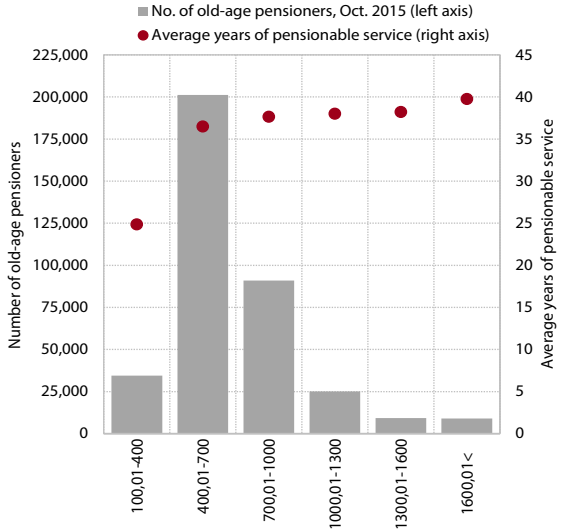
to public services remains relatively good. The health status indicators have improved in recent years, whereas the indicators of non-medical health determinants have deteriorated. Despite increasing during the crisis, the social exclusion risk rate remains below the EU average. The challenge is to develop measures to reduce the number of socially excluded persons by improving material conditions, reducing the risk of poverty for certain groups (e.g. older people and children), and improving the lifestyle indicators.

3.3.1 Material living conditions and social inclusion

The disposable income of households, which importantly determines material living conditions, has stopped decreasing in the last two years, mainly due to the increase in the wage bill. After a period of decline (2008–2013), the wage bill increased in 2014 and 2015 as a result of the growth of employment and of wages, thereby halting the decline in the disposable income. The significant increase in social benefits at the beginning of the crisis was followed by the reduction of social benefits[162] in mid-2012 due to the enforcement of austerity measures. The share of social benefits in the income structure remains higher than before the crisis, mainly as a result of the higher pension bill, which has increased despite the decrease in the average pension[163]. The decrease in the average pension was mainly influenced by a restrictive pension indexation policy in the period 2010–2015 (see Chapter 3.2) and partly probably also by early retirements (and therewith lower pensions) prior to the entry into force of the new Pension Act in 2013. Accordingly, the ratio of average pension to average wage decreased significantly in the period 2008–2015[164]. After slower growth and the decline in 2012 and 2013, the decline in the gross adjusted disposable income per capita[165] came to a halt in 2014 (see Indicator 3.13).

In Slovenia, income and consumption are distributed considerably more evenly among the population than in other countries, which is why the inequalities measured are among the lowest in the EU. Although, in the period 2009–2014, the income inequality in Slovenia, measured by the Gini coefficient, increased more than the EU average, Slovenia is one of the countries with the lowest degree of inequality (see Indicator 3.15). In Slovenia, as in other developed countries, there has been a trend of a rise in the income of the wealthiest (10th decile). Unemployment and the number of social assistance recipients increased during the crisis, along with the share of people with low income, resulting in an increase in income inequality, whereas wage inequality declined in the period 2008–2014. The decline in wage inequality was influenced by the following: (i) a rise in the minimum wage, which caused an increase in the lowest wages; (ii) the austerity measures in the public sector, which resulted in a relatively greater reduction of high wages; and (iii) a slowdown in wage growth during the crisis in activities where wages are highest. Pension distribution has not been changing significantly. One-fifth of pensioners received a pension of between EUR 400 and EUR 500, and a good half of pensioners received between EUR 400 and EUR 700. Since the at-risk-of-poverty rate of older people in Slovenia is above the EU average,[166] Slovenia will have to ensure an adequate level of pensions in adopting measures on the pension system. Since the level of pension received also depends on the years of pensionable service, it is necessary make individuals aware of the effect of delaying retirement on the pension level and encourage them to save for old age. In Slovenia, as in other countries, consumption inequality declined during the crisis and does not differ considerably from disparities in other countries.[167]

Figure 39: **Pension distribution and years of pensionable service in December 2015, Slovenia**



Source: PDII.

In Slovenia, as in other countries, the estimated wealth inequality is higher than income inequality, but significantly lower than in other EU countries.

[162] Social benefits as a share of the disposable income include: unemployment benefits, family benefits, social assistance benefits in cash, pensions, sickness benefits, disability benefits and benefit in respect of death of the breadwinner. Pensions account for the largest share.

[163] In 2015 the average pension was lower by around 9% in real terms compared to 2009, when it was at its highest.

[164] In 2008 the average old-age pension was 67.1% of the average wage (in 2015: 60.2%), and the ratio of average pension to average wage decreased from 61.6% in 2008 to 55.4% in 2015.

[165] In addition to all disposable income of households and NPISH, the gross adjusted disposable income includes the value of the social transfers in kind, for example, education, health, housing, cultural and recreation services.

[166] In 2014 there were 41 thousand women below the at-risk-of-poverty threshold, and the at-risk-of-poverty rate was 21.6% for older women and 10.8% for men.

[167] Hassett and Mathur, 2012; Fisher, Johnson and Smeeding, 2012; Attanasio, Pistaferri, 2014.

Table 6: **Disposable income, Slovenia**

	2008	2009	2010	2011	2012	2013	2014
Real growth							
Compensation of employees	3.9	-1.3	-0.3	-1.8	-4.0	-3.9	1.7
Social benefits other than social transfers in kind	4.5	5.3	2.3	4.7	-2.5	-3.5	-1.2
Gross operating surplus and mixed income	0.7	-3.1	-6.2	-0.6	-7.0	-3.0	3.5
Property income	12.8	-12.7	-13.8	5.9	-6.9	-3.3	13.0
Other current transfers	-228.5	-42.1	-439.8	37.7	0.5	24.4	-20.6
Social security contributions	3.8	1.0	0.2	-1.0	-2.7	-4.1	2.0
Current taxes on income, wealth, etc.	10.1	-5.4	-3.2	0.3	-1.3	-8.8	2.1
Disposable income	2.5	-0.5	-0.8	0.1	-5.0	-2.9	1.2
Shares of disposable income							
A: Compensation of employees	83.0	82.3	82.7	81.1	81.9	81.0	81.4
B: Social benefits other than social transfers in kind	25.4	26.8	27.7	28.9	29.7	29.5	28.8
C: Gross operating surplus and mixed income	25.6	24.9	23.5	23.4	22.9	22.8	23.3
D: Property income	2.6	2.3	2.0	2.1	2.0	2.0	2.3
E: Other current transfers	-0.2	-0.1	0.4	0.5	0.5	0.7	0.5
F: Social security contributions	25.8	26.1	26.4	26.1	26.7	26.4	26.6
G: Current taxes on income, wealth, etc.	10.6	10.1	9.8	9.8	10.2	9.6	9.7
Disposable income (A+B+C+D+E–F–G)	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: SURS, non-financial sector accounts.

Table 7: **Wage inequality indicators, Slovenia**

	2000	2005	2007	2008	2009	2010	2011	2012	2013	2014
9th decile/1st decile ratio*	3.46	3.47	3.61	3.62	3.67	3.49	3.41	3.31	3.25	3.26
Median/1st decile ratio*	1.70	1.67	1.73	1.74	1.74	1.69	1.67	1.65	1.63	1.65
9th decile/median ratio*	2.04	2.08	2.08	2.08	2.11	2.06	2.05	2.01	1.99	1.97
Gini coefficient (in %)*/**	29.4	29.0	29.2	27.9	28.3	27.3	26.8	26.2	25.9	25.8
Share of low-wage earners, */*** in %	17.4	17.0	18.5	19.0	19.3	18.3	17.9	17.2	16.9	17.7
Highest/lowest gross wage ratio by activity	1.85	2.32	2.46	2.38	2.32	2.25	2.19	2.23	2.30	2.30
Gender pay gap, **** in %	12.2	6.9	7.8	7.2	2.9	3.7	4.6	5.1	5.4	5.3

Source: SURS, calculations by IMAD.
Note: *Calculations for the 2008–2013 period are based on data from administrative sources and refer to the entire year, whereas for the preceding period, they are based on the statistical survey for the month of September of the current year; **Gini coefficient measures (in)equality in income or wage distribution. Its value in % ranges from 0 (perfect equality) to 100 (perfect inequality); ***Low wages are defined as wages below or equal to two-thirds of the median wage; ****By structural statistics of wages.

Although Slovenia does not yet have a complete household balance sheet,[168] the existing data allow for an estimate of the inequality of household wealth. Two estimates of wealth distribution have been made thus far.[169] According to both, Slovenia is ranked among countries with the lowest inequality. According to the ECB's estimate (2013), the relatively low level of wealth inequality in Slovenia is fuelled by the high share of privately owned dwellings, which exceeds 80%.

After a long period of closing the gap with the EU average, actual individual household consumption has again been moving away from the EU average since 2012; however, the potential for its growth is the low indebtedness of Slovenian households compared to the EU. In 2011 actual individual household consumption per capita in PPS amounted to 80.2% of the EU average, which is similar to the level in 2008, lagging behind the EU average slightly more than was the case with the indicator of economic development (GDP per capita, see Chapter 2.1). Moving away from the EU average after 2012 was influenced by urgently needed austerity measures, which cut social transfers in kind and wages (see Indicator 3.14). Slovenian household indebtedness is significantly lower than the average in the EU; Slovenia's ratios of household liabilities to GDP

[168] Slovenia holds data on net financial wealth (financial assets minus liabilities) and partial data on non-financial wealth (fixed assets), where mainly data on the value of household land are missing.

[169] At the end of 2015, the Credit Suisse Research Institute (Global Wealth Databook 2015) estimated the distribution of global household wealth and wealth inequality. The calculated Gini coefficient for Slovenia is 53.3%.A similar estimate of the Gini coefficient of wealth inequality was made by a group of authors of the NBER Cambridge, whereby the coefficient for Slovenia was slightly higher (62.6%); however, according to this calculation, Slovenia is also one of the EU countries with the lowest wealth inequality.

Table 8: **Social exclusion risk rate, Slovenia**

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Social exclusion risk rate	18.5	17.1	17.1	18.5	17.1	18.3	19.3	19.6	20.4	20.4
Risk-of-poverty rate	12.2	11.6	11.5	12.3	11.3	12.7	13.6	13.5	14.5	14.5
Severe material deprivation rate (4 out of 9 items)	5.1	5.1	5.1	6.7	6.1	5.9	6.1	6.6	6.7	6.6
Share of people living in households with very low work intensity	8.6	6.9	7.2	6.7	5.6	6.9	7.6	7.5	8.0	8.7

Source: Eurostat.

and to disposable income are half the EU average, and the share of liabilities per capita is also lower than the EU average. However, in terms of volume of financial assets of households, Slovenian households are more indebted as their volume of financial assets is significantly smaller. The structure of financial assets differs considerably from the EU average: currency and deposits account for a much larger share of financial assets, whereas life and pension insurance and debt securities make up a relatively smaller share. Raising the awareness of individuals about their social status, along with greater incentives for supplementary pension insurance, could increase the scope of pension insurance and contribute to reducing poverty among older people in the future.

One of the indicators of material living conditions is the share of socially excluded persons, which increased after 2005, but is still below the EU average. After increasing during the crisis, the social exclusion risk rate[170] remained unchanged in 2014 (20.4%) and is below the EU average (24.4%). In 2014, 410,000 people were at risk of social exclusion, which was 49 thousand more than in 2008. During the crisis, the risk of social exclusion increased in all three components of social exclusion. After increasing during the crisis, the at-risk-of-poverty rate[171] remained unchanged in 2014 and is still below the EU average, although Slovenia's advantage has been reduced considerably. In 2014, around 290,000 people were at risk of poverty (see Indicator 3.19). The at-risk-of-poverty rate is high among people aged 65 or over, particularly among women. The research[172] shows that this is influenced by the income structure of older people, as most of their income is from relatively low pensions. The higher at-risk-of-poverty rate among women is explained by the fact that women, on average, live longer, have lower education and often live in one-person households. The increase in poverty among children aged under 6 is also a cause for concern.

[170] There are three components to the risk of social exclusion. The first is the at-risk-of-poverty rate, the second is the material deprivation rate (defined as deprivation in at least four out of a total of nine items of deprivation); and the third is the share of people living in households with very low work intensity (less than 20% of the total household labour potential).

[171] The calculation of the at-risk-of-poverty rate for 2014 is based on income data for 2013.

[172] See Stropnik et al., 2010.

3.3.2 Quality of life

Education and health, two important indicators of improvement in material living conditions and of quality of life, have been mostly improving since 2008. With access to education being maintained at the same level, the share of the population with at least upper secondary education further increased and remains high. In 2015, this applied to 86.5% of adults aged 25–64, and has remained over 10 pps above the EU average since 2005 (see Indicator 3.18). This is due to the high enrolment of young people (aged 15–19) in upper secondary education in Slovenia, which was roughly as high in the 2013/2014 school year as it had been in previous years (78%). As regards the enrolment structure, there is a high percentage of young people enrolled in upper secondary education programmes, which enable enrolment in tertiary education; accordingly, the enrolment of young people (aged 20–24) in tertiary education[173] is well above the average. Despite this, the enrolment of students whose parents have a low level of education is modest.[174] Different trends emerge regarding the participation of adults in education because their participation in upper secondary and tertiary education has been falling since the beginning of the crisis. On the other hand, kindergarten attendance, which has an important effect on the development of children and enables parents to balance their work and family lives, is high.

Although basic health status indicators have improved in recent years, some health determinants have deteriorated. Slovenia has the lowest infant mortality rate in the EU. Life expectancy increased more than the EU average (see Indictor 3.1); the gap also narrowed according to the healthy life years indicator (see Indicator 3.17), while self-perceived health[175] improved. According to the amenable mortality indicator, Slovenia hovers around the EU average, but lags behind in terms of its premature mortality rate, which is linked to poor lifestyle indicators. Slovenia falls considerably behind in terms of cancer and suicide mortality, which is largely

[173] The Slovenian rate amounted to 47.8% in 2013 (EU: 31.7%).

[174] According to OECD data, Slovenia ranks among the countries in which students whose parents have a low level of education have the lowest probability of obtaining tertiary education.

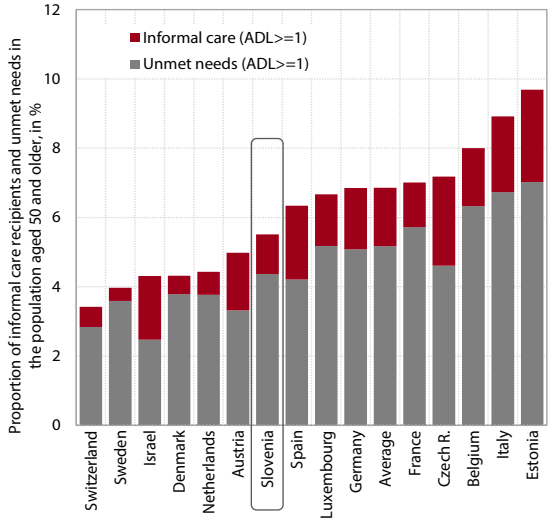
[175] The share of the population assessing its health as good or very good increased to 65.0% in 2013 (2012: 63%; 2009: 60%); the EU average was 67% (2012: 68.3%).

attributable to a high-risk lifestyle (smoking, alcohol consumption, obesity); this is why it needs to adopt health prevention and protection measures.[176] At the same time, coordinated inter-sectoral action is needed to enhance the health of socially weaker groups and reduce health inequalities. The latter would also help to reduce absenteeism[177], which remains significantly above the OECD average.

Affordability of health care services remains relatively good, but waiting periods have lengthened. Direct out-of-pocket expenditure remained relatively low during the crisis, which is linked to the high level of participation in complementary health insurance schemes (see Indicator 3.10). In the period 2007–2012, the share of households that incurred out-of-pocket expenditure increased from 57% to 78% (the Household Budget Survey); however, expenditure was catastrophically high[178] in only 1% of households, which is the lowest share among 22 EU countries. Good accessibility of healthcare is also confirmed by the indicator of unmet needs for these services, which is the lowest in the EU. The Health Care System Analysis[179] found that Slovenia is one of the countries with good accessibility and high quality of primary-level health care. While the latter also contributed to a successful reduction in hospitalisation, it will be necessary to improve coordination between the primary and secondary health care levels in order to improve the quality of services. One of the problems is also long waiting periods, which lengthened further in 2015[180].

The quality of life of older people is influenced by access to long-term care services, which is slightly below the OECD average in Slovenia. The number of long-term care recipients, which has been increasing for a number of years, exceeds 60,000 persons. A little over one-third of these persons are long-term care recipients in institutions, and the rest are long-term care recipients at home.[181] The proportion of the population in long-term care in Slovenia is approximately equal to the OECD average,[182] but Slovenia slightly lags behind in terms of the proportion of people aged 65 and over in long-term care (SI: 11.9%; OECD 21: 12.9%). Long-term care at home is least developed, with Slovenia lagging significantly behind in terms of the proportion of people in long-term care at home[183]. According to the SHARE survey, there are almost 9,000 persons aged 50 and over in Slovenia who have limitations in at least one activity of daily living (ADL>=1), receive only informal care within their family and receive no assistance and nursing allowance; in addition, there are another 35,000 persons who have ADL limitations (ADL>=1) and receive no informal care (they have unmet needs); they together account for 5.5% of the population aged 50 and over that could potentially be included in one of the forms of formal long-term care. Inappropriately regulated long-term care increases the burden on families and pressures on the use of health care services, pointing to the need for immediate systemic regulation of long-term care.

Figure 40: **Proportion of informal care recipients and unmet needs in the population aged 50 and older, 2013, in %**



Source: SHARE survey, 4th wave, calculations by IER.
Note: Basic activities of daily living (BADLs) include bathing, dressing, eating, getting in and out of bed, transferring and toileting. Usually this refers to personal care (Nagode et al., 2014).

[176] Various studies (Sassi, F. et al., 2013; Cecchini, M. et al., 2015, OECD, 2015) show the positive effects of the anti-alcohol policy and the measures to limit the use of tobacco products and unhealthy food on the number of healthy life years, life expectancy and health expenditure (for more, see Assessing the Effects of Some Structural Measures in Slovenia, IMAD, 2016).

[177] IMAD estimates show that measures to reduce absenteeism to the OECD average (from 11.3 to 9 working days) could increase GDP by 0.7% in five years (Assessing the Effects of Some Structural Measures in Slovenia, IMAD, 2016).

[178] Direct out-of-pocket expenditure on health care is catastrophic for households (catastrophic out-of-pocket expenditure) if it pushes households below the poverty threshold or exceeds 40% of their disposable annual income. (WHO, 2015).

[179] Ministry of Health, WHO, European Observatory on Health Systems and Policies, 2016.

[180] In the period from 1 January 2015 to 1 January 2016, the number of all the patients waiting for health care services increased by 14% (from 182,498 to 208,428), while the number of patients waiting longer than the maximum waiting period rose from 24,805 to 28,392 (the National Institute of Public Health).

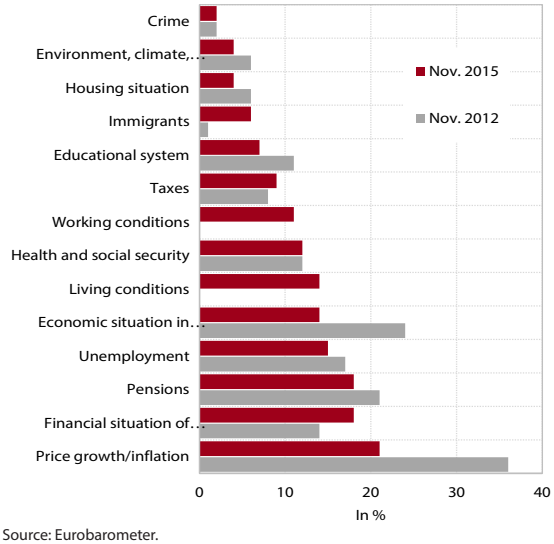
[181] These persons receive services in their home environment (20,744) or only cash benefits (17,000). The actual number of recipients of cash benefits is much higher (a little more than 40,000), but the final number of recipients follows the rule of double counting, i.e. if the recipient receives both a service and a cash benefit, he or she is counted only in the service (SURS, 2015).

[182] The Slovenian rate amounted to 2.9% in 2013 (OECD: 2.6%). At the end of 2014 and 2015, SURS published data on long-term care recipients in Slovenia according to the international OECD definition. For Slovenia, in addition to the recipients of long-term care, the estimate of community-nursing recipients was taken into account (for more, see Nagode et al., 2014).

[183] The share of long-term care recipients at home in Slovenia is 6.9% (OECD 21: 8.9%).

The quality of life in Slovenia, measured in terms of life satisfaction, is above the EU average, whereas satisfaction with the use of leisure time is at the same level as the EU average. Life satisfaction has slightly increased after 2013; in the autumn of 2015, 87% of the respondents were satisfied with their life, which, in addition to the increased level of satisfaction with the economic situation, can also be attributed to the increased flow of migrants and the perception of immigration as one of the major issues at the state level. In 2015, satisfaction levels increased in all four components;[184] satisfaction is highest with the financial situation of the household (64%), exceeding the pre-crisis level. On the other hand, satisfaction is lowest with the employment situation in the country (7%). When asked to identify the two main issues facing the country, most of the respondents indicated that migration (48%) rather than unemployment (41%) and the economic situation (27%) is the most pressing issue. Key issues highlighted at the personal level are the rising costs of living, the financial situation of the household and pensions (see Indicator 3.16). Satisfaction with the use of leisure time is similar to the EU average[185], whereas the availability of chargeable leisure activities is relatively low. Two-thirds of the respondents could not afford to engage in chargeable leisure activities (a good fifth for financial reasons and two-fifths for other reasons). One of significant leisure activities is attendance at cultural events, which is higher than at the beginning of the crisis. Voluntary work, an important part of which is the work of protection, rescue and relief force members, shows an increasing trend.

Figure 41: **Issues considered most important by respondents on a personal level, Slovenia**



Source: Eurobarometer.
Note: The respondents indicate two most important issues on a personal level.

[184] These are: the financial situation of the household, personal job situation, the employment situation in the country and the economic situation in the country.

[185] According to EU-SILC data, on a scale of 1 to 10, the average score for satisfaction with the use of leisure time for Slovenia is 6.8 (EU: 6,7).

Trust between people, which represents social capital, declined during the crisis, but the perceived level of personal threat remains low. In 2014, trust in other people and the share of those convinced that people are fair decreased in comparison with 2008. The share of those convinced that people try to be helpful increased. A total of 53.4% of the respondents said they had frequent contacts with relatives, friends and colleagues for social reasons, which is more than in 2008 but less than the average of countries included in the European Social Survey. In the period 2008–2014, general satisfaction with the present state of the economy, the government, education and the health system declined, and dissatisfaction with the way democracy works in Slovenia increased. The share of people satisfied with the way democracy works slightly increased in 2015, but Slovenia still remains one of the countries with the lowest satisfaction level with regard to the way democracy works in the EU.[186] People's trust in key state institutions remains low, with trust in EU institutions having declined as well. On the other hand, there has been no deterioration in personal security indicators during the crisis. In the period 2008–2014, the standardised death rate due to assault slightly increased in Slovenia. However, Slovenia continues to have low rates in terms of feeling threatened in one's neighbourhood. Compared to 2008, more people felt safe when walking alone in their local area after dark in 2014. Burglary or physical assault was experienced by slightly fewer people. Compared to other EU countries, Slovenia is a fairly safe country, which positively affects its quality of life. In 2015, 96% of the respondents believed that their immediate neighbourhood is a secure place to live, and 93% that Slovenia is a secure place to live.[187]

Residents in Slovenia on average are more satisfied with their living environment and green areas[188] than EU residents on average. The satisfaction of residents in Slovenia with their living environment is relatively high, the two issues sometimes highlighted being air pollution and excessive noise. As a result of dispersed settlement, a good tenth of the population expressed dissatisfaction with excessive noise. The major problem is air pollution by PM10, to which a quarter of the population is exposed.[189] Air pollution varies under different weather conditions; however, in the long term, there has been improvement in air pollution levels (see Chapter 4.1).

[186] Source: Eurobarometer no. 84, 2015.

[187] Eurobarometer no. 432, 2015.

[188] In 2013, 17.6% of the respondents were dissatisfied with their living environment (EU: 19.2%) and 14.7% with green areas (EU: 22.4%).

[189] Eurostat, Quality of life, 2015.

3.4. Challenges

Population ageing requires social protection systems, the labour market and society as a whole to adapt. In 2014, when the economic recovery began to take hold, the situation in the labour market began to improve; accordingly, the material situation of the population stopped deteriorating and the at-risk-of poverty rate stopped increasing. Despite the crisis, which led to deterioration in the material living conditions, Slovenia has been able to maintain, by international comparison, a relatively high level of social inclusion and access to public services and low income inequality. The major challenge is to adapt social protection systems to the ageing population so that they can continue to provide social security, access to public services and social inclusion for all population groups. With a view to achieving higher employment and improving quality of life, it is crucial to set up a flexicurity system in the labour market to ensure the effective allocation of the labour force and reduce labour market segmentation. Certain other policies which are important for ensuring quality of life also need to adapt to the ageing population.

Demographic trends require adjusting social protection systems to improve quality of life and fiscal sustainability. Population ageing is exerting pressure on public finances. This should be mitigated by a comprehensive reform of social protection systems, which should be adopted as soon as possible. The number of older people per one working-age person will be doubled by 2060. Long-term projections indicate that Slovenia is to see the largest increase in age-related expenditure by 2060 among the EU Member States. The pension system should therefore encourage longer activity, which could reduce the risk of poverty among older people. The challenges faced by social protection systems are mainly linked to the adjustment of their financing to the ageing population, continuous improvement in the efficiency of the health care system and the comprehensive regulation of the long-term care system, which would have to combine different sources of public financing into a uniform system to ensure a better use of resources and a more equal access to services and promote the development and performance of services at home.

Improving flexicurity represents a major challenge for the labour market. The concept of flexicurity consists of four components which are combined to create a dynamic labour market and provide security to individuals: (i) flexible contractual arrangements, which reduce labour market segmentation and undeclared work; (ii) effective labour market policy, which assists people in the event of unemployment and facilitates their transition to new jobs; (iii) a reliable and flexible system of lifelong learning which ensures workers' ongoing capacity to adapt and increases their employability; (iv) modern social security systems which adequately combine the system of income support and employment incentives and labour market mobility[190]. Improving flexicurity could increase employment, reduce segmentation and enable an effective allocation of labour force.

The challenge in the area of social development is to reduce the number of socially excluded persons and develop measures to promote healthy lifestyle. Although the share of persons at risk of social exclusion increased during the crisis, it is still below the EU average. However, the at-risk-of-poverty rate for certain population groups is above average (particularly women aged 65 or older); it is also worrying that the at-risk-of-poverty rate for children (aged 0–6) increased. In order to reduce the number of persons at risk of social exclusion and maintain favourable results in the area of quality of life, Slovenia should focus more on maintaining the balance between the direct effects of measures taken and their wider social implications. In this regard, it should be noted that such measures do not only include social policy measures, but also other policy measures, which can have an indirect impact on the material situation of individuals and their quality of life. For example, developing measures to promote healthy lifestyle could improve quality of life, while reducing expenditure on health care.

[190] Common Principles of Flexicurity – Council Conclusions, 2007.

4. Environmental, regional and spatial development

The preservation of a healthy natural environment, a balanced regional development and the optimal use of space are increasingly important dimensions in planning for economic and social development. In Slovenia, trends in these three areas, which are closely tied to economic and social development and are closely related and interdependent, were relatively favourable during the economic crisis. This was mostly due to changed economic conditions and not so much due to structural changes which would enable a more sustainable improvement. With the revival of economic activity, the goals set will be more difficult to achieve and will require additional and systematic action. Good cooperation among individual areas and policy harmonisation will be crucial in promoting environmental, regional and spatial development, which would ensure the quality of life in the long term.

4.1 Environmental development

Economically developed countries are characterised by a relatively large consumption of natural resources per capita and consequently generate large amounts of emissions and waste. In Slovenia, population pressures are not increasing as the number of residents is stable; there is, however, a general risk of overuse of resources and of placing an excessive burden of the environment. In the last several years, progress has been made in reducing pressures on the environment, which was largely due to the reduced economic activity and some other non-systemic reasons. In order to make a transition to a low-carbon, green and circular economy, Slovenia will have to change the current production models and consumption patterns into more sustainable forms, improve natural resource management and develop and endorse economic incentives and innovations that also benefit the environment. In this regard, Slovenia has undertaken several international commitments.

4.1.1 Natural resources and natural resource management

Slovenia has a rich variety of natural, geographical and environmental features, which can be a vast opportunity for development. It has a favourable position from geographical, transport and climate points of view, good living and production conditions, and a relatively good natural capital. It is an area of great landscape diversity and biodiversity, with a large part of it being designated special protection areas[191]. The existing agricultural land and former agricultural land which can potentially be used for production can ensure adequate food security, also with sustainable forms of production. Vast water resources ensure high-quality water supply and use. Slovenia is one of the most forested countries in Europe, with its forests being the best-preserved natural system in the country, which in turn has a beneficial effect on the environment[192]. In addition to wood, there are many other types of renewable energy sources in all the regions[193].

Table 9: **Basic natural resources and their use**

	Slovenia	EU
Share of utilised agricultural area in the total area, 2013, in %	23.6	40.8
Utilised agricultural area, 2013, in ha per capita	0.2	0.3
Share of forest land in the total area, 2015, in %	61.6	40.8
Growing stock, 2015, in m3 per capita	167.7	45.6
Available freshwater resources, multi-annual average, in m^3 per capita	15.588	7.960
Exploitation of domestic resources, 2014, in t per capita	11.0	11.5
Share of renewable energy in final energy consumption, 2014, in %	21.9	16.0

Source: Eurostat and SURS.

Greenhouse gas emissions (GHG) are decreasing, indicating good prospects for achieving short-term national objectives, whereas addressing emissions in the long term remains a challenge. Greenhouse gas emissions, which cause global warming if present in excessive concentrations and are therefore one of the most significant environmental issues, were around a fifth lower in 2014 than in 1986, which was the first year for which data were published, and around a quarter lower than in 2008, which was the most polluted year in this respect (see Indicator 4.1). The reduction was mostly contributed to by the energy and transport sectors, which generate most emissions, and by the use of fuels in industry and households. In the energy sector, where the majority of emissions are produced by thermal power plants, such reduction is largely due to the closure of the largest of them. With a view to facilitating a shift to a competitive low-carbon economy, an operational programme was adopted, containing measures aimed at reducing GHG emissions and improving the efficiency of use of renewable energy sources by 2020, thereby increasing competitiveness, economic growth and the employment rate.[194] The interim verification of the

[191] In terms of the proportion of territory included in Natura 2000, Slovenia is at the upper end of the scale compared to other EU countries, with more than a third of its territory being included in Natura 2000, which is five times more than in Denmark, which is at the very lowest end of the scale.

[192] Forests prevent soil erosion, provide protection against bad weather, improve the water supply, contribute to preserving biodiversity, and are large sinks for carbon dioxide.

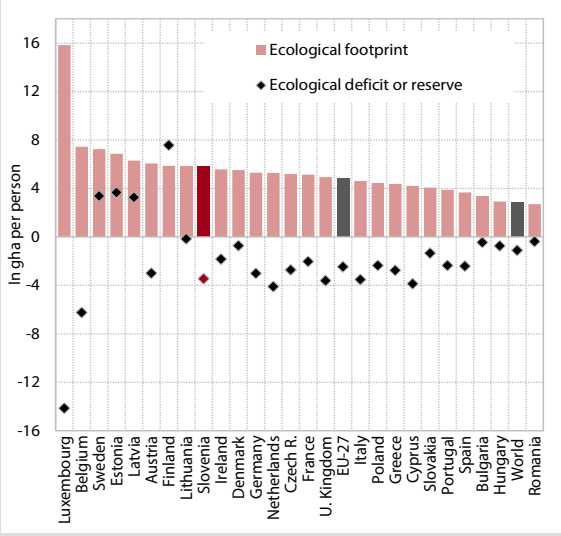
[193] Plut, 2014.

[194] Operational Programme for Reducing GHG Emissions by 2020, 2014 Slovenia's objective is that the emissions will not increase by more than 4% by 2020 compared to 2005. In accordance with Decision No 406/2009/EC, the obligation to reduce GHG emissions refers to emissions in sectors that are not included in the greenhouse gas emission allowance trading scheme. However, the decision, which is directly binding on all

Box 8: **Ecological footprint**

Ecological footprint, which is measured by the Global Footprint Network, is an attempt to form an aggregate indicator of environmental development. It is expressed in a standardised unit of biologically productive area, a global hectare (gha). This is a fertile area needed to meet the needs of human beings for food and to support their lifestyle, and to dispose waste generated in this process. It includes agricultural land, forests, fishing grounds and the area taken up by infrastructure. It represents approximately one quarter of the Earth's surface. Glaciers, deserts and open oceans, whose contribution in this regard is not significant due to the low concentration of renewable energy sources, are excluded. Ecological footprint is compared to *the biological capacity of nature* or *biocapacity.* This means biologically productive areas which have the capacity to regenerate. Each global hectare produces the same amount of biological value so that its productivity equals the average productivity of all the biologically productive area. The difference between the ecological footprint and biocapacity, which may also be understood as the difference between ecological demand and supply, is *an ecological deficit* when the footprint of a population exceeds the biocapacity of the area available to that population, and *an ecological reserve* when the biocapacity of an area exceeds its population's footprint.

Figure: **Ecological footprint and ecological deficit or reserve, 2012**



Source: Global Footprint Network, National Footprint Accounts, 2016 Edition.

The results of the calculation of the global ecological footprint show that, given the global population's current lifestyle, it takes the Earth more than a year and a half to regenerate the resources used by humanity in one year. The size of the ecological deficit and the rate at which it is increasing, which are both the result of a high and increasing level of energy consumption, is largely caused by (i) *the carbon footprint*, which is the amount of carbon dioxide emissions and other greenhouse gas emissions. Other factors include (ii) *the biological footprint*, which is the footprint of arable land, forests, pastures and other fertile areas, and (iii) *the footprint of infrastructure,* i.e. built-up areas. The global ecological footprint increased from 1.7 gha/capita in 1961, the year for which the first calculation was made, to 2.84 gha/capita in 2012. With the estimated biocapacity of the planet of 1.73 gha/capita, the ecological footprint was 1.1 gha/capita, exceeding the plant's biocapacity by 60%. At the global level, we are consuming natural resources at a faster rate than they can regenerate, which means that, at current rates of consumption, the humanity uses the equivalent of 1.6 planet Earths.

Slovenia's ecological footprint is twice the size of the national biocapacity to regenerate, which is worse than the EU average. After rapidly increasing during the period of economic growth and decreasing during the recession, the ecological footprint was approximately at the same level in 2012 as in 2009. In the last year of calculation, the ecological footprint was 5.8 gha/capita, while the biocapacity, which is much more stable and does not change significantly over years, was 2.4 gha/capita. The main share of Slovenia's biocapacity comes from forests, but the large surface covered by forests is still not enough to absorb CO_2, which contributes most to the ecological footprint. The results show that the demand for food, fuels, wood and fibres was twice the size of the biocapacity to regenerate. The difference between the former and the latter is mainly due to the use of non-renewable energy sources, i.e. fossil fuels. Since the use of available natural capital in Slovenia significantly exceeds Slovenia's capacity to regenerate, Slovenia in this regard relies on imports from other parts of the world. The EU, on average, has a slightly lower ecological footprint; in 2012 it was 4.8 gha/capita. As the biocapacity is almost the same, the EU has a smaller ecological deficit. Out of 24 Mediterranean countries, for which the calculation was made, Slovenia ranks among the worst countries in terms of ecological footprint and among the best in terms of biocapacity.

implementation of the programme[195] showed that obligations were met in the first years of implementation, and the set targets were even exceeded. This trend could also be expected throughout the entire period up until 2020; however, the present positive trends do not necessarily mean that emissions are curbed in the long term and that Slovenia is transitioning to a low-carbon economy. Uncertainty is highest with regard to the transport sector, which produces a large share of emissions and is characterised by a high annual variability, and where even a short-term rapid rise in the

Member States, does not specify measures to meet a particular reduction obligation.

[195] The first annual report on the implementation of the Operational Programme for Reducing GHG Emissions by 2020, 2016.

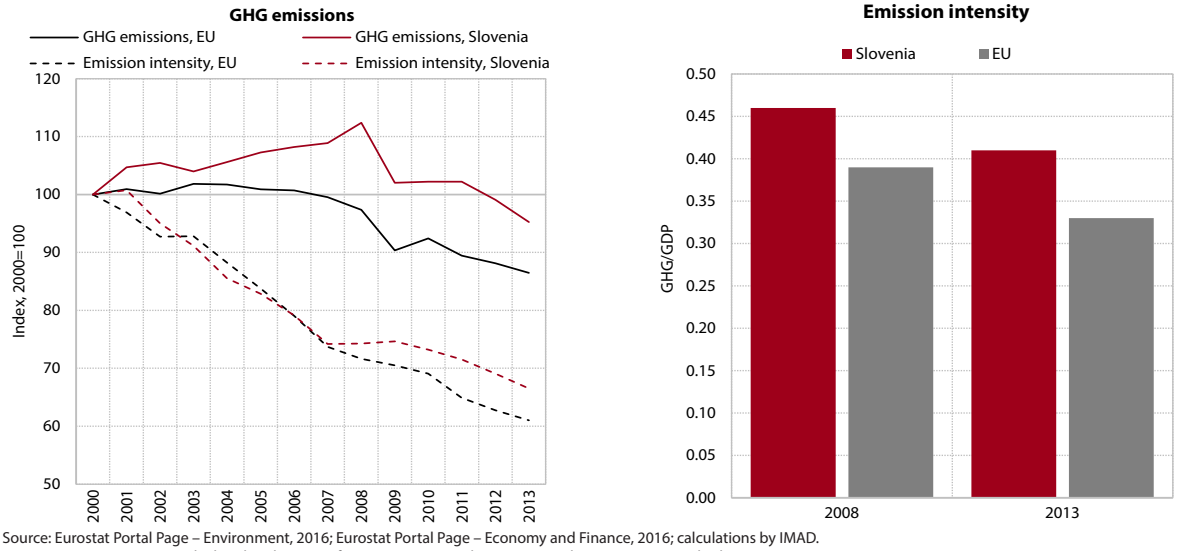
Box 9: **The United Nations Climate Change Conference in Paris**[1]

In December 2015, a total of 195 countries parties to the United Nations Framework Convention on Climate Change, reached a global agreement on the reduction of climate change in the coming years. After the first meeting in Berlin in 1995, parties to the Convention met once a year. They stressed that their aim was not to find the ultimate solution, but rather to responsibly address climate change at the global level. The most recent agreement provides an opportunity for the sustainable strengthening of environmental protection measures. Parties to the Convention agreed to report on the progress made in the implementation of the agreement and to ensure transparency and supervision; however, in order to reach the set targets, the parties will need to take on stronger commitments. The Paris Agreement will replace the Kyoto Protocol and will come into force in 2021.

Limiting climate change will require a considerable and continuous reduction in greenhouse gas emissions. The target agreed is limiting global warming to *two degrees Celsius:* we must keep the average global temperature from rising more than two degrees Celsius over preindustrial levels if we are to avoid irreversible changes to the climate at the global level. There is a growing awareness that climate change in connection with changes in precipitation patterns, melting glaciers, and the rising sea level bring about considerably higher costs compared to the costs of their mitigation. One of the key elements of the Paris Agreement is transition to clean energy, which means that resources have to shift away from polluting fossil fuels to investment in clean energy sources. Policy makers and businesses have been sent a clear signal that they need to begin investing in adjustment measures. *Countries undertook to: (i) gradually reduce emissions; (ii) assist vulnerable countries in limiting climate change and coping with unavoidable impacts; and (iii) shift from fossil fuels to renewable energy and sustainable land use by 2050.* The agreement does not indicate the extent to which emissions must be reduced by 2050. The EU as a whole undertook to reduce emissions by 40% by 2030 compared to 1990 levels, with targets for individual Member States not being set yet. The transition to a low-carbon economy could provide new business opportunities for Slovenia such as stimulating new green investments and creating jobs, facilitating a more efficient use of renewable energy sources and other natural resources, and creating a healthier and more human-friendly environment.

[1] Sources: The United Nations Organisation, the European Environment Agency, the European Commission, the Ministry of the Environment and Spatial Planning of the Republic of Slovenia.

Figure 42: **GHG emissions and emission intensity**



Source: Eurostat Portal Page – Environment, 2016; Eurostat Portal Page – Economy and Finance, 2016; calculations by IMAD.
Note: Emission intensity is calculated as the ratio of GHG emissions to the GDP in purchasing power standards.

use of motor fuels may jeopardise the attainment of the target.

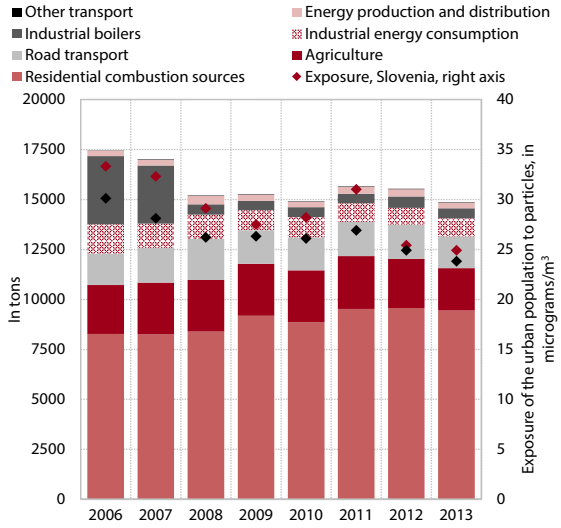
Although the emission intensity of the Slovenian economy is improving, it remains considerably higher than the EU average. The reduction in emission intensity, i.e. of GHG emissions per unit of GDP, which was faster in the period of economic growth, slowed down during the crisis. By international comparison, Slovenia ranks among the countries with the higher volume of emissions per unit of GDP, and the gap to the EU average further increased by 2013. The reduction in emission intensity, which was similar to the EU average in the period 2000–2007, slowed down during the crisis.

Calculations for 2014 show that emission intensity improved significantly in 2014. Since this was also due to one-off reasons (the closure of the thermal power plant and lower energy consumption for heating in the mild winter), further permanent improvements will be needed to achieve a long-term reduction in emission intensity and to prevent a further increase in GHG emissions.

The quality of air in Slovenia is closely related to the excessive levels of ozone and dust particles, which have not been improving over a longer period. Air pollution is one of the major environment-related causes of health problems in the population. In this regard, Slovenia is facing two major issues. The first is related to *ozone* and its precursors, which are largely caused by road traffic. The ozone concentration in Slovenia is heavily influenced by transboundary transfer from the lowlands of northern Italy. Since ozone concentrations depend on weather conditions, particularly winds from the west, the multiannual series of data do not show a clear trend.[196] Another issue is the concentration of *solid, dust or PM particles*, which are one of the most dangerous air pollutants.[197] In Slovenia, the most problematic particles are the largest, PM10 particles, particularly in the colder half of the year and in continental areas. Two-thirds of emissions of PM10 are from residential combustion sources. Despite significant pollution from biomass burning, Slovenia should not reduce or abolish the use of wood as an energy product, but rather raise awareness and improve technology.[198] The concentration of these particles is heavily influenced by meteorological conditions, mostly temperature inversions, wind speed and precipitation. In the past several years, conditions were favourable and contributed to lower pollution levels; however, no visible progress has been made since 2008 in this regard. Although the exposure of the urban population to particles declined, it still remained high and was above the EU average.[199]

Energy consumption is decreasing; during the crisis, this was mainly due to low economic activity, and in recent years, this has been due to lower energy consumption for heating in mild winters. One of the three targets of the EU climate and energy package for 2020 is a 20% reduction in energy consumption with regard to anticipated consumption. In most of EU countries, this means a reduction in *primary energy consumption* compared to the base year of 2005, while in Slovenia and several other Member States, where, in the catching-up process in terms of economic development,

Figure 43: **PM10 pollution and the exposure of the population to PM[10], Slovenia and the EU**



Source: Eurostat Portal Page – Environment and Energy, 2016.

a larger increase in energy consumption was expected, this entails a restriction on growth. Considering that in most EU countries, including Slovenia, these targets will be easy to achieve, the European Commission has adopted more ambitious targets for energy savings by 2030. In most countries, savings were higher than originally planned, which was also due to the fact that the economic situation was worse than anticipated at the time scenarios were developed and to the mild winter in 2014 and 2015. In these two years Slovenia recorded the highest average annual temperatures since the beginning of systematic measurements. Energy consumption for household heating in Slovenia decreased by a fifth in 2014 (see Indicator 4.2). A 20% energy savings target was also set for *final energy consumption* in the EU Member States. In Slovenia, as in the EU, final energy consumption was below the target value in 2014. In final energy consumption, the share of fuel consumption in transport was more significant in Slovenia than in the EU (in 2014, Slovenia – 40%, the EU average – 33%), which was mostly due to increased transit traffic through Slovenia (see Indicator 4.5).

The key factor in the high energy intensity[200] of the Slovenian economy remains the use of energy in transport. In the period 2005–2014, final energy consumption, on average, decreased by 11% in the EU and by only 6% in Slovenia. The reduction in energy consumption was more pronounced in Slovenia than in the EU in industry, while the decrease in the consumption of energy products by households was similar to that in the EU. Slovenia also experienced a significant increase in fuel consumption in transport (by 22%; in the EU it decreased by 5%), which was the result of increased transit traffic through Slovenia. This

[196] Environmental Indicators in Slovenia, 2014

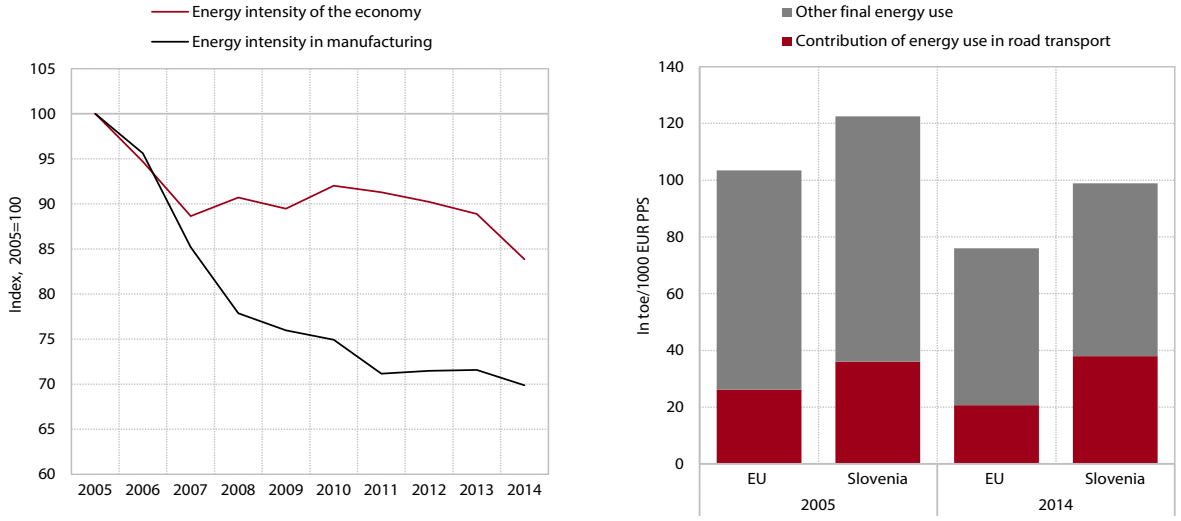
[197] The European Environment, 2015.

[198] Prebil, 2016.

[199] From the health point of view, older people and children are the two most exposed groups. In Slovenia, the largest proportion of children, on average, is exposed to PM10 concentration values ranging from 31 to 40 µg/m^3, which considerably exceeds the concentration level recommended by the WHO, which is 20 µg/m (Health Statistical Yearbook, 2013).

[200] Energy intensity is a primary energy consumption per unit of GDP.

Figure 44: **Energy intensity, Slovenia (left) and comparison between Slovenia and the EU (right)**



Source: Eurostat Portal Page – Environment and Energy - Energy, Eurostat Portal Page – Economy and Finance – National Accounts, 2014; calculations by IMAD.

put pressure on the total energy consumption; as a result, the energy intensity of the Slovenian economy even increased slightly during the crisis and, in 2014, it was already by around a quarter higher than in the EU (in 2005, it exceeded the EU level by 15%).[201] With the continuing trend of high energy intensity and the economic recovery, the energy savings targets will be harder to achieve.

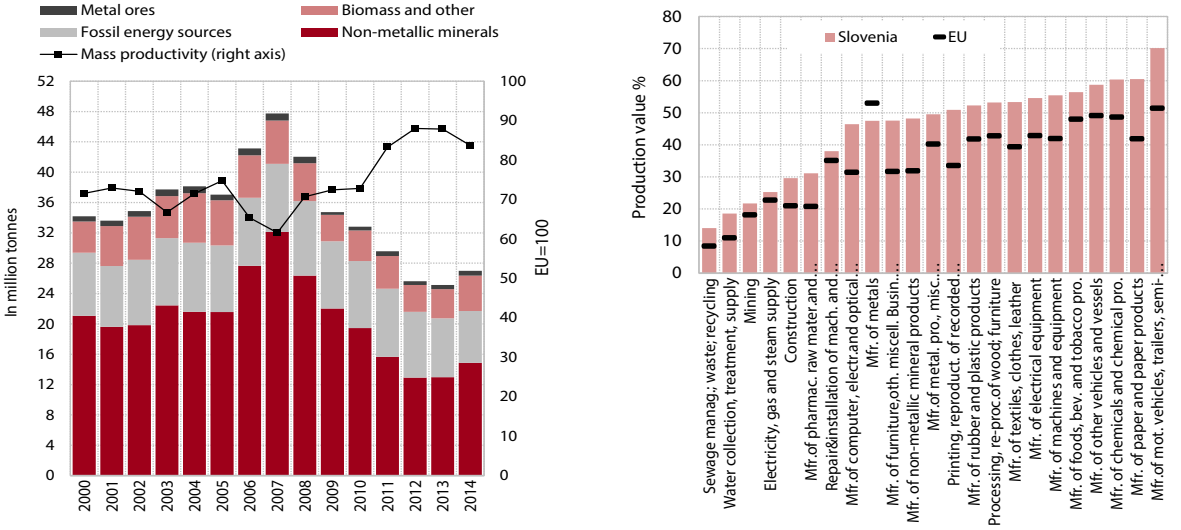
Transport is a sector that has a significant negative impact on the environment; the volume of freight transport by all modes has increased considerably with the expansion of the EU due to Slovenia's location at the crossroads of transit routes. The share of road freight transport reached its peak in 2009; since then and given the annual fluctuations, a slight downward trend can be noticed (see Indicator 4.5). In 2015 it had increased to well over 80% (the EU in 2014: 75.3%) due to a large increase in the volume of road transport and a modest increase in rail transport. In the period 2005–2014, the volume of road freight transport carried out by Slovenian hauliers increased by a half. This was due to the increase in transport operations abroad, while in Slovenia, an increase was seen in transport operations by foreign hauliers. The volume of rail transport increased much less, by a quarter. In the same period, contrary to the trend in Slovenia, the volume of freight transported by road and by rail decreased by 4% and 2% respectively on average in the EU. In terms of both road and rail freight transport per capita, Slovenia has already significantly exceeded the EU average; in 2014, by two and a half times. This is due to Slovenia's position at the crossing of the V and X European corridors and to the increase in foreign trade flows through Slovenia with the expansion of the EU. In terms of the density of the motorway network per capita, Slovenia ranks at the top of the EU Member States. However, some parts of the railway infrastructure, which is also extensive, do not allow a faster increase in rail freight transport, which is a more acceptable mode of transport from the point of view of the environment.

In recent years, the decline in energy intensity has been more pronounced in manufacturing than on average in the economy. The decomposition analysis of energy consumption shows that the decrease in 2014 was due to a more efficient use or a decline in energy intensity in most industries, particularly in the manufacture of metals. This effect is particularly important in terms of ensuring export competitiveness, particularly in industries where energy consumption represents a significant part of expenses. Since 2005, the decline in energy intensity has been more pronounced in manufacturing than on average in the economy. There has been a move towards the average energy intensity of manufacturing industries in the EU; however, in terms of energy intensity, Slovenia is still above the EU average. This can be partly attributed to the industry structure, which is, to a greater extent than in other countries, based on industries where more energy is used in production processes. To some extent, this is also confirmed by an above-average proportion of emission-intensive industries in Slovenia[202], which increased during the crisis and has been around a quarter since 2010. With the exception of the paper industry, the share of emission-intensive industries (the chemical industry, the manufacture of metal and non-metal products) in the total value added of manufacturing industries is higher in Slovenia than in the EU on average (see Indicator 4.3).

[201] In the temporal comparison, the indicator of primary energy per unit of GDP in fixed prices is used; in the comparison between the countries in individual years we use GDP expressed in purchasing power standards (PPS) for higher methodological accuracy.

[202] Defined according to the World Bank methodology.

Figure 45: **Domestic material consumption and resource productivity*, Slovenia (left) and the cost of materials used per unit of output by sectors of industry and construction in 2012 (right)**



Source: SI–STAT data portal – The Environment, 2015; Eurostat Portal Page – Environment, 2015; calculations by IMAD.
Note: *Resource productivity is the relationship between GDP and the domestic material consumption (in EUR/PPS/kg), shown in the chart relative to the EU. Domestic consumption of materials is defined as the domestic extraction plus net imports of materials.

The share of renewable energy sources (RES) is higher than the EU average as a result of favourable natural conditions, with its growth slowing down considerably since 2009. In 2014, it amounted to 21.9% in Slovenia and to 16.0% in the EU on average (see Indicator 4.4). Until 2009, the growth in the use of RES was mostly contributed to by the increased use of wood or solid biomass, and later by the use of solar and geothermal energy. In 2014, the use of energy for heating declined considerably due to warm weather during the heating season. Since wood is an important source of energy for heating, its use declined significantly that year. The record high hydroelectric power production due to extremely favourable hydrological conditions in 2014 did not compensate for the reduction in renewable energy in heating (because the production of hydropower is calculated as normalised production, as an average over a longer period). For 2015 we estimate that there were no major changes in the use of RES and total final energy use, which means that the share of RES probably remained unchanged. Compared to the EU average, Slovenia uses a large share of RES in meeting its energy demand; however, in the period 2005–2014, the increase in the use of all RES in Slovenia was only half the increase in the EU (by 30% in Slovenia; by around 60% in the EU). The use of RES depends, to a large extent, on natural conditions, which are rather favourable in Slovenia, particularly from the point of view of the use of wood for heating and the use of hydropower to generate electricity.[203] On the other hand, Slovenia is lagging behind the EU average in terms of the share of RES that come from less conventional sources (solar, wind and geothermal power, and biogas). In 2014, the share of these RES was only 12% in Slovenia and 36% in the EU, a large part of the difference being due to a more widespread use of wind power in the EU. Incentives for energy production from RES have increased since 2005, but their structure has changed to favour more expensive solar energy. Slovenia's targets to achieve by 2020[204] are a 25% share of RES in gross final energy consumption (EU: 20%) and a 10% share of RES in transport.

The resource productivity of the Slovenian economy has improved since the beginning of the crisis, mainly due to a downturn in construction, whereas the cost of raw materials per product unit remains high in most industries. In the period 2007–2013, resource productivity, which is an indicator of sustainable consumption and is expressed as the ratio of GDP to raw material consumption, increased to a greater extent in Slovenia than in the EU. The improvement was related to the reduced consumption of non-metallic minerals[205] due to a significant downturn in construction activity,[206] which again gathered pace in 2014 as the volume of construction orders increased. Resource productivity decreased by 3% in 2014, falling to 84% of the EU average (in 2012, when it was at its highest, it was 88%). An analysis based on the tables of supply and

[203] In this regard, attention should be drawn to the fact that climate change may have, in the long term, adverse effects on the water level of rivers and, as a result, on a lower production of hydropower.

[204] Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012.

[205] Due to their specific weight, non-metallic materials significantly influence the overall material consumption, thus accounting to two-thirds of the total consumption in 2007 and 55% in 2014. These are in particular sand, gravel and limestone.

[206] According to data obtained from the Geological Survey of Slovenia, in 2014 three-quarters of non-metallic minerals were used as raw materials in civil engineering, further 17% as raw materials for building material industry and only 7% in manufacturing.

Table 10: **Waste production and management, in thousand tonne, Slovenia**

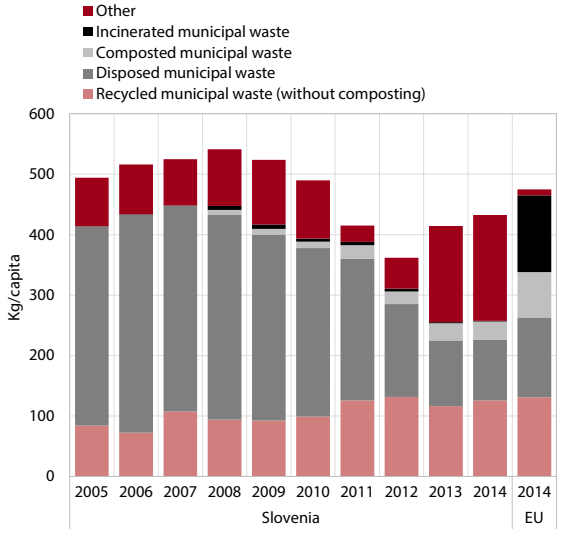
	2005	2010	2011	2012	2013	2014	2014/2013 growth, in %	2014/2005 growth, in %	2014 structure
WASTE GENERATED in the current year	6,462	7,282	7,009	5,379	5,641	5,750	1.9	-11.0	100.0
– production and service activities	5,170	5,442	5,330	3,722	3,779	3,786	0.2	-26.8	65.8
- municipal waste	845	864	722	744	853	892	4.5	5.5	15.5
- imports	447	977	957	913	1,008	1,072	6.3	139.9	18.6
MANAGEMENT OF WASTE generated in the current year									
- recovery	2,557	5,292	3,697	3,239	2,878	3,022	5.0	18.2	52.6
- disposal	1,789	1,471	1,058	675	556	534	-4.0	-70.2	9.3
- export	338	255	316	419	603	671	11.3	98.8	11.7
- other	1,779	264	1,938	1,047	1,604	1,523	-5.1	-14.4	26.5

Note: The management of waste generated in the current year is presented, without stocks from previous years. Recovery includes recycling, composting and use as fuel; removal includes disposal, permanent storage and incineration of waste for the purpose of removal.

consumption indicates that, at the level of the economy as a whole, Slovenia has an above-average share of raw material costs per unit of production.[207] This is due to the structure of Slovenia's economy, which relies, to a greater extent than other EU Member States on average, on activities involving extensive use of material. In addition, the share of costs at the level of most of comparable industries was also above average, indicating less efficient use of raw materials. In addition to impacting on the aforementioned natural resources, the efficiency of the use of raw materials has a significant impact on competitiveness, particularly in export-oriented manufacturing, the greatest gap with the EU average being in certain technologically demanding industries,[208] which importantly contribute to Slovenia's merchandise exports. An increased raw material consumption was also recorded in industries that are mainly oriented towards the domestic market; compared to the EU, the construction sector is one such industry.

After the reduced waste generation during the crisis in 2014 has slightly increased, but waste management is improving. In 2014, Slovenia generated 4.7 million tons of various types of waste, a fifth of these being municipal waste, and the rest waste from production and service activities. Further to that, the total amount of hazardous waste has increased to about 3% of the total. To achieve a further decrease in waste generation, a greater reorientation of manufacturing to a "closed-loop system (i.e. a greater share of recyclable material use and thereby their re-use in subsequent production processes) will be crucial. At the same time it will be necessary to reduce the use of hazardous substances and the associated generation of hazardous waste. *Waste management*, however, is improving. Recycling, which is from the environmental point of view highly desirable, comprised 44% of the total recovery (see Indicator 4.6). In efforts towards more sustainable waste management, this share must be further increased, along with other processing methods, such as composting and incineration, which in Slovenia are below the EU average. The disposal of waste that could be prepared for reuse means lost opportunities for more efficient use of resources, lesser dependence on imported raw materials, lower greenhouse gas emissions and also for creating new jobs.

Figure 46: **Municipal waste management, Slovenia and the EU**



Source: SI-STAT data portal – Environment; calculations by IMAD
Note: The quantities of waste generated in Slovenia (or for the last column in the EU) are presented – waste export but not also import is included. The quantities collected by public and other waste removal are taken into account. The category "other" covers the preliminary preparation of waste and its temporary storage, i.e. the recovery that could not be completed in the current year.

According to most indicators, environmental pollution from agriculture is on a long-term decrease. Slovenian agriculture, which is not ranked among the more

[207] According to Eurostat latest internationally comparable data, in 2012 the share of raw materials in relation to the value of production was estimated at 8.6% in Slovenia and at 3% less in the EU. The share of use of more broadly defined materials, which also takes into account intermediate products and final products for the purposes of intermediate consumption, was also above average (Slovenia around 27%, EU around 18%).

[208] Particularly in the manufacture of electrical equipment, the production of other machines and equipment, and the production of motor vehicles; in all these industries, there are high costs of use of non-metal mineral products compared to the EU.

Box 10: **A new Circular Economy Package of the European Commission**[1]

At the end of 2015, the European Commission adopted a new Circular economy package to boost Europe's transition to circular economy. This should enhance the sustainable use of resources and thereby the competitiveness of the EU in the world, promote sustainable economic growth, create jobs and thus benefit the economy and the environment. To achieve these objectives, around EUR 5.5 billion from the Structural Funds were allocated for waste management and investments in the circular economy at the national level, and EUR 650 million from Horizon 2020, the EU's research and innovation funding programme. Circular economy will be based on the use of energy from renewable sources, the abandonment of hazardous chemicals and reducing the consumption of raw materials. The transition to circular economy will apply to the fields of production, consumption, waste management and secondary raw materials market enhancement, with the innovation and investments being crucial.

Targets on waste minimization and management are set out in the amended legislation on waste. The basic vision is more recycling and reuse as well as less disposal, while the common objectives of the EU to 2030 are clearly defined and ambitious: *65 percent recycling of municipal waste, 75 percent recycling of packaging waste and reducing the amount of waste disposed of in landfill to a maximum of 10%.* The targets inter alia also relate to separately collected waste that should not be disposed of in landfill, to promote re-use and the production of environmentally friendly products. The Action Plan includes measures to remove market barriers in sectors or material flows, such as plastics, food waste, critical raw materials, construction waste or waste from demolition, biomass and bio-based products. The concept of circular economy is included in the Framework Programme for the transition to a green economy that the Government of the Republic of Slovenia adopted in October 2015. Further to that, the new package is an additional incentive for systematic changes in the functioning of the Slovenian economy and general society.

[1] Source: Closing the loop - EU Action Plan for the circular economy, 2015; The framework program for the transition to a green economy, 2015.

intensive according to international comparisons,[209] has mostly reduced its burden on the environment in recent years, also through orientation of its agricultural policy. Consumption of certain basic agricultural inputs, such as fertilizers and pesticides, is on a long-term decrease (see Indicator 4.7); however, with a technologically more appropriate production there are still possibilities for a further reduction.[210] Special attention is paid to farming in water protection areas, as pesticide and fertiliser residues are the most important source of agricultural pollution of groundwater and, consequently, drinking water. Its quality in Slovenia is generally good and is further improving; however, some areas near the most intensive agriculture are still problematic.[211] The efficiency of farming, measured by the average yield of the two most important crops, fluctuates depending in particular on weather conditions. In 2014, after the droughty previous year, the yield has increased significantly, and since not being too high, this may indicate a better utilization of natural resources. In livestock farming, the average milk yield per animal continues to increase, though being still relatively low, its growth in terms of environmental burden may be favourable.

Area of organically farmed land is increasing; however, the set targets are much higher. In 2014 organic farming, which is one of the most effective ways of sustainable use of resources, increased again to around 41,000 hectares. Nevertheless, for a long time growth has not been sufficient to achieve the long-term quantitative targets, which were very ambitious, given the initial favourable situation. In 2014 the system of organically cultivated land monitoring covered around 9% of agricultural land, though the objective set for 2015 was to reach 20% of the land[212]. In terms of environmental protection, it would be desirable to increase the area of organic farming, in particular in protected areas and river plains where groundwater resources and the impacts of intensive farming are most problematic; yet organic farming is least present there.[213] Market of organic products and food is a rapidly growing segment of the food market, yet the growth in the supply of domestic organic products is too slow, so that the share of Slovenian organic food in total sales is only about 20%.[214] Organic production is present mainly in animal husbandry, while there is a growing demand for organic fruit and non-meat processed foods. It is desirable that the growth is faster and in line with the structure of demand.

[209] According to selected indicators of the Agriculture, Fishery and Forestry Statistics, Eurostat, 2015.

[210] Urek et al., 2012.

[211] In 2014 in consuming drinking water, 0.3% of the Slovenian population were exposed to excessive pesticide concentrations and 0.2% of the population to excessive nitrate concentrations (Drinking water monitoring 2014, 2015).

[212] The Action Plan for the Development of Organic Agriculture by 2015, 2005.

[213] Podmernik, Kerma, 2013.

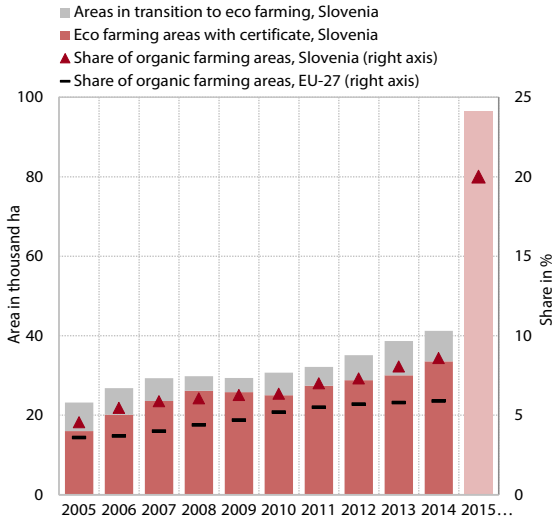
[214] Final report of the working group on the monitoring of the Action Plan for the Development of Organic Agriculture by 2015, 2012.

Table 11: **Forest and commercial utilisation, Slovenia**

	2000	2005	2010	2011	2012	2013	2014	2014/2013 growth, in %	1014/2000 growth, in %
Forest area (in thousand ha)	1,134	1,169	1,185	1,184	1,185	1,183	1,182	-0.1	4.2
Growing stock (in million m^3)	263	301	331	334	338	342	346	1.1	31.7
Yearly increment of wood (in thousand m^3)	6,872	7,569	8,117	8,266	8,420	8,492	8,582	1.1	24.9
Tree felling (in thousand m^3)	2,609	3,253	3,374	3,896	3,911	3,924	6,350	61.8	143.4

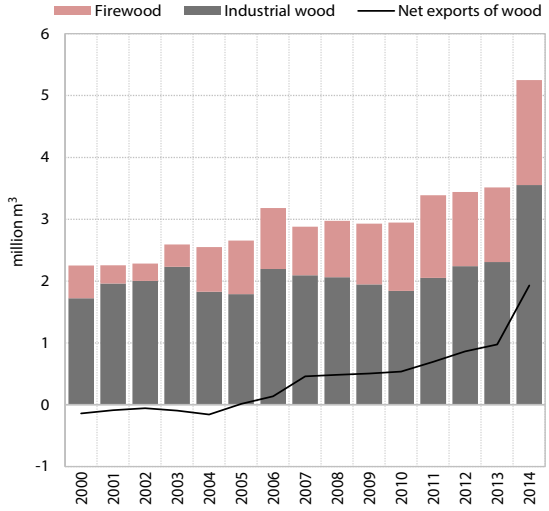
Source: SURS, Slovenian Forest Service; calculations by IMAD.

Figure 47: **Organic farming areas, Slovenia and the EU**



Source: Eurostat Portal Page – Statistics – Agriculture and Fisheries, 2016; SURS, 2016.
Note: The target for 2015 is set out in the Action Plan for Organic Farming; target area 20% of UAA is translated to the situation in year 2014.

Figure 48: **Unprocessed timber production, its structure and net exports, Slovenia**



Source: SURS.

Felling, wood assortment production and export of unprocessed wood, which have been rising for quite some time, considerably increased in 2014 due to extensive glaze ice damage. In the last few decades, felling in relation to the growth of wood has been relatively low.[215] In 2014, when half of the Slovenian forests were affected by strong glaze ice, tree felling was increased significantly, to almost twofold the average annual amount since 2000 (see Indicator 4.8). While the recorded tree felling in previous years represented only about two-thirds of the allowed value, in 2014, for the first time since its monitoring, it scored or slightly exceeded this value by quantity but not also by the desired structure. The production of unprocessed timber, which depends not only on felling, but also on the utilisation of felled trees, was half higher than in the previous year. About a half of the total annual increase in timber acquisition was *export* oriented. Further to that, the export of the highest quality unprocessed wood has increased considerably despite that its production has increased the least. Recent years have witnessed the extensive and rapidly increasing export of this timber, and this represents an unexploited potential to achieve higher employment and higher added value in further stages of the forest-wood chain. Apart from the significant negative consequences of glaze ice, there are also some positive ones as a wider rejuvenation will lead to an increased biological and structural diversity and improved health status of forests.[216]

[215] Further to that, in state-owned forests trees were felled approximately in the volumes of the planned or permitted felling, whereas tree felling in privately-owned forests, which make a majority, it was considerably lagging behind.

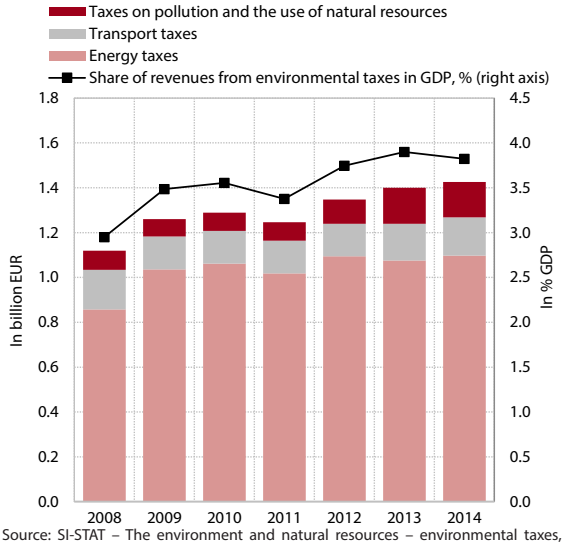
4.1.2 Selected environmental measures

The share of environmental taxes in GDP in Slovenia is above the EU average, their growth after 2008 being stimulated mainly with a view to reducing the public deficit. Total revenues from environmental taxes in 2014 amounted to EUR 1.43 billion and were by more than a quarter higher compared to 2008. Major part of the increase after 2008 is attributable to increases in rates of excise duties on energy products, particularly in the years 2009 and 2012, and the implementation of the CO_2 tax on liquid fuels in 2012. Two-thirds of environmental taxes were borne by households. Since 2008, this share has slightly decreased, partly as a result of methodological simplification, whereby the majority of fuel consumption is attributable to households. Measured by the share of environmental taxes paid in the value of production (and added value), in 2014 the most burdened activity was energy supply with steam and electricity, followed

[216] Breznikar, 2016.

by transport and storage activities.[217] After 2008, the burden of both has increased, which applies also to less burdened processing industry. According to the share of revenue from environmental taxes in GDP, in 2014 (3.9%) Slovenia exceeded the weighted average of the EU by 1.4 pps. The latter is mainly attributable to the extensive use of motor fuels in road traffic resulting from the dispersed population settlement, a large volume of transit traffic and poorly developed railroad and general public passenger transport.[218]

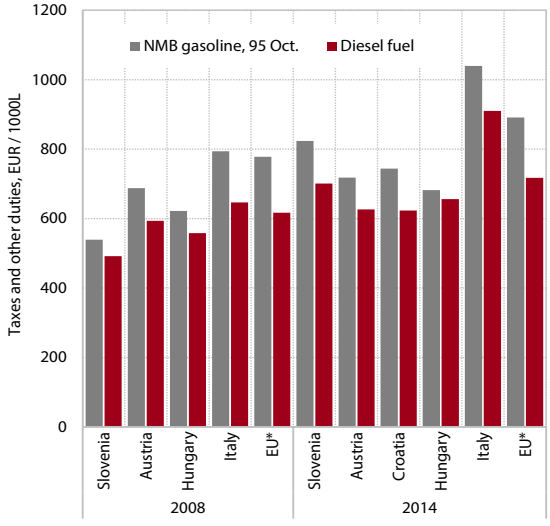
Figure 49: **Revenues from environmental taxes, Slovenia**



Source: SI-STAT – The environment and natural resources – environmental taxes, September 2015.

Despite the increase in the taxation of energy products after 2008, the excise duty rates on individual products, likewise in the EU, still do not reflect their energy content and CO_2 emissions. The implicit tax rate (ITR) on energy consumption in 2014 amounted to EUR 236.4 per tonne of petroleum oil equivalent, which was 42% more than in the pre-crisis year 2008.[219] The increase inspired by the need to balance public finances exceeded the EU average. In this year, the ITR for energy consumption was by 17% higher than the unweighted average of the EU Member States[220] and 8% higher than the average in the neighbouring countries. The excess results from a relatively high taxation of liquid fuels in Slovenia, which – after being lower than in the neighbouring countries and the EU average in 2008 – has significantly increased. In 2014, public levies (environmental taxes, VAT and other public levies) per litre of 95-octane gasoline and diesel fuel were higher than in all neighbouring countries, except in Italy. In comparison with the weighted average of the EU, they were slightly lower for gasoline but were comparable for diesel fuel.[221] The excise duty rates on gasoline were in Slovenia and in almost all other EU Member States (despite slightly lower CO_2 emissions per litre of fuel) higher than for diesel fuel. Coal, an energy source with the highest CO_2 content, has one of the lowest tax rates per unit of CO_2 emissions in both Slovenia and the majority of developed countries.[222] In recent years, the effectiveness of environmental taxes to protect the environment has been adversely affected by: (i) the ineffectiveness of the European ETS Allowances since the permissions for CO_2 emissions in many companies exceeded their needs; (ii) environmentally harmful subsidies; and (iii) the plummeting oil prices since mid-2014, which reduce the dampening effect of higher taxes on oil consumption and incentives for the development of cleaner energy sources.[223]

Figure 50: **Taxes and other public duties levied on gasoline and diesel fuel, Slovenija, neighbouring countries and the EU**



Source: Oil Bulletin data (2015); calculations by IMAD.
Notes: NMB – unleaded gasoline. *EU value applies to the weighted average of EU Member States; **Average values of public levies in an individual year are presented, calculated on the basis of a weekly published data on retail prices including taxes and other charges and retail prices excluding taxes and other charges.

At the end of 2015, the absorption of EU funds from the 2007–2013 programme period was completed, in which Slovenia achieved a high turnover *within*

[217] Burden of transport and storage was otherwise moderate. With a rapid increase in rates of excise duties in 2009, there was the possibility of a partial refund of duties paid on diesel fuel for motor vehicles for the purpose of commercial use (up to the minimum level set out in the EU Energy Directive).

[218] In accordance with the index of global competitiveness (WEF, 2015–2016), in terms of railway infrastructure Slovenia ranked 47th among 140 countries (21st among EU Member States), and 44th as regards the quality of roads (16th among EU Member States).

[219] ITR for energy consumption measures the effective average tax load of 1 tonne of oil equivalent.

[220] For the EU we give normal or weighted arithmetic mean, which was much closer to the median than the weighted average (EUR 219.3 per tonne) published by Eurostat (2016).

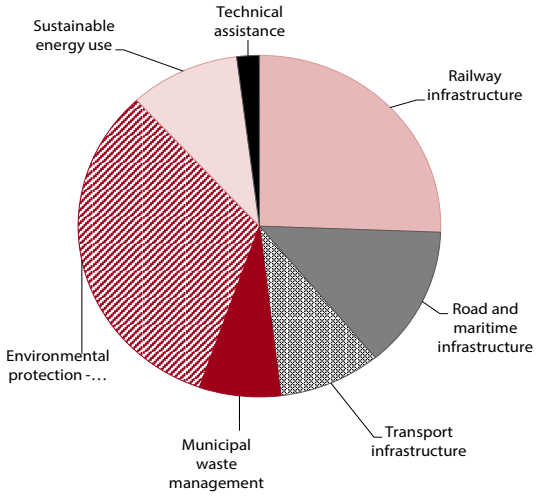
[221] Annual average for the EU is calculated from the weekly Oil Bulletin data (2016) for a weighted average of energy prices including duty and energy prices excluding duty. Calculations for a simple average, which (consistently with the lower ITR on energy use) was probably lower than in Slovenia, are not available.

[222] OECD Taxing Energy Use 2013, p. 36.

[223] Fricke, 2016.

the cohesion policy for transport and environmental infrastructure ***(OP ETID).*** By the end of 2015, EUR 1.6 billion was paid to beneficiaries from the state budget (106% of the funds available), and the budget was refunded EUR 1.5 billion (96% of the funds available).[224] Most of the payments (approx. one-third) were made for environmental protection projects, about a quarter for railway infrastructure, and the least for municipal waste management.[225] As in the new financial period only around EUR 1.1 billion are earmarked for infrastructure projects, in the event that the state will not provide additional sources of financing, the investment activities intended for transport and environmental infrastructure will be significantly reduced.[226]

Figure 51: **The structure of payments from 2007–2013 ETID OP, 2015 year-end stock, Slovenia**



Source: GODECP, 2016.

Since 2011 the share of government budget appropriations on R&D for environmental and energy purposes in the overall funding for R&D has been decreasing, while the number of green patents remains modest. In 2014, the government budget appropriations for environmental and energy research amounted to EUR 10.3 million, i.e. by around 35% less for both purposes as compared to 2011, which was the most favourable year in this respect. The decrease reflects a general reduction of government investments in R&D in this period after several years of their high growth. Investments by the business sector, i.e. the private sector, also increased in real terms in the period 2011–2014. The total share of funds allocated for these purposes in the average of EU countries is higher than in Slovenia. According to

Table 12: **Government budget appropriations for environment and energy as a percentage* of total government R&D budget**

In %*	2008	2009	2010	2011	2012	2013	2014
Slovenia							
Environment	3.51	2.27	3.27	3.36	2.98	3.10	3.30
Energy	1.11	1.58	1.99	3.59	2.79	2.90	3.08
EU							
Environment	2.87	2.80	2.70	2.62	2.62	2.55	2.46
Energy	3.73	3.61	3.86	3.85	3.82	4.25	4.20

Source: Eurostat Portal Page – Science and Technology – Research and Development, 2015; SURS, 2014.
Note: *In accordance with the methodology of the Frascati Manual, this involves all appropriations of the state for the implementation of R&D within the state and abroad, regardless of the implementing sector (OECD, 2002).

the relevant statistical data,[227] no significant progress was made with regard to green patents, i.e. patents related to environmental technologies.[228] The latest available statistics from the OECD show that in 2005–2011, the majority of first patent applications with the EPO were filed in the area of energy-related climate change mitigation technologies.[229] The composite eco-innovation index[230] for 2013[231] shows a below-average value for Slovenia in comparison to the EU, while among the neighbouring countries Austria and Italy ranked much better. Thus, the low volume of green patents and in general modest exploitation of the potential of the dynamic global market of environmental technologies[232]

[224] The highest turnover was recorded in 2014 and 2015 (60.5%).

[225] Part of the funds for municipal waste management was transferred to other developmental priorities.

[226] In the new financial period, these projects were allocated EUR 1,055 million, of which EUR 895 million was earmarked for the cohesion fund and EUR 160 million for the CEF (Connecting European facility).

[227] At the end of 2015, the OECD published new data on green growth indicators. The share of government budget appropriations for environmental research related R&D is monitored in terms of economic opportunities and policy responses. As regards green patents, there have also been changes in individual technology groups, which explains a break in the series of data (OECD Green Growth Indicators 2014, 2014).

[228] According to the new definition, green patents include the following environment-related technology groups: (i) environmental management (the reduction of air and water pollution, waste management, land restoration, environmental control); (ii) water-related adaptation technologies (technologies on the sides of demand and supply); (iii) technologies to mitigate the consequences of climate change in the areas of energy, transport and buildings; and (iv) the capture, storage, sequestration or removal of greenhouse gases (Haščič and Migotto, 2015).

[229] In the period 2005–2011, Slovenian applicants filed with the EPO 28 first patent applications under the former definition and 33 under the new one. As regards environmental technologies, where the majority of submitted patent applications belong to, nothing has changed – technology related to climate change mitigation in relation to energy remains the leading area of Slovenian patent applicants.

[230] Eco-innovation Scoreboard, 2014.

[231] Composite index components measure eco-innovation related activities which yield positive environmental benefits either due to a decrease in the consumption of natural resources or reduced emission of harmful substances throughout the life cycle (Eco-innovation Observatory-Annual Report 2012, 2013).

[232] In the period 1980–2005, green patents based on environmental technologies falling under the new definition

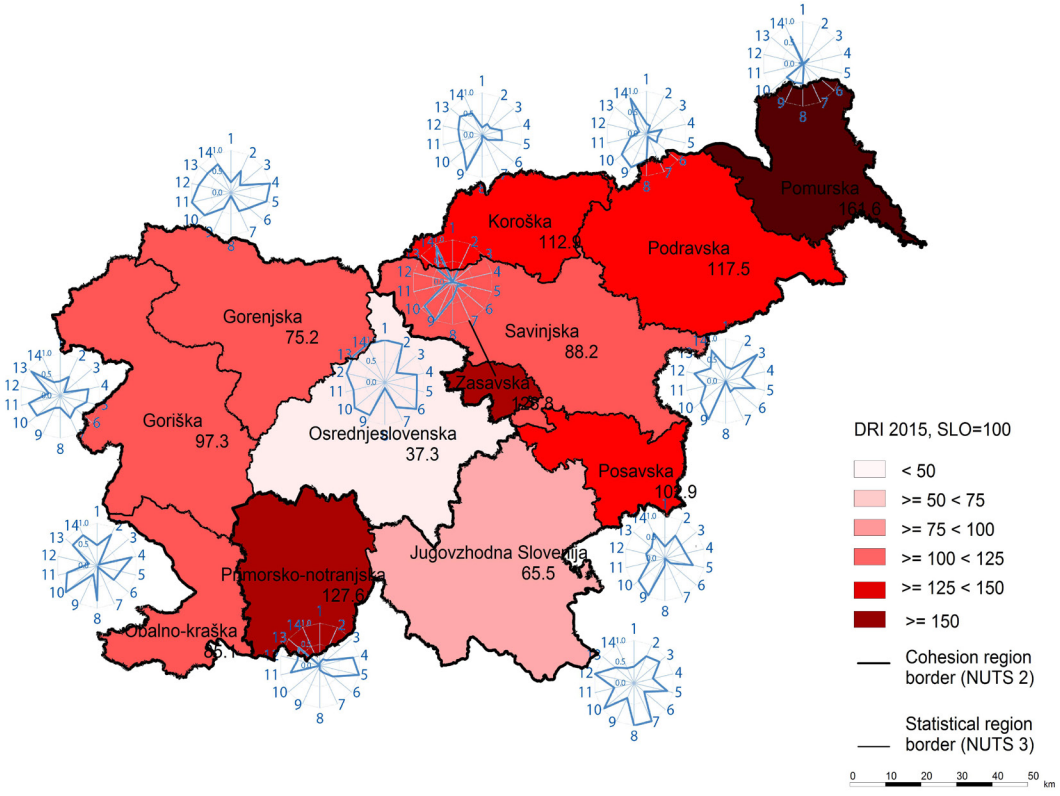
remain unexploited opportunities for Slovenian R&D activity and sustainable economic growth.

4.2 Regional development

The regional development policy aims to ensure that development among the regions is more balanced. The regional disparities in Slovenia, which are relatively low, underwent a further decrease during the crisis. This was mainly due to the advantages of more developed regions decreasing at a faster rate and, to a lesser extent, the measures associated with the balanced regional development policy. For areas where the economic situation has deteriorated significantly, policy measures for temporary developmental support have been envisaged but, given the urgency of the fiscal consolidation required, are very limited. In recent years European cohesion funds, in particular, have been of paramount importance for regional development, and the drawdown of these funds in the last programme period has been significantly accelerated. These funds will also be an important development factor in the current period, and full attention will have to be paid to their drawing.

According to the development risk index (DRI), Osrednjeslovenska is the least and Pomurska the most developmentally disadvantaged region. The DRI is an aggregate indicator[233] which has been implemented for the purpose of monitoring regional development in the 2014–2020 programming period. The calculation

Map 1: **Development risk index (DRI), 2015**



1 Gross domestic product per capita
2 Gross value added per employee
3 % of gross fixed capital formation in GDP
4 Registered unemployment rate (aged 15–29)
5 Employment rate (aged 20–64)
6 % of population with tertiary education (aged 25–64)
7 % of gross domestic expenditure on R&D in GDP
8 % of at least secondary wastewater treatment
9 % of protected area surface
10 % of estimated damage caused by natural disasters in GDP
11 Registered unemployment rate
12 Ageing Index
13 Disposable income per capita
14 Population density - km²/inhabitant

Source: SURS, ARSO, URSZR, MGRT, DRI upravljanje investicij d.o.o.; calculated by IMAD.
Note: Diamond charts show standardised values of individual indicators that make up the DRI and range from 0 (worst value) to 1 (best value). According to the DRI, the Pomurska region is the worst with a number of indicators taking value 0, whereas in the Osrednjeslovenska region, which is the best, the indicators with value 1 prevail.

represented approximately 5% of all the innovations patented in the world. After 2005 their share increased and had reached approximately 10% by 2015 (Haščič and Migotto, 2015).

[233] It consists of 14 indicators of development, which are specified in the legend under Map 1. More about methodology in the Development Report 2015, p. 76.

Table 13: **Development risk index**

Statistical region (NUTS 3)	2014	2015	Rank 2014	Rank 2015
Osrednjeslovenska	35.5	37.3	12	12
Jugovzhodna Slovenija	64.7	65.5	11	11
Gorenjska	66.6	75.2	10	10
Obalno-kraška	81.4	85.1	9	9
Savinjska	92.6	88.2	8	8
Goriška	100.4	97.3	7	7
Posavska	101.5	102.9	6	6
Koroška	121.6	112.9	5	5
Podravska	123.9	117.5	4	4
Zasavska	125.1	126.8	2	3
Primorsko-Notranjska	124.8	127.6	3	2
Pomurska	161.8	161.6	1	1
The ratio between the highest and lowest ranked region	4.6	4.3		
The coefficient of variation	33.0	31.6		

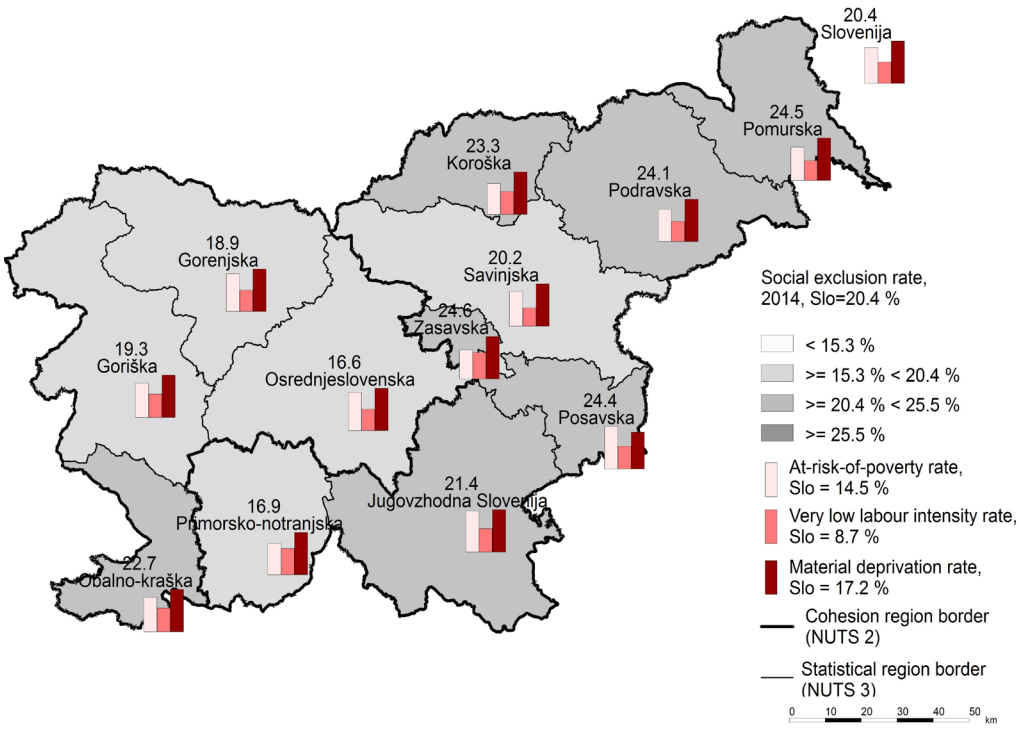
Source: SURS, ARSO, URSZR, MGRT, DRI upravljanje investicij d.o.o., calculated by IMAD.

for 2015 shows that Osrednjeslovenska remains the least developmentally disadvantaged region, i.e. the most economically developed one. Its GDP per capita is approximately 40% higher than the Slovenian average and it has generated a third of Slovenian gross value added. It stands out in terms of the high education profile of its population, the high share of its gross domestic expenditure on R&D in terms of GDP and its above-average disposable income per capita. In recent years, it has been among the regions that were least affected by natural disasters. However, in the region, relatively poor care is taken of wastewater treatment with at least secondary wastewater treatment, but this too was improved in 2015. At the other end of the spectrum is Pomurska, the most developmentally disadvantaged region. With a GDP per capita which lags approximately one-third behind the Slovenian average, it is among the weakest regions economically. The standard of education of the population is low and its rate of registered unemployment is high, both the total and among 15–29 year olds. Its disposable income per capita also lags behind the Slovenian average. In recent years, it has been considerably more affected than other regions by natural disasters. The remaining regions[234] can be classified into two groups. The first comprises regions with low development risk: Gorenjska, Obalno-kraška and Goriška, all belonging to the cohesion regions of Zahodna Slovenija, and Savinjska and Jugovzhodna Slovenija from the Vzhodna Slovenija cohesion region. In the second group are regions with higher development risk: formerly, these used to be strong industrial regions – Koroška, Podravska, Zasavska, Posavska and Primorsko-Notranjska, the latter two with a relatively high share of agriculture in the GVA; all of them belong to the Vzhodna Slovenija cohesion region.

During the crisis, the regional differences in economic development, which had been previously increasing, decreased due to a major decline in activity in the economically stronger regions. The increase in regional differences before the crisis was mainly due to the concentration of economic activity in the Osrednjeslovenska region, which generated more than a third of total GDP. Nevertheless, a large part of the added value is generated by the remaining regions, thus reducing regional differences, which have never been as big as in some other EU countries, and in particular in the East European ones. This was largely influenced by the longstanding policy of a balanced regional development. The increasing regional disparities in disposable income are mitigated by higher social transfers to poorer regions. Regional disparities are further diminished by increasing daily labour migrations, which allow the creation of income in developed regions and spending in poorer ones. During the crisis, regional disparities decreased further (see Indicators 4.10 and 4.11) and remained stable mainly due to an accelerated decrease in economic activities in economically more developed regions. At that time, economically weaker regions were less affected though they were still lagging behind in development. With revival of the economy, once again an increase in regional disparities may be expected. Supported by regional policy, in the regions with

[234] Regulation (EC) No. 1319/2013 adopted in 2013 implemented some changes at the NUTS 3 level regions: Notranjsko-kraška region was renamed Primorsko-Notranjska, with Spodnjesavska becoming the Posavska region. The borders of four NUTS 3 regions were changed as follows: the municipality of Litija was excluded from the *Osrednjeslovenska region* and included in *Zasavska region*; and the municipalities of Radeče and Bistrica ob Sotli were excluded from the Savinjska region and included in the Posavska region. The inclusion of the municipality of Litija into the Zasavska region resulted in the borders of the NUTS 2 regions being changed. The change was implemented in 2015. Since the data for previous years have not been adapted to the changes, according to the new NUTS regulation, they are shown only for this year.

Map 2: **Social exclusion, 2014**



Source: SURS, GURS, cartography IMAD.

different structure of the economy, human resources and natural and other factors, these (disparities) could be mitigated by utilising the region's own development potential.

The system of promoting balanced regional development has also adapted to the crisis situation by the introduction of additional provisional measures of development assistance, which however have had so far a limited impact on regional development. With the implementation of these measures in problem areas with a high unemployment rate, the need for development-oriented intervention acts was eliminated. Such an act was adopted only for the Pomurska region. The development assistance measures, the purpose of which is to help narrow the development gap, have been implemented in the Pokolpje and Zasavska regions, and in Maribor and its broader surroundings. The program for the Pomurska region is expected to be completed in 2015, but since it has not yet been fully implemented, it has been extended until 2017. The implementation of measures in all programmes is poor, mainly due to limited budgetary resources as a result of the need to pursue fiscal consolidation in the country. The efficiency of measures for the Pomurska and Pokolpje regions has been tested by interim evaluations[235], which showed that both programmes lack synergies between goals, measures and issues, whereas in terms of efficiency, there is a risk that the programmes will not be delivered according to the expected schedule mainly because of the uncertainty of budgetary funds and deadlines which are too tight for the implementation of the activities. The activities under the Pomurje Programme helped to consolidate and amend other established policies and programmes. By the end of 2014, the implementation of the programme helped to create approximately 1,300 jobs[236]. After 2010 the registered unemployment rate actually decreased, but later on it increased again. The implementation of the *Pokolpje Programme* has improved some economic indicators in the region but not also demographic and social indicators.[237]

In the 2007–2013 programming period, Slovenia successfully drew down European Cohesion Policy funds and ranked fourth among the EU Member States.

[235] Vmesno vrednotenje Programa spodbujanje konkurenčnosti in ukrepi razvojne podpore Pokolpju v obdobju 2011–2016, 2014 (Interim evaluation of the programme to foster the competitiveness and measures of developmental assistance to Pokolpje region for the period 2011–2016)(2014); Vmesno vrednotenje Programa spodbujanja konkurenčnosti Pomurske regije v obdobju 2010–2015, 2014 (Interim evaluation of the programme to foster the competitiveness in the Pomurska region for the period 2010–2015 (2014).

[236] Letno poročilo o izvajanju ukrepov zakona o razvojni podpori pomurski regiji v obdobju 2010–2015 v letu 2014 (Annual report for 2014 on the implementation of measures of the Development Support for the Pomurska Region 2010–2015 Act).

[237] The evaluation only applies to measures under the Pokolpje Programme which does not include other government development policies that are being implemented in the Pokolpje Region.

With the aim of full and efficient utilisation of European funds, their absorption was accelerated in the period 2012–2015. Certain simplifications in the drawing process and additional spending rights for all thee operative programmes (OP) have been introduced.[238] Throughout the 2007–2013 programming period, EUR 4.3 billion was paid from the state budget, and around EUR 4 billion reimbursed.[239] Fund's drawdown was most successful in OP SRDP,[240] and, among the regions, in the Obalno-kraška region. With respect to the plan, about three times more enterprises were supported, one and a half times more broadband connections realised and a third more new jobs created. Expectations, however, have not been fulfilled as regards the integration of natural and cultural potentials, newly opened emergency centres, new and renovated sports and recreational areas and development projects in Natura 2000 sites.

The European funds, which will also be important development resources in the current 2014–2020 programming period, will be drawn within a single OP, and the area of regional development will be included into it as a horizontal priority.[241] The OP is divided into 11 priority axes. Emphasis will be placed on enhancing the achievements of the past programming period and creating new added value in the economy, based on comprehensive projects. These are intended to integrate different stakeholders, potentials and needs, thus creating synergies between sectors and regions. Regional projects can be financed in the framework of the content-related priority axes and on the basis of the division to the Vzhodna Slovenija and Zahodna Slovenija cohesion regions.[242] An additional novelty to support more efficient drawing is the OP implementation plan (IPOP),[243] which is intended to provide a comprehensive overview of the implementation of the European cohesion policy and to foresee the dynamics of implementation to achieve specific objectives of the OP. IPOP, which is also the basis for drafting the state budget, should be changing depending on the actual drawing of funds, but at least before the adoption or amendment of the state budget or after its revision.

4.3 Sustainable spatial development

Awareness of the significance of the spatial aspect of development has been increasing, but the system for its planning and monitoring is not efficient enough. Its drawbacks are in particular the lack of a strategic and long-term oriented approach to addressing developmental issues and the lack of coordination of public policies. This also affects the length of procedures and low feasibility of the adopted spatial plans. Settlement trends show a deviation from the established guidelines of the Spatial Development Strategy of Slovenia, since the development, rather than being spatially balanced, is strengthened along the motorway network. This is to a large extent affected by the mismatch between the location of jobs and housing. The real estate market is gradually reviving, but the problem of limited possibility of hiring a flat remains unresolved.

Comprehensive systemic reform of the spatial planning policy is continued with the aim to establish a more efficient spatial planning. Despite the numerous amendments in the last decade, the existing system is inefficient, which is reflected mainly in lengthy procedures. The main reason is the equivalence of sectoral policies in exercising their visions in space, which renders their mutual coordination difficult if not impossible. A new comprehensive upgrading of the umbrella and sectoral legislation[244] is being prepared, which includes the preparation of a new spatial development strategy, a new Spatial Development Strategy, a new Spatial Planning Act, Building Construction and Civil Engineering Act, and Chartered Architects and Engineers Act. An important novelty is the reintegration of regional development and spatial planning, which has in practice already been successfully implemented in the preparation of regional development programmes 2014–2020. The gradual improvement of computerisation of operations (eSpace, eBuilding, ePlan) and the implementation of land policy instruments is also envisaged. The inefficiency of the system is also due to the lack of quality of spatial data, which are the basis for informed decision-making, management and monitoring of the planned spatial development. In its action part, new Spatial Development Strategy will include development guidelines for functional urban areas and measurable targets.

The problem of a lack of coordination of the planned spatial activities often reflects the absence of prior

[238] The Operational Programme for Strengthening Regional Development Potentials (OP SRDP), the Operational Programme for Human Resources Development (OP HRD) and the Operational Programme for Environmental and Transport Infrastructure (OP ETID). The first two were allocated 5% and the last one 15% of additional budgetary commitments.

[239] Stock on 31 December 2015. The funds paid by the end of 2015 will be restored to the state budget in 2016, in the event that no irregularities in drawing are detected. 5% of the deposit retained by the European Commission, will be returned to the state budget by the end of 2017.

[240] In the structure of total budgetary commitments, the share of OP SRDP funds represents 43%.

[241] In the 2014–2020 period the funds available to Slovenia from EU Cohesion and Structural Funds amount to about EUR 3.3 billion, where EUR 159.8 million is intended for the Connecting Europe Facility Instrument (transport) and EUR 64 million for the programmes of European Territorial Cooperation.

[242] West Cohesion Region will be entitled to EUR 855 million and east to 1.27 billion funds from the European Regional Development Fund (ERDF) and European Social Fund (ESF).

[243] Ordinance amending the Ordinance on the implementation plan for the Operational Programme for the Implementation of the EU Cohesion Policy in the Period 2014–2020, 2015.

[244] Izhodišča normativnih sprememb na področju urejanja prostora in graditve objektov – predlog za obravnavo – novo gradivo št. 2 (Bases for regulatory changes in the area of spatial planning and construction of buildings – proposal for discussion – new materials, no. 2). MzIP, 2013.

strategic planning activities in the municipalities and a disregard of natural factors. The drafting of national spatial plans and municipal spatial plans are long-lasting. In nine years since the Spatial Planning Act entered into force, 156 national spatial plans have been adopted, of these 6 in 2015. Further to this, despite the adoption of the Act Regulating the Siting of Spatial Arrangements of National Significance (2010), which was intended to streamline and accelerate the procedures, more than half of national spatial plans have still not been implemented.[245] The most burning issue is associated with the non-implementation and operation of the planned spatial arrangements in the field of transport infrastructure, which could substantially contribute to boosting some economic activities. Only about two-thirds of the municipalities have new municipal spatial plans, with as many as a third of them already having started procedures for their amendment. Namely, spatial planning in municipalities often takes place in the absence of prior strategic planning, which leads to a lack of coordination of the planned spatial activities and, consequently to changes in already adopted spatial planning documents. Due to the fragmentation of Slovenia into small municipalities, these are often too weak – both financially as well as in terms of human resources – to prepare such demanding materials.[246] Great importance of strategic and operational planning and the need of taking into account natural factors often becomes apparent only in the event of natural disasters (floods, landslides, droughts).[247]

Property registration procedures and the granting of building permits are being reduced, though they still represent an important obstacle to pursuing business in Slovenia. In recent years, several measures have been taken in the field of spatial planning.[248] A system for registering administrative acts in the field of construction has been established, which provides a single-point access to data on issued construction and operating permits[249] and records in the area of waters for the needs of spatial planning and construction. This has also reflected in the improved international comparative ranking for these areas by the World Bank's Doing Business.[250] According to the data from administrative statistics, in 2014, the average time to the issue of building permit was 21 days, which is within the statutory time limit of up to 60.[251] The expert group reviewing the situation in the area of legislation concluded that further shortening of the statutory time limits for construction is not rational[252]. However, it is necessary to introduce mechanisms for more effective coordination of different interests in the area and improve the organization of the work of all stakeholders. By international comparison, the duration of the whole process for obtaining a building permit is still long, mainly due to long-lasting procedures for acquiring various permits and approvals that depend on other stakeholders in the process.[253] The World Bank notes that for recording a real estate or property a company in Slovenia requires 50 days (in the EU 23 days), and for obtaining building permit, including approvals and other documents necessary for the submission of a complication, 225 days (in the EU 176 days). The number of procedures and related costs are comparable to the EU average.

The problem of spatial development is substantially influenced by a mismatch between the locations of jobs and housing. Spatial development trends in Slovenia are characterized by the diversity of settlement structures, the quality of the environment and good transport connections between rural areas and regional centres.[254] This contributes to the dispersed construction of buildings, sub-urbanisation, increasing labour migrations and personal transport, and the neglecting of public passenger road and rail transport. The mismatch between the location of jobs and housing is relatively large. Approximately a quarter of the population lives in the Osrednjeslovenska region that provides more than a third of jobs. Moreover, among all the regions, the Osrednjeslovenska region has the largest population growth. Jobs and services of general interest are mainly

[245] More about reasons in the Development Report 2014, Note no. 227, p. 83.

[246] More about the problems encountered in the preparation of municipal spatial plans in the Development Report 2014, Note no. 228, p. 84.

[247] The analysis of building land by land use in municipalities for 2014 (includes 19 municipalities with valid municipal spatial plans or municipal spatial order) revealed that approximately 1,800 ha of building land are situated within the flood-prone areas in spite of the prohibition of settlement development in flood-prone areas. The reasons lie in the present situation (works constructed in the past), illegally constructed buildings, buildings constructed without prior implementation of the envisaged flood protection measures, a lack of expert groundwork and changed hydrological conditions. About one-tenth of the land is defined as green areas, which in terms of the protection against floods is more acceptable, in particular, if these are planned as anticipated flooding areas.

[248] The implementation of a real estate register, the computerisation of the Land Register, and abolition of the requirement for project conditions from water and sewage service providers.

[249] Within the spatial information system (eProstor). Sources: The Fourth Report on the Implementation of the Measures from the Single Document, June 2015, and the Fifth Report on the Implementation of the Measures from the Single Document, October 2015.

[250] According to the Doing Business 2016, with respect to the acquisition of building permits Slovenia ranks 18th among the EU Member States (the same as in the previous year, and 71st among 189 monitored countries), while with respect to real estate recording it ranks 13th (up by 3 positions, 36th place). In both indicators, the lag behind the best countries has declined.

[251] Construction Act, 2014.

[252] The Fifth Report on the Implementation of the Measures from the Single Document, October 2015.

[253] There are difficulties in ensuring compliance with spatial planning documents, the drafting of which is the responsibility of local communities, and in obtaining consent, which is a prerequisite for the issue of building permits.

[254] Spatial Development Report, 2015.

concentrated in urban areas, but demographically, urban settlements are stagnating.[255] A wide motorway network and poorly developed and under-used public transport have a major impact on the environment and space. Suburbanisation has been increasing, being especially pronounced along the motorway cross and in the vicinity of major urban centres, which are well connected with road infrastructure. Low residential mobility is also a result of unregulated rental housing market.

The residential real estate market is gradually reviving, and in the coming years the rental housing market could follow the same trend. After three years of decline, in 2015 residential property prices[256] remained similar to those in 2014, while sales[257] underwent a further increase. In addition to the persistently low prices, the revival of the real estate market was also influenced by the relatively low effective interest rate on housing loans, the improved economic situation and the associated recovery of the labour market. With further strengthening in real estate trading and low levels of new residential real estate construction,[258] in the following years there could be a shortage of these particularly in major employment centres. Inadequate structure of residential real estate supply could be improved by activating the unoccupied dwellings that the owners do not offer to rent because of the unregulated rental market. Tenancy arrangements, with greater security for tenants and landlords, and the establishment of public service for rental management is one of the basic objectives of the Resolution on the National Housing Programme 2015–2025. Furthermore, in the following years, more resources should be devoted to energy and functional renovation of older housing,[259] while in the long run, the construction of public and private rental apartments, which are relatively scarce, should be increased as well.[260] Renting will be promoted particularly among young people in the phase of their first residential independence, which would significantly increase the overall level of residential mobility. The Resolution also focuses on the housing problems of the elderly and particularly vulnerable population groups.

Figure 52: **Transactions and prices of new and existing residential real estate properties, Slovenia**

Source: SURS, 2016; calculated by IMAD.

4.4. Challenges

Despite a slowdown in environmental pollution, mainly as a result of lower economic activity and a decline in regional disparities, the reactivation of economy requires that more attention should be paid to ensure sustained improvement. Under the impact of the economic crisis, environmental development trends were quite favourable and, due to a faster deterioration of the situation in more developed regions, regional development was more balanced. Despite the improvement, the absence of appropriate structural measures and their effective implementation will make it more difficult to achieve the set targets while reviving economic activity. More attention will have to be paid to the spatial development since the spatial potentials without a broader strategic planning are not adequately exploited.

The objectives in the key areas of environmental development are well framed; the challenge, however, is their implementation. The economic crisis eased the burden on the environment but results have been rather modest, regarding the intensity of pollution, i.e. emissions per unit of GDP. In Slovenia, the consumption of fossil fuels in the energy sector, households, industry and transport contributes more than three thirds of

[255] In the 2003–2013 period, the number of inhabitants in urban settlements fell by 5% along with a slight decrease in the already low level of urbanisation, which fell to 50%.

[256] Calculated on the basis of residential real estate property indices, SURS, 2016.

[257] The number of sales of used residential properties has increased by about a quarter and is slightly higher than the top value before the crisis (2007). Sales of new dwellings, which increased mainly due to further sale of properties as a result of bankruptcy proceedings and apartments sold by Housing Fund of the Republic of Slovenia, are still lagging far behind the sales in 2007.

[258] The number of dwelling constructions begun in 2014 was the lowest since Slovenia's independence and was by 75% lower than in 2007. Although building permits issued in 2015 indicate a larger number of constructions than in 2014, but this is only attributable to an increased number of building permits issued to natural persons for the construction of one-dwelling buildings.

[259] The Resolution also provides for further use of the financial instruments of the Eco Fund, in particular favourable loans and subsidies for investment in enhancing the energy efficiency of buildings.

[260] The Action Plan for the implementation of the Resolution by 2025 provides for a reduction in the number of unoccupied dwellings equipped with basic infrastructure, from 90 thousand to 40 thousand. The proportion of rental housing is projected to rise from 9% in 2011 to 16% in 2025 (in 2013 by 30% in EU average).

all GHG emissions. For climate change mitigation, it is therefore essential to reduce the consumption of fossil fuels, increase the share of RES and improve energy efficiency. All economic sectors will require further improvements, especially with regard to the saving of energy and its production. As final energy consumption is largely influenced by measures of general development policy and sustainable transport policy, especially the measures of tax policy, policies of sustainable production and consumption, it needs to be given more attention. A special challenge is to improve the competitiveness of the railway transport and, from the environmental aspect, decrease the volume of road freight transport. Furthermore, the development in the area of passenger transport is not favourable, which is also reflected in the development of motorisation, different settlement patterns, and low competitiveness of the public passenger transport.

The basic challenge for balanced regional development is to provide optimal support to the regions to exploit their own development potential. Regional disparities in Slovenia are small thanks to a long and successful tradition of promoting balanced regional development. During the crisis they decreased even further, which was mainly a result of stronger deterioration of the activity in economically more developed regions. In order to avoid increase in regional disparities, with the revival of the economy it will be necessary to implement a policy with the modern concept of promoting regional development. This is based on the exploitation of the regions' own development potential, including their general and specific competences that facilitate optimal development specialization. Attention should be paid to a combination of different development factors, the capabilities of development institutions and enterprises as well as to adequate financial support. The cohesion policy funds should be used in such a manner as to enable the activities of sectoral policies to also support regional development. The latter should be aimed at providing the best possible level of accessibility of the population to services of general interest and thus good living conditions for the population in all regions.

To address the spatial development issues, an appropriate strategic framework for broader development will be required, but a challenge remains to find effective solutions on the basis of harmonised interests of all stakeholders responsible for spatial planning. The strategic framework of the current spatial planning has been in force for more than a decade, but the trends show a deviation from the outlined development. In addition, new challenges, such as climate and demographic changes, energy supply and globalisation have appeared. Therefore, it is necessary to prepare a long-term strategic framework of contemporary spatial development, as well as a short-term action-oriented strategy for current guidance and monitoring. The spatial planning system will be effective only if the objectives and priorities of development are clearly defined and measurable. In this context, harmonisation with the strategic and long-term oriented broader development framework and other public policies represents a special challenge. Thus, in coordinating the placement of activities and objects in space, partial interests of individual though equally important bodies responsible for spatial planning will be ruled out. This will contribute to the better welfare of inhabitants and improve their quality of life.

Appendix: Indicators of Slovenia's development

1 Macroeconomic framework

Macroeconomic stability and economic growth

- 1.1 Real GDP growth
- 1.2 Inflation
- 1.3 Current account of the balance of payments
- 1.4 Gross external debt
- 1.5 Net financial position

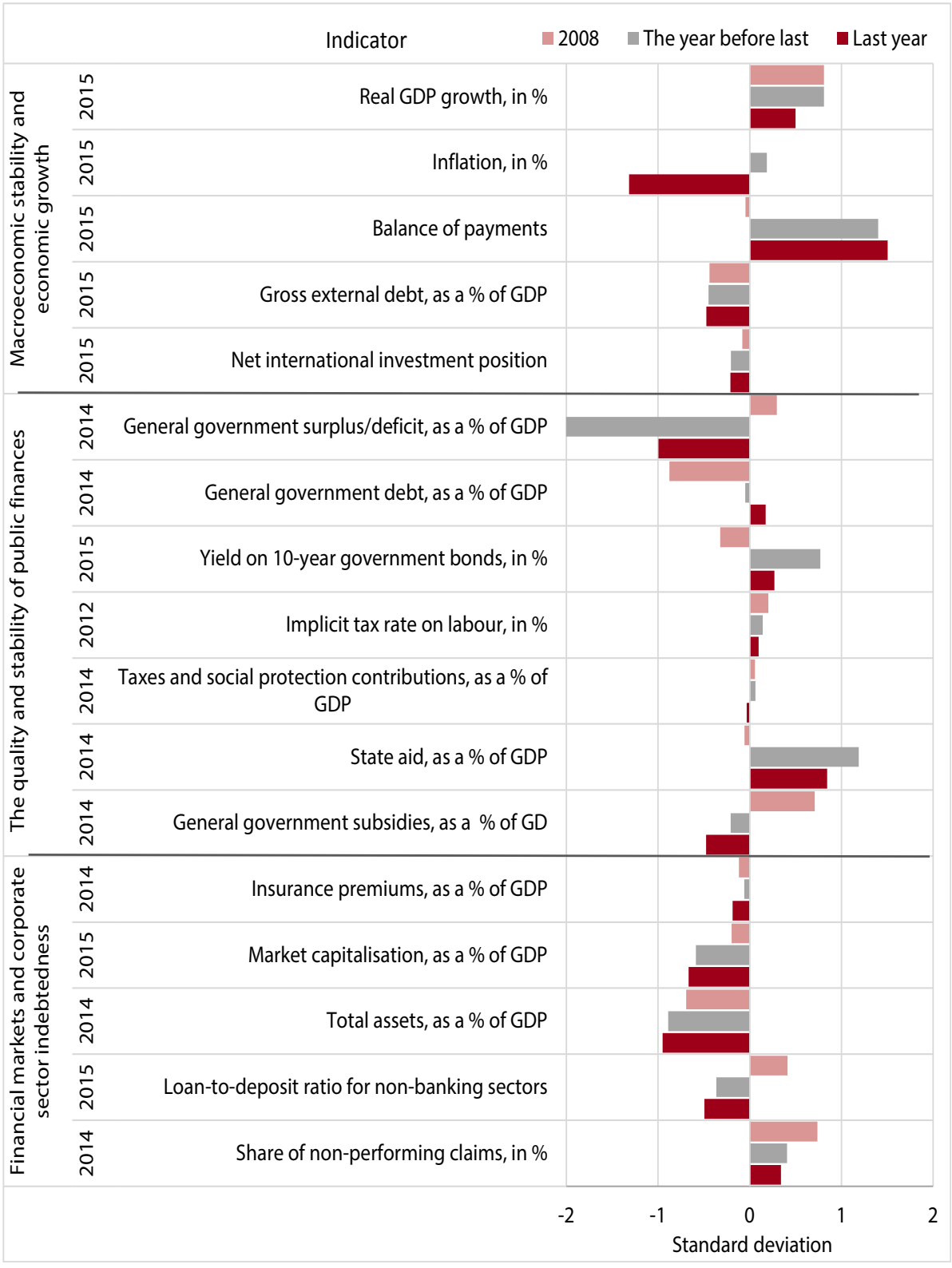
The stability and quality of public finances

- 1.6 General government balance
- 1.7 General government debt
- 1.8 Yield on 10-year government bonds
- 1.9 Taxes and social security contributions
- 1.10 Tax burden by economic function
- 1.11. State aid

Financial markets and corporate sector indebtedness

- 1.12 Development of the financial sector
- 1.13 Loan-to-deposit ratio
- 1.14 Non-performing claims
- 1.15 Indebtedness of the corporate sector

Overview of indicators – Macroeconomic framework



Note: The table shows Slovenia's position relative to the unweighted arithmetic average of the EU Member States. It was calculated with regard to the set of countries for which data for individual indicators were available; Cyprus, Malta, Luxembourg and Croatia were excluded from the analysis due to a lack of data. The data in the table are for 2008 and the last year for which data for EU Member States were available (the last year is indicated in the table). A positive indicator value means above-average development relative to the EU, while a negative value indicates that Slovenia lags behind the EU average on that indicator.

1.1 Real GDP growth

GDP growth continued in 2015 (2.9%), again largely as a result of exports, amid stronger growth in private consumption. Export growth was boosted by rising foreign demand and further competitive gains. Exports remained the main driver of economic recovery, and domestic consumption also continued to rebound. Stronger employment growth and higher average gross earnings translated into further growth in household disposable income and, in turn, a further recovery in private consumption. This was also boosted by consumer confidence, which climbed to one of the highest levels on record. Meanwhile, investment growth slowed owing to a renewed decline in construction investment. This had otherwise increased significantly in 2014, particularly owing to investment in public infrastructure related to the accelerated absorption of EU funds before the expiry of the previous financial perspective. On the other hand, private investment in machinery and equipment was up last year, a trend that had already been suggested by higher profits in the private sector, an improvement in indebtedness indicators and better access to funding.

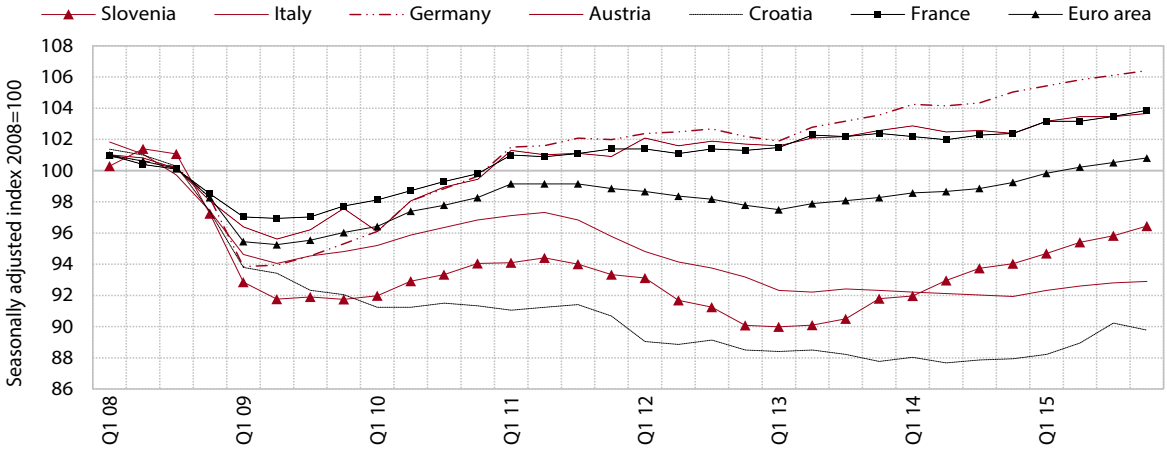
The fall in government consumption gradually came to a halt in 2014 and 2015. Economic growth in the EU strengthened further last year (1.9%), largely on the back of rising private consumption. Despite its higher GDP growth than the EU average in 2014 and 2015, Slovenia remains among the group of countries with the steepest declines in economic activity during the crisis. While GDP for the EU was already slightly above the 2008 level in 2015, Slovenia's GDP was 4.2% lower than before the crisis.

Table: **Contribution of expenditure components to GDP change, Slovenia**

	2005	2007	2008	2009	2010	2011	2012	2013	2014	2015
Real GDP growth, in %	4.0	6.9	3.3	-7.8	1.2	0.6	-2.7	-1.1	3.0	2.9
Contribution to GDP growth, in percentage points										
External trade balance (export–import of goods and services)	2.1	-2.0	0.2	1.9	2.1	1.3	3.0	1.1	1.6	0.9
- Exports of goods and services	6.2	8.8	2.8	-11.0	5.8	4.4	0.4	2.2	4.4	4.0
- Imports of goods and services	4.1	10.9	2.7	-12.8	3.8	3.1	-2.5	1.2	2.8	3.0
Total domestic consumption	1.9	9.0	3.1	-9.7	-0.8	-0.6	-5.7	-2.1	1.5	1.9
- Private consumption	1.2	3.3	1.2	0.5	0.7	0.0	-1.4	-2.3	0.4	0.9
- Government consumption	0.5	0.4	0.9	0.4	-0.1	-0.1	-0.5	-0.3	0.0	0.1
- Gross fixed capital formation	0.9	3.3	2.0	-6.5	-3.2	-1.1	-1.8	0.3	0.6	0.1
- Changes in inventories	-0.7	2.0	-1.0	-4.0	1.9	0.6	-2.0	0.2	0.5	0.8

Source: SURS.

Figure: **GDP in Slovenia and its main trading partners**



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

1.2 Inflation

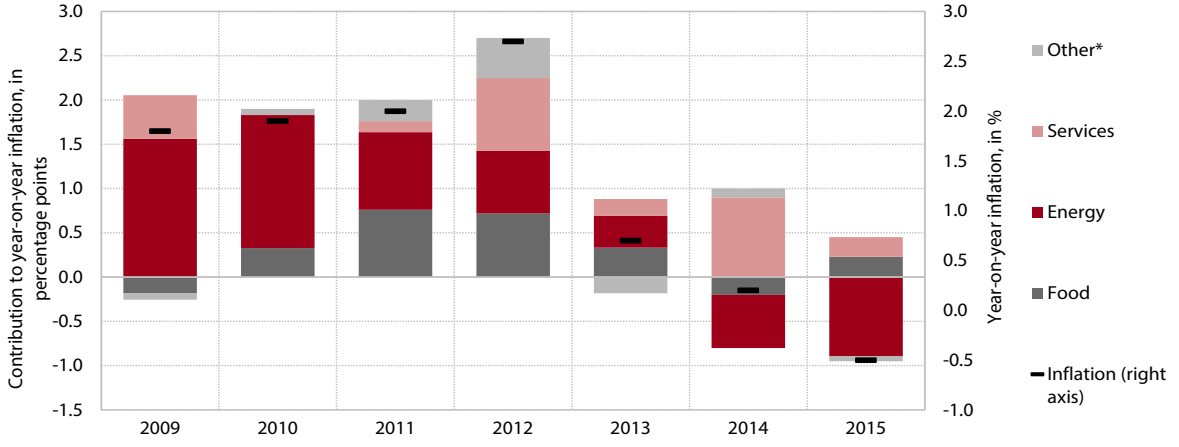
After modest growth in 2013 and 2014, consumer prices were down year-on-year at the end of 2015 (–0.5%) for the first time thus far. As was the case in 2014, price movements last year were significantly affected by commodity price developments on the global markets, especially the continued fall in oil prices.[1] This was mainly reflected in a further decline in energy prices (a contribution of –0.9 percentage points), which was even more pronounced than in 2014. Amid modest domestic consumption, the year-on-year deflation was also partly due to the falling prices of durable goods, but this decline was less pronounced than in previous years. By contrast, the prices of semi-durables were up again last year after modest growth in 2014. Higher prices were also recorded for food (unprocessed) and services. However, at the end of the year, the contribution of services prices was significantly lower owing to the waning effect of a one-off factor. The impact of tax policy measures was also lower than in 2014. We estimate that they contributed around 0.2 percentage points to deflation last year (in 2014: 0.5 percentage points). The price movements in the euro area were also characterised by external factors, but modest inflation was recorded last year (0.2%) after a period of deflation in 2014, amid the strengthening of private consumption, primarily on account of price increases in services and non-energy goods.

Table: **Annual price growth in Slovenia (year end, in %)**

	Contribution to year-on-year inflation, in percentage points										
	2000	**2005**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Food	1.2	0.1	2.1	0.6	-0.2	0.3	0.8	0.7	0.3	-0.2	0.2
Processed food	0.9	-0.1	1.3	0.6	0.0	0.0	0.7	0.1	0.2	-0.1	0.1
Unprocessed food	0.3	0.3	0.8	0.0	-0.2	0.3	0.1	0.6	0.2	-0.1	0.2
Energy	2.9	1.3	1.2	-0.9	1.6	1.5	0.9	0.7	0.4	-0.6	-0.9
Services	2.4	0.9	1.5	1.2	0.5	0.0	0.1	0.8	0.2	0.9	0.2
Other*	2.4	0.0	0.7	1.2	-0.1	0.1	0.2	0.5	-0.2	0.1	-0.1
Tax impact	0.6	-0.3	-0.2	0.2	1.0	0.3	0.2	0.9	0.8	0.4	-0.2
Growth, in %											
Administered prices, in %	16.0	7.7	7.2	-7.8	12.6	11.5	7.1	4.6	-0.1	-2.6	-9.8
Inflation** excluding energy and unprocessed food, in %	7.2	1.0	4.5	3.7	0.5	0.1	1.3	1.7	0.2	1.0	0.3
Inflation, in %**	**8.9**	**2.3**	**5.6**	**2.1**	**1.8**	**1.9**	**2.0**	**2.7**	**0.7**	**0.2**	**-0.5**
EU – HICP, in %	**2.2**	**2.1**	**3.2**	**2.2**	**1.5**	**2.7**	**3.0**	**2.3**	**1.0**	**-0.1**	**0.2**

Source: SURS, Ministry of Economic Development and Technology; calculations by IMAD.
Notes: *Clothing, footwear, furniture, passenger cars, alcoholic beverages, tobacco, etc.; ** measured by CPI.

Figure: **Contributions to year-on-year growth in consumer prices in Slovenia**



Source: SURS; calculations by IMAD.
Note: *Clothing, footwear, furniture, passenger cars, alcoholic beverages, tobacco, etc.

[1] In 2015 oil prices in euros were 30% lower than in 2014.

1.3 Current account of the balance of payments

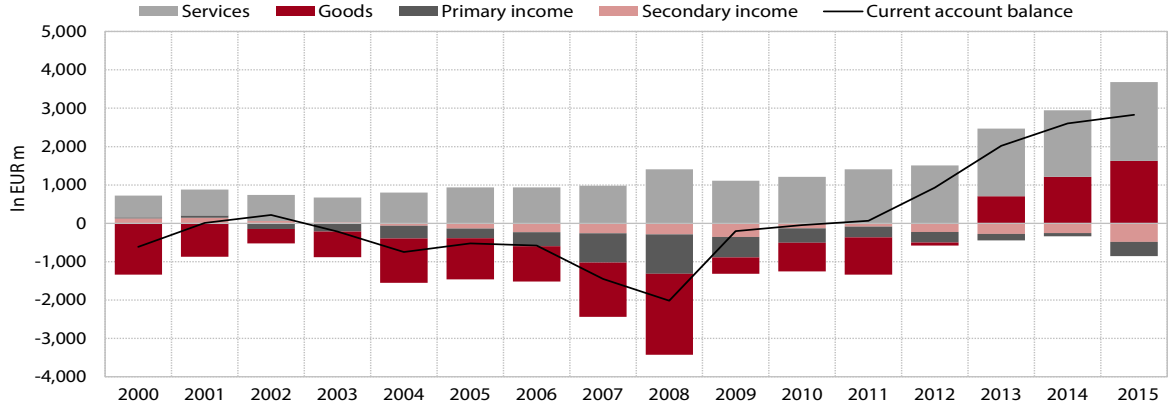
The current account, which recorded a significant deficit at the beginning of the crisis, has been in surplus since 2011; in 2015 the surplus widened further. In the 2011–2014 period as a whole, the surplus increased by EUR 2.5 billion; last year its growth eased and it totalled EUR 2,828 million (7.3% of GDP).[1] In 2015 the surplus in *goods trade* rose further, by EUR 418 million to EUR 1,628 million. In addition to quantity factors amid faster real growth in exports than imports, the increase was again due to better terms of trade owing to the falling euro import prices for energy and raw materials. The surplus in *services trade* widened by EUR 318 million last year, to EUR 2,054 million, which was mainly attributable to the larger trade surplus in travel and transport services. Despite the strong growth in domestic household spending on travel abroad, the trade surplus in travel services increased owing to stronger non-resident spending in Slovenia. The larger trade surplus in transport services was chiefly the result of a larger surplus in road transport. The deficit in *primary income* widened primarily as a consequence of a larger net outflow of direct investment income and totalled EUR 370 million, which is EUR 283 million more than in 2014. Subsidies from the EU budget were also lower. Net interest payments on external debt remained at a similar level: the net interest payments of the general government sector rose further, while the private sector recorded net interest receipts due to the deleveraging of commercial banks and higher domestic investment in foreign debt securities. Income from the work of daily migrants abroad continued to rise faster than income from non-residents working in Slovenia. The deficit in *secondary income* was higher than in the previous year, mainly on account of a larger net outflow of various current transfers.

Table: **Current account and terms of trade, Slovenia**

	2000	2005	2007	2008	2009	2010	2011	2012	2013	2014	2015
Current account, as % of GDP	-2.8	-1.8	-4.1	-5.3	-0.6	-0.1	0.2	2.6	5.6	7.0	7.3
Goods	-6.0	-3.7	-4.0	-5.6	-1.2	-2.1	-2.6	-0.2	2.0	3.2	4.2
Services	2.6	3.2	2.8	3.7	3.1	3.3	3.8	4.2	4.9	4.7	5.3
Primary income	0.1	-0.9	-2.2	-2.7	-1.5	-1.0	-0.8	-0.8	-0.5	-0.2	-1.0
Secondary income	0.6	-0.5	-0.7	-0.8	-1.0	-0.4	-0.2	-0.6	-0.8	-0.7	-1.3
Terms of trade, chain index											
Total	96.9	97.9	100.9	98.7	103.5	96.0	98.6	98.9	100.8	101.0	101.2
Goods	96.2	97.5	100.6	98.2	104.1	95.2	98.4	98.7	100.8	101.1	101.2
Services	101.9	99.7	102.6	100.5	99.1	100.3	100.3	100.0	100.3	99.9	100.7

Source: SI–STAT podatkovni portal – Nacionalni računi, 2016; Bilten banke Slovenije, 2016; preračuni UMAR.

Figure: **Components of the current account of the balance of payments**



Source: BoS; calculations by IMAD.

[1] In 2015 the current account surplus exceeded the indicative threshold of the EU indicator of external imbalance (the current account balance expressed as a % of GDP – a three-year average +6%/–4%).

1.4 Gross external debt

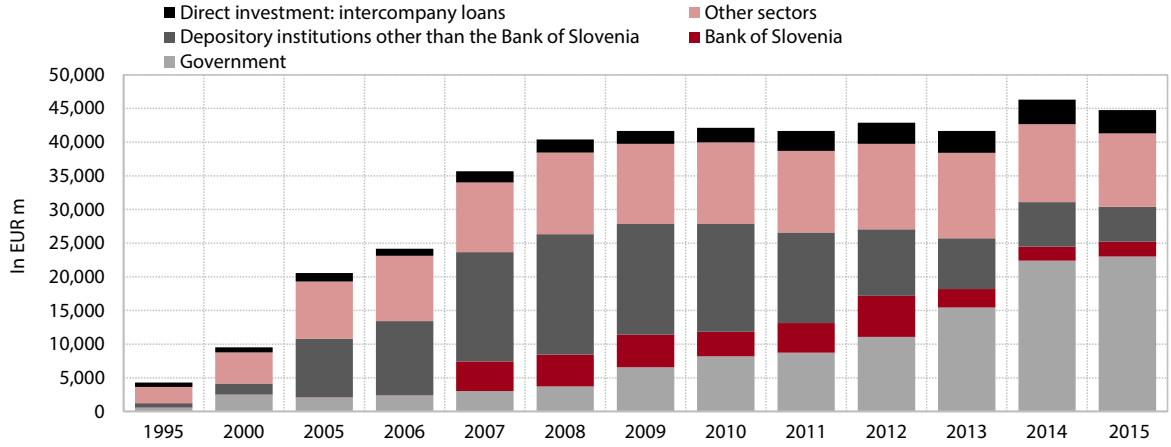
Slovenia's gross external debt declined in 2015 owing to a further reduction in the debts held by commercial banks and slower growth in general government debt. At the end 2015 gross external debt stood at EUR 44.8 billion, which was down EUR 1.5 billion on the figure for December 2014. It declined as a result of a reduction in long-term debt, which accounted for four-fifths of total debt.[1] In 2015 the *commercial banks* continued to repay their liabilities abroad, the volume of their debt thus totalling EUR 5.2 billion, which is EUR 12.7 billion less than in 2008. Commercial banks also repaid a portion of their liabilities to foreign portfolio investors, while non-residents started withdrawing their deposits from Slovenian banks. The central bank's debt expanded slightly last year, by EUR 0.1 billion to EUR 2.2 billion, mainly owing to the recording of euro banknotes in accordance with the EMU system.[2] Other sectors (mostly non-financial corporations) also continued to reduce their debts last year; enterprises mainly made repayments of their long-term loans abroad. After the extensive borrowing since the beginning of the crisis, the *general government sector* increased its debt by only EUR 0.6 billion last year, to EUR 23.0 billion. The government repaid a portion of its liabilities to foreign portfolio investors, but increased borrowing in the form of loans in order to hedge against exchange rate risk. Debt growth was also underpinned by intercompany loans under direct investment,[3] most of which comprised the loans of Slovenian affiliates to their parent companies abroad. In the structure of debt with regard to guaranties, public debt has expanded since the beginning of the crisis, whereas non-guaranteed private debt has contracted. In 2015 public debt rose again,[4] by EUR 0.6 billion to EUR 23.0 billion. Publicly guaranteed debt[5] contracted by EUR 0.3 billion (to EUR 6.7 billion), owing to a decline in the stock of guarantees to domestic financial institutions. At the end of 2015 public debt accounted for 51.4% of total gross external debt, an increase of 42.1 percentage points over 2008, while publicly guaranteed debt represented 14.9%, down 1.2 percentage points from 2008. *Non-guaranteed private sector debt* declined by EUR 15.1 billion relative to 2008, totalling EUR 15.1 billion at the end of 2015.

Table: **Slovenia's gross external debt position, end year, in EUR million**

	2000	2005	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total gross external debt	9,526	20,579	35,678	40,388	41,667	42,123	41,669	42,872	41,658	46,314	44,765
Short-term debt	1,881	3,625	9,973	10,900	10,683	9,592	9,591	11,752	7,491	7,120	8,215
Public and publicly guaranteed debt	0	194	4,397	4,685	4,625	3,454	4,185	6,011	2,558	2,426	3,449
Non-guaranteed private debt	1,881	3,431	5,576	6,215	6,058	6,138	5,406	5,741	4,933	4,694	4,766
Long-term debt	6,892	15,693	24,051	27,560	29,083	30,380	29,123	27,999	30,928	35,544	33,101
Public and publicly guaranteed debt	2,919	12,970	4,535	5,533	10,672	14,465	14,352	15,881	20,486	26,893	26,215
Non-guaranteed private debt	3,973	2,723	19,516	22,027	18,411	15,915	14,771	12,118	10,442	8,651	6,886
Liabilities to affiliates	752	1,261	1,652	1,929	1,901	2,152	2,955	3,120	3,240	3,649	3,450
Public and publicly guaranteed debt	0	0	0	0	0	0	0	0	0	0	0
Non-guaranteed private debt	752	1,261	1,652	1,929	1,901	2,152	2,955	3,120	3,240	3,649	3,450

Source: Bulletin of the Bank of Slovenia, 2016.

Figure: **Structure of Slovenia's gross external debt by sector**



Source: Bulletin of the Bank of Slovenia, 2016; calculations by IMAD.

[1] The share of total debt, excluding the liabilities of affiliates for which the maturity has not been published.
[2] The difference between the ECB's capital key and the estimate of the amount of currency in circulation in Slovenia.
[3] According to the new methodology (BPM6), debt instruments are classified according to the type of capital affiliation: (i) the liabilities of a Slovenian enterprise to a foreign direct investor; (ii) the liabilities of a Slovenian investor to foreign direct investment enterprises; and (iii) the liabilities of resident fellow enterprises to fellow enterprises abroad.
[4] External public debt is generated by the institutional general government sector borrowing on foreign financial markets. The government may borrow from international financial institutions, foreign governments or government agencies, foreign commercial banks or even from private lenders in the event of issuing transferable securities on a foreign financial market.
[5] Publicly guaranteed debt is a liability of a private legal entity, the repayment of which is guaranteed by the state. Publicly guaranteed debt also includes Bank of Slovenia liabilities to the Eurosystem incurred by the transfer of monetary policy from the Bank of Slovenia to the ECB.

1.5 Net financial position

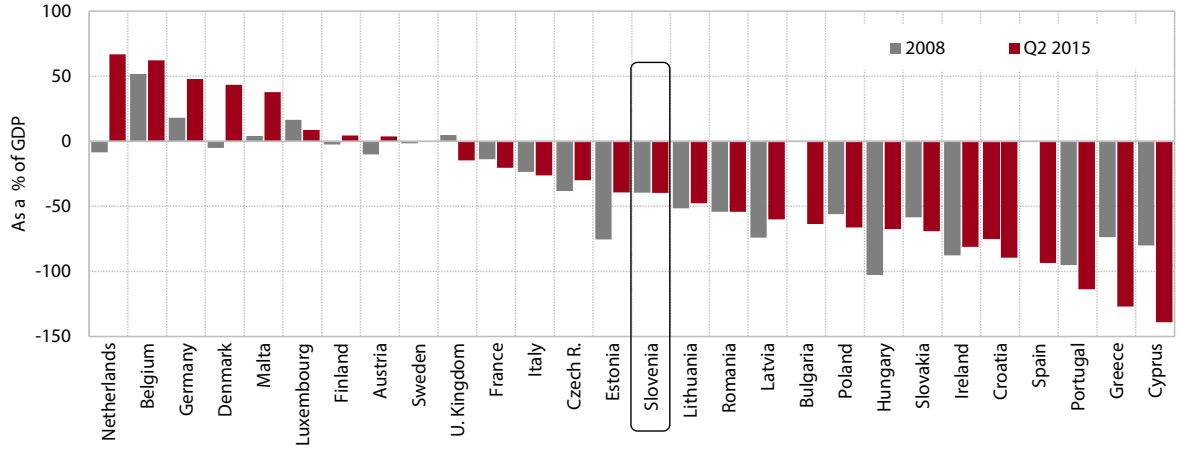
Despite private sector deleveraging, Slovenia's net financial position has deteriorated significantly since the onset of the crisis owing to increased borrowing by the general government; in 2015 it fell below the 2008 level for the first time in this period. In the early years of the crisis (up to 2012) it had deteriorated mainly due to the accelerated borrowing of the government. It improved for the first time in 2013 as a result of private sector deleveraging, which had otherwise been in progress since 2009. Despite a significant increase in general government gross external debt, in 2014 Slovenia's net financial position improved further owing to the ongoing private sector deleveraging and a decline in liabilities to the Eurosystem, before falling in 2015 to the lowest level since the beginning of the crisis. Slovenia's net international investment position was negative, at minus EUR 14.8 billion, or 38.5% of GDP (in 2014: 43.6% of GDP). The improvement reflected an increase in financial assets held abroad (by EUR 0.9 billion) and a decline in external liabilities (by EUR 0.5 billion). The debt-to-GDP ratio was also favourably impacted by the higher nominal GDP. The increase in total claims was mainly due to investment by the BoS, investment funds (except money market funds), insurance companies and pension funds in foreign securities, which is related to the higher yields on foreign financial markets. Short-term trade credits used by enterprises to finance operations with non-residents strengthened, reflecting further growth in exports of goods and services. The government was withdrawing funds deposited at the BoS, transferring them abroad. The stock of outward FDI was somewhat lower, mainly owing to the outflow of equity capital, while the stock of loans granted by Slovenian direct investors was up. The decline in total external liabilities was mainly impacted by further commercial bank deleveraging and the outflow of non-resident deposits from Slovenian banks. Liabilities of Slovenian affiliates to parent companies abroad also declined slightly, as did liabilities from foreign investment in securities, due to the government and commercial banks having repaid a portion of their liabilities to foreign portfolio investors. The amount of inward FDI increased, primarily on account of the inflow of equity capital, which was due for the most part to the debt-to-equity swap. Since 2008 Slovenia has exceeded the indicative threshold of the EU indicator of external imbalance (35% of GDP), but came very close to falling below this figure with the improvement to its net financial position in 2015, and is significantly below the level of the most indebted countries in the euro area.[1]

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

	2000	2005	2007	2008	2009	2010	2011	2012	2013	2014	2015
1 Debt claims	39.4	67.3	77.3	71.9	74.5	72.3	72.0	73.1	73.0	85.0	84.8
2 Equity claims	2.4	12.5	22.1	17.3	20.2	20.6	19.1	20.1	20.0	20.5	19.8
3 Total claims (1+2)	**41.8**	**79.8**	**99.4**	**89.2**	**94.8**	**92.9**	**91.0**	**93.2**	**92.9**	**105.5**	**104.6**
4 Gross external debt	43.1	70.4	101.5	106.4	115.2	116.2	112.9	119.1	116.0	124.2	116.1
5 Equity liabilities	10.4	20.2	23.4	22.1	23.2	23.8	23.3	24.0	23.0	25.0	26.9
6 Total liabilities (4+5)	**53.5**	**90.6**	**124.9**	**128.5**	**138.4**	**140.0**	**136.2**	**143.1**	**139.1**	**149.1**	**143.1**
7 Net external debt/claims (1–4)	-3.7	-3.1	-24.2	-34.5	-40.7	-43.9	-41.0	-46.0	-43.0	-39.1	-31.4
8 Net external debt/claims (2–5)	-8.0	-7.7	-1.3	-4.8	-2.9	-3.2	-4.2	-3.9	-3.1	-4.5	-7.1
9 Net financial position (7+8)*	**-11.7**	**-10.8**	**-25.5**	**-39.4**	**-43.6**	**-47.2**	**-45.2**	**-49.9**	**-46.1**	**-43.6**	**-38.5**

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

Figure: **Net financial position in EU Member States, as a % of GDP**



Source: Eurostat. Note: Since the data for Bulgaria and Spain have only been available since 2010 and 2012, respectively, a comparison is not possible.

[1] At the end of 2015 Greece recorded a negative net international investment position in the amount of 126.2% of GDP, Ireland 81.0%, Portugal 116.5%, Spain 91.0% and Cyprus 138.1% of GDP.

1.6 General government balance

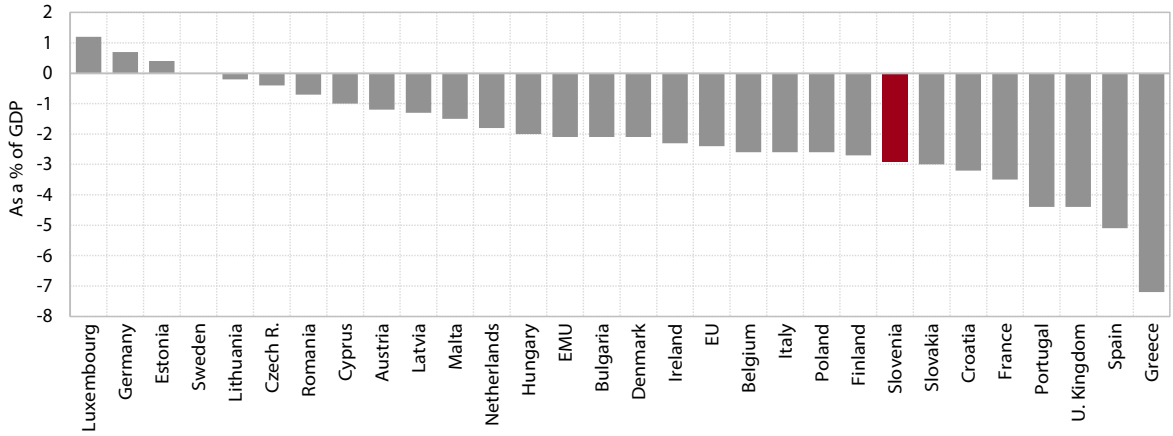
The decline in the deficit to 2.9% of GDP in 2015 was attributable to a further strengthening of economic activity, measures to increase revenue and contain expenditure, and the diminishing effect of one-off factors. Similar to 2014, revenue increased more than expenditure in 2015 (excluding one-off factors). In 2014 and 2015, revenue growth – which until 2014 had been almost entirely due to rises in various non-tax revenues – also stemmed from tax revenues and social contributions, which was attributable to increases in some tax rates,[1] the broadening of the base for social contributions and the recovery in economic activity. On expenditure side, fiscal consolidation was supported by similar measures to previous years, which limited growth in compensation of employees and social benefits and transfers. These were temporary measures, most of which were extended[2] into 2015, so that after declining in previous years, these expenditure categories already recorded growth in 2015. Last year total expenditure growth also stemmed from higher expenditure not only on investment and intermediate consumption, but also current transfers, which expanded partly as a result of one-off factors. As was the case in 2014, the increase in investment expenditure was boosted by funds from the EU budget under the 2007–2013 financial perspective, the absorption of which expired last year. After its decline in 2012 and 2013, the stronger growth of intermediate consumption largely arose from the increase in this expenditure in public institutes in the health care sector; this was made possible by increased HIIS revenue, which had been boosted by the growth in contribution bases; at the end of the year intermediate consumption growth was also underpinned by expenditure related to the management of refugee and migrant flows. Subsidies again numbered among the expenditures that dropped in 2015. They are thus notably lower than in the pre-crisis period, but their role in supporting the corporate sector is being replaced by other instruments (see Chapter 1.2). Interest payments declined for the first time since the onset of the crisis, which was attributable to the more favourable conditions for new borrowing. The largest decline was recorded for expenditure on capital transfers, but in 2014 these had been affected by a number of one-off factors. In 2015 there were significantly fewer one-off factors and their total impact on the deficit (both revenue and expenditure) was negligible (EUR 20 million or 0% of GDP)[3] compared with 2014 (slightly more than EUR 400 million or 1.2% of GDP).

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

	2008	2009	2010	2011	2012	2013	2014	2015
Revenue	**42.5**	**42.3**	**43.6**	**43.3**	**44.5**	**45.2**	**44.9**	**45.1**
Expenditure	43.9	48.2	49.3	50.0	48.6	60.3	49.9	48.0
General government deficit	-1.4	-5.9	-5.6	-6.7	-4.1	-15.0	-5.0	-2.9
Primary balance	-0.3	-4.6	-4.0	-4.7	-2.1	-12.5	-1.8	0.0

Source: SI-STAT Data Portal – National Accounts – General government accounts – Main aggregates of the general government, April 2016.

Figure: **General government balance in EU Member States, 2015**



Source: Eurostat Portal Page – Economy and Finance – Government statistics, April 2016.

[1] The main measures that contributed to the increase in tax revenues in 2015 include increases in the rates of taxes on financial and insurance services and CO2 taxes. The VAT tax rates that were raised in 2013 and the fourth income bracket also remained in place in 2015.
[2] Most measures relating to wage policy that were in effect in 2014 were extended into 2015, except for the payment of the suspended promotion raises for public servants; similar to 2014, pensions were not indexed for inflation, but expenditure on annual pension allowances was higher than in 2014 as they were paid to more beneficiaries owing to changes in eligibility criteria; in August 2015 financial social assistance was increased.
[3] The net effect of a one-off expenditure for compensation to Croatia for the non-delivery of electricity and a one-off revenue from the settlement of a corporate income tax debt.

1.7 General government debt

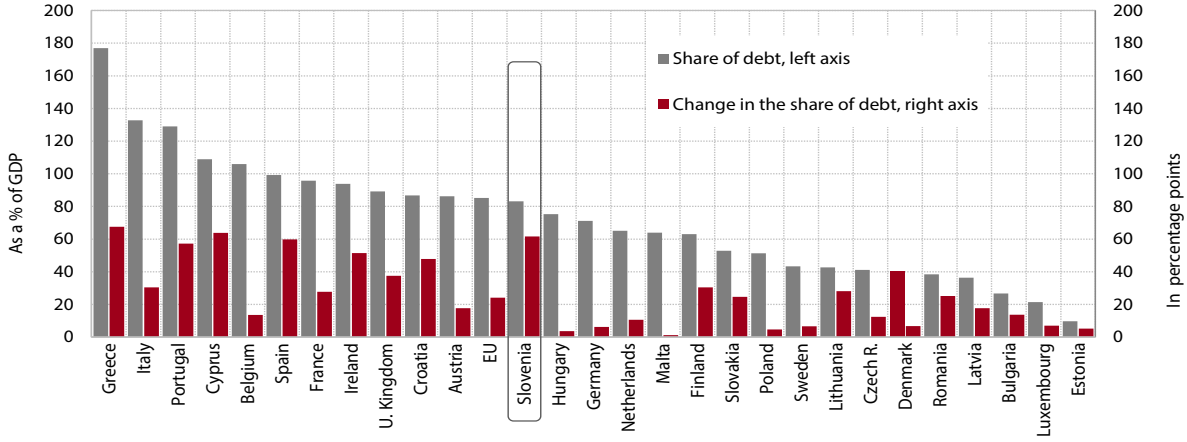
In 2015 general government debt increased further, once again primarily due to the government borrowing for pre-financing borrowing needs in the years to come; however, its maturity is being extended. General government debt expanded by EUR 1.9 billion in 2015 (2.3 percentage points of GDP). This is significantly less than in the previous two years, when a large portion of new borrowing was used for the recapitalisation of the banks, but considerably more than before the crisis when it had been rising by an average of EUR 0.6 billion per year. At the end of 2015, general government debt reached 83.0% of GDP, which ranks Slovenia in the middle among EU Member States, but its growth dynamics have exceeded the EU average ever since the beginning of the crisis. Almost half of the debt increase in 2015 (EUR 0.8 billion) was used to cover the current deficit; the remainder, however, owing to the improvement in borrowing terms, was earmarked for pre-financing the borrowing requirements in the future and increasing the deposit as a hedge against the foreign exchange risk of bonds issued in USD. In 2015 the Republic of Slovenia issued long-term bonds in the amount of just over EUR 2.9 billion. For the first time since independence, they included a 30-year bond (in two issues) in the amount of EUR 575 million with the average interest rate of both issues at 3.139%. The high liquidity of the money market in 2015 was also reflected in the extremely low required yields on short-term debt instruments, which fell below 0% in February 2016. The bulk of debt is still accounted for by central government debt (98% of total debt). The growth in local government debt came to a halt in 2015.

Table: **Consolidated general government debt by sub-sector, Slovenia**

	2008	2009	2010	2011	2012	2013	2014	2015
In EUR bn								
General government, total	**8.3**	**12.5**	**13.9**	**17.2**	**19.4**	**25.5**	**30.2**	**32.1**
Central government	8.2	12.2	13.4	16.6	18.8	25.0	29.6	31.5
Local government	0.4	0.5	0.6	0.7	0.7	0.7	0.8	0.8
Social security funds	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0
Consolidated debt between sub-sectors	-0.3	-0.2	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2
As % of GDP								
General government, total	**21.8**	**34.6**	**38.4**	**46.6**	**53.9**	**71.0**	**81.0**	**83.2**
Central government	21.6	33.7	36.9	45.0	52.3	69.5	79.3	81.7
Local government	0.9	1.4	1.7	1.9	2.0	2.0	2.1	2.0
Social security funds	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0
Consolidated debt between sub-sectors	-0.7	-0.5	-0.4	-0.4	-0.5	-0.5	-0.5	-0.5

Source: SI-STAT Data Portal – National Accounts – General government accounts – General government debt, April 2016. Some calculations and sums do not match due to roundings.

Figure: **Consolidated general government debt in EU Member States in 2015 and the change of debt relative to 2008**



Source: Eurostat Portal Page – Economy and Finance – Government statistics, April 2016.

1.8 Yield on 10-year government bonds

With the continued recovery of the Slovenian and euro area economies and further ECB measures, the yields of Slovenian government bonds dropped further in 2015. After a pronounced fall in 2014 (to 2.2%), the yields on 10-year Slovenian government bonds continued to decline in 2015, most notably in the first quarter. The decline in the yields on Slovenian bonds (as well as the bonds of most euro area countries) in this period was attributable not only to the improvement in the economic situation and a general decline in uncertainty in the EU, but also, for the most part, to the ECB's announcement of new measures to enhance the functioning of the transmission mechanism.[1] In March 2015 the yield to maturity of the 10-year Slovenian euro bond thus reached its lowest level since Slovenia's admission to the euro area (0.8%). Later in the year the yields rose, not only for Slovenia but also for most of the other countries in the euro area, mainly owing to the uncertainty related to the agreement between Greece and its biggest creditors. After the agreement was signed in July 2015,[2] the required yields of most euro area countries resumed their decline. At the end of 2015 the average yield of the Slovenian euro bonds was thus lower than in 2014 (1.6%). In the first months of 2016, it continued to decline, reaching 1.3% at the end of March.

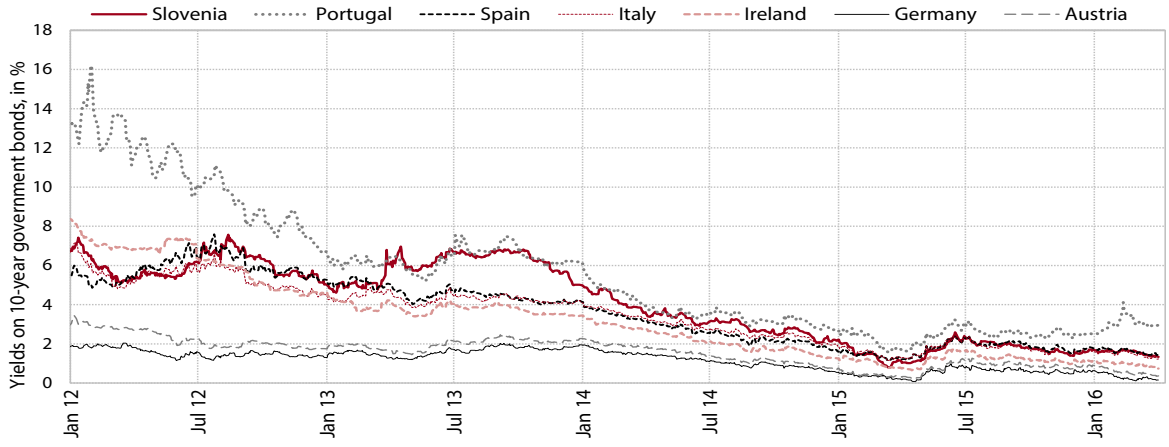
In 2015 the rating agency Moody's returned Slovenia's credit rating to investment grade and thus restored its ranking among the countries with low risk. The rating agencies S&P and Fitch preserved their low risk ratings for Slovenia in 2015. Despite the improvement in 2014 and 2015, these ratings remain lower than before the crisis. On the other hand, S&P and Fitch improved their outlooks for Slovenia from stable to positive in 2015, mainly owing to the improvement in domestic economic activity and a decline in political risks regarding the implementation of economic and fiscal policy measures.

Table: **Credit ratings and changes in credit ratings**

Country	Agency	Rating in 2015	Change 2015/2008	Change 2015/2014
Slovenia	Fitch	BBB+	↓5	no change
	Moody's	Baa3	↓6	↑1
	S&P	A–	↓4	no change

Source: Standard & Poor's, Moody's, Fitch, 2015.

Figure: **Yields on 10-year government bonds denominated in euro, in %**



Source: Bloomberg.

[1] In March 2015 the ECB started to carry out the expanded programme of government and corporate bond purchases in the total amount of EUR 1,140 billion. Combined monthly purchases will amount to EUR 60 billion. After the decrease in September 2014, in December 2015 the ECB once again lowered the interest rate on the deposit facility (to –0.30%) and extended the implementation of the expanded asset purchase programme (March 2017). In 2015 the Bank of Slovenia purchased EUR 2.2 billion in bonds under the expanded bond purchase programme; the ECB bought bonds in the total amount of around EUR 495 billion.

[2] Greece accepted EUR 86 billion in financial assistance from the IMF and the ESM under a new programme, which will run until August 2018.

1.9 Taxes and social security contributions

Having increased in relation to GDP since the beginning of the economic crisis, the burden of taxes and social contributions declined slightly in 2014 and 2015 and was similar to the pre-crisis year; in nominal terms, it was still lower than before the crisis. The share of revenue from taxes and social contributions in GDP in 2014 (37.0%) was similar to that in 2008, but below its 2005 peak (–1.3 percentage points). Revenues from taxes were lower than in 2008, while revenues from social contributions were slightly higher, both nominally and as a share of GDP. The nominal decline in tax revenues arises from: (i) a decline in corporate income tax revenue as a result of deteriorated business performance, gradual reductions in the tax rate and increased tax reliefs; and (ii) a decline in personal income tax revenue, mainly as a consequence of lower employment, increased tax allowances and a higher upper limit for the second income bracket. Despite the higher VAT rates, revenue from VAT was still slightly lower, while revenue from excise duties was higher owing to the raised excise duty rates. The bulk of the nominal increase in revenue from social contributions was generated in the first years of the crisis (owing to wage growth, despite the decline in employment); after two consecutive years of decline, they increased again in 2014 but at a lower rate than GDP (despite the adoption of measures to broaden the contribution base).

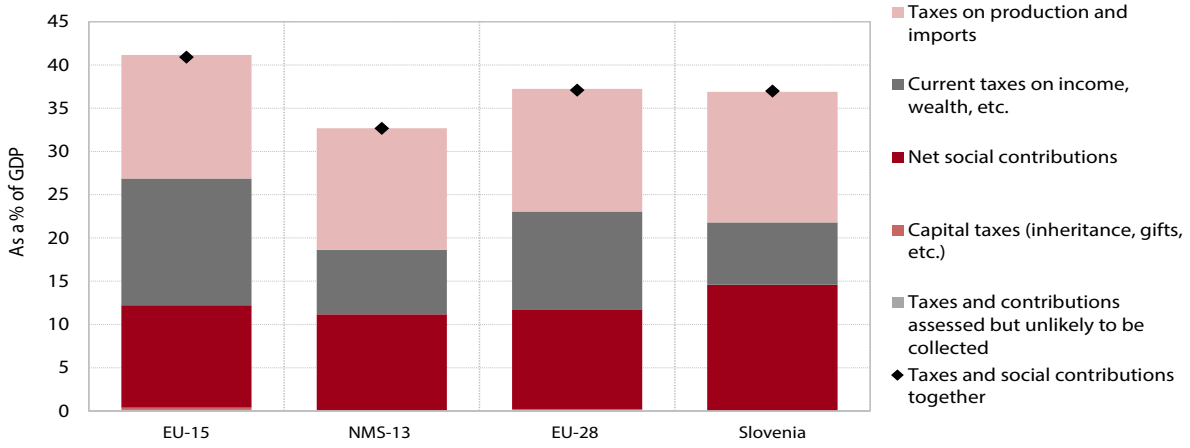
In 2014 the share of taxes and contributions in GDP in Slovenia was comparable to the non-weighted average of the EU Member States,[1] ***but the relative weight of social contributions, excise duties and VAT was higher than in the EU.*** The burden of taxes and contributions was 3.9 percentage points lower than the average of the old Member States and 4.3 percentage points higher than the average of those countries that joined the EU in 2004 or thereafter. Slovenia stood out from both averages with its high burden of social contributions and excise duties; the VAT burden in Slovenia was also higher than the average for the old Member States. The tax burden on corporate income and property (real estate) was lower than the averages of the two groups of countries. In terms of the personal income tax burden, Slovenia ranked between the lower and higher averages for the new and old EU Member States respectively.

Table: **The burden of taxes and social contributions, Slovenia, as a % GDP (according to ESA 2010)**

	2000	2005	2008	2009	2010	2011	2012	2013	2014
TAXES AND SOCIAL CONTRIBUTIONS	**36.9**	**38.3**	**36.9**	**36.8**	**37.5**	**37.0**	**37.4**	**37.3**	**37.0**
Taxes, of which	**22.7**	**24.1**	**22.9**	**21.9**	**22.3**	**22.0**	**22.2**	**22.3**	**22.3**
Value added tax (VAT)	8.5	8.5	8.3	7.9	8.1	8.1	8.0	8.5	8.5
Excise duties*	3.0	3.3	3.3	4.0	4.2	4.1	4.5	4.3	4.2
Personal income tax	5.5	5.4	5.7	5.7	5.6	5.6	5.7	5.1	5.0
Corporate income tax	1.1	2.7	2.5	1.8	1.8	1.7	1.2	1.2	1.4
Net social contributions	**14.2**	**14.2**	**14.0**	**14.9**	**15.2**	**15.0**	**15.2**	**14.9**	**14.6**

Source: SI–STAT Data Portal – National Accounts – General government accounts – Fiscal burden of taxable persons by taxes and social contributions, September 2015.
Note: *including excise duties on imports and all other excise duties.

Figure: **The burden of taxes and social contributions, Slovenia, as a share of GDP, Slovenia and the EU, 2014**



Source: Eurostat Portal Page – Economy and Finance – Government statistics – Main national accounts tax aggregates (according to ESA 2010), January 2016.
Note: The figures for the EU-28, EU-15 (old EU Member States) and NMS-13 (new EU Member States since 2004 or thereafter) show unweighted averages.

[1] The average for the EU-28 is the unweighted average (37.2%), which is closer to the median (36.8%) than the weighted average (40.1%) and can also be calculated for narrower groups of countries.

1.10 Tax burden by economic function

Amid higher rates of excise duty and VAT, the tax burden on consumption is higher than in the years before the crisis, while the effective taxation of labour and capital declined in the period up to 2014. The effective taxation of consumption measured by the *implicit tax rate (ITR) on consumption* rose significantly after the increase in VAT rates in mid-2013 and reached its highest level in 2014 (25.7%); the increases in excise duty rates also made a significant contribution to the increase relative to the pre-crisis level. *The implicit tax rate on labour* was relatively stable after a period of decline (2006–2010); in 2014 (35.2%) it was 2.6 percentage points lower than the highest figure in 2003. The effective tax burden on capital continued to decline in 2014. Owing to the gradual reduction in the corporate income tax rate and the increase in tax reliefs in previous years, the *implicit tax rate on capital* in 2014 (21.9%) was much lower than in 2007, when it reached the highest level after several years of growth. In comparison with the unweighted EU average,[1] Slovenia had higher effective tax rates on consumption and labour and a lower effective tax rate on capital in 2012 according to the latest internationally comparable data available.

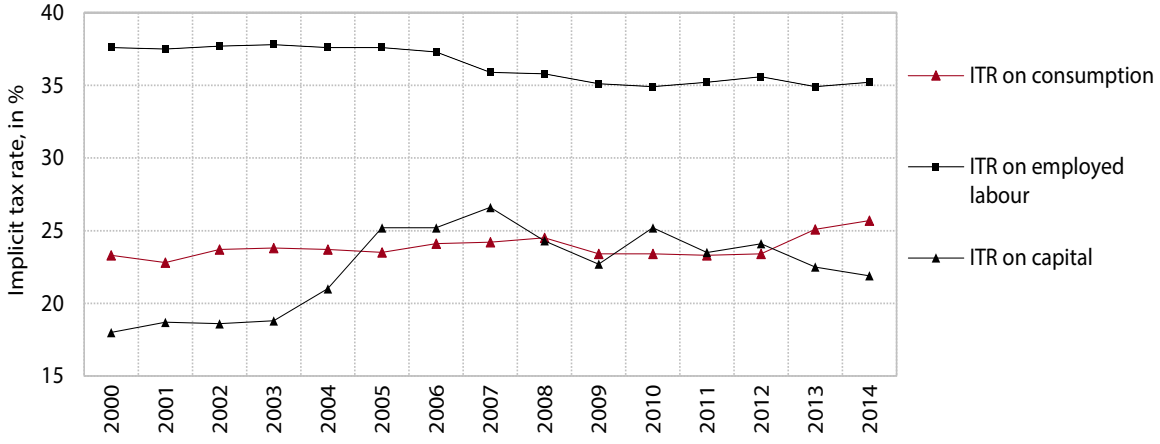
Revenues from consumption and labour taxes as a share of GDP exceed the unweighted EU average[2] and have increased more since the beginning of the crisis than the EU average; for revenue from taxes on capital, however, the opposite holds true. In Slovenia *taxes on consumption as a share of GDP* rose during the period from the beginning of the crisis up to 2012[3] due to increases in excise duty rates. They rose more than the EU average, which Slovenia had exceeded during the entire period. The *share of taxes on labour in GDP* was more stable owing to the smaller changes in their tax treatment. After a period of decline (2004–2007), it had been rising gradually and returned close to 20%; this is higher than the EU average, which is related to higher social contributions in relation to GDP. In 2012 the *share of taxes on capital in GDP* continued to fall even further below the EU average, which recorded a smaller decline during the crisis. The falling of this share in Slovenia is related to (i) the deterioration of companies' business performance during the crisis; (ii) a decline in the corporate income tax; and (iii) an increase in tax reliefs for fixed capital formation and development.

Table: **Taxes and contributions by economic function, tax revenues as a % of GDP (according to ESA 1995)**

		2000	2005	2008	2009	2010	2011	2012
Taxes on consumption	Slovenia	13.8	13.4	13.4	13.6	14.0	13.9	14.2
	EU*	12.0	12.5	12.1	11.9	12.1	12.2	12.3
Taxes on labour	Slovenia	20.2	20.4	19.1	19.5	19.6	19.4	19.7
	EU*	17.7	16.9	17.2	17.4	17.1	17.1	17.4
Taxes on capital	Slovenia	3.3	4.9	4.9	4.2	4.2	3.9	3.7
	EU*	7.4	7.1	7.4	6.6	6.5	6.6	6.7

Source: Eurostat: Government Finance Statistics, Structure of taxes by economic function.
Note: *For the EU, an unweighted average is used. The data for 2000 are for the EU-27, otherwise for the EU-28. The classification of taxes is based on the ESA 1995 classification by economic function of their tax bases (for explanations see Development Report 2014, p. 148); the latest data according to ESA 2010 are not yet available.

Figure: **Implicit tax rates on consumption, labour and capital (as a % of the base), Slovenia (according to ESA 2010)**



Source: SI-STAT Data Portal – National Accounts – General government accounts – Implicit tax rates, September 2015.

[1] The comparisons of the implicit tax rates are based on the unweighted EU average, which is closer to the median than the weighted average. It can also be calculated for the implicit tax rate on capital, for which the weighted EU average is not available.
[2] The comparison is based on the unweighted average for the EU-28, which is closer to the median than the weighted average.
[3] The last year for which data are available (according to ESA 1995). More recent data (according to ESA 2010) are not yet available.

1.11 State aid

After the strong growth in 2009–2013, the volume of state aid[1] declined in 2014; it was still significantly higher than in the period before the crisis, but the changes to the state aid structure were not entirely appropriate. In 2014 state aid totalled EUR 964 million, of which EUR 433 million was allocated for the stabilisation of the banking sector (under a special scheme termed 'aid to remedy a serious disturbance in the economy' or 'crisis aid'), which is significantly less than in 2013 (EUR 3,317 million). The volume of other aid categories also declined, reaching EUR 531 million (2013: EUR 567 million), but after the increase in 2007–2013 it was still notably higher than before the crisis (Sixteenth Annual Survey on State Aid, 2015). The measures to mitigate the consequences of the crisis (crisis measures) were otherwise removed, and new measures were implemented which focused on environmental protection and employment; in 2014 they accounted for more than a quarter (26.5%) of total aid (except crisis aid), which is a much larger share than in 2010 (15%). In the area of environmental protection, most aid is allocated to payments for renewable energy sources (photovoltaic, hydro-power plants) and the volume of this aid is rapidly rising (in 2014 by 14.3%; the volume of total aid for environmental protection by 24%). Most of the aid for employment (82.6%) was allocated for the promotion of the recruitment of disabled workers; the volume of this aid is also rising rapidly (in 2014 by 12.9%). Meanwhile, the level of aid aimed at enhancing the competitiveness of the economy (for R&D and training, aid for small and medium-sized enterprises) continues to shrink. It fell by a further third in 2014, while the (significantly smaller) volume of aid for regional business investment rose in 2014.

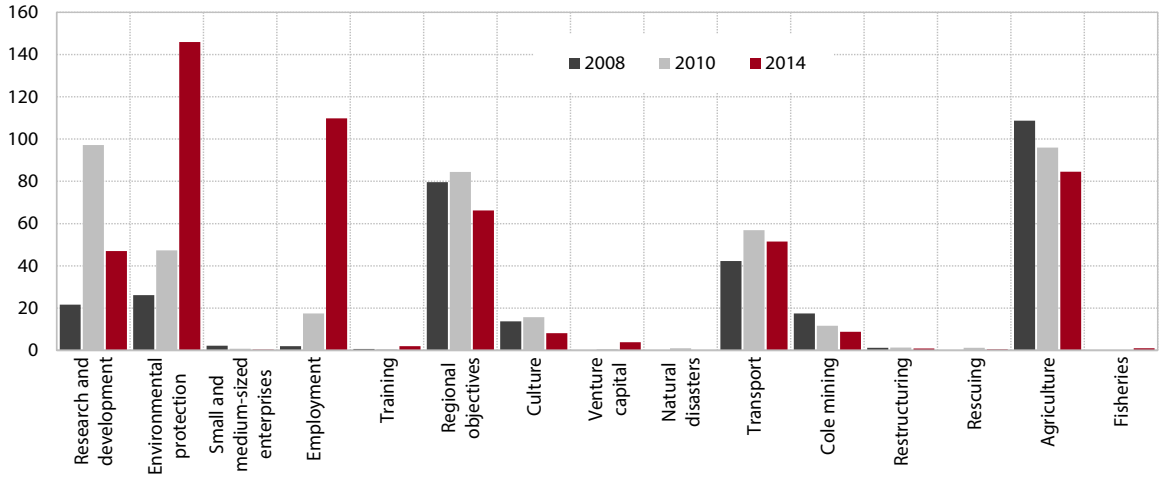
State aid in Slovenia is very high in comparison with the EU.[2] As in several previous years, in 2014 Slovenia was one of the six EU countries with the highest shares of state aid in GDP (excluding crisis aid and aid for railway). With this level of state aid, its reduction would favourably impact the competitiveness of Slovenia's economy and would also be in line with the European Commission's orientations regarding competition. In the 2008–2013 period, Slovenia also recorded an above-average level of crisis state aid (6th place in the EU in terms of this aid allocated in 2008–2013). Only Ireland, Greece, Cyprus, Spain and Belgium spent more on bank stabilisation in this period.

Table: **State aid (excluding crisis aid and aid for railway), as a % of GDP**

	2000	2005	2007	2008	2009	2010	2011	2012	2013	2014
Slovenia	0.8	0.4	0.3	0.5	0.8	0.8	1.0	1.0	1.1	1.1
EU	0.5	0.5	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.7

Source: State Aid Scoreboard 2015, 2016, European Commission.

Figure: **State aid by category (excluding crisis aid), in EUR million**



Source: Thirteenth, Fifteenth and Sixteenth Annual Surveys of State Aid, Ministry of Finance.

[1] State aid is based on EU regulation and represents all the measures of a country that concern its current and investment expenditures (subsidies, capital transfers), revenues (tax exemption including tax deferrals), financing (favourable loans) and debt (guarantees) and have an impact on the single market of the EU. The impact on the single market is defined arbitrarily by rules adopted by the European Commission, the European Council and the European Court of Justice. Owing to this provision, a significant part of state aid to agriculture, i.e. measures under the Common Agricultural Policy (CAP), is no longer recorded as state aid.

[2] In its regular annual surveys, the European Commission publishes only data on state aid, excluding crisis aid and aid for railway.

1.12 Development of the financial system

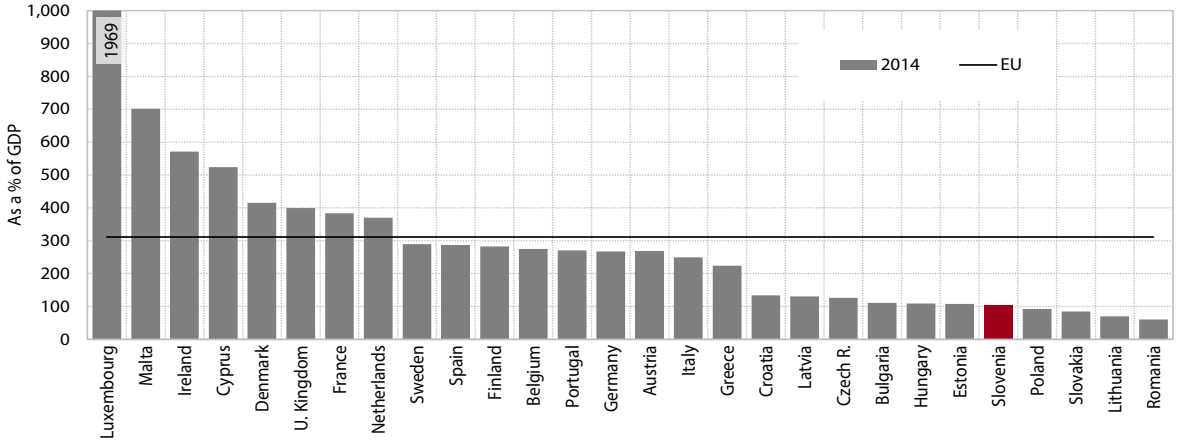
The gap between the level of financial system development in Slovenia and the EU average remains wide; since the onset of the crisis, this widening has been particularly noticeable in the banking sector. The banks' total assets contracted further in 2015, but the decline was slightly less pronounced than in previous years. The main reason remained the falling volume of loans to non-banking sectors, not only as a result of deleveraging (of enterprises and NFIs in particular), but also modest new lending. With regard to sources of finance, the banks continued to reduce their liabilities abroad, mainly to the monetary sectors and, to a lesser extent, the ECB. In the area of insurance, a sector where the development gap has been the smallest for years, the indicator value declined the least during the crisis. However, Slovenia still lags significantly behind the EU in the share of life-insurance premiums, which, at 1.4% of GDP, reaches less than 30% of the EU average. The low value in this insurance category is also a consequence of the insignificant level of old age savings. This impedes the development of the capital market, which has contracted considerably since the beginning of the financial crisis. After two years of growth, the value of the indicator of market capitalisation of shares as a percentage of GDP rose again in 2015 and totalled approximately 20% of the level in the EU.

Table: **Indicators of financial system development**

	2000	2005	2010	2011	2012	2013	2014	2015
Banks' total assets, as a % of GDP								
Slovenia	68.9	100.2	138.8	132.1	128.2	112.4	103.8	97.1
EU	236.3	295.9	347.4	351.9	338.9	313.8	311.2	
Insurance premiums, as a % of GDP								
Slovenia	4.3	5.3	5.8	5.6	5.6	5.5	5.2	
EU-27*	8.1	8.4	8.3	7.8	7.7	7.8	7.9	
Market capitalisation of shares, as a % of GDP								
Slovenia	15.2	22.9	19.4	13.2	13.6	14.4	16.7	14.3
EU	96.6	90.8	65.0	57.0	61.0	68.5	69.0	74.2

Source: Financial Stability Report (various volumes), Annual Statistical Report (Ljubljana Stock Exchange – various volumes). Statistical Insurance Bulletin (Slovenian Insurance Association – various volumes), Insurance Data (Insurance Europe), European Banking Sector Facts and Figures 2015 (EBF), Company files (London Stock exchange – various volumes), European Securities Exchange Statistics (Federation of European Securities Exchanges), National Accounts (EUROSTAT), National Accounts (SURS), 2015.
Note: *The indicator of insurance premiums as a % of GDP does not include data for Lithuania; the data for 2000 do not include Romania.

Figure: **Total assets as a % of GDP in EU Member States, 2014**



Source: BoS, European Banking Federation, SURS, Eurostat.

1.13 Loan-to-deposit ratio

The loan-to-deposit ratio continued to decline in 2015, but at a slightly slower pace. It fell by almost half in comparison to the highest level in 2008. Throughout the period, the decline was primarily due to the contraction of loans rather than growth in deposits. The ratio fell most notably in 2014, owing to the transfer of EUR 1.7 billion in non-performing claims to the BAMC and a concomitant significant increase in non-banking sector deposits due to the higher confidence in the banking system after its stabilisation. In 2014 the amount of deposits thus exceeded the amount of loans for the first time since comparable data[1] have been available. Growth in deposits was more modest throughout the entire period. In 2013 deposits even dropped, mainly owing to the uncertainty regarding the method of banking system stabilisation. The decline in the ratio in 2015 stemmed from both the contraction of loans and growth in deposits. The fall in the total amount of loans was smaller than in 2014. Growth in deposits slowed appreciably, as only overnight deposits were still rising, the main reason for this being the very low deposit interest rates, which no longer compensated savers for the reduced liquidity of their tied deposits.

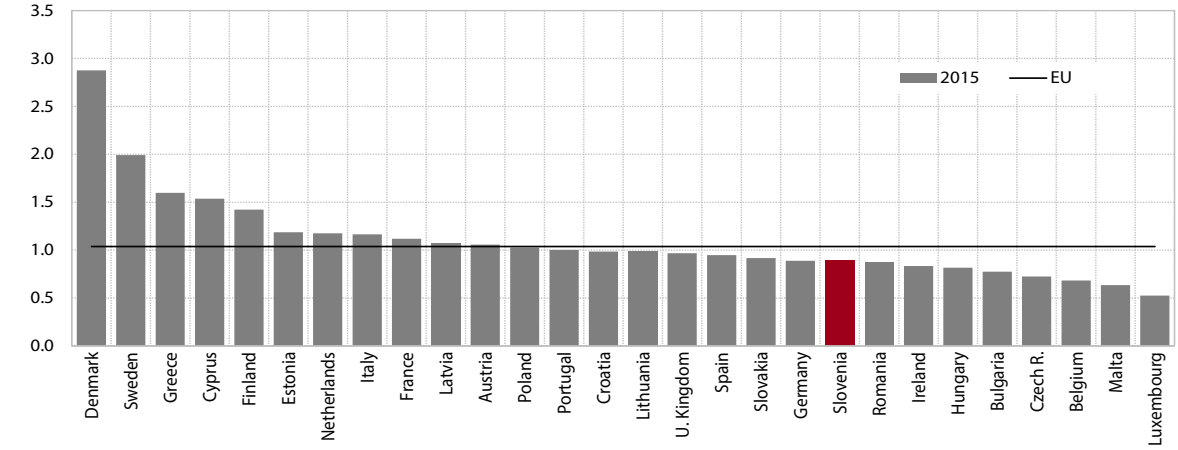
In the EU the indicator value has also declined since the beginning of the crisis, but from a lower pre-crisis level and to a lesser extent than in Slovenia. During the crisis, the only two countries which recorded a larger decline than Slovenia in their loan-to-deposit ratios were Estonia and Ireland. In some countries, it had already started to rise in 2015. This was mostly due to the growth of loans, with the exception of Greece, where the otherwise strongest growth in the ratio in the EU resulted from an approximately 25% decline in non-banking sector deposits owing to the low confidence of savers in the banking system.

Table: **Loan-to-deposit ratios of non-banking sectors in Slovenia and the EU**

	2005	2010	2011	2012	2013	2014	2015
Slovenia	1.03	1.48	1.40	1.38	1.22	0.98	0.89
EU	1.26	1.16	1.15	1.13	1.08	1.06	1.04

Source: EBF, ECB, BoS; calculations by IMAD.

Figure: **Loan-to-deposit ratios in EU Member States, 2015**



Source: BoS, ECB; calculations by IMAD.

[1] Since 2005.

1.14 Non-performing claims[1]

In 2015 the amount and share of non-performing claims in the banking system's total exposure[2] continued to fall. This decline, having started at the end of 2013 with the commencement of repairs to the banks' balance sheets, was almost as intense as in 2014, when the largest share of non-performing claims had been transferred to the BAMC; in our estimation, this is also a result of the positive effects of the master restructuring agreements (MRA). At the end of 2015 the volume of non-performing claims amounted to EUR 3.5 billion, which was EUR 1 billion less than in 2014 and EUR 4.3 billion less than before the beginning of the banking system stabilisation in November 2013. It totalled 9.9% of the banking system's total exposure. Non-performing claims against non-financial corporations continued to contract. Unlike in previous years, a significant contributing factor to the 2015 decline was a reduction in non-performing claims against non-residents, which had not been subject to the transfer of non-performing claims to the BAMC within the process of banking system stabilisation, and fell last year for the first time since 2010. In 2014 and 2015, the speed at which non-performing claims (expressed in relative terms) were reduced also reflected the contraction in bank lending activity (in 2014 the total volume of loans contracted by 12.8%; excluding the transfers to the BAMC, by 7.0% and in 2015 by 6.7%). If the banking system's total exposure had remained unchanged relative to 2014, the share of non-performing claims would have fallen by 0.6 percentage points more in 2015, and by 1.5 percentage points relative to 2013.

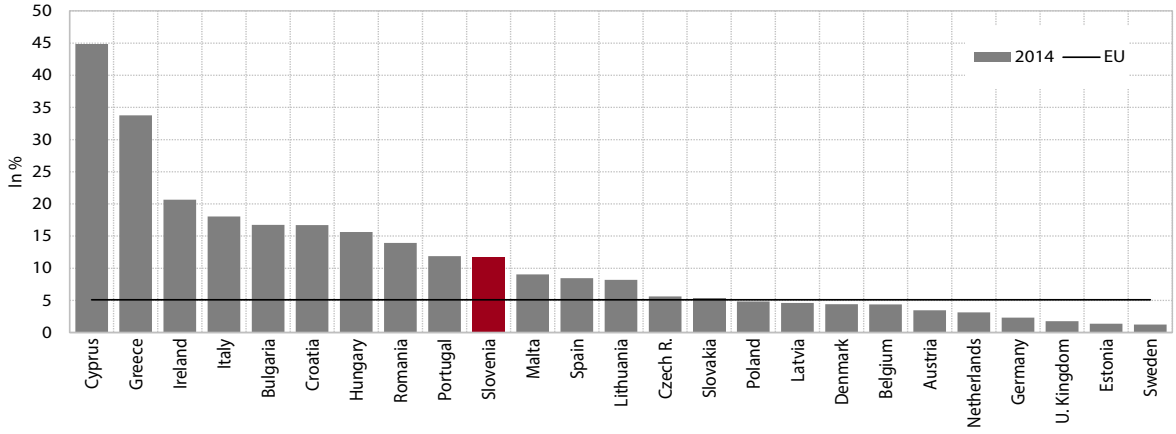
The share of non-performing claims in Slovenia significantly exceeds the EU average, but the stabilisation of the banking system contributed to its relatively faster decline in 2014.[3] The average share of non-performing claims in the EU as a whole has increased since the beginning of the crisis, but much less than in Slovenia. The exceptions are Cyprus, Greece, Ireland, Romania, Croatia, Bulgaria and Hungary, which were particularly affected by the financial crisis. In 2014 the shares of non-performing claims either declined or increased only slightly in most EU Member States. Cyprus stands out with the largest increase (6.3 percentage points), as well as Greece, Italy, Croatia and Portugal (between 1 and 2 percentage points). Slovenia ranked among the countries with large shares of non-performing claims, despite an above-average decline in the indicator value in 2014.

Table: **Share of non-performing claims in Slovenia and the EU, in %**

	2008	2009	2010	2011	2012	2013	2014	2015
Slovenia	3.8	5.4	7.4	11.2	14.4	13.4	11.9	9.9
EU*	2.6	4.3	4.5	5.0	5.7	6.2	5.1	

Source: IMF, World Bank, BoS; calculations by IMAD.
Note: *The data for the EU are the averages of EU Member States weighted by the total assets of their banking systems. For 2013, data for Finland are not available, while the data for 2014 do not include data for France, Finland and Luxembourg.

Figure: **Comparison of the shares of non-performing claims in EU Member States, 2014**



Source: IMF, World Bank, BoS; calculations by IMAD. Note: *The data for the EU is the average of EU Member States weighted by the total assets or their banking systems. For 2014 data for France, Finland and Luxembourg are not available.

[1] At the end of 2015 the EBA published an analysis of non-performing exposures in 21 EU Member States and Norway. The EBA uses a broader definition of non-performing exposures, under which non-performing exposures include not only arrears of more than 90 days, but also exposures that meet the "unlikely to pay" criterion. As the EBA analysis covers only 105 banking groups and does not include data on the total banking system of EU Member States, nor a longer time series, which would enable comparisons over a longer time period, the term non-performing claims in our Report refers only to claims that are more than 90 days past due.
[2] All classified claims.
[3] The data for 2013 does not include data for Finland; the data for 2014 does not include data for France, Finland and Luxembourg.

1.15 Indebtedness of the corporate sector

Corporate indebtedness has been declining since 2009, particularly in 2013 and 2014. Financial debt, as the most important part of the total[1] debt of the corporate sector,[2] grew rapidly in the pre-crisis period. This led to significant deterioration in the *indicators of indebtedness*, which reached their highest levels in 2008 and 2009.[3] In the three years that followed, these indicators improved gradually, particularly during the period from 2012 to 2014. The decline in total debt in this period, especially in 2014, was primarily due the reduction of bank debt (by around 36% relative to 2008; in 2014 alone by around 15%). In the period up to 2011, this debt had been shrinking, primarily as a result of the winding-down of companies, whereas its decline since 2012 has also been due to the intensive deleveraging of surviving companies. In 2014 the indebtedness indicators thus had already come close to the levels of 2006. The *debt overhang*[4] of Slovenian companies also peaked in 2009, at nearly twice the level of 2006, at which point it fell steadily, most notably in 2014 and 2015. In the entire period under observation, the debt overhang of conventional companies[5] was approximately 50% lower than the overhang of all the companies together. Among over-indebted conventional companies, most are focused on the domestic market, and micro, small and medium-sized enterprises predominate (99.6%). In 2014 they accounted for 60% of the financial debt of over-indebted companies and for 65% of their debt overhang. Debt overhang was highest in the wholesale and retail trade and the repair of motor vehicles (EUR 1.8 billion), manufacturing (EUR 1.7 billion), professional, scientific and technical activities (EUR 1.2 billion) and the energy sector (EUR 1.1 billion). Around 44% of the debt overhang in conventional companies was debt with an interest coverage ratio[6] below 1, which indicates that the company is unable to finance debt with its current operations. As much as 72% of this debt related to the debt of companies that also had negative EBITDA; since the long-term survival of such companies is questionable, the chances of recovering the debt are poor.

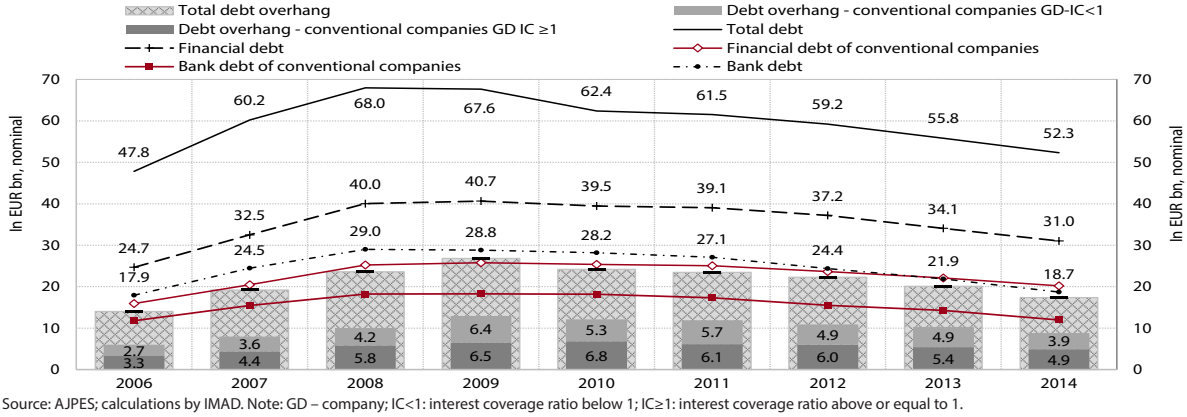
The concentration of the financial debt of over-indebted conventional companies is relatively high. In 2014 the ten most indebted conventional companies, which employed 17% of the total workforce of over-indebted conventional companies and generated 22% of their value added, accounted for around 30% of the financial debt of over-indebted conventional companies. Of the most indebted companies, 50 (with a 32% share of the workforce and a 42% share of value added) accounted for almost half of the financial debt of over-indebted conventional companies. Of those, 32 had already been over-indebted before the crisis, while 16 also had a low interest coverage ratio (IC<1) alongside high debts.

Table: **Concentration of the financial debt of over-indebted conventional companies, 2014**

	First 10	First 30	First 50	First 100	First 500	All conventional companies
Financial debt, in EUR bn	**3.8**	**5.6**	**6.4**	**7.5**	**10.3**	**13.3**
Share in financial debt of conventional companies	19 %	28 %	32 %	37 %	51 %	66 %
Share in total debt of conventional companies	10 %	14 %	16 %	19 %	27 %	34 %
Share in financial debt of over-indebted conventional companies	29 %	42 %	48 %	57 %	78 %	100 %
Share in total debt of over-indebted conventional companies	19 %	28 %	32 %	38 %	52 %	68 %

Source: AJPES; calculations by IMAD.

Figure: **Corporate sector indebtedness and debt overhang**



Source: AJPES; calculations by IMAD. Note: GD – company; IC<1: interest coverage ratio below 1; IC≥1: interest coverage ratio above or equal to 1.

[1] Total debt comprises financial liabilities (including bank liabilities), operational liabilities and other liabilities of companies.
[2] Indebtedness has been analysed on the basis of data (from the balance sheets and profit and loss accounts of all Slovenian companies) collected by the Agency for Public Legal Records and Legal Services (AJPES) for the period 2006–2014.
[3] Total debt, bank debt and the total debt-to-liabilities ratio reached their peaks in 2008, while financial debt, debt overhang, financial leverage and the ratio of total debt to EBITDA peaked in 2009.
[4] The debt overhang is financial debt that exceeds five times EBITDA (in companies where FV≥5) or total financial debt (in companies where EBITDA<0).
[5] Conventional companies are companies other than those classified as holding, financial leasing or zero-employee companies in the Standard Classification of Activities and DARS d.d., the Motorway Company of the Republic of Slovenia.
[6] IC (EBITDA/interest expenses).

2 Factors of competitiveness

- 2.1 GDP per capita in purchasing power standards
- 2.2 Labour productivity

Competitiveness of the corporate sector

- 2.3 Market share
- 2.4 Unit labour costs
- 2.5 Structure of merchandise exports by factor intensity
- 2.6 Knowledge-intensive market services
- 2.7 Network industries
- 2.8 Foreign direct investment
- 2.9 Entrepreneurial activity

Human capital

- 2.10 Share of the population with tertiary education
- 2.11 Education expenditure
- 2.12 Participation of adults in lifelong learning

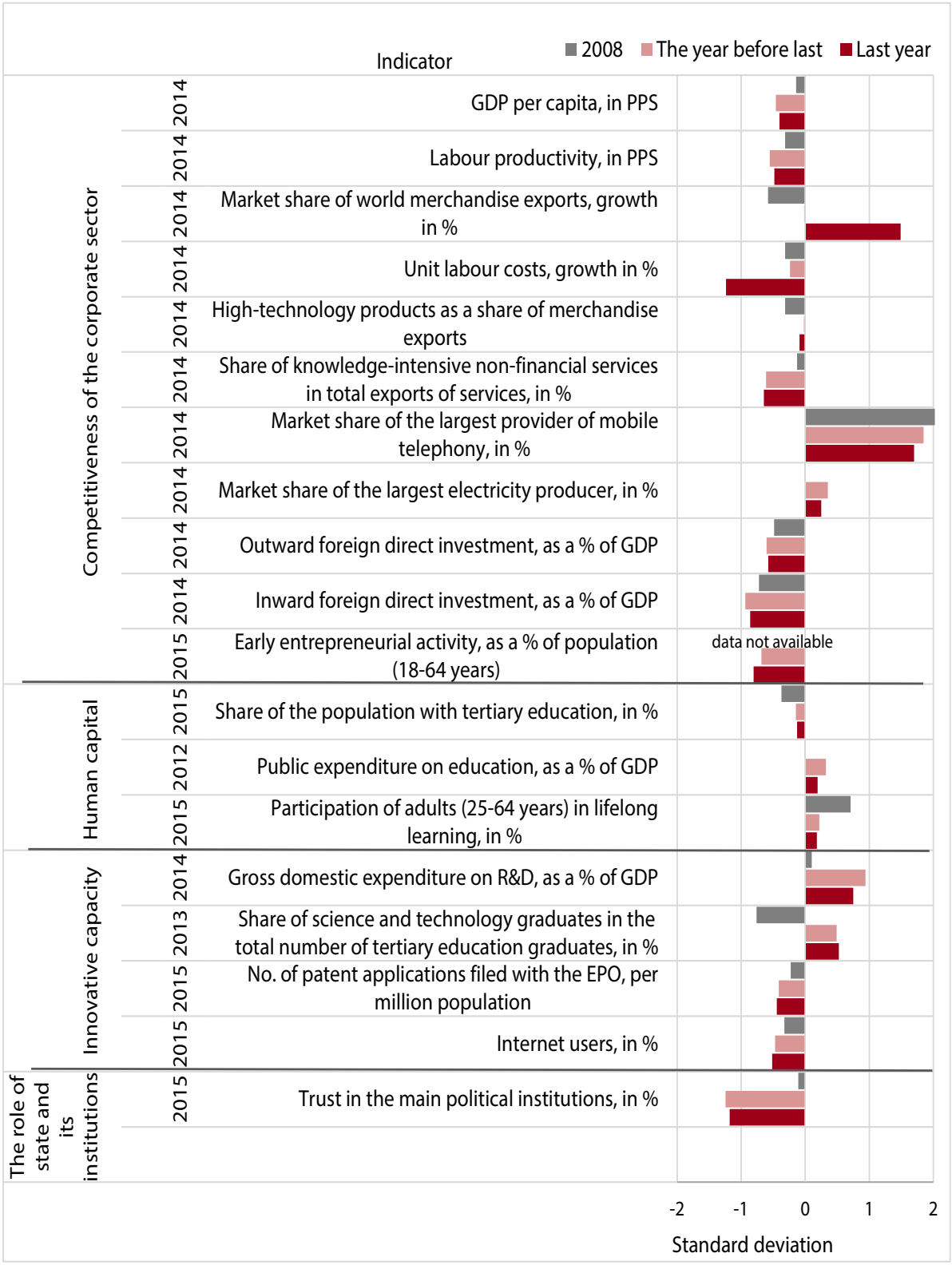
Innovative capacity

- 2.13 Gross domestic expenditure on research and development
- 2.14 Science and technology graduates
- 2.15 Intellectual property
- 2.16 Use of Internet and e-services

The role of the state and its institutions

- 2.17 Trust in institutions

Overview of indicators – Factors of competitiveness



Source: Calculations by IMAD.
Note: The table shows Slovenia's position relative to the unweighted arithmetic average of the EU Member States. It was calculated with regard to the set of countries for which data for individual indicators were available; Cyprus, Malta, Luxembourg and Croatia were excluded from the analysis due to a lack of data. The data in the table are for 2008 and the last year for which data for EU Member States were available (the last year is indicated in the table). A positive indicator value means above-average development relative to the EU, while a negative value indicates that Slovenia lags behind the EU average on that indicator.

2.1 Gross domestic product per capita in purchasing power standards

In 2014, for the first time since the onset of the crisis, Slovenia converged slightly to the EU average in terms of GDP per capita in purchasing power standards (PPS), but the gap remained wide (17 percentage points). According to the most recent data,[1] GDP per capita in purchasing power standards totalled 22,600 PPS in 2014.[2] Before the crisis, Slovenia had been catching up with the EU on this indicator, reaching 89% of the EU average in 2008. However, owing to a steeper decline in economic activity,[3] the gap with the EU widened by 8 percentage points over the next five years until faster economic growth in 2014 (Slovenia 3%; EU 1.4%) reduced the gap by 2 percentage points. Current data on economic activity suggest that Slovenia also continued to converge towards more developed countries in 2015.

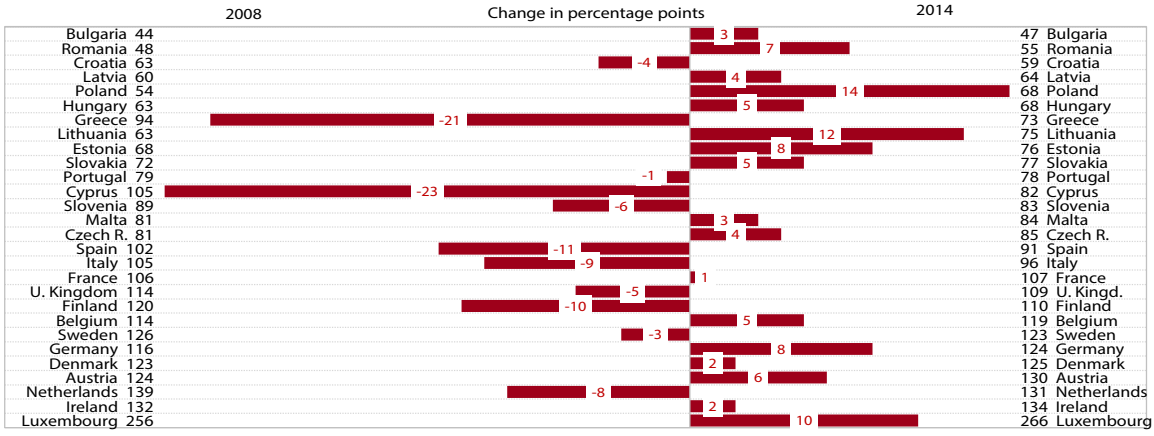
Slovenia remains one of the countries whose relative positions in economic development in the EU have deteriorated the most since the beginning of the crisis. The only countries that have diverged more from the EU average than Slovenia since 2008 are Cyprus, Greece, Spain, Finland, Italy and the Netherlands. In 2008 Greece and the Czech Republic were closest to Slovenia in terms of GDP per capita in PPS (in 2014 these countries were Cyprus, Malta and the Czech Republic). Two of the new Member States, Malta and the Czech Republic, outpaced Slovenia during this period, while some of the new Member States substantially narrowed their gaps with Slovenia, particularly Lithuania and Estonia. In 2014 a total of 15 countries narrowed their development gaps with the EU in comparison with the previous year, of which Slovenia made the most progress (by 2 percentage points); two countries held their positions, but eleven countries fell away, Finland the most (by 3 percentage points). The gap in GDP per capita in PPS between the EU Member States – at 1:9.8 (Romania/Luxembourg) at the beginning of the previous decade – has been narrowing over the years, falling to only 1:5.7 in 2014 (Bulgaria/Luxembourg).

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

	2000	2005	2007	2008	2009	2010	2011	2012	2013	2014
Slovenia	**79**	**86**	**87**	**89**	**85**	**83**	**83**	**81**	**81**	**83**
EU-15	116	113	112	111	111	110	110	109	109	109
New EU Member States, excluding Slovenia	52	60	65	67	66	67	68	69	69	70
Vulnerable EU Member States*	102	105	105	102	102	100	97	95	94	94

Source: Eurostat Portal Page – Purchasing Power Parities, 2015; calculations by IMAD.
Note: * Vulnerable EU Member States (Greece, Ireland, Italy, Portugal, Spain).

Figure: **GDP per capita in PPS, change in 2008–2014 (EU=100)**



Source: Eurostat Portal Page – Purchasing Power Parities, 2015.

[1] In December 2015, Eurostat released data on GDP per capita in PPS based on the latest data on population size, the revised purchasing power parities and the latest revised data on GDP in national currencies for individual countries. The data are compiled in accordance with the revised European methodology – the European System of Accounts 2010 (ESA 2010). The revision changed the GDP levels for individual years in all Member States and, in turn, the countries' positions relative to the EU average. For Slovenia, the level of GDP at current prices in the 1997–2013 period rose by an average of 1.9%, which is less than for the EU as a whole (3.4%).

[2] GDP per capita in purchasing power standards enables a comparison between countries by eliminating the effect of price level disparities across countries. The purchasing power standard (PPS) – the selection of a currency in which the results are expressed – is a convention. In Eurostat's comparison, the results are shown in the form of a "currency" called PPS. PPS is an artificial, fictitious currency that, at the EU level, equals one euro. The PPS or the "EU-28 euro" is a "currency" that reflects the average price level across the EU-28.

[3] See also Indicator 1.1.

2.2 Labour productivity

Only during stronger economic activity in 2014 and 2015 did labour productivity[1] exceed pre-crisis levels. A sharp fall in economic activity at the beginning of the crisis caused labour productivity to decline by as much as 6.1% in 2009. Labour productivity growth in subsequent years (except 2012) mainly stemmed from the adjustment of employment to the reduced economic activity and was, in the absence of economic recovery, much more modest than before the crisis and insufficient to expedite convergence to pre-crisis figures. Only in 2014 and 2015 did the increase in GDP become the main driver of growth. However, with the concurrent increase in employment, productivity growth remained significantly below the long-term average seen prior to the crisis (before the crisis, the ten-year average was 3.8%). Modest growth since the beginning of the crisis, amid weak intra-industry productivity growth in most sectors, was also due to the contraction in some parts of the economy that were most affected by the crisis, particularly construction and manufacturing (after 2009 these sectors were characterised by the significant negative contribution of the inter-industry component to productivity growth). Owing to stronger intra-industry growth, manufacturing activities have nevertheless been a major factor in the recovery of productivity since 2009 (see Figure). Alongside manufacturing, market services also made a substantial contribution to productivity growth during this period, particularly knowledge-intensive services[2] and transportation. In 2014 the construction sector had much to do with the improvement, but in 2015 this sector's contribution reverted to negative.

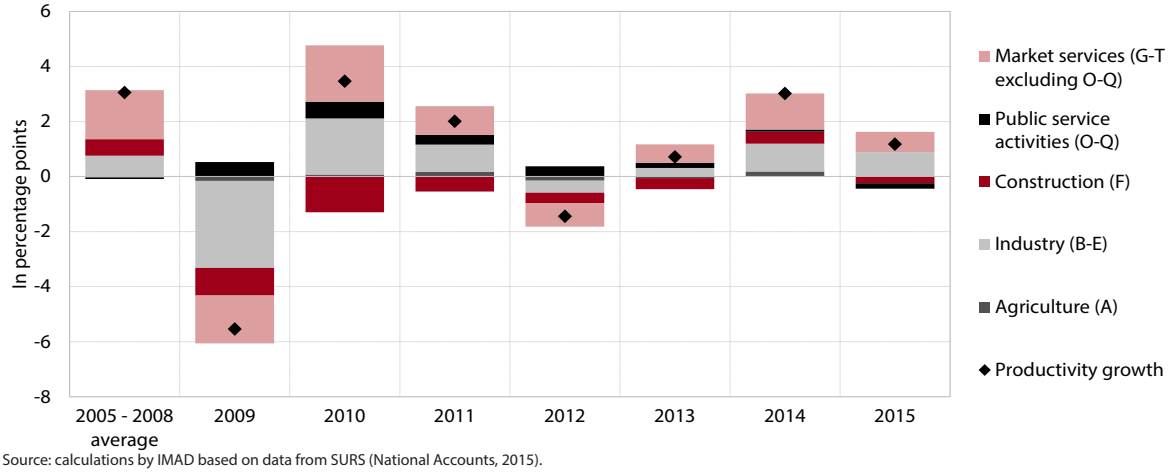
Productivity of Slovenia's economy remains low by international standards. Before the crisis, productivity (expressed in purchasing power standards) was at 83% of the EU average, but had already stopped converging to the EU average several years before the crisis. In 2009 and 2010, Slovenia's productivity gap widened by another 4 percentage points amid less favourable GDP movements, and persisted at a very similar level over the next three years. It narrowed more noticeably only in 2014, but productivity remained low compared with the EU (82% of the EU average).

Table: **Labour productivity, Slovenia**

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Real productivity growth, in %	4.5	4.0	3.5	0.7	-6.1	3.4	2.4	-1.8	0.3	2.5	1.3
Labour productivity in PPS, EU=100	83	83	82	83	80	79	80	80	80	82	N/A

Source: SI-STAT – National Accounts, 2015; Eurostat Portal Page – Economy and Finance, 2015; calculations by IMAD.

Figure: **Sectoral contributions to productivity growth, Slovenia**



Source: calculations by IMAD based on data from SURS (National Accounts, 2015).

[1] Measured as the ratio between GDP at constant prices and the number of employed persons according to the national accounts methodology.
[2] Information-communication activities (J), professional, scientific and technical activities (M).

2.3 Market share

In 2014 the market share of merchandise continued to grow. In the period 2008–2012 Slovenia experienced one of the largest declines in the EU in terms of the share in global merchandise trade (–22%), which was partly a consequence of the regional and product structures of the country's exports (see Development Report 2013, 2014). The decline on the markets of the 14 key trading partners in this period was approximately half lower; on the EU market, around two thirds lower. In 2013, however, these negative dynamics turned positive, and this trend continued in 2014. During this period Slovenia was one of the EU countries with the highest growth in world market share.[1] Its fall relative to 2007 was, consequently, around a third smaller: on the markets of its main trading partners Slovenia has already achieved pre-crisis levels while it has exceeded these in the EU. The available data for the first nine months of 2015 indicate further growth on the EU market, but at a slower pace.[2] On the world market and the markets of the main trading partners, Slovenia's market share declined slightly, mainly owing to the effects of the structure of Slovenia's merchandise exports (see also Chapter 2.1).[3]

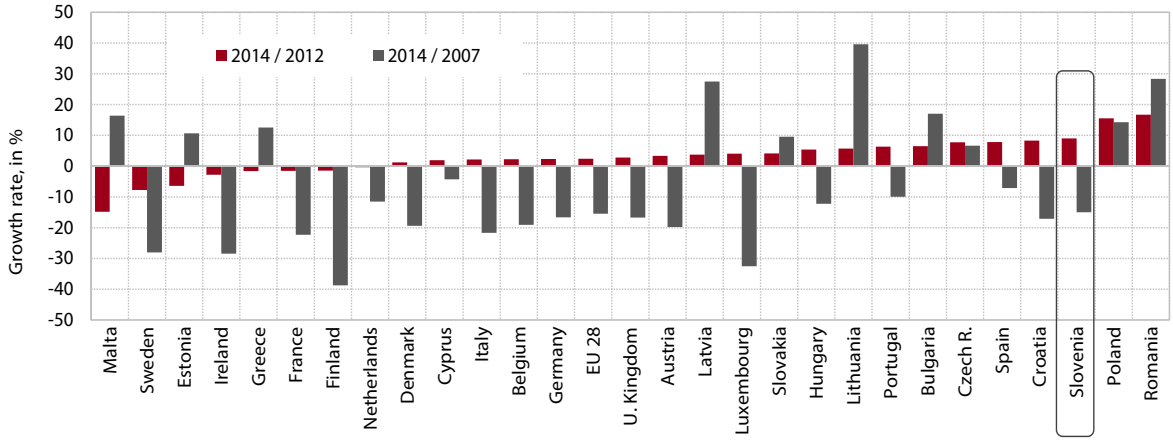
The growth of Slovenia's world market share in 2013 and 2014 was a consequence of a general increase in the shares on its main regional and product markets, which were also some of the most dynamic. More specifically, the growth in import demand on these markets was, for the most part, higher than on the global market. Market share growth was recorded not only in Germany, Italy, Austria, Croatia and France, but also in Hungary, Poland, the United Kingdom, the US and Russia.[4] In terms of factor intensity, the market shares of all product groups[5] expanded in 2013–2014, the most important SITC sections being medicinal and pharmaceutical products, iron and steel, non-ferrous metals, manufactures of metals, machinery specialised for particular industries, road vehicles, miscellaneous manufactured articles, and petroleum and petroleum products.[6]

Table : **Slovenia's market share of world merchandise exports and in main trading partners, in %**

	2000	2005	2009	2010	2011	2012	2013	2014
World market share*								
Slovenia	0.125	0.156	0.163	0.147	0.146	0.136	0.140	0.148
EU-27	34.344	34.781	32.872	30.557	29.835	28.532	29.329	29.213
Slovenia's market share in its main trading partners**								
Germany	0.474	0.457	0.470	0.450	0.485	0.488	0.488	0.503
Italy	0.498	0.589	0.626	0.608	0.617	0.626	0.690	0.764
Austria	0.959	1.203	1.280	1.311	1.231	1.312	1.431	1.574
Croatia	8.724	8.729	8.154	8.176	8.613	8.368	8.994	10.292
France	0.204	0.311	0.351	0.328	0.279	0.225	0.225	0.235
Poland	0.470	0.446	0.437	0.480	0.432	0.421	0.416	0.456
Russian Federation	0.564	0.587	0.429	0.342	0.339	0.383	0.430	0.466
Serbia	N/A	N/A	5.587	5.381	4.932	5.047	4.820	4.817

Source: United Nations Commodity Trade Statistics Database, 2015; calculations by IMAD.
Notes: *The export market share, calculated as the share of the merchandise exports of Slovenia or the EU (intra and extra) in world merchandise exports. ** Slovenia's market share in its main trading partners, calculated as the share of Slovenia's merchandise exports in the merchandise imports of a given trading partner.

Figure: **World merchandise market shares of EU Member States, growth rates in %**



Source: United Nations Commodity Trade Statistics Database, 2015; calculations by IMAD.

[1] Third place (9% cumulative growth, EU 2.4%). [2] Owing to a decline in its market share in Italy, Austria and Croatia, but after more pronounced growth in previous years. [3] Differences in the structure of Slovenia's exports and import demand, and the fact that in the first nine months of 2015, the movement of import demand in trading partners from the EU (where Slovenia exports as much as three quarters of goods) was less dynamic than in trading partners outside the EU. [4] In 2014 Slovenia's market share exceeded pre-crisis levels in Germany, Croatia, Austria, Italy and the US. [5] Particularly natural-resource-intensive products, low-, medium- and high-technology products (the former two product groups by 15% and the latter two by 10%).[6] According to factor intensity, in 2014, high-technology products were the only group where the market share exceeded the figure recorded for 2007; among the SITC sections, these included medicinal and pharmaceutical products, power-generating machinery and equipment, and petroleum and petroleum products.

2.4 Unit labour costs

In 2015 unit labour costs declined again. After increasing for three consecutive years under the impact of strong wage growth (2008 and 2010)[1] and a decline in labour productivity (2009), real unit labour costs dropped in 2011 for the first time since the beginning of the crisis owing to the slower growth of wages. When labour productivity fell again in 2012 due to lower economic activity, the growth in real unit labour costs resumed despite a concomitant decline in wages. With renewed labour productivity growth, unit labour costs have been declining without interruption since 2013, first as a result of falling employment and since 2014 under the impact of rising economic activity.

In 2015 the unit labour costs in manufacturing were already lower than before the crisis, but were still higher in the economy as a whole. In 2008–2009, a strong contraction in foreign demand led to an above-average decline in value added and, consequently, labour productivity in manufacturing. Real growth in unit labour costs was therefore higher, despite the more modest growth of wages. In manufacturing, real unit labour costs had already started to decline in 2010 and had fallen much further by 2015 than in the economy as a whole. More specifically, with a rebound in foreign demand, labour productivity growth in the manufacturing sector was higher than in the economy as a whole due to a larger increase in value added and a steeper decline in employment. Growth in compensation per employee was also higher (partly due to the impact of the increase in the minimum wage) but lower than the growth of labour productivity.

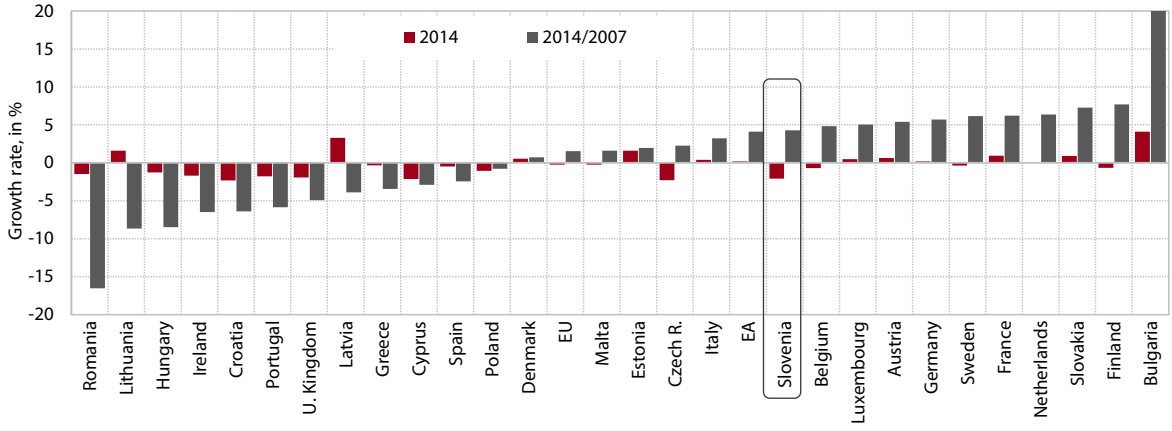
The manufacturing sector improved its position relative to the EU in comparison with 2007, but the relative position of the economy was worse than before the crisis. Up to 2010, Slovenia had been among the EU Member States with above-average growth in real unit labour costs in manufacturing; since 2010, however, the country has been experiencing an above-average decline. In 2015 real unit labour costs were 2.6% lower than in 2007 (2.2% higher in the EU). In the economy as a whole, real unit costs were 3.2% higher in this period (0.9%).

Table: **Unit labour costs in Slovenia and the EU, growth in %**

Real annual growth rates, in %	2001–2008	2009	2010	2011	2012	2013	2014	2015*
Unit labour costs**								
Slovenia	-0.3	5.0	1.6	-1.9	0.6	-0.6	-2.1	-1.0
EU	-0.5	3.2	-1.3	-1.0	0.5	-0.5	-0.2	-0.5
EMU	-0.3	3.4	-1.4	-0.5	0.7	-0.1	0.2	-0.6
Unit labour costs – Slovenia**								
Total	-0.4	5.0	2.0	-1.8	0.9	0.0	-2.2	-1.1
Manufacturing	-0.4	7.6	-0.8	-3.3	0.4	-2.3	-3.0	-3.6

Source: SI-STAT Data Portal – Economy, 2015; Eurostat Portal Page – Economy and Finance, 2015.
Notes: *SURS, EUROSTAT estimates based on quarterly data for 2015.**Employee compensation per employee in current prices divided by the gross domestic product per employee in current prices; ***Employee compensation per employee in current prices divided by the value added per employee in current prices.

Figure: **Real unit labour costs in Slovenia and EU Member States**



Source: Eurostat Portal Page – Economy and Finance, 2015.

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

2.5 Structure of merchandise exports by factor intensity

The changes in the structure of merchandise exports towards increasing the share of exports of high-technology goods have been less pronounced recently than at the beginning of the crisis. The share of high-technology products increased to a greater extent particularly in the first years of the crisis (2008 and 2009), when the shares of other, less competitive, industries started to contract. Since 2009, the share of high-technology products has also been constantly strengthening owing to the growth in the absolute values of their exports. This was mainly underpinned by growth in pharmaceutical exports, which had been above average until 2013 before slowing notably in 2014.[1] The share of high-technology products in merchandise exports therefore also fell slightly. Although this figure was one of the highest recorded until that point, it was still below the EU average (by 4.3 percentage points). Relative to the beginning of the crisis, the gap with the EU average has halved and, in recent years, the significance of these products in the structure of our exports has also been above the average for new EU Member States. Medium-technology products otherwise still account for the largest share in the merchandise export structure. Significantly boosted by road vehicle exports, this figure rose slightly in 2014 after four years of decline.

The share of products with low value added[2] in merchandise exports has recently stopped falling. Their significance had been declining for a number of years, primarily owing to the falling share of labour-intensive products; the share of low-technology products has also fallen since the start of the economic crisis. Exports of products with low value added have proved to be very vulnerable to competition from countries with lower labour costs, with the share of textile products, furniture, paper and paperboard exported having contracted, particularly since Slovenia's accession to the EU. Since 2010 onwards, the decline in these sectors has also been reflected in the deterioration in cost competitiveness due to the substantial statutory increase in the minimum wage. The relative share of products with low value added, which has otherwise been relatively stable in the last two years, has therefore been gradually approaching the EU average (in 2014 it was still 3.5 percentage points higher than the EU average).

The share of resource-intensive products[3] rose notably after 2009, mainly on the back of higher volumes of trade in primary products. The increases in the shares of electricity and petroleum product exports were mainly underpinned by higher volumes of trade in these product groups (re-exports). Owing to lower electricity exports, the share of resource-intensive products otherwise declined slightly in 2014 after several years of growth, but remained significant.

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

		2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Resource-intensive	**Slovenia**	**15.3**	**15.4**	**16.1**	**15.5**	**15.8**	**15.9**	**17.5**	**19.0**	**19.4**	**19.8**	**19.4**
	EU	18.2	18.0	19.4	19.2	20.4	19.6	20.7	22.4	23.2	23.1	22.2
	EU-15	18.0	17.8	19.4	19.3	20.5	19.6	20.7	22.4	23.2	23.1	22.3
	EU-13	21.1	19.6	19.5	18.9	19.8	19.8	21.0	22.3	23.3	22.9	21.7
Labour-intensive	**Slovenia**	**21.6**	**17.0**	**14.2**	**12.6**	**11.7**	**11.6**	**11.0**	**10.8**	**10.1**	**9.6**	**9.6**
	EU	10.6	9.1	8.6	8.5	8.2	8.7	8.2	8.1	7.1	7.9	8.2
	EU-15	10.1	8.6	8.2	8.1	7.9	8.4	7.9	7.8	6.6	7.6	7.9
	EU-13	18.6	14.0	12.3	11.4	10.3	10.9	10.2	10.0	9.8	10.1	10.5
Low-technology	**Slovenia**	**9.9**	**8.8**	**10.2**	**10.4**	**11.1**	**9.8**	**8.6**	**9.0**	**8.7**	**8.7**	**8.8**
	EU	6.9	7.0	7.5	8.0	8.2	7.0	7.0	7.2	6.5	6.6	6.7
	EU-15	6.7	6.6	7.1	7.6	7.8	6.7	6.7	6.9	6.1	6.3	6.4
	EU-13	10.7	10.7	10.9	11.2	11.2	9.2	9.1	9.6	9.2	9.1	8.9
Medium-technology	**Slovenia**	**36.2**	**40.2**	**39.1**	**40.9**	**39.3**	**39.9**	**39.6**	**37.9**	**36.9**	**36.5**	**37.1**
	EU	29.8	30.1	29.9	30.7	29.9	28.4	28.6	29.8	28.9	29.2	30.1
	EU-15	29.8	29.8	29.5	30.2	29.5	27.8	28.0	29.2	28.1	28.4	29.1
	EU-13	29.6	32.9	33.9	35.1	33.8	33.4	33.0	33.7	33.9	34.9	36.1
High-technology	**Slovenia**	**15.5**	**16.0**	**17.1**	**17.4**	**18.8**	**21.1**	**20.3**	**20.1**	**21.5**	**22.3**	**21.9**
	EU	28.7	27.6	27.7	25.8	25.2	27.6	27.2	26.1	26.6	25.7	26.2
	EU-15	29.4	28.6	28.6	26.5	25.8	28.3	27.7	26.7	27.6	26.5	27.1
	EU-13	18.0	18.1	19.1	19.5	20.5	22.7	23.0	21.5	20.6	20.1	20.0

Source: Handbook of Statistics 2007–2008 (United Nations), 2007; United Nations Commodity Trade Statistics Database, 2014; calculations by IMAD.
Notes: *The classification of products into individual groups is based on the UN methodology (Trade and Development Report, 2002), which does not include all products. Consequently, the sum of the five product groups does not necessarily equal 100. The EU-15 means the 15 countries that joined the EU before the enlargement in 2004; the EU-13 refers to the 13 countries that joined the EU in the enlargements after 2004.

[1] The lower growth in the value of sales was, amid further strong growth in volumes, mainly a consequence of a decline in the exchange rate of the rouble.
[2] The low-technology and labour-intensive product groups include products with the lowest value added per employee such as: clothing, textile products, footwear, furniture, glass and glass products, iron steel sheets and shapes, and base-metal manufactures.
[3] The main groups of exported resource-intensive products in Slovenia's merchandise exports are as follows: aluminium, mineral manufactures, electric current, rough and worked wood, veneer and other wood manufactures, and non-alcoholic and alcoholic beverages.

2.6 Knowledge-intensive market services

With a further increase in sales revenues on foreign markets, knowledge-intensive market services[1] exceeded their pre-crisis level in 2014. After the beginning of the crisis, it was only in 2013 that the value added of these services started to rise notably, whereas in the EU this figure had already exceeded the 2008 level in 2011, and was 5.5% higher than before the crisis in real terms in 2013 (in Slovenia, 2.8% higher in 2014). The slower recovery among this group of services in Slovenia was mainly due to sectors that are more focused on the domestic market[2] (where demand had contracted substantially in the first years of the crisis) and have only recently started to seek opportunities abroad. In 2014 the value added for these services was 13.5% below the pre-crisis level, whereas in the EU this figure had already exceeded the 2008 level in 2011. On the other hand, the value added of computer programming and legal and accounting services,[3] which have seen increasing sales revenues since 2009, primarily on foreign markets,[4] was 23.7% above the 2008 level in 2014 in Slovenia, as opposed to only about 8% in the EU (data for 2013).

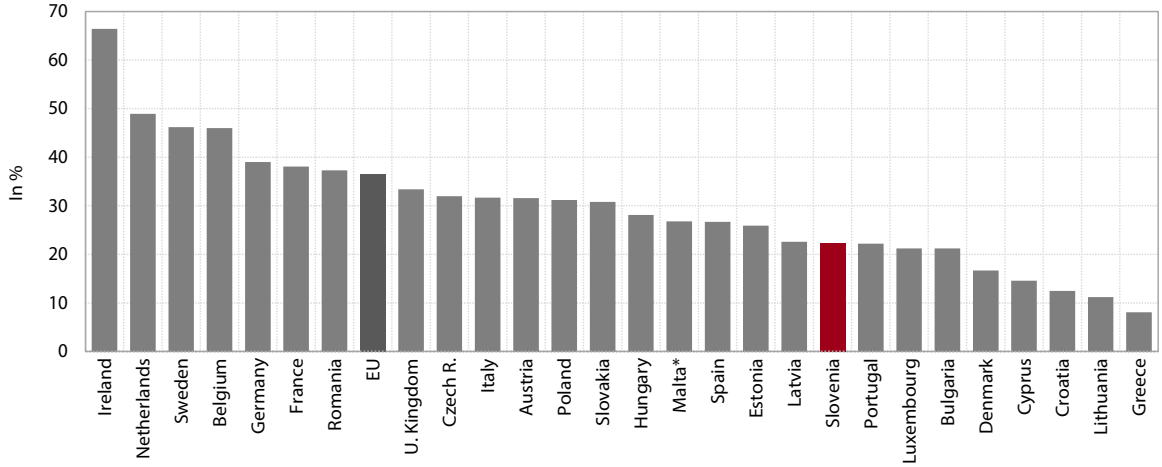
Despite growing sales revenues on foreign markets, the share of knowledge-intensive market services[5] in total exports of services in Slovenia was much smaller than in the EU. Between 2010[6] and 2014, this share increased by 1.4 percentage points to 22.3%, while the EU average rose by 3.5 percentage points to 36.5%. The smaller share of knowledge-intensive services in the export structure can otherwise be partly attributed to the relatively large share of exports of travel and transport services related to Slovenia's natural conditions and strategic position; however, the stagnation in the share of knowledge-intensive services on foreign markets also reveals their low export competitiveness (see Section 2.1). This is particularly the case for the following sectors, where the share of exports is smaller than the EU average: computer services (by 7.7 percentage points), technical, trade-related and other administrative and support service activities (4.1 percentage points), professional and management consultancy services (3.5 percentage points) and R&D activities (2.3 percentage points). The share of telecommunications (3.3 percentage points) and information services (0.1 percentage points) recorded in the export of services was larger than in the EU, and this trend was continuing.

Table: **Value added in knowledge-intensive non-financial market services, Slovenia, index 2008=100**

	2000	2005	2008	2010	2011	2012	2013	2014
Knowledge-intensive non-financial market services	62.3	77.8	100.0	99.1	99.6	98.8	99.8	102.8
Information and communication activities (J)	53.3	75.1	100.0	98.8	98.9	98.5	99.3	100.7
Professional, scientific and technical activities (M)	67.7	79.5	100.0	99.3	100.1	99.0	100.2	104.0

Source: SI-STAT Data Portal – Economy - National Accounts, 2016; calculations by IMAD.

Figure: **Share of knowledge-intensive non-financial market services in total exports of services, 2014**



Source: Eurostat Portal Page – Economy and Finance, 2016; calculations by IMAD. Note: *Data for 2013. Exports of knowledge-intensive non-financial market services are calculated as the sum of the exports of telecommunication, computer and information services (SI) and other business services (SJ).

[1] These include information and communication (SKD J) and professional, scientific and technical activities (SKD M). [2] Architectural and engineering activities, technical testing and analysis; advertising and market research; publishing activities; motion picture, video and television programme production, sound recording and music publishing activities; programming and broadcasting activities; telecommunications; and other professional, scientific and technical activities. [3] Computer programming, consultancy and related activities; legal and accounting activities; and business and other management consultancy activities. [4] The net sales revenues on foreign markets in 2014 (AJPES data) were 121.6% higher than in 2008. [5] These exports are calculated as the sum of the exports of telecommunication, computer and information services (SI) and other service activities (SJ). [6] These data, which are based on the sixth edition of the Balance of Payments and International Investment Position Manual, have been available since 2010.

2.7 Network industries

In electronic communications, competition is fairly strong in terms of broadband internet access, but competition in mobile telephony still lags behind the EU average. *Fixed telephony* (with the exception of the growing share of internet (VoIP) telephony) has been losing market share in recent years,[1] and is increasingly being replaced by *mobile telephony.* Market concentration in this segment is relatively high, and approaching the EU average only slowly. *Broadband internet access* is the most competitive market, with the market share of the leading provider already below the EU average. According to the most recent data available,[2] the prices of fixed and mobile telephony services were generally lower in Slovenia than in the EU, but they dropped to a lesser extent in Slovenia than in the rest of the EU for the whole period of 2010–2015.[3]

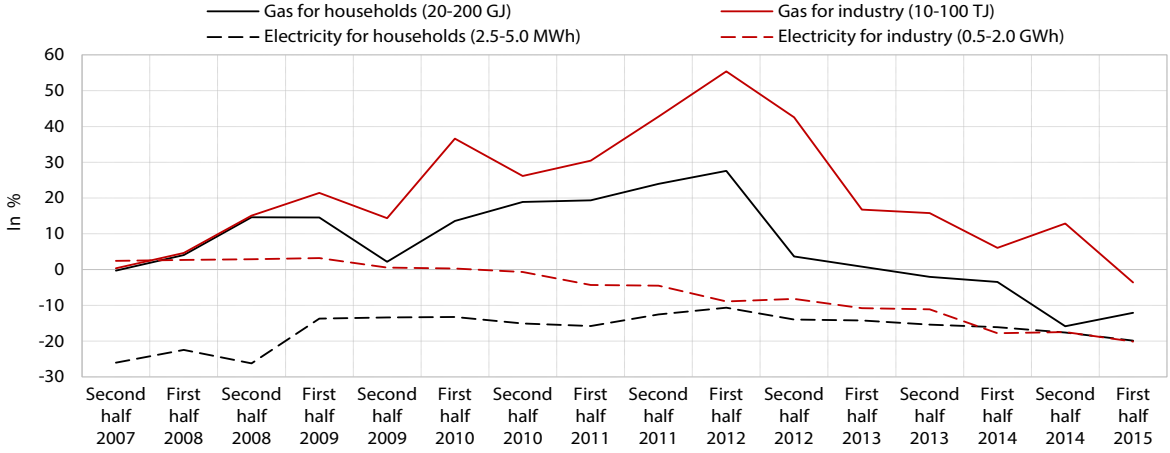
Regarding the supply of electricity and gas, competition is spurred by numerous provider switches. After the deregulation of the market in 2007, the number of *electricity supply* switches increased markedly only at the end of the previous decade, peaking in 2012 (over 55,000 or 5.9% of customers), before decreasing slightly by 2014 (32,000 or 3.5% of customers). On the electricity generation market, the competition rate is low (in 2014 the Herfindahl-Hirschman Index (HHI), a concentration index, was 4,569) but comparable with the EU.[4] Competition on the retail market is stronger. In the period from the deregulation of the electricity market up to 2014, the HHI for electricity supply to the consumers on the distribution network dropped from 2,032 to 1,773. The concentration of the suppliers changed to an even greater extent, with the share of the three principal providers falling from 70% in 2007 to just above 50% in 2014. In the first half of 2015, the retail price of electricity for households and industry, excluding taxes, was around 20% below the EU average. On the *natural gas* market, the arrival of a new provider led to sharp price falls in 2012; in the first half of last year, the gas price (excluding taxes) for households and industrial consumers was 12% and 4% lower than the EU average respectively. After almost no instances recorded of providers being switched in previous years, the switching rate surpassed 11,000 or 8.6% of customers in 2012, before falling to 3.6% by 2014.

Table: **Market share* of the largest electronic communications providers, in %**

		2009	2010	2011	2012	2013	2014
Mobile telephony	**Slovenia**	**56**	**55**	**53**	**50**	**49**	**48**
	EU-27	38	38	37	36	35	35
	EU-3**	33	33	32	33	32	31
Broadband internet	**Slovenia**	**46**	**43**	**42**	**39**	**36**	**35**
	EU-27	45	44	43	42	42	41
	EU-3**	29	29	30	27	27	26

Source: Digital Agenda Scoreboard Key Indicators (European Commission), 2015; Information Society Statistics (Eurostat), 2015. Notes: *Number of active SIM cards (in October) in mobile telephony; number of connections (end of year) in broadband internet. **Average of the three Member States with the smallest shares.

Figure: **Discrepancies in energy prices between Slovenia and the EU average**



Source: Eurostat; calculations by IMAD.

[1] Consequently, there are fewer and fewer international comparisons of the market shares of the main providers of these services. The most recent was conducted in 2012, when the principal provider of fixed telephony services had a 65% market share in Slovenia and above 50% of the average EU market share.
[2] Report on Telecoms Price Developments 1998–2010 (EC), 2010. Packages (baskets) of fixed and mobile telephony services are compared.
[3] The dynamics of price growth are indicated by the HICP indices for telephony service prices.
[4] According to Eurostat, it was 57.1% in Slovenia in 2012, while the arithmetical mean of the shares of EU countries (excluding Bulgaria and the Netherlands) was 55.4%.

2.8 Foreign direct investment

After very low inward FDI until 2013, inflows in 2014 and 2015 indicate a significant increase, while outward FDI remains modest. After a modest improvement in 2010–2013, the stock of inward FDI[1] rose more notably in Slovenia in 2014 for the first time in a long period (by 13.9%). Outward FDI stock, having been decreasing in 2010–2013, rose slightly in 2014 (by 2.6%), but was still 13.5% below its 2009 peak. The equity capital inflows of inward FDI rose notably in 2014 and 2015: in 2014 they amounted to EUR 1,447.0 million and in the first ten months of 2015 to EUR 1,184.8 million, compared with only EUR 1,354.6 million reached in the entire previous five-year period (2008–2012). This is primarily due to the renewal of the privatisation process and the generally higher sales of equity stakes in Slovenian companies. The SPIRIT survey conducted among companies with foreign capital in Slovenia indicates increased sales (58% of companies surveyed) and employment (37%) for a significant portion of these companies, with 32% of companies also planning to expand their activities in 2016. Outward FDI recorded equity capital outflows from Slovenia in 2015 that were at approximately the same level as in 2014, which is significantly lower than in 2013.

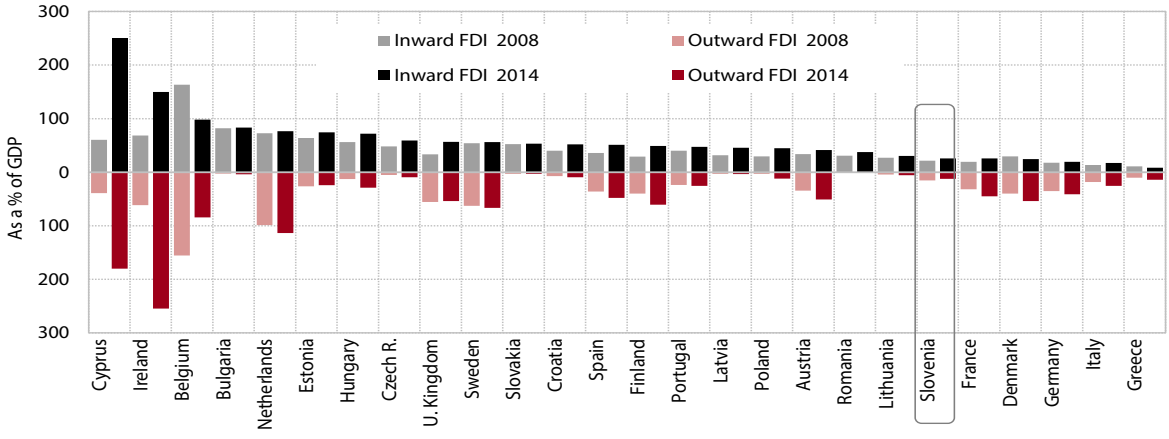
Slovenia remains among the EU countries with the lowest inward FDI stock as a share of GDP. Despite a considerable increase in 2014 (to 27.2% of GDP), Slovenia remains among the EU countries with the lowest stock of inward FDI, and the smallest increase in inward FDI stock as a share of GDP over the long term. A smaller share of inward FDI relative to GDP is recorded only by Greece, Italy, Germany, Denmark and France. In terms of outward FDI relative to GDP, Slovenia – among the new Central European EU Member States – lags behind only Hungary and Estonia.

Table: **Flows and stocks of inward and outward FDI* in Slovenia, 2000–2014**

In EUR m	2000	2005	2008	2009	2010	2011	2012	2013	2014	2015
INWARD FDI										
Year-end stock**	2,567.4	5,981.0	8,598.0	7,827.8	7,982.9	8,880.1	9,248.6	8,896.5	10,129.9	N/A
Inflow of equity capital	96.3	270.7	380.3	127.1	449.9	63.2	334.1	441.7	1,447.0	1,184.8 (Jan-Oct)
Stock as a % of GDP	11.9	20.5	22.7	21.6	22.0	24.1	25.7	24.8	27.2	N/A
OUTWARD FDI										
Year-end stock**	829.3	2,777.0	6,085.1	6,143.3	6,097.4	6,048.8	5,709.9	5,178.5	5,314.9	N/A
Inflow of equity capital	54.7	456.0	720.8	491.4	181.0	240.7	383.9	427.4	135.8	129.3 (Jan-Oct)
Stock as a % of GDP	3.8	9.5	16.0	17.0	16.8	16.4	15.9	14.4	14.2	N/A

Source: BoS. Notes: *Companies in which a foreign investor has a 10% or higher equity share. **According to the direction of investment and BPM6 methodology.

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



Source: UNCTAD, World Investment Report, 2014.
Note: The figure shows the EU countries, excluding Malta and Luxembourg, which have very large FDI stocks in comparison to other countries.

[1] In calculating the stock of FDI according to the directional principle, the Bank of Slovenia moved from the old BPM5 methodology to the new BPM6 methodology in 2014. According to the BPM6 methodology, the stocks differ significantly from those calculated according to the BPM5 methodology, owing to changes in the categories taken into account in the calculation. In the case of Slovenia, this holds true particularly for inward FDI: the stock of inward FDI at the end of 2013 amounted to EUR 10,728.6 million according to the previous BPM5 methodology, compared with only EUR 8,926.0 million according to the new BPM6 methodology; the stock of outward FDI totalled EUR 5,121.3 million and EUR 5,171.6 million for the BPM5 and BPM6 methodologies, respectively (for more, see Bank of Slovenia. 2014. Direct Investment 2013, pp. 13–17).

2.9 Entrepreneurial activity

Early-stage entrepreneurial activity dropped for the second year in succession, falling below the level achieved just before the crisis. According to data from the Global Entrepreneurship Monitor (GEM), the rate of total early-stage entrepreneurial activity (TEA-index)[1] declined further in 2015[2] after peaking in 2013. This was largely due to a decline in the share of nascent entrepreneurs (entrepreneurs running businesses for less than three months), with the share of new entrepreneurs (those who have been in business for less than three and a half years) remaining at the same level for the fourth consecutive year in 2015. Opportunity-driven early-stage entrepreneurial activity has been steadily declining since 2012, thereby diverging from the level reached before the beginning of the crisis. Necessity-driven entrepreneurial activity remains relatively high, but dropped slightly in 2015. In 2015 early-stage entrepreneurial activity also declined in the EU,[3] but is still higher than in 2008 (5.3%). Amid a concomitant contraction in established businesses, total entrepreneurial activity in Slovenia also dropped further in 2015, falling below the pre-crisis level.

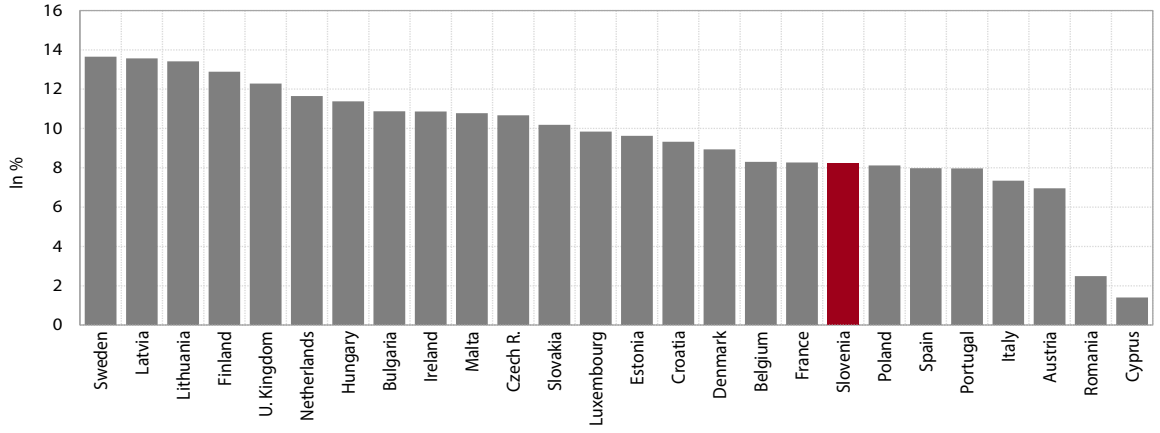
Newly established enterprises have accounted for only a modest share of total employment in recent years. Business demography statistics show slower growth in the number of active enterprises in the first years after the beginning of the crisis, but that this accelerated in 2013, the year for which the most recent data are available. The bulk of improvement in 2013 arose from a significant increase in the number of newly established enterprises (without a predecessor), as had already been indicated by GEM data on early-stage entrepreneurial activity, which peaked in 2013. Moreover, the number of deaths of enterprises without a successor declined noticeably in 2013 for the first time since the onset of the crisis.[4] Entrepreneurial dynamics were at their most beneficial in knowledge-intensive services (births 2013: 14.8%; deaths 2013: 6.7%), where the number of newly established enterprises rose by two-fifths, whereas the number of deaths declined by one-tenth. However, the number of employees in newly established enterprises accounted for only a modest share of all employed persons (1.4% in 2013, slightly more in knowledge-intensive services). According to the GEM survey, one of the reasons for this may be the large share of new enterprises established out of necessity, in all likelihood as a result of unemployed people becoming self-employed. The share of high-growth enterprises is therefore among the smallest in the EU, although Slovenia has a relatively high enterprise birth rate and low enterprise death rate by international standards.

Table: **Selected GEM indicators of entrepreneurial activity, Slovenia, as a % of the population (aged 18–64)**

	2002	2005	2008	2009	2010	2011	2012	2013	2014	2015	EU 2015
TEA-index*	4.6	4.4	6.4	5.4	4.7	3.7	5.4	6.5	6.3	5.9	6.6
Established business owners**	-	6.3	5.6	5.7	4.9	4.8	5.8	5.7	4.8	4.2	6.0
Total entrepreneurial activity***	-	10.1	11.8	10.8	9.5	8.4	11.2	11.9	11.0	10.1	12.3

Sources: Rebernik et al., 2003; Rebernik et al., 2006; Rebernik et al., 2009; Rebernik et al., 2010; Rebernik et al., 2011, Rebernik et al., 2012; Rebernik et al., 2013, Rebernik et al., 2014, Rebernik et al., 2015, Kelley et al., 2016.
Notes: *The TEA-index is the rate of total early-stage entrepreneurial activity measuring the share of the population engaging in entrepreneurship. It includes individuals who have just set up a new business or are engaging in new business activities, including self-employment. It also includes individuals who are owners/managers of a business that is less than 42 months old. **The share of the population who own or manage a business that has been operating for more than 42 months. ***Total entrepreneurial activity includes the TEA index and the share of established businesses.

Figure: **Share of high-growth enterprises in the total business economy (NACE activities B–N)*, 2013**



Source: Eurostat Portal Page – Industry, trade and services – Structural business statistics – Business demography, 2016. Note: *Enterprises that had at least 10% average annualised growth in employees per year over a three-year period and 10 or more employees in the first year of the three-year period. The share is calculated for enterprises with at least 10 employees.

[1] For a methodological explanation of the GEM indicators that measure entrepreneurial activity, see the notes below the table.
[2] The data are from the survey carried out in the first half of the year.
[3] 21 Member States participated in the survey (19 of which participated in the survey in 2014).
[4] The data for 2013 are provisional.

2.10 Share of the population with tertiary education

The share of adults with tertiary education is increasing, having kept pace with the EU average since 2014. This trend is a consequence of a long period of high participation of young people in tertiary education, and the structural effect of the transition of younger, more educated generations into higher age groups. The share of women with tertiary education is higher than the corresponding share of men[1] and above the EU average, and the gap between the two groups is widening. With the number of graduates falling since 2013 owing to a decline in student enrolment due to the smaller generations of young people, growth in the share of tertiary educated people is expected to slow in the years to come.

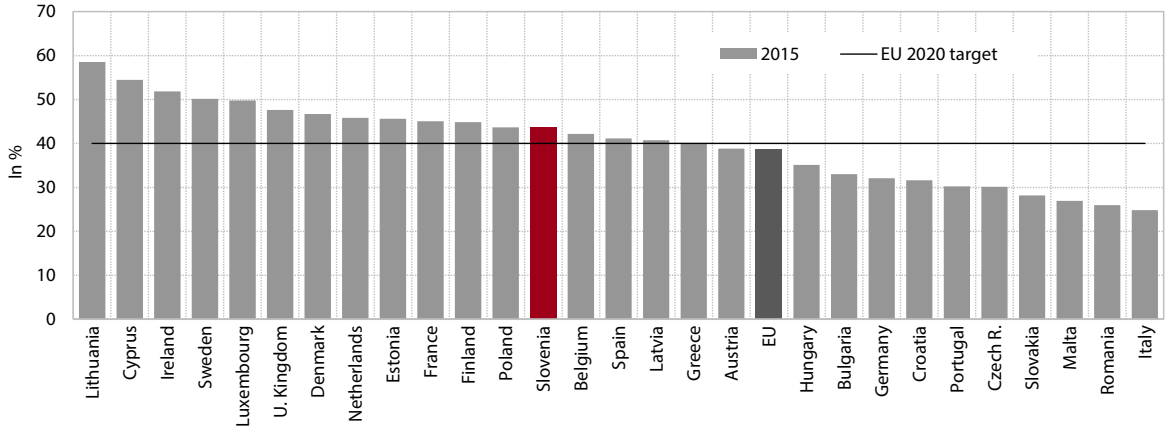
The share of tertiary educated people, which is generally above the EU average, is rising fastest in younger age groups. The only exception is the 25–29 age group, where the share of tertiary educated people lags behind the EU average due to low study efficiency (protracted studies). More favourable developments are recorded for the 30–34 age group, where the share of tertiary educated people stood at 43.6% in 2015 (EU 38.6%), which is higher than the Europe 2020 Strategy target of 40%. Its rapid growth is the result of several years of high participation of young people in tertiary education. Cedefop[2] projects the share of tertiary educated people in this age group to rise to over 50% by 2020 and to 59% by 2025.[3] The share of the tertiary educated people in the 35–44 age group is also higher than the EU average. In terms of meeting the business sector's requirements, the improvement to the education structure of the population is a positive development; according to Cedefop forecasts for 2015–2025, most job opportunities will be for tertiary educated people and their share in total job opportunities in Slovenia is expected to be higher than the EU average. Nevertheless, the key factor in terms of filling job vacancies that require tertiary education is the structure of graduates by field of study, which is not sufficiently matched to the business sector's needs.

Table: **Share of the population aged 25–64 with tertiary education, 2nd quarter, in %**

	2002	2005	2008	2009	2010	2011	2012	2013	2014	2015
Slovenia	14.8	20.0	21.9	22.5	23.7	25.5	26.1	27.8	29.2	30.2
EU	19.9	22.3	24.1	25.0	25.8	26.6	27.5	28.5	29.1	30.0

Source: Eurostat Portal page — Population and Social Conditions – Education and training, 2015.

Figure: **Share of the population aged 30–34 with tertiary education, 2nd quarter, in %**



Source: Eurostat Portal Page - Population and Social conditions, 2016.

[1] In 2015, this figure stood at 36.3% for women (EU: 31.6%) and at 24.6% for men (EU: 28.3%).
[2] European Centre for the Development of Vocational Training.
[3] Slovenia: Skills forecasts up to 2025, 2015.

2.11 Education expenditure

Public and private expenditure on education (as a % of GDP) is similar to the international average. In 2014 public expenditure[1] accounted for 4.99%[2] of GDP and was significantly lower than Slovenia's long-term average. It has been declining since 2012, largely owing to the effects of fiscal consolidation measures. A decline was recorded in all levels of education except for pre-primary education. Expenditure on tertiary education dropped the most, owing to a decline in transfers to students/households and expenditure on educational institutions. In comparison with the long-year average before 2012, public expenditure was thus lower at all levels except for pre-primary education. By international comparison, Slovenia has higher public expenditure at the primary level (which includes the first six grades of elementary school in Slovenia), with expenditures at upper-secondary and tertiary levels comparable with the EU-21 average (OECD countries). Private expenditure on education stood at 0.67% of GDP in 2014, which is close to the long-term average and, according to data for 2012, higher than the EU-21 average. However, this does not hold true for expenditure on tertiary education, which is the same as in the EU-21 and was below the long-term average in 2014.

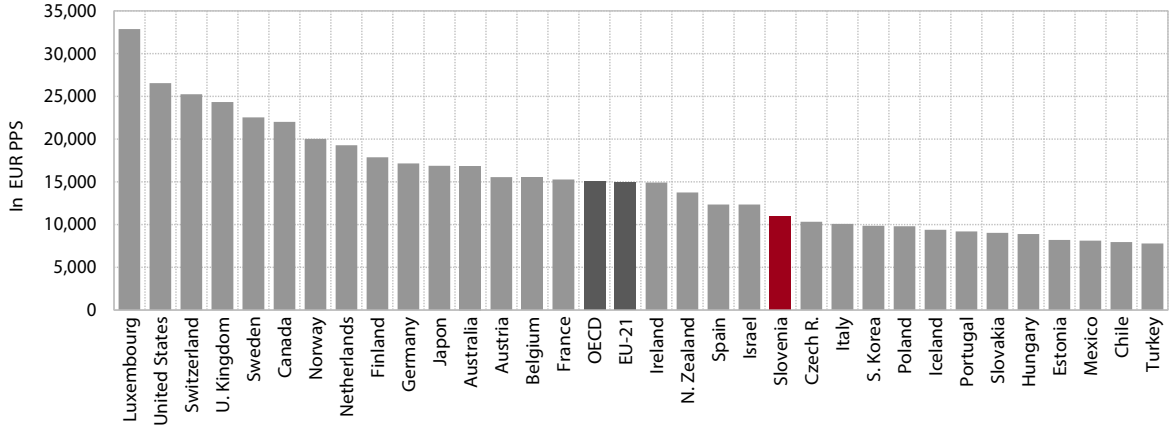
After increasing for several years, the expenditure (both public and private) per participant in education declined in 2012 but remained above the long-term average. Relative to the EU-21 average,[3] it remained higher for pre-primary and primary levels of education. Expenditure on upper-secondary and tertiary levels remained significantly lower, which is attributable to the high participation of young people in education. In 2012, expenditure on education per participant declined at all levels of education (particularly upper-secondary), with the exception of tertiary education where expenditure also rose in the longer term. This is related to a decline in enrolment since 2010 owing to smaller generations of young people and the fact that the level of public funds in the higher education funding system is not linked to the number of students enrolled.

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

	2000	2005	2008	2009	2010	2011	2012	2013	2014
All levels of education									
Slovenia	5.8	5.7	5.2	5.7	5.7	5.7	5.3	5.1	5.0
OECD average	5.2	5.3	5.4	5.8	5.7	5.6	5.3	N/A	N/A
EU-21 average*	5.1	5.4	5.3	5.8	5.8	5.6	5.2	N/A	N/A
Tertiary education									
Slovenia	1.3	1.3	1.2	1.4	1.4	1.4	1.2	1.1	1.1
POECD average	1.2	1.3	1.3	1.4	1.4	1.4	1.3	N/A	N/A
EU-21 average*	N/A	1.3	1.3	1.4	1.4	1.4	1.2	N/A	N/A

Source: Source: Education at a Glance (various issues) (2003, 2014, 2015), SURS, calculations by IMAD, 2016. Note: *The EU Member States that are OECD members.

Figure: **Expenditure on educational institutions per participant at the tertiary level of education, in PPS USD, 2012**



Source: Education at a Glance 2015, 2015.

[1] Public expenditure does not include transfers for students/households.
[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 spending on education totalled 5.34% of GDP in 2014.
[3] In 2012 (the latest international data available), it totalled PPS USD 9,031 in Slovenia (EU-21: PPS USD 10,361).

2.12 Participation of adults in lifelong learning

The participation rate for adults (aged 25–64) in lifelong learning (formal and non-formal education) in 2015 was 13.3% and above the EU average, although it declined during the crisis. It started to fall after 2010, but in 2015 this decline almost came to a halt. Participation in lifelong learning remains above the EU average, but has diverged substantially from the strategic objectives set due to the decline during the crisis (as a consequence of the unfavourable economic situation, labour market conditions and austerity measures in the public sector). In 2015 it was 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 even lower than the objective of the Resolution on the Slovenian Master Plan for Adult Education 2013–2020, which is 19%. The participation of less educated people and older people, the two main target groups of the resolution, is particularly modest (the participation rate for older people fell further during the crisis).

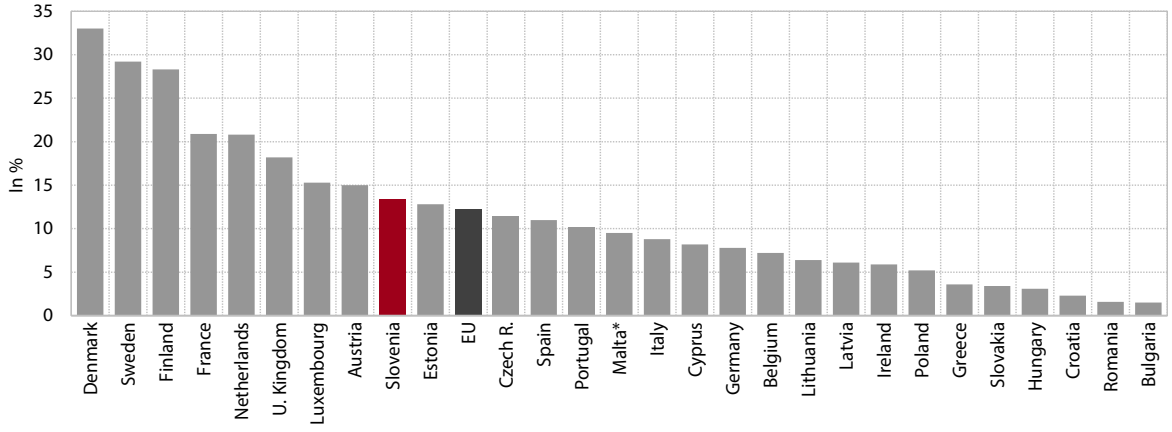
The participation of working-age population (25–64) in lifelong learning also declined during the crisis. In 2014 it dropped for the fourth year in succession but remained higher than the EU average (13.4% in Slovenia; 12.2% in the EU), although the gap narrowed significantly during the crisis. In 2008–2014, despite increasing in the EU, participation in lifelong learning declined across all occupational groups and most sectors. It was particularly low for people in occupational groups with lower incomes, who are less able to afford education.[1] In 2014 this figure was also lower than the EU average, but in other occupational groups it was higher. Broken down by sector, participation in lifelong learning in 2014 was highest in financial and insurance activities (where it exceeded that EU average the most) and lowest in the construction sector. Although it declined during the crisis, it remains above the EU average in most sectors. Despite the austerity measures in the public sector, participation in lifelong learning is also high in education, health and social work, and public administration.

Table: **Participation of adults aged 25–64 in lifelong learning, 2nd quarter, in %**

	2003	2005	2008	2009	2010	2011	2012	2013	2014	2015
Slovenia	15.1	17.8	15.9	17.0	18.2	17.2	14.7	13.7	13.4	13.3
EU	8.4	9.6	9.9	9.9	9.7	9.3	9.7	11.3	11.4	11.3

Source: Eurostat Portal Page – Population and Social Conditions – Education and training, 2015.

Figure: **Participation of employed persons aged 25–64 in lifelong learning, 2014, in %**



Source: Eurostat Portal Page – Population and social conditions – Education and training, 2016.

[1] ISCO 8–9 (plant and machine operators, as assemblers, and elementary occupations) and ISCO 7–8 (farmers, forestry workers, fishermen, hunters, and craft and related trades workers).

2.13 Gross domestic expenditure on research and development

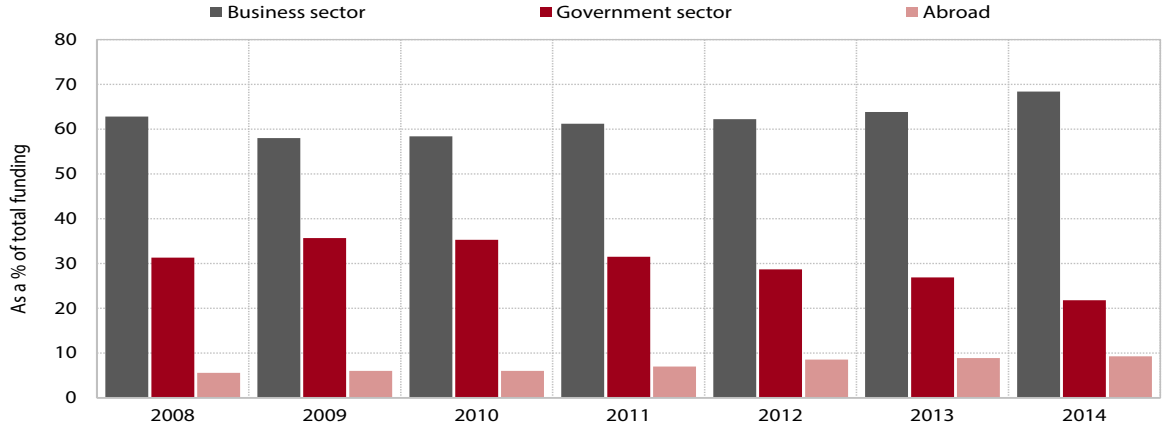
After a long period of increases, gross domestic expenditure on R&D (GERD) declined in 2014, reaching 2.39% of GDP; this was higher than the EU average, which is stagnating. At –5.0%, the real growth rate of GERD was negative for the second consecutive year. In the 2009–2014 period, R&D investment rose in real terms, by 25.0%, which was significantly more than in the EU as a whole. This was mainly due to the business sector, which increased R&D investment by 47.4% in real terms, and partly due to the higher tax relief.[1] In 2014 the total amount of R&D tax relief claimed stood at EUR 228.6 million; in 2009–2014 it totalled EUR 855.6 million, almost a third of which was claimed by the pharmaceutical industry. In 2012–2014 around 10% of beneficiaries from large companies[2] claimed around two-thirds of the total amount of R&D tax relief, whereas around half of the beneficiaries were micro companies, which claimed only a tenth of all relief. In 2014 the business sector increased R&D investment by 1.8% in real terms and its share of total R&D funding to 68.4%, which is significantly above the EU average (2013: 55.0%). The share of researchers[3] in the business sector is also rising along with R&D investment. In 2014 it rose to 54.1%, having exceeded the EU average (48.8%) since 2010. The R&D expenditure of the public sector (the government and the higher education sector) has been shrinking since 2012, and in 2014 this figure was nominally the same as in 2008. Funds from abroad remain an important source of R&D funding in Slovenia, but they declined for the first time in real terms in the 2009–2014 period upon the completion of projects from the previous financial perspective. In 2013 the majority of foreign funding for Slovenian R&D came from investment by the European Commission and the business sector abroad.

Table: **Gross domestic expenditure on R&D, as a % of GDP**

	2000	2005	2007	2008	2009	2010	2011	2012	2013	2014
Slovenia	1.36	1.41	1.42	1.63*	1.82	2.06	2.42*	2.58	2.60	2.39
EU	1.79	1.76	1.78	1.85	1.94	1.93	1.97	2.01	2.03	2.03

Source: Eurostat Portal Page – Science and Technology – Research and Development, 2015; SURS, 2015.
Notes: Data for EU-28 are Eurostat estimates. *The break in the time series in 2008 and 2011 is due to the higher number of reporting units in the business sector. In 2011 this change contributed to an increase in GERD of around 0.21% of GDP (see Development Report 2013, p. 132).

Figure: **R&D expenditure by sector, Slovenia**



Source: SURS 2015.

[1] The tax relief on R&D investment (20%) was introduced in 2006. In 2010 this was raised to 40% and in 2012 to 100%.
[2] In compliance with Article 55 of the Companies Act (ZGD), companies are classified into size classes based on any two of the following criteria: (i) the average number of employees in the financial year; (ii) net revenues from sales; and (iii) the value of assets at the end of the financial year. According to the first criterion, the average number of employees in micro companies is lower than 10; for large companies, the average number of employees is 250 plus.
[3] Expressed on a full-time equivalent basis.

2.14 Science and technology graduates

Despite a decline in the annual number of science and technology graduates, this figure is still higher than at the onset of the crisis; their share is also higher than the EU average. In 2014 the number of science and technology graduates dropped for the second successive year because of demographic factors (the falling number of young people available for enrolment in tertiary education). Although their share of this demographic is no longer growing, at 26.1% it was still significantly higher than in 2008. The movements of the number of science and technology graduates per thousand population aged 20–29 were also more favourable during the crisis. These movements are a consequence of programmes aimed at the popularisation of these fields of study among young people; however in the past few years they have no longer been able to cover the demographic deficit. Given the declining generations available for enrolment in tertiary education, unfavourable trends can also be expected in these fields in the future. This could lead to a gap in the supply of graduates, which in turn could also be exacerbated by tertiary educated young people moving abroad. The developments in sponsorship scholarships are also unfavourable.[1] The potential for improving enrolment in science and technology programmes involves strengthening career counselling for young people and, in particular, encouraging the participation of women, as the share of women enrolled in science and technology programmes in the 2014/15 academic year was only 30%.

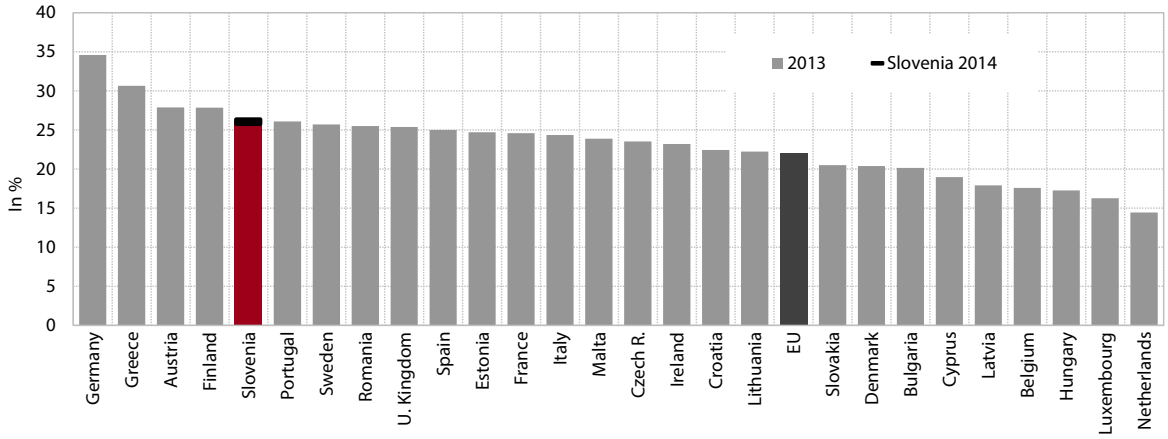
The share of doctors of science and technology is also significant in Slovenia. This figure has been above the EU average for the entire period. This has partly been attributable to government incentives (Young Researchers, Young Researchers in the Economy), which are mainly focused on science and technology (the share of expenditure on this field has accounted for over 60% of total expenditure on young researchers since 2006; in 2014, it totalled 64.5%). In 2008–2014 the total number of science and technology graduates rose from 199 to 1,882. In 2014 the number of students enrolled in doctoral studies declined, as was the case in other fields, which can be attributed to cuts in public funds for young researchers, the expiry of the innovative scheme for co-financing doctoral studies and poorer prospects for employment since the beginning of the crisis, particularly after the introduction of austerity measures in the public sector in 2012.

Table: **Share of doctors of science in technology in the total number of doctors of science, cumulatively*, in %**

	2003	2005	2008	2009	2010	2011	2012	2013	2014
Slovenia	47.7	48.9	47.5	47.7	48.5	47.4	47.1	48.1	48.6
EU	41.7	41.3	41.5	41.6	41.8	42.0	42.3	42.6	N/A

Source: Eurostat Portal Page – Population and Social Conditions – Education and training, 2016; SI-STAT Data Portal – Demography and social statistics – Education, calculations by IMAD.
Note: *The reference year is 2003, the year since data for the EU have been available.

Figure: **Share of science and technology graduates in the total number of tertiary education graduates, 2013**



Source: Eurostat Portal Page - Population and Social Conditions, SI-STAT Data Portal – Demography and social statistics – Education, 2016.

[1] In 2014 the share of full-time students receiving sponsorship scholarships totalled 5.8% (2008: 10.8%).

2.15 Intellectual property

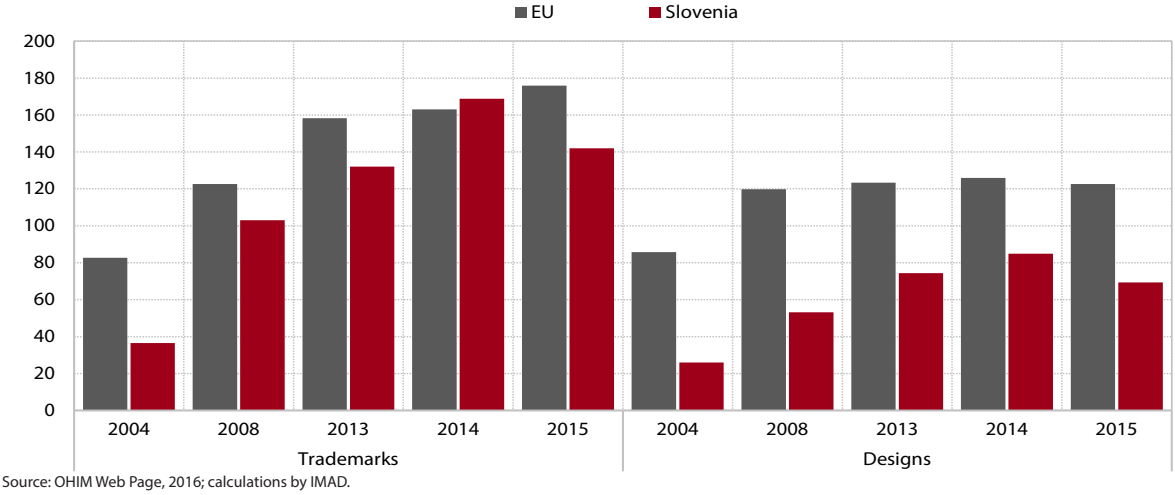
The number of patent applications with the European Patent Office (EPO) is lower than before the crisis, but some progress has been made in other areas of intellectual property protection, particularly Community trademark applications. According to data on the number of first[1] patent applications filed with the EPO, Slovenian applicants have not yet reached the level recorded before the onset of the economic crisis, which is partly attributable to the structure of the economy since some sectors[2] have more patentable subject matter than others. According to the international WIPO methodology, the patentable technological fields are as follows: medical technology, digital communication, computer technology and technology related to electrical machinery, apparatus and energy. Half of all the patent applications in 2010–2015[3] derived from these areas of technology (EPO Annual Report 2015, 2016). The business sector accounts for the largest share of patent applications by far, most of which are submitted by large companies (ibid). In 2009–2015 the number of patent applications per million population fell by an average of 1.0% per year in Slovenia, in contrast to the EU, where it rose at an average rate of 2.8%. Slovenia widened its gap with the EU average, but remained significantly more successful than the other countries in Eastern and Central Europe. Estonia and the Czech Republic, the countries with the best results in this group, reached only 40% of Slovenia's performance in 2015. In 2009–2015 Slovenian applicants filed around 114 applications for Community trademark protection[4] per million inhabitants per year with the OHIM,[5] which corresponds to annual growth of 10.9%. Owing to the accelerated growth in applications for Community trademark protection in 2012–2014, Slovenia's gap with the EU average narrowed significantly, from 36% in 2012 to 19% in 2015. In 2009–2015, Slovenian applicants registered around 72 Community designs[6] per million population annually with the OHIM, which was 5.5% average annual growth. Slovenia's gap with the EU average (122.6) remains significant.

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

	2000	2005	2007	2008	2009	2010	2011	2012**	2013**	2014***	2015***
Slovenia	24.7	54.3	59.7	69.1	60.6	51.3	54.2	49.6	46.0	60.6	57.2
EU	106.3	115.5	117.2	113.6	112.6	112.1	113.2	113.1	113.3	132.9****	132.9****

Source: Eurostat Portal Page – Science and Technology – Patent Statistics, 2016; EPO Annual Report – statistics 2015, 2016.
Notes: *Data for 2014 and 2015 relate to patent applications that are not necessarily the first on a global scale but were filed with the EPO in the current year (EPO Annual Report – statistics 2015, 2016). **Eurostat estimate. ***Provisional data. ****IMAD estimate based on the recalculation of data for EU Member States.

Figure: **Number of Community trademarks applications and registered Community designs per million population**



Source: OHIM Web Page, 2016; calculations by IMAD.

[1] The data on patent applications for the last two years are taken from the EPO Annual Report, which means that they refer to the current year. These are not necessarily the first patent applications on a global scale as in data published by Eurostat (for more information, see the Slovenian Economic Mirror 2/2009).
[2] The legal protection of patents actually involves the exclusive protection of technologies (rather than sectors) and the related procedures and processes in which products are made. The international classification of patents is therefore based on the classification of technologies (Schmoch, 2008).
[3] Among the top ten technological fields, technologies related to pharmaceuticals rank tenth.
[4] A trademark or service mark is any sign (or combination of signs) protected by the law that can be graphically represented and used to distinguish between otherwise identical or similar goods or services. A trademark is valid for ten years from the filing date and may be renewed (SIPO Annual Report 2011, 2013).
[5] Office for Harmonization in the Internal Market.
[6] A design entails the appearance of a product protected by law provided that it is new and has an individual character. Design protection lasts for five years and can be renewed (SIPO Annual Report 2011, 2013).

2.16 Use of Internet and e-services

In terms of Internet usage and access to the Internet, the gap between Slovenia and the rest of the EU is gradually widening. Since 2010 the development of the information society has slowed significantly, causing the gap between Slovenia and the EU average to widen in terms of Internet users and households with online access. In recent years, Slovenia has also fallen behind many new EU Member States on these two indicators. Such developments can be partly attributed to the crisis, which made the Internet less accessible, particularly for more vulnerable population groups, but also to the lack of appropriate e-skills, particularly in specific population groups. Slovenia has therefore fallen even further behind the EU average in this period, especially with regard to Internet use among people in the first income quartile. Analysis of data by age and education reveals less favourable developments compared with the EU, particularly for less educated and older people, i.e. people who also often belong to more economically vulnerable population groups. Moreover, the data for these two population groups also reveal a significant lack of e-skills (basic skills for computer and Internet use) in comparison to the corresponding groups in the EU. The share of users from the highest income bracket has also stopped increasing in the recent period, but remains relatively high (over 90%) and slightly above the EU average. Regarding the use of newer technologies and the possibilities of using a wide range of e-services and mobile applications, it is encouraging to note that a large share of households have access to mobile broadband Internet (54%; EU 38%).

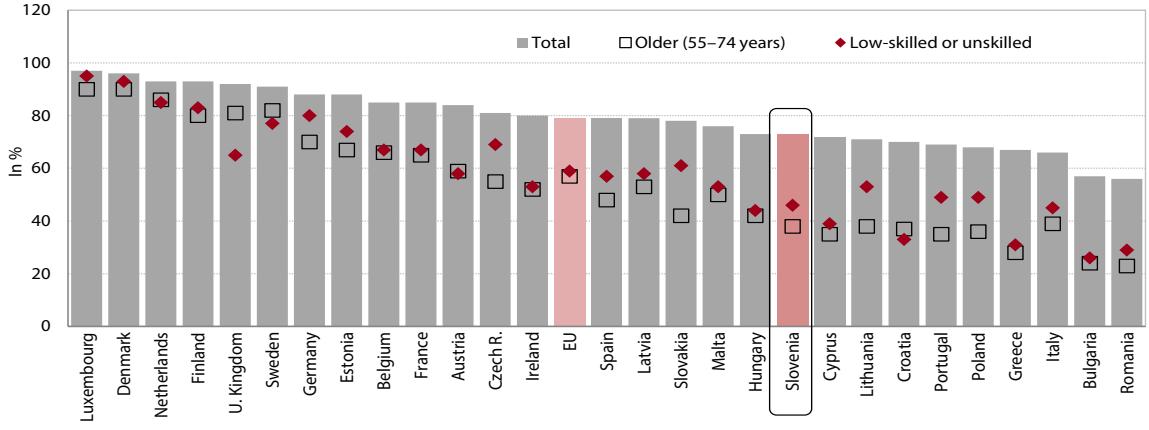
Slovenia also lags significantly behind the EU in the use of some advanced e-services. Internet users in Slovenia are on line to approximately the same extent as their counterparts in the EU for simple services such as searching for information, reading online news or downloading official forms. However, the gap between the EU and Slovenia is wide, and shows no signs of narrowing, not only in the use of some more sophisticated e-services, particularly online banking, social and professional networking, online shopping and the submission of completed forms to government institutions, but also in terms of sending e-mail. This is mainly attributable to Slovenian Internet users lacking the appropriate skills to do so. Data show that basic computer skills are fairly good, but Slovenia lags behind the EU regarding the advanced skills required to use more sophisticated e-services. In other factors that could impact the use of these services, such as access to the broadband Internet and trust in the safety of e-services, there are no major divergences from the EU. According to the Eurostat survey on Internet safety, only the share of respondents who refrained from online purchases for security reasons was somewhat higher than the EU average in 2015; the share of those who, for the same reasons, did not use e-banking was equal to the EU average, whereas the use of social networking sites and e-government services was less of an Internet safety concern in Slovenia than in the rest of the EU.

Table: **Internet usage and access by households and individuals, Slovenia (16–74 years), in %**

		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Internet users in the last three months	Slovenia	47	51	53	56	62	68	67	68	73	72	73
	EU	N/A	N/A	57	61	65	68	71	73	75	78	79
Households with Internet access	Slovenia	48	54	58	59	64	68	73	74	76	77	78
	EU	N/A	N/A	55	60	66	70	73	76	79	81	83
Households with broadband Internet access	Slovenia	19	34	44	50	56	62	67	73	74	75	78
	EU	N/A	N/A	42	48	56	61	67	72	76	78	80

Source: Eurostat Portal Page – Information Society, 2016. Note: Data for individual years refer to the first quarter, N/A – data not available.

Figure: **Internet users in the last three months, as a % of selected population, 2015***



Source: Eurostat Portal Page – Information Society, 2016.
Note: *Data refer to the first quarter of the year.

2.17 Trust in institutions

Trust in institutions[1] remained low in Slovenia in 2015. Having declined significantly since the beginning of the crisis, it is now among the lowest in the EU. According to the latest survey, the proportion of respondents who trust the parliament and the government rose slightly compared with 2014, but is lower than the previous measurement taken (Standard Eurobarometer 83). Trust in local authorities declined and trust in political parties remained very low. Trust in the government and local authorities remains below the EU average, and trust in the parliament and political parties is among the lowest in the EU. The low trust in institutions is largely related to dissatisfaction with the current economic and general situation in Slovenia. The most recent Eurobarometer data show that respondents are still dissatisfied with the employment situation in Slovenia (91%), the situation of Slovenia's economy (80%) and the quality of life in Slovenia (53%), but the share of respondents who perceive the current situation to be bad has declined in all these areas. The majority also expect things to remain generally the same over the next year.

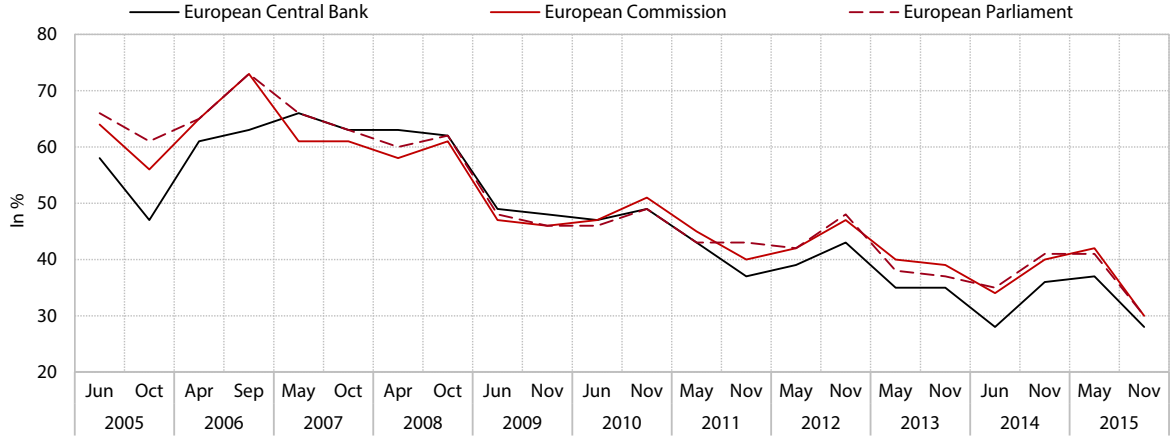
Trust in the EU and its institutions has also declined. Compared with the measurements taken in spring 2015 (Eurobarometer 83) and the previous year, trust in the EU and its main institutions declined in the latest measurement and is at its lowest point in 12 years. In November 2015 the share of respondents who trusted the EU was 10 percentage points lower than one year earlier and below the EU average for the first time. In total 30% of respondents in Slovenia trust the EU parliament and the European Commission and slightly fewer trust the European Central Bank (28%); these figures are also below the EU average. The lower levels of trust can be attributed to the increase in the proportion of people who believe that things are heading in the wrong direction in the EU. This is mainly related to the extent of the refugee crisis in Europe, given that as many as 74% of respondents in Slovenia see immigration as the most important issue currently facing the EU. In contrast to previous years, a smaller proportion of respondents perceive the economic situation to be the EU's main concern (19%), but more worry about terrorism (17%).

Table: **Trust in institutions, in %**

		2005	2007	2008	2009	2010	2011	2012	2013	2014	2015
Parliament	Slovenia	33	31	34	19	23	10	12	6	9	11
	EU	35	35	34	30	31	27	28	25	30	28
Government	Slovenia	39	32	36	29	27	12	15	10	13	16
	EU	31	34	34	29	29	24	27	23	29	27
Political parties	Slovenia	14	13	17	9	11	7	9	6	6	6
	EU	17	18	20	16	18	14	15	14	14	15
Local authorities	Slovenia	N/A	N/A	39	40	39	36	34	29	31	27
	EU	N/A	N/A	50	50	47	45	43	44	43	42
EU	Slovenia	55	65	60	50	47	38	39	37	40	30
	EU	45	48	47	48	42	34	33	31	37	32

Source: Eurobarometer.Note: Data for individual years are the latest available data in the given year (autumn measurement). Data for the EU for 2005 are for the EU-25, between 2007 and 2012 for the EU-27 and between 2013 and 2015 for the EU-28; N/A – data not available.

Figure: **Trust in EU institutions, Slovenia, in %**



Source: Eurobarometer.

[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".

3 Demographic changes and the welfare state

Demographic changes

- 3.1 Fertility rate and life expectancy
- 3.2 Net migration
- 3.3 Age-dependency ratio

Labour market

- 3.4 Employment rate
- 3.5 Unemployment rate and long-term unemployment rate
- 3.6 Temporary and part-time employment
- 3.7 Minimum wage
- 3.8 Young people neither in employment nor in education or training

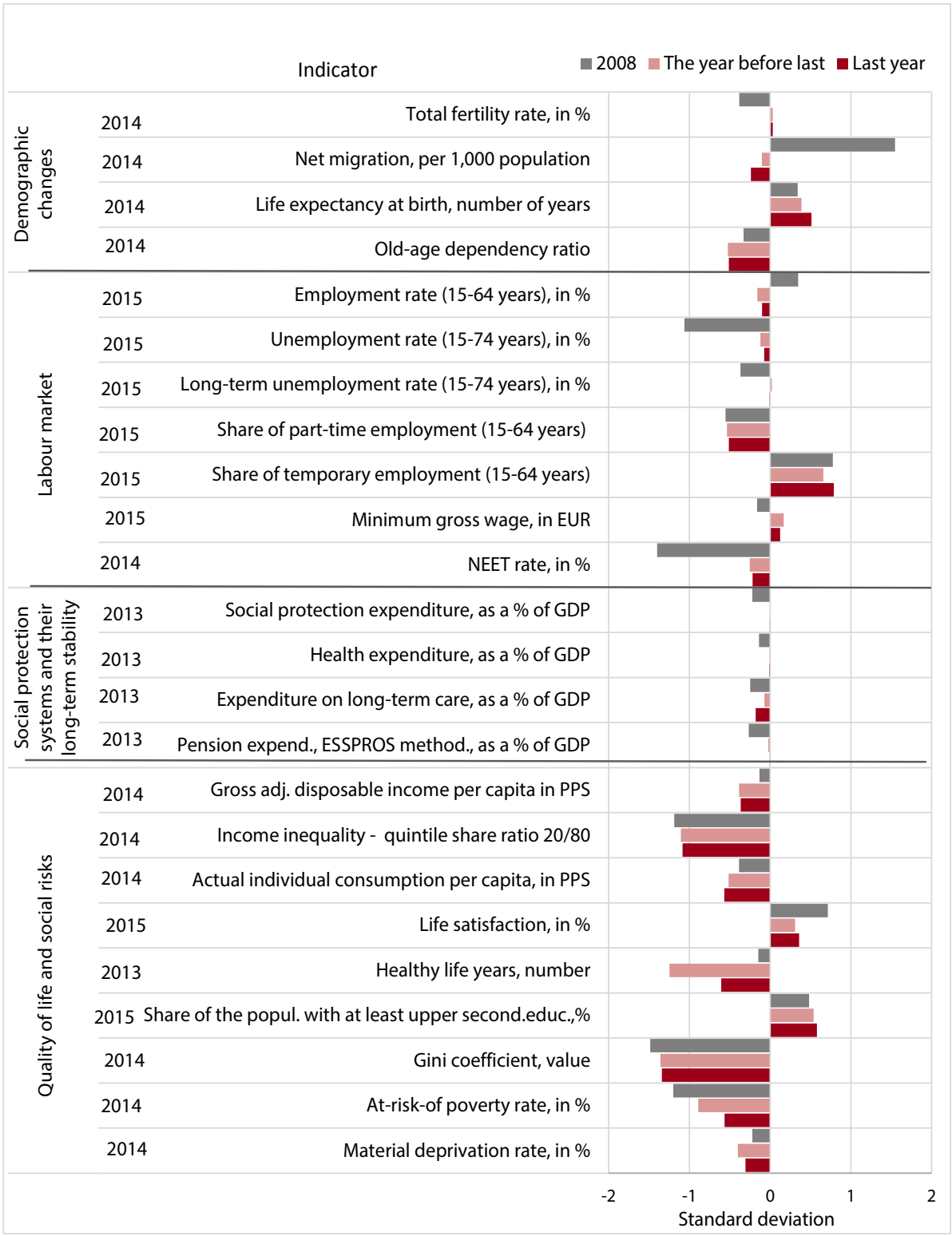
Social security systems and their long-term sustainability

- 3.9 Social protection expenditure
- 3.10 Health expenditure
- 3.11 Expenditure on long-term care
- 3.12 Pension expenditure

Quality of life and social risks

- 3.13 Gross adjusted disposable income per capita
- 3.14 Actual individual consumption
- 3.15 Income inequality
- 3.16 Life satisfaction
- 3.17 Healthy life years
- 3.18 Share of population with at least upper secondary education
- 3.19 At-risk-of-poverty rate
- 3.20 Material deprivation rate

Overview of indicators – Demographic changes and the welfare state



Source: calculations by IMAD.
Note: The table shows Slovenia's position relative to the unweighted arithmetic average of the EU Member States. It was calculated with regard to the set of countries for which data for individual indicators were available; Cyprus, Malta, Luxembourg and Croatia were excluded from the analysis due to a lack of data. The data in the table are for 2008 and the last year for which data for EU Member States were available (the last year is indicated in the table). A positive indicator value means above-average development relative to the EU, while a negative value indicates that Slovenia lags behind the EU average on that indicator.

3.1 Fertility rate and life expectancy

The fertility rate,[1] which has hovered around 1.56 children per woman of childbearing age since 2008 (2014: 1.58), has been at the EU average for the last two years. No EU country has a fertility rate that would ensure even a simple replacement of the population (2.1), the countries coming closest to this figure being France, Ireland and Sweden. In Slovenia around 1,000 fewer children have been born in the last two years than the average for 2008–2012, not only because women are having children later but also due to a faster decline in the number of women of childbearing age (in 2014 by 6,500). Meanwhile, the mean age of mothers at childbirth continues to increase, by around one month per year.[2] Judging by the size of the generations and assuming there is no change to current fertility rates or family policy (which is otherwise favourable by international comparison), we can infer that the number of births will also decline in the years to come.

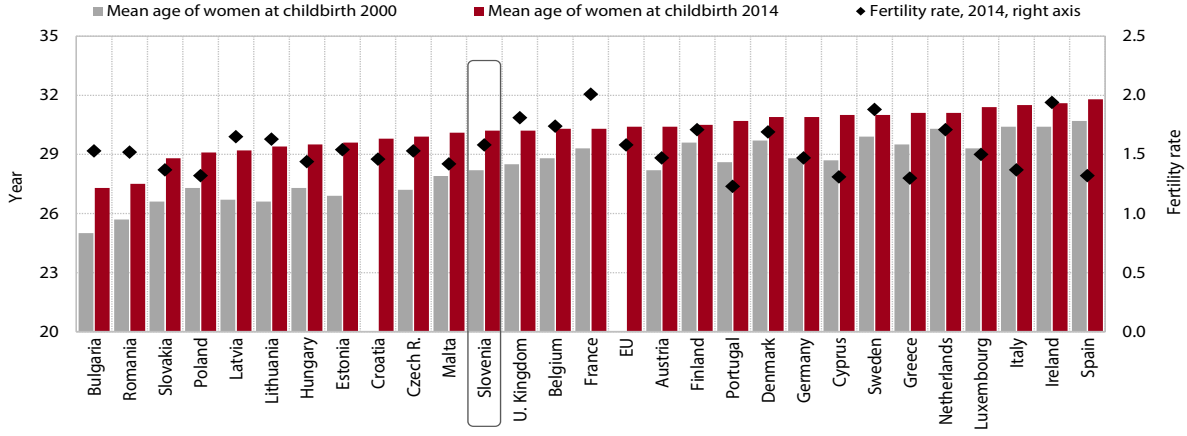
In 2014 life expectancy[3] in Slovenia increased more than in previous years and was at the EU average. A girl born in 2014 could expect to live 83.7 years (7 months longer than a girl born one year earlier) and a boy 78.0 years (one year longer). In the period 1987–2014 the gender gap narrowed by 2.3 years; life expectancy rose by 9.8 years for men and by 7.6 for women, which is attributable to advances in medicine, greater access to health services, a healthier lifestyle and better living conditions.[4] In the last two years (2012 and 2013), life expectancy at birth was at the EU average[5] (above the average for women and below for men); life expectancy at the age of 65 (EU: 19.8 years) was somewhat lower (at the EU average for women and below for men). Women aged 65 can be expected to live another 21.3 years and men another 17.2 years. The gap between men and women is wider than in the EU on both indicators, which means that there is room for improvement in improving the lifestyles of men.

Table: **Total fertility rate and life expectancy at birth**

	2000	2005	2007	2008	2009	2010	2011	2012	2013
Life expectancy									
Slovenia, by gender, together	76.2	77.5	78.4	79.1	79.4	79.8	80.1	80.3	80.5
Men	72.2	73.9	74.6	75.5	75.9	76.4	76.8	77.1	77.2
Women	79.9	80.9	82.0	82.6	82.7	83.1	83.3	83.3	83.6
EU, by gender, together	N/A	78.5	79.1	79.4	79.6	79.9	80.3	80.3	80.6
Men	N/A	75.4	76.0	76.3	76.6	76.9	77.4	77.5	77.8
Women	N/A	81.5	82.2	82.3	82.6	82.8	83.1	83.1	83.3
Fertility rate									
Slovenia	1.26	1.26	1.38	1.53	1.53	1.57	1.56	1.58	1.55
EU	N/A	1.51	1.56	1.61	1.61	1.62	1.58	1.58	1.55

Source: Eurostat Portal Page – Population and Social Conditions – Population – Demography – Mortality, 2014. Note: N/A – not available.

Figure: **Mean age of women at childbirth (2000 and 2012) and fertility rate in EU countries (2012)**



Source: Eurostat Portal Page – Population and Social Conditions – Population – Demography – Fertility, 2016.

[1] The total fertility rate is the sum of age-specific birth rates in a calendar year. It indicates the number of live births per woman if, during her entire childbearing age, the age-specific fertility rates remain unchanged from the given calendar year.
[2] In 2014 the mean age of mothers at birth totalled 30.6 for all births and 29.1 for the first births (1.4 and 1.6 years more, respectively, than in 2004).
[3] Life expectancy is the average number of years that a person aged x years can expect to live, assuming that age-specific mortality rates remain unchanged during their lifetime.
[4] OECD (2014), Health at a Glance: Europe 2014.
[5] SURS does not publish data on total life expectancy. Moreover, its data on life expectancy by gender differ slightly from those published by Eurostat due to the different methodologies used.

3.2 Net migration

In the last few years total net migration has been low or negative in Slovenia, primarily owing to more Slovenian citizens emigrating from the country. Around 8,000 Slovenian citizens per year moved abroad in 2012–2014, resulting in a net migration figure of -5,500. In the last few years, Slovenian citizens already accounted for the majority (57.3%, on average) of all emigrants, i.e. citizens and foreign nationals together, compared with only 27.6% per year on average in the past (the average for the period 1995–2011). The negative net migration of citizens, a continuous trend since 2000, has therefore increased significantly in the last three years. The majority move to Austria and Germany (in 2014 almost half of all emigrated citizens), with around a tenth going outside Europe. Among the foreign nationals moving to Slovenia, the majority (approx. 70%), still come from the countries of the former Yugoslavia. Around 45% of foreigners move to Slovenia in order to find work, but family reunification has been almost as important a reason since 2011.

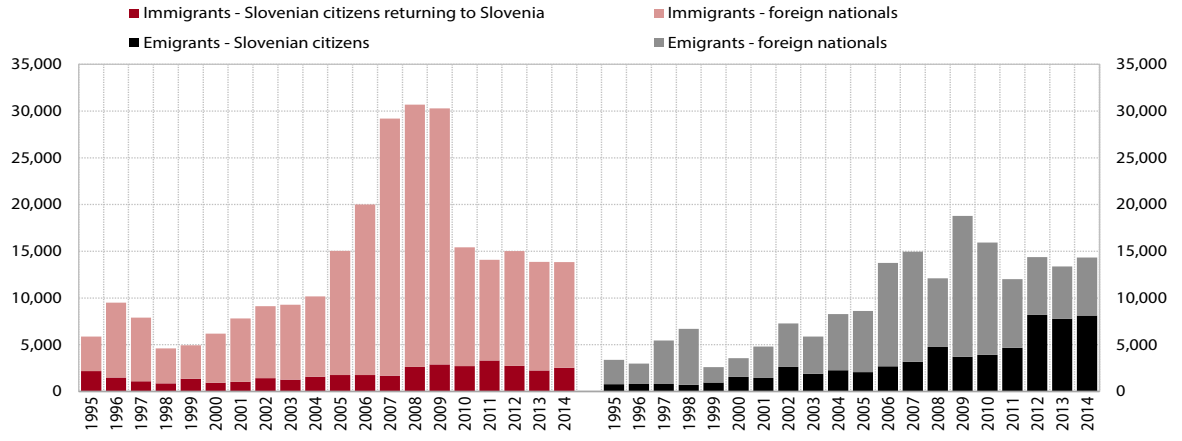
People emigrating from Slovenia are slightly older and better educated than those who immigrate. A total of 28.2% of emigrated citizens over 15 years old had completed at least higher education, which is the largest share in the four years since comparable data have been available; most settled in Germany and Austria (together 36.6%). Among the immigrated foreigners older than 15 years, only a good tenth had completed at least higher education and just over half had completed upper secondary education. Slightly less than 5% of all immigrated foreign nationals come to Slovenia to study. The average age of all the immigrants together is around 33 (of foreign nationals, 32), while the average age of the emigrants is 36 (of citizens, 37).

Table: **Net migration (with statistical corrections), per 1,000 population**

	2000	2005	2007	2008	2009	2010	2011	2012	2013	2014
Slovenia	1.4	3.2	7.1	9.2	5.6	-0.3	1.0	0.3	0.2	0.2
EU	2.1	3.1	3.1	2.4	1.4	1.5	1.5	1.7	3.3	1.8

Source: Eurostat Portal Page - Population and social conditions – Demography, 2015.

Figure: **Emigration from and immigration to Slovenia**



Source: SURS.

3.3 Age-dependency ratio

Owing to the declining number of working-age people and the growing number of older people, the age-dependency ratio[1] has been rising more rapidly in recent years. Slovenia had 23.5 children and 28.5 older people (together 52.1) per 100 working-age population[2] at the beginning of 2015. The number of older people (65+) is rapidly rising,[3] not only as a result of gains in life expectancy, but also due to large post-war generations joining the ranks of the older population (65+). Given that the number of births was still at around 30,000 per year up to the early 1980s, this trend will also continue in the decades to come. At the same time, the smaller cohorts of people born in the 1990s (when the number of births per year was below 20,000) are entering the group of 20-year-olds (the working-age population). Since 2012 the number of working-age people (20–64 years old) has thus been falling.[4] This means a decline in the potential active population, which will require the systems for the funding of social protection and the demand on the labour market to be adapted. With the current organisation of social protection systems, the declining working-age population and the increasing age-dependency ratio represent a growing problem for their financing. The old-age dependency coefficient in Slovenia is otherwise still below the EU average, but the gap is narrowing: according to EUROPOP2013 demographic projections, this coefficient will exceed the EU level by around 2022, which implies, among other things, increasing problems in financing ageing-related expenditure.

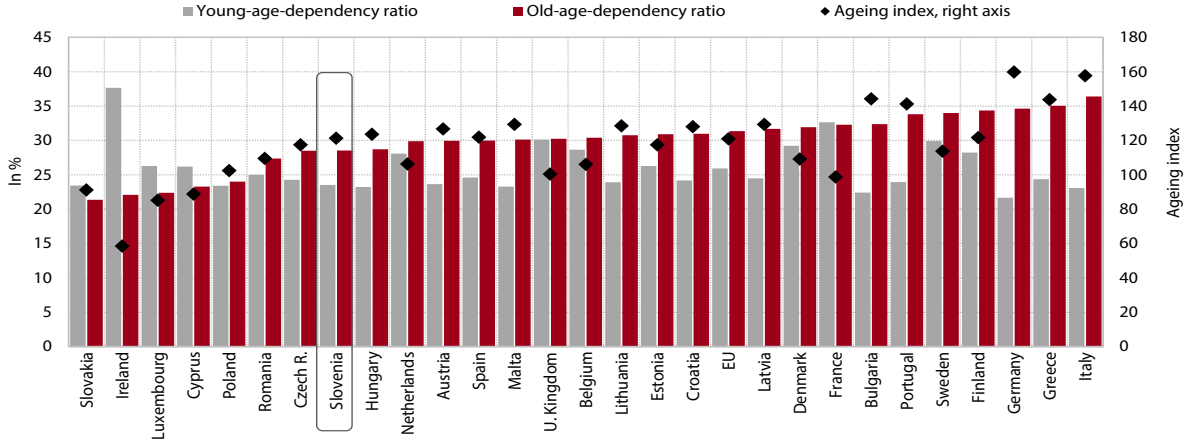
The ageing index[5] for Slovenia shows that the number of older people has exceeded the number of children since 2004. The number of older people is rising much faster than the number of children. The number of people aged 80 and above is increasing particularly rapidly. In 2015 there were 21.4% more older people than children in Slovenia, which is an increase of 18.4 percentage points over 2004. The shares of older people and children in the total population rose to 17.9% and 14.8%, respectively, by 2015 (in 2004: 15.0% and 14.6%). People older than 80 years accounted for as much as 4.8% of the total population (in 2004: 2.9%). The parent support ratio, which shows the number of persons aged 85 years and over in relation to those between 50 and 64, is therefore also rising rapidly. In 2015, it was 9.7,[6] compared with 4.5 in 1990. The increase in the share of the older population indicates the urgent need to adjust society, the environment and social systems to the larger number of older people.

Table: **Age-dependency ratio**

	2000	2005	2007	2008	2009	2010	2011	2012	2013	2014	2015
Slovenia	47.6	46.4	46.6	47.1	47.4	47.5	47.8	48.6	49.6	50.7	52.1
EU	N/A	53.7	53.7	53.7	53.9	54.2	54.3	54.9	55.6	N/A	57.3

Source: Eurostat Portal Page – Population and Social Conditions – Population, 2015.
Note: N/A – not available.

Figure: **The young-age-dependency ratio, the old-age-dependency ratio and the ageing index, 2015**



Source: Eurostat Portal Page – Population and Social Conditions – Population 2016; calculations by IMAD.

[1] The situation as at 1 January 2014 (in the entire text).
[2] The young-age-dependency ratio: (0–14 years)/(20–64 years). The old-age-dependency ratio: (65+)/(20–64 years). The total age-dependency ratio: ((0–14 years)+(65+))/(20–64 years).
[3] In 2015 it increased by more than 9,000.
[4] In 2015 it was almost 24,000 smaller than in 2011 (–1.8%).
[5] The ageing index is the ratio of the number of older people to the number of children: (65+ years)/(0–14 years)*100.
[6] By 2030 it is projected to rise to 15.8 and by 2060 to 43.

3.4 Employment rate

Amid the ongoing economic recovery, the employment rate has been rising since 2013. Having exceeded the EU average before the crisis, it fell in 2009 after the decline in economic activity, and was below the EU average in 2012–2014. With the rebound in economic activity, it has risen in the last two years, returning to the EU average in 2015 (65.5%). During the crisis the employment rate declined slightly more for men, mainly owing to an above-average fall in activity in the construction sector and the low-technology manufacturing industries, both of which are dominated by male employees. The gap between the two employment rates therefore narrowed, but the rate for men remained higher than for women. Young people (15–20 years) were among those particularly affected by the crisis, and the employment rate for this demographic fell the most in the period from 2008 to 2013. However, this figure then rose more notably in 2015, partly due to the larger volume of student work, demographic trends and active employment policy programmes targeted at young people. The employment rate of older people (aged 55–64) remained higher in 2015 than in 2008, particularly as a result of the pension reform and the demographic effect of employed people entering the group of older workers, thereby increasing the employment rate for this group. Nevertheless, the employment rate for older people is still one of the lowest in the EU.

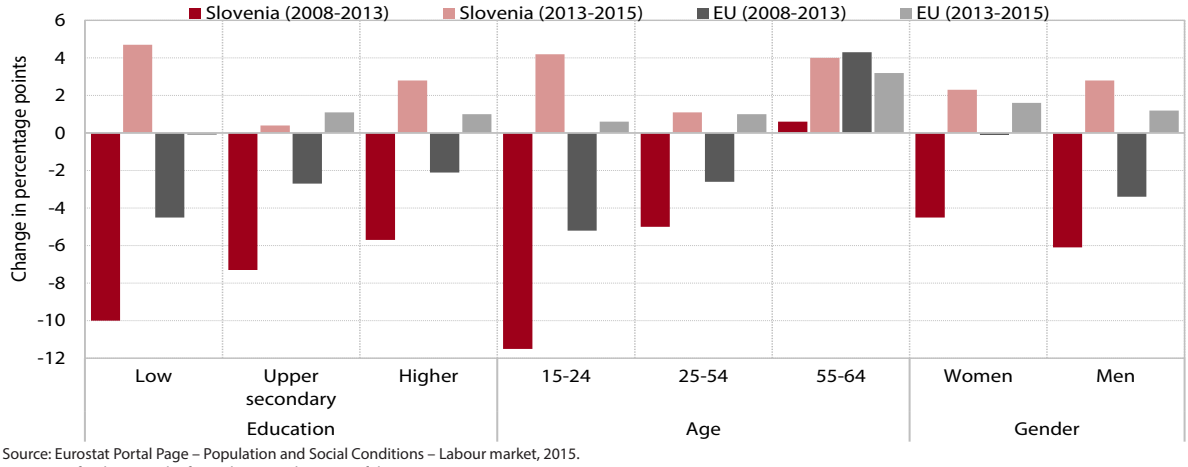
The employment rate of low-skilled workers has risen the most in the last two years under the impact of the structure of the recovery of economic activity. The employment rate of low-skilled workers fell the most in 2008–2013, owing to a significant decline in activity in construction and manufacturing, i.e. sectors that mainly employ a low-skilled labour force. As in other countries in the EU, the employment rate of those with higher education declined the least in the analysed period, mainly as a result of recruitment in public service activities and a smaller fall in activity in sectors that have a more educated workforce. In 2015 in particular the employment rate for low-skilled workers was up relative to 2013 (by 4.7 percentage points to 36.8%), owing – especially in the first year of recovery – to a notable increase in hiring through recruitment agencies, which usually provide labour for manufacturing, a sector in which most of the labour force has low, secondary and upper secondary education, and – in the last year – to a visible recovery in direct hiring in manufacturing.

Table: **Employment rate (15–64 age group) according to the Labour Force Survey, in %**

	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Slovenia	62.7	66.0	67.1	68.3	68.3	67.6	66.5	64.4	63.8	63.0	64.5	65.5
EU	N/A	63.4	64.3	65.3	65.8	64.6	64.1	64.3	64.2	64.1	64.8	65.5

Source: Eurostat Portal Page – Population and Social Conditions – Labour market, 2015.
Note: N/A – data not available; data for individual years refer to the second quarter.

Figure: **Change in the employment rate by population group, between 2008 Q2 and 2013 Q2, and 2013 Q2 and 2015 Q2**



Source: Eurostat Portal Page – Population and Social Conditions – Labour market, 2015.
Note: Data for this period refer to the second quarter of the given year.

3.5 Unemployment rate and long-term unemployment rate

With the continued economic recovery, the unemployment rate fell for the second year in succession, but remained twice as high as in 2008. Data from the labour force survey show that, after bottoming out in the third quarter of 2008 (4.1%), the unemployment rate had risen sharply by 2013 due to a decline in economic activity. With the recovery of economic activity, it then started to fall in 2013 (seasonally adjusted). By 2015 it had dropped by 1.2 percentage points (to 9.2%) and was lower than the EU average (9.5%), to which it had come fairly close during the crisis. At the onset of the crisis, the adverse effects on manufacturing and construction caused the unemployment rate for men to rise more than the unemployment rate for women. However, in 2012 the unemployment rate for women had nevertheless exceeded the rate for men again, and by 2015 the gap between the two widened slightly more. In the last two years, the unemployment rate for low-skilled people declined the most (by 4.5 percentage points to 13.7% in 2015), in line with the structure of growth in employment through recruitment agencies, which provide labour to the manufacturing sector; the unemployment rate for people with upper secondary and higher education remained more or less unchanged. Young people (aged 15–24)[1] were hit hardest by the crisis, their unemployment rate having risen to 24.1% in 2008–2013, before dropping notably over the next two years and reaching 15.5% in 2015.[2]

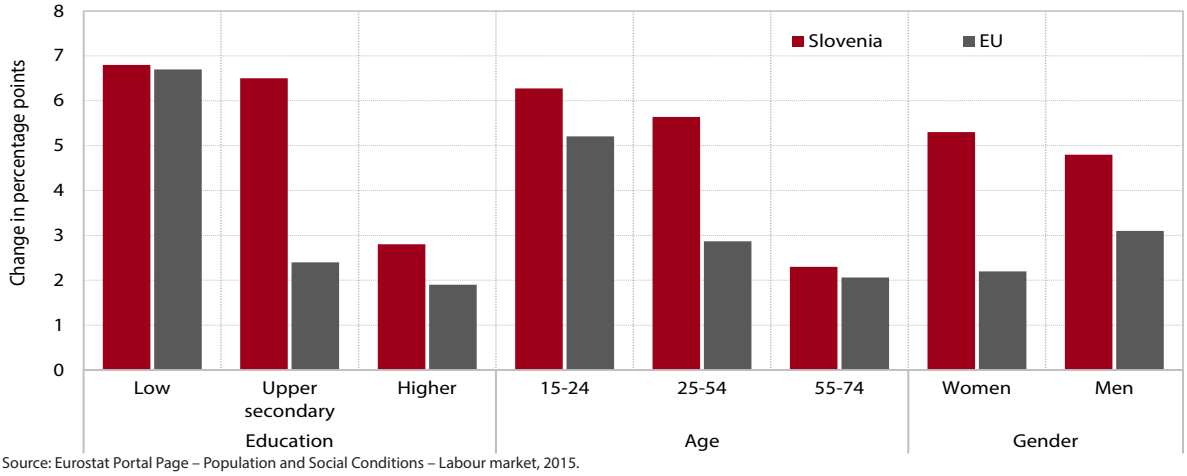
The long-term[3] unemployment rate fell last year for the first time since the onset of the crisis but remains over two times higher than its lowest level in 2009. As a result of a prolonged period of weak labour demand, the long-term unemployment rate in Slovenia has risen sharply since 2009. After the modest increase in 2014, it fell to 4.7% in 2015. In 2009–2014 the rates for men and women increased by a similar extent: while the male rate rose particularly at the beginning of this period, the female rate increased steadily throughout the period. During the crisis the long-term unemployment rate for young people rose the most, but last year it dropped significantly and stood at 6.1%. Despite the 2015 decline, the share of long-term unemployed in total employment remains large (51.5%) and slightly above the EU average (49.4%).

Table: **Unemployment rate and long-term unemployment rate (15–74 age group)**

	2000	2005	2008	2009	2010	2011	2012	2013	2014	2015
Unemployment rate										
Slovenia	6.9	5.8	4.1	5.6	7.1	7.7	8.2	10.4	9.3	9.2
EU	N/A	8.9	6.8	8.8	9.5	9.3	10.3	10.8	10.1	9.5
Long-term unemployment rate										
Slovenia	4.3	3.0	1.9	1.7	3.2	3.5	3.9	5.1	5.3	4.7
EU	N/A	4.2	2.6	2.9	3.8	4.0	4.6	5.1	5.1	4.7

Source: Eurostat Portal Page – Population and Social Conditions – Labour market, 2015. Note: N/A – data not available; data for individual years refer to the second quarter.

Figure: **Change in the unemployment rate by population group, between 2008 Q2 and 2015 Q2**



Source: Eurostat Portal Page – Population and Social Conditions – Labour market, 2015.

[1] This was a result of the high prevalence of temporary forms of employment in this group, which was caused by enterprises not renewing fixed-term employment contracts and reducing the extent of student work during the crisis.
[2] This may be mainly the result of the increased volume of student work and specific active employment policy programmes targeted at young people (e.g. the Youth Guarantee scheme). The decline is however also due to demographic factors, with the number of young people already having fallen for a long period.
[3] Unemployment extending for a year or longer.

3.6 Temporary and part-time employment

In 2015 the prevalence of temporary employment[1] increased further. In the second quarter of 2015, the share of temporary employment in total employment stood at 17.8% (which is 1.3 percentage points more than in the second quarter of 2014) and was still higher than the EU average. The increase in the prevalence of temporary employment – despite the labour market reforms in 2013 which caused its share to decline in 2013 – is mainly related to employers' caution in hiring and last year's increase in student work. The share of temporary employment is still highest among young people (the 15–24 age group), ranking among the highest in the EU. Similar to other countries, temporary employment is more prevalent among women than men.

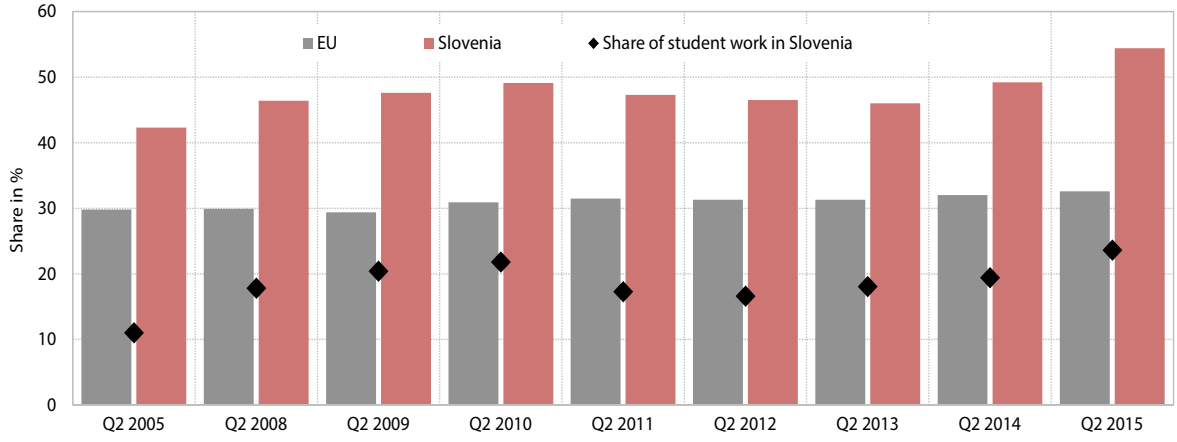
In 2015 the share of part-time employment in total employment remained similar to 2014, but higher than before the crisis. In the second quarter of 2015, it totalled 10.7%, 0.2 percentage points less than in the second quarter of 2014. In 2008–2015 it rose slightly more than in the EU as a whole which, in our view, was primarily a result of the greater significance of student work for total youth employment.[2] Precisely owing to the prevalence of student work among young people (aged 15–24), the share of part-time employment is largest in this age group, where it is also significantly above the EU average.

Table: **Shares of temporary and part-time employment in total employment*, in %**

	2000	2005	2008	2009	2010	2011	2012	2013	2014	2015
Temporary employment										
Slovenia	12.8	16.8	16.9	16.4	17.7	17.5	16.7	15.4	16.5	17.8
EU	N/A	13.9	14.2	13.5	14.0	14.1	13.8	13.7	14.0	14.4
Part-time employment										
Slovenia	5.3	7.8	8.1	9.7	10.5	9.1	8.5	9.3	10.9	10.7
EU	N/A	17.3	17.6	18.1	18.7	18.8	19.3	19.7	19.7	19.7

Source: Eurostat Portal Page- Population and Social Conditions – Labour market – Employment, temporary employment, part-time employment.
Note: * Data refer to the second quarter of the year.

Figure: **Shares of temporary employment in total employment among young people aged 15–29 in Slovenia and the EU, and the share of student work in total youth employment**



Source: Eurostat Portal Page – Population and Social Conditions – Labour market – Employment, temporary employment SURS; calculations by IMAD.

[1] The term 'temporary employment' refers to fixed-term employment and other forms of employment that are considered to be temporary forms of work in Slovenia.
[2] The share of student work in the total employment of young people (in the 15–24 age group) totalled 37.9% in the second quarter of 2008 and 50.4% in the second quarter of 2015.

3.7 Minimum wage

After increasing strongly in 2010–2013, growth in the minimum gross wage slowed over the last two years; the ratio of the minimum gross wage to the average wage has nevertheless risen significantly since the onset of the crisis. Because the crisis coincided with changes in legislation,[1] the ratio increased to 50.8% (which is 10 percentage points more than in 2008), putting Slovenia at the top of the EU rankings.[2] Throughout the crisis, minimum wage growth exceeded labour productivity growth in private sector activities, but lagged behind in the last two years. During the crisis, Slovenia recorded one of the largest declines in economic activity in the EU. At the same time, it was also the country with the largest real increase in the minimum wage (by almost 30%); in some countries, the minimum wage remained almost unchanged for several years and even declined in others in certain years. This increase impeded a more rapid adjustment of wages to the crisis in 2010–2012, weakened the cost competitiveness of the economy and increased unemployment. It also narrowed wage inequality, an area in which Slovenia had otherwise not diverged from the EU average, even before the crisis.[3] At the end of 2015 the definition of the minimum wage was changed, and since 1 January 2016 the allowances for unfavourable working hours have been exempted from the minimum wage and paid separately. However, in order to really improve the material situation of minimum wage recipients, who often work unfavourable hours, it would also be necessary to adjust the tax treatment of minimum wages.

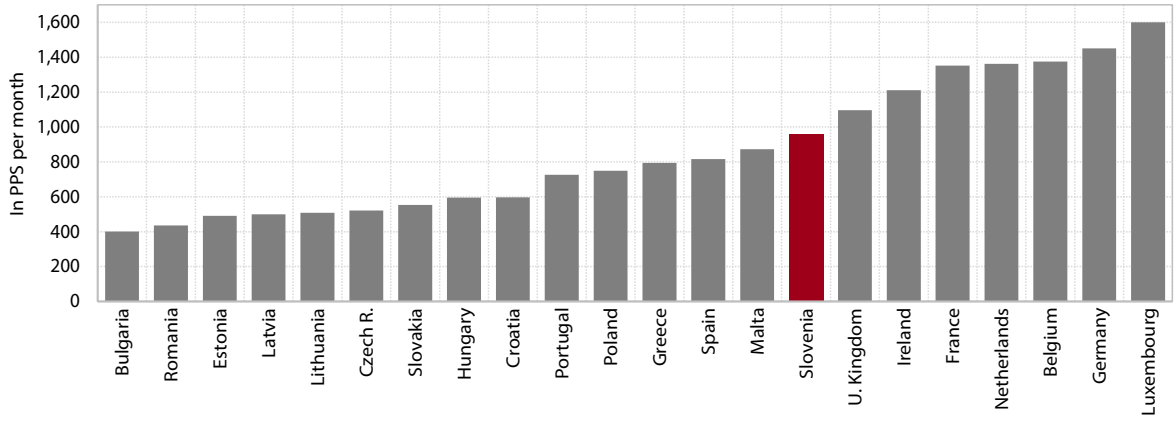
The number of minimum wage earners declined significantly[4] with the recovery of the economy in 2015 (to 37,159), but remained almost twice as high as in the year before the new minimum wage act was passed (2009). With the increase in employment, the share of minimum-wage earners in total employment also dropped notably last year but remained at 6.2%, much larger than in 2009 (3.0%). The majority of workers receiving the minimum wage were still recorded in private sector activities, although in the last two years their number declined by a third to 28,259 (2009: 18,596). In the period 2009–2015 their share increased from 3.8% to 6.3% of all persons employed. Meanwhile, the increase in the otherwise small share of minimum wage earners in public service activities was much larger (from 0.3% to 5.7%). The doubling of the number in the last four years (to 8,900) was mainly due to cuts in public servants' wages. Relative to 2009, the number of minimum wage earners rose the most in both relative and absolute terms in education, where it was 45-fold. In absolute terms, it also rose notably in the sectors of distributive trades and health and social care.

Table: **Average gross minimum wage paid, average gross wage and the ratio between the two, Slovenia**

	Minimum gross wage	Nominal growth in minimum wage	Real growth in minimum wage	Average gross wage	Nominal growth in gross wage	Real growth in gross wage	Ratio of minimum wage to average wage
2000	322	10.3	1.3	800	10.6	1.6	40.3
2005	499	4.9	2.4	1.157	4.8	2.2	43.1
2008	571	8.0	2.2	1.391	8.3	2.5	41.1
2009	593	3.7	2.8	1.439	3.4	2.5	41.2
2010	679	14.6	12.6	1.495	3.9	2.1	45.4
2011	718	5.7	3.8	1.525	2.0	0.2	47.1
2012	763	6.3	3.5	1.525	0.1	-2.4	50.0
2013	784	2.7	0.9	1.523	-0.2	-2.0	51.4
2014	789	0.7	0.5	1.540	1.1	0.9	51.2
2015	791	0.2	0.7	1.556	0.7	1.2	50.8

Source: SURS, SKD_2002 until 2008, SKD_2008 from 2009 onwards, Ministry of Labour, Family and Social Affairs, AJPES.

Figure: **Minimum gross wage, July 2015, in PPS**



Source: Eurostat Portal Page, 2015. Note: Data for the 22 EU Member States where a minimum wage is enforced by law.

[1] In 2010 a new Minimum Wage Act was passed, which determined a new, significantly higher minimum wage, the method of transition to the higher minimum wage level and the mechanism for its adjustment.
[2] Luxembourg, with a ratio of 47.6%, is the closest to Slovenia; the lowest ratios were recorded for the Czech Republic and Spain (33.0% and 34.2%, respectively).
[3] In both the 90/10 inter-decile ratio (2014: 3.2; in the EU in 2010: between 2.1 and 4.7) and the share of low-wage earners (2014: 17.5%; EU 2010: 17.0%).
[4] n 2015 the number of minimum wage recipients dropped by 22.0% on average, the most in the sectors of manufacturing, professional activities, construction and distributive trades (by a third, or by 8,000 persons combined).

3.8 Young people neither in employment nor in education or training

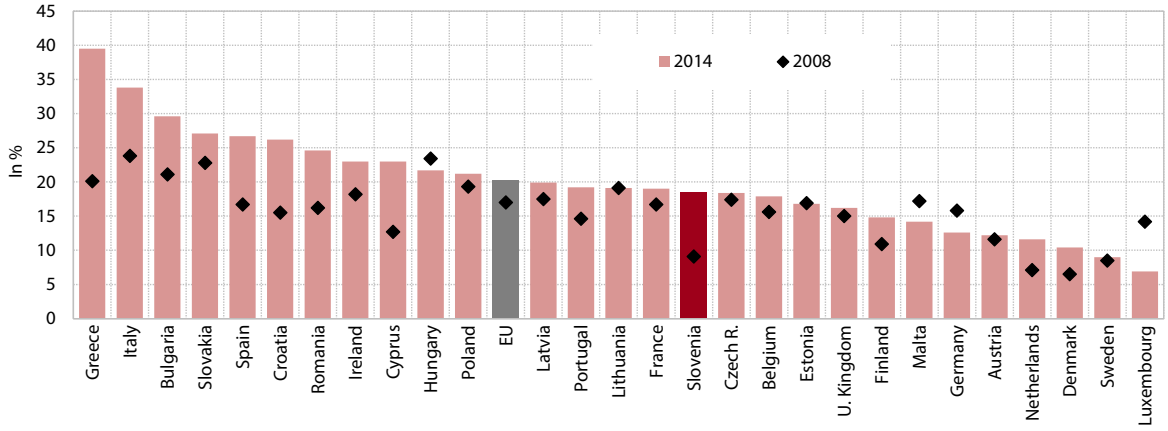
In 2008–2014 the share of young people neither in employment nor in education or training (the NEET rate) increased more in Slovenia than in the EU, but remained below the EU average. This is explained by the significantly higher participation of young people in upper secondary and tertiary education than the EU average. The NEET rate is therefore lowest in the 15–19 age group.[1] In the 20–24 age group,[2] the NEET rate is much higher, which is linked to the modest demand for young people (without experience) with completed upper secondary and tertiary education (the first cycle of Bologna study programmes), but is still lower than the EU average due to their high participation in tertiary education. In 2008–2014 the NEET rate for young people aged 25–29 rose the most, which is related to the increase in the number of tertiary graduates, the lack of jobs for these graduates and a skills mismatch. Despite the implementation of the Youth Guarantee schemes, the NEET rate in the 20–24 and 25–29 age groups did not change significantly in 2014, but the rate for the 30–34 age group continued to rise, which was, in addition to the modest demand for labour, partly due to active employment policy programmes and labour market intervention measures being targeted at those younger than 30. In the 20–24 age group, the female and male NEET rates are almost equal, but the NEET rate is significantly higher for women than men among those aged 25–29 and 30–34. It also increased more during the crisis. Women tend to face more problems in the transition from education into employment than men, which is attributable to worse employment prospects for young people graduating from social sciences, where women predominate, and restrictions on employment in the public sector, where women make up a larger share of the workforce than men.

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

	2002	2005	2008	2009	2010	2011	2012	2013	2014
Slovenia	10.9	10.4	8.4	10.5	11.1	11.1	13.5	15.4	15.9
EU	19.6	18.7	16.5	18.5	19.1	19.3	19.9	20.1	19.3

Source: Eurostat Portal Page – Population and social conditions – Education and training, 2016.

Figure: **Share of young people (25–29) neither in employment nor education or training, 2008 and 2014, in %**



Source: Eurostat Portal Page – Population and social conditions – Education and training, 2016.

[1] In 2014 the share was 4.3% in Slovenia (EU: 6.4%).
[2] In 2014 the share was 13.8% in Slovenia (EU: 17.8%).

3.9 Social protection expenditure

After a period of growth at the beginning of the crisis, social protection expenditure declined in 2012 and 2013. The decline was a consequence of changes to social legislation[1] and fiscal consolidation measures,[2] which entered into force in 2012. Expenditure growth during the crisis was attributable to deteriorating labour market conditions, mass retirements and the rising demand for health care and long-term care services. Among the major expenditures, expenditure related to old age, the category that accounts for the largest share of total social protection expenditure, expanded the most. Accelerated retirement before the implementation of the new pension legislation and the larger size of the retiring generation means the increase would have been even larger had the government not adopted measures to restrict the adjustment of pensions for inflation. Expenditure on sickness and health benefits also rose significantly.

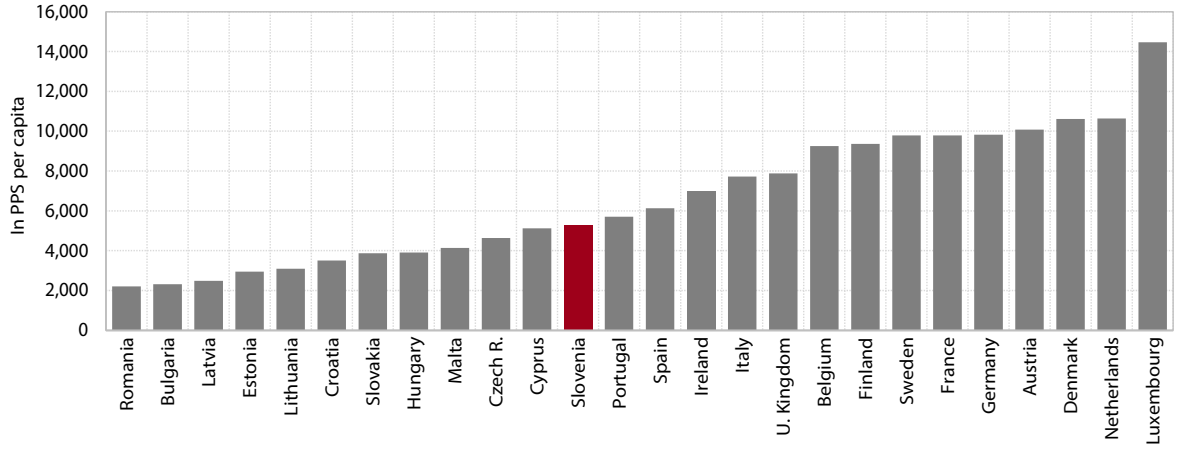
In terms of social protection expenditure as a share of GDP, Slovenia lags behind the EU average, most notably in expenditure on unemployment benefits. Slovenia's social protection system nevertheless provides relatively good access to health services and reduces the poverty risk. A comparison between expenditure on social protection in PPS in Slovenia and the EU average reveals that Slovenia lags the most behind the EU in terms of expenditure on unemployment, where it reaches only just over half of the average expenditure in the EU. This is due to a small share of unemployment benefit beneficiaries, which also appears to be the reason why the at-risk-of-poverty rate of unemployed people is much closer to the EU average than the at-risk-of-poverty rate for the entire population. Slovenia exceeds the EU average only in expenditure on social exclusion, which is – together with the effective targeting of beneficiaries – also likely to be the reason why social transfers are more effective at reducing the poverty risk in Slovenia than in the EU as a whole. The efficiency of our system is also corroborated by the fact that Slovenia spends much less on its management (management and administration costs and other expenses).

Table: **Social protection expenditure in Slovenia and in the EU, as a % of GDP**

	2000	2005	2007	2008	2009	2010	2011	2012	2013
Slovenia	27.5	22.6	20.9	21.0	23.7	24.4	24.5	24.9	24.9
EU	N/A	N/A	N/A	27.0	29.9	29.7	29.4	29.8	N/A

Source: Eurostat Portal Page – Social Protection, 2015.
Note: Social protection expenditure as a % of GDP is calculated on the basis of the most recent GDP data available (First release from 31 August 2015); N/A – data not available.

Figure: **Social protection expenditure in PPS per capita, 2013**



Source: Eurostat Portal Page - Social protection, 2015.

[1] Zakon o uveljavljanju pravic iz javnih sredstev (ZUPJS)/Exercise of Rights to Public Funds Act.
[2] Zakon za uravnoteženje javnih finance (ZUJF)/Fiscal Balance Act.

3.10 Health expenditure

After a significant decline during the crisis, health expenditure rose in real terms in 2014 and 2015. According to the first estimate, current health expenditure (excluding capital formation) amounted to 8.5% of GDP in 2015 and 8.6% of GDP in 2014.[1] Health expenditure is closely linked to HIIS revenue, as the HIIS is required to have a balanced budget and may not borrow or raise contribution rates. The higher revenue from contributions for compulsory health insurance in 2015 (by 3.3% in real terms) mainly stemmed from higher employment and earnings in the private sector and additional revenue from the increase in contributions levied on student work. Furthermore, most of the measures for balancing the HIIS budget that had been adopted during the crisis remained in force. After several years of austerity, in 2015, the HIIS was able to allocate these additional funds for the expansion and improved evaluation of some priority programmes (e.g. model practices, oncology, nursing homes, biological medicines), the reduction of waiting times and increased expenditure on sickness benefits. According to the first estimate, current public expenditure accounted for 6.1% of GDP in 2014 and 2015, while its share in total expenditure rose from 71.4% in 2014 to 71.9% in 2015.

During the crisis, health expenditure in relation to GDP surged, while per capita expenditure remained around the pre-crisis level. As in 2009–2013 GDP contracted more than in the EU as a whole, expenditure as a share of GDP rose at an above-average rate and was higher than the EU average. In 2013 current health expenditure accounted for 8.8% of GDP; total health expenditure, including capital formation, accounted for 9.1% of GDP (EU: 8.7% of GDP). In the period 2009–2013 current health expenditure per capita in PPS USD contracted by roughly the same extent as in the EU as a whole (by 0.3% per year in real terms). In 2013 it totalled PPS USD 2,511 (PPS EUR 2,163), which was 90.3% of the EU average (2008: 90.6%) or 73% of the OECD average (2008: 77%).

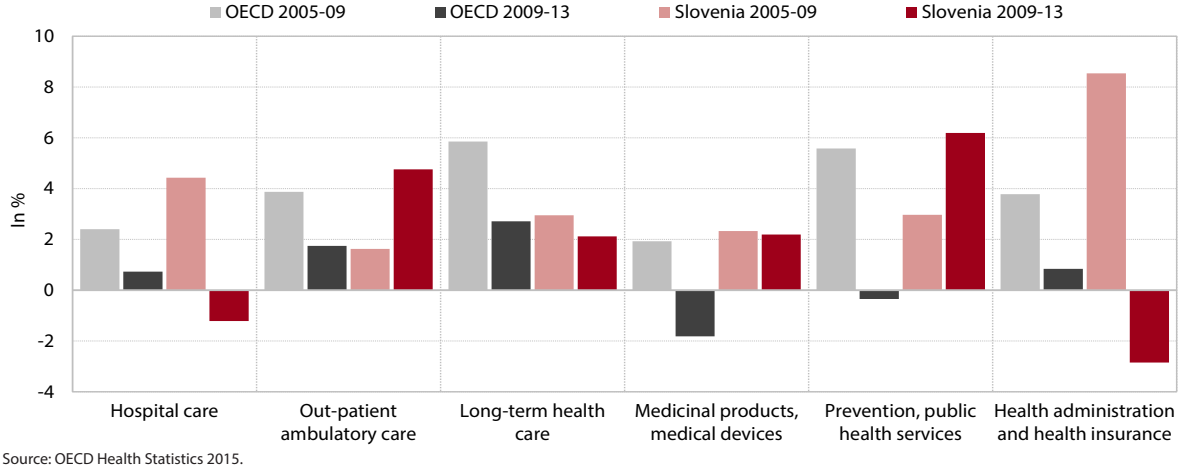
The measures taken during the crisis have contributed to a more efficient health expenditure structure. A comparison of the health expenditure movements by function shows a significant turn during the crisis, which was positive from the perspective of recommendations regarding the restructuring of health expenditure towards improving the efficiency of the system: growth in expenditure on out-patient ambulatory care strengthened; expenditure on hospital care declined; investment in prevention and public health surged; and expenditure on system administration declined notably. It is less encouraging to note that Slovenia is lagging further and further behind in the share of expenditure on long-term health care (SI: 10%; OECD: 12%), particularly community nursing and attendance allowances. While the majority of more advanced OECD countries had already intensified public funding for these services before the crisis, Slovenia still recorded below average growth in this expenditure during the crisis.

Table: **Health expenditure***

	Health expenditure, as a % of GDP				Public health expenditure, as a % of GDP*				Private expenditure, share in current expenditure, in %			Out-of-pocket expenditure, share in current expenditure, in %		
	2005	2013	2014	2015	2005	2013	2014	2015	2005	2013	2015	2005	2013	2015
Slovenia**	8.0	8.8	8.6	8.5	5.9	6.2	6.1	6.1	26.5	29.0	28.1	13.0	12.6	12.5
EU***	7.7	8.3	N/A	N/A	6.0	6.2	N/A	N/A	25.0	26.7	N/A	21.5	20.7	N/A

Source: OECD Stat; Eurostat; WHO HFA-DB; SURS: Health expenditure and sources of funding, June 2015.
Notes: *Excluding capital formation (in 2013 capital formation amounted to 0.4% of GDP): in compliance with the revised international methodology of the System of Health Accounts (SHA 2011), the basic indicators on health no longer include capital formation. ** For Slovenia the calculation of the share of GDP is based on the revision of GDP in September 2015 (SURS, National Accounts), for 2015, the first release by SURS in February 2016, and for 2014 and 2015, the first estimate (see Note 1). ***The EU average is calculated as an unweighted arithmetic mean – sources: OECD and Eurostat for Cyprus, Bulgaria, Romania and Croatia; WHO HFA-DB for Malta; N/A – data not available.

Figure: **Real growth rates of health expenditure by function, per capita, Slovenia and the OECD, 2005–2009 and 2009–2013**



Source: OECD Health Statistics 2015.

[1] HIIS Business Report for 2015. (Draft, March 2016). Data according to the SHA methodology are estimated in cooperation with SURS. Expenditure as a share of GDP for 2015 is calculated based on SURS's First Release in February 2016.

3.11 Expenditure on long-term care

After increasing during the crisis, total expenditure on long-term care (LTC)[1] declined in real terms in 2013. According to the latest data available, it also fell as a share of GDP and totalled 1.31% of GDP. Owing to austerity measures in the public sector, public expenditure on LTC declined by 2.9% in real terms in 2013; private expenditure on co-payments in institutions also decreased (–1.7%). Broken down by source of funding, the share of private expenditure increased again, to 27.5%; broken down by function of care, the share of expenditure on long-term social care was up to 33.3%.

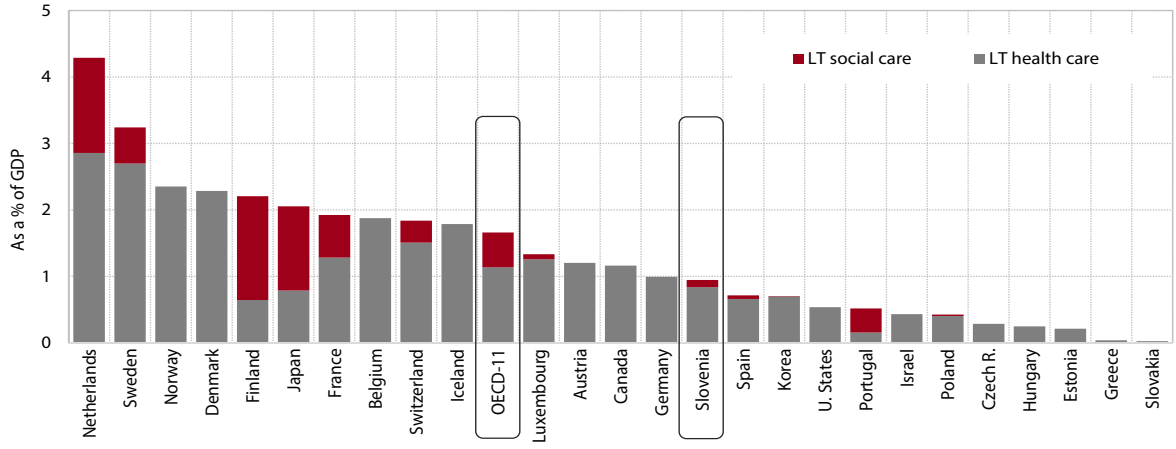
Slovenia's gap with the OECD average in terms of long-term care development is widening. In 2005–2013, *public* LTC expenditure rose by 2.2% per year in real terms in Slovenia and by an average of 0.4% in the OECD (OECD Health at a Glance 2015). In terms of public LTC expenditure (0.95% of GDP), Slovenia is lagging further and further behind the OECD average (2013: 1.66% of GDP). There is a wide gap in the share of long-term health care services (SI: 0.8% of GDP; OECD: 1.1% of GDP; these mainly include community nursing, nursing allowances and institutional health care) and an even wider gap in long-term social services (SI: 0.1% of GDP; OECD: 0.5% of GDP: particularly social care at home). While more advanced OECD countries primarily increase public funding for long-term care at home, the ratio in Slovenia is the opposite, as Slovenia increases funding for institutional care rather than care at home. As in 2013 as much as 77.7% of expenditure was allocated for long-term care in institutions (retirement homes, special social welfare institutions, hospitals) and only 22.3% for long-term care at home,[2] the comprehensive systemic regulation of LTC funding must be devised as soon as possible.

Table: **LTC expenditure by source of funding and function, 2005–2013**

	In EUR million			As a % of GDP			Breakdown, in %			Real growth, in %	Average annual real growth, in %
	2005	2012	2013	2005	2012	2013	2005	2012	2013	2013/2012	2005–2013
Long-term care	314	480	471	1.08	1.33	1.31	100.0	100.0	100.0	-2.6	3.2
By source of funding:											
Public expenditure	245	349	342	0.84	0.94	0.95	77.8	72.7	72.5	-2.9	2.2
Private expenditure	70	131	130	0.24	0.33	0.36	22.2	27.3	27.5	-1.7	6.0
By function											
Health care	230	327	314	0.79	0.87	0.90	73.3	68.5	67.9	0.5	2.9
Social care	84	153	157	0.29	0.40	0.44	26.7	32.1	33.3	1.5	6.1

Source: SURS Long-term care (Release: December 2015).
Note: The conversion into constant prices was made using the GDP implicit price deflator.

Figure: **Public expenditure on long-term (health and social) care as a share of GDP, 2013**



Source: OECD Health at a Glance 2015. Slovenia: SURS – Health expenditure and sources of funding (June 2015) and Long-term care (December 2015).

[1] As defined by the OECD, Eurostat and the WHO (A System of Health Accounts 2011, pp. 88–95 and p. 114). The report of the inter-institutional working group on the use of the international methodology to monitor LTC spending, LTC beneficiaries in Slovenia and for data analysis was published by IMAD in the Working Paper, 2/2014 http://www.umar.gov.si/fileadmin/user_upload/publikacije/dz/2014/DZ02_14_summary.pdf).

[2] In Slovenia institutional care is more expensive than care at home, as it includes integrated health and social services and accommodation costs. The quality of services in institutions is therefore much higher than at home. The ratio is thus highly in favour of institutional care. However, data on the number of LTC recipients in institutions relative to the number of those receiving LTC at home show a reversed ratio – approximately one-third are recipients of various forms of institutional care, while close to two-thirds receive LTC at home or only receive cash benefits (see Chapter 3.3).

3.12 Pension expenditure

Pension expenditure[1] increased further in 2015 and the budget transfer to the pension fund[2] also remains high. Pension expenditure, including the annual pension allowance, totalled EUR 4.305 billion and was up 0.4% (expenditure excluding the annual allowance was at the level of 2014). In 2015 there was once again no indexation of pensions. The number of old-age pensioners expanded less than in previous years (a net increase of 5,800, which is nearly three times less than the average for 2010–2013) because the transition periods (the last one will expire in 2020) have caused the retirement conditions to be tightened from year to year as the provisions of the pension reform become fully applicable. Expenditure on the annual allowance was higher, with the limit for annual allowance entitlement raised from the pension amount of EUR 622 to EUR 750, this increase being financed by funds received from Kapitalska Družba (EUR 19 million). The budget transfer stood at EUR 1.482 billion, which is less than in the previous two years, but still accounts for 29.3% of PDII revenue.

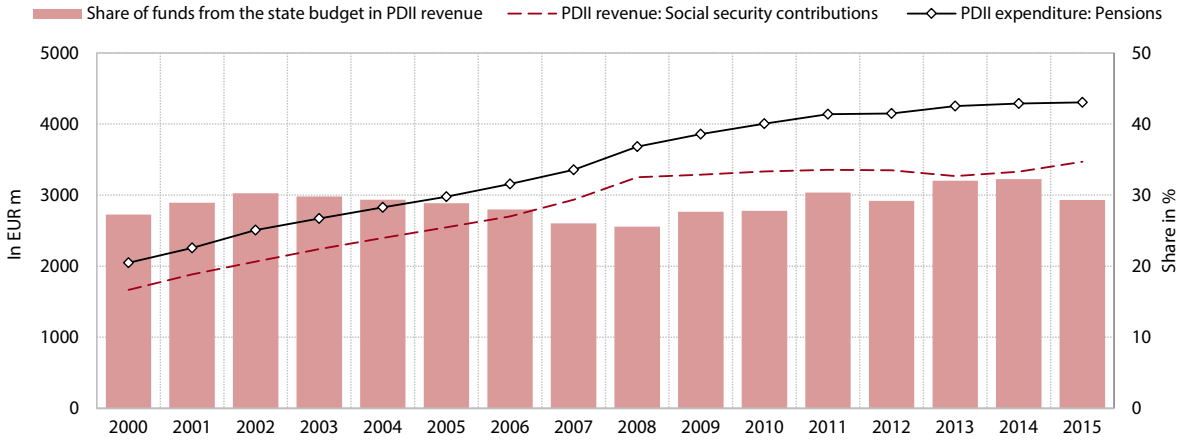
Pension expenditure as a share of GDP in Slovenia is still below the EU average, but is rising faster than in the EU due to the rapid ageing of the population. According to the most recent data available, pension expenditure as a share of GDP[3] remained below the EU average in 2012. While in the EU it was 1.2 percentage points higher than in 2008, it was as much as 1.9 percentage points higher in Slovenia. Pension expenditure is expected to stabilise over the medium term due to the ZPIZ-2 (The Pension and Disability Insurance Act), before starting to rise again in 2023 and reaching the 2013 level by 2028.[4] This means that the new pension system does not ensure long-term fiscal sustainability; in contrast, pension expenditure for the EU as a whole is also projected to stay at the current level in the long term.

Table: **Share of the population aged 65 or more, employment rate of older workers, duration of working life and pension expenditure as a % of GDP**

	Share of the population aged 65+, in %			Employment rate of older workers (55–64 years)			Duration of working life*			Pension expenditure, as a % of GDP**		
	2000	2008	2014	2000	2008	2014	2000	2008	2014	2000	2008	2013
Slovenia	13.9	16.3	17.5	24.0	34.2	38.4	31.8	34.0	34.1	11.0	9.5	11.7
EU	N/A	17.1	18.5	N/A	47.9	55.9	32.9	34.3	35.3	N/A	11.3	N/A

Source: Eurostat, 2015.
Notes: N/A – data not available; *The number of years a person aged 15 or more is expected to be active on the labour market; **According to the ESSPROS methodology.

Figure: **Selected PDII revenues and expenditures, Slovenia**



Source: Bulletin of Government Finance, Pension and Disability Insurance Institute of the Republic of Slovenia 1992–2015, 2016.

[1] According to the PDII balance sheets (source: MF), together with annual pension allowance. While it was previously recorded under pensions, the annual pension allowance was included among social security transfers in 2015. For data comparability purposes, we have taken it into account among pensions.
[2] The Republic of Slovenia covers the difference between PDII revenues (from contributions and other sources) and PDII expenditures by funds from the state budget and other sources. These include all funds under the item of 'Transfers from the state budget' of the PDII balance sheets (MF).
[3] According to ESSPROS methodology (the European System of Integrated Social Protection Statistics).
[4] The 2015 Ageing Report, 2015.

3.13 Gross adjusted disposable income per capita

Gross adjusted disposable income per capita rose in 2014 after the slowdown in its growth at the onset of the crisis and a decline in 2012 and 2013. At the beginning of the crisis the growth of gross disposable income slowed as a consequence of a larger decline in economic activity and a steeper fall in employment than the EU average. In 2012 and 2013 gross adjusted disposable income contracted, not only owing to lower employment and wages but also due to austerity measures in the area of social transfers. With the improvement in labour market conditions, gross adjusted disposable income increased in 2014. In relation to the EU, Slovenia reached the highest level of gross disposable income per capita in PPS in 2008, 83.5%, which was a wider gap than in economic development as measured by GDP in PPS (89% of the EU average). With the economic crisis and fiscal consolidation measures, Slovenia's gap in disposable income had risen to 22 percentage points by 2014 (the latest figure available), which is a 5-percentage-point wider gap than that for economic development (see indicator 2.1).

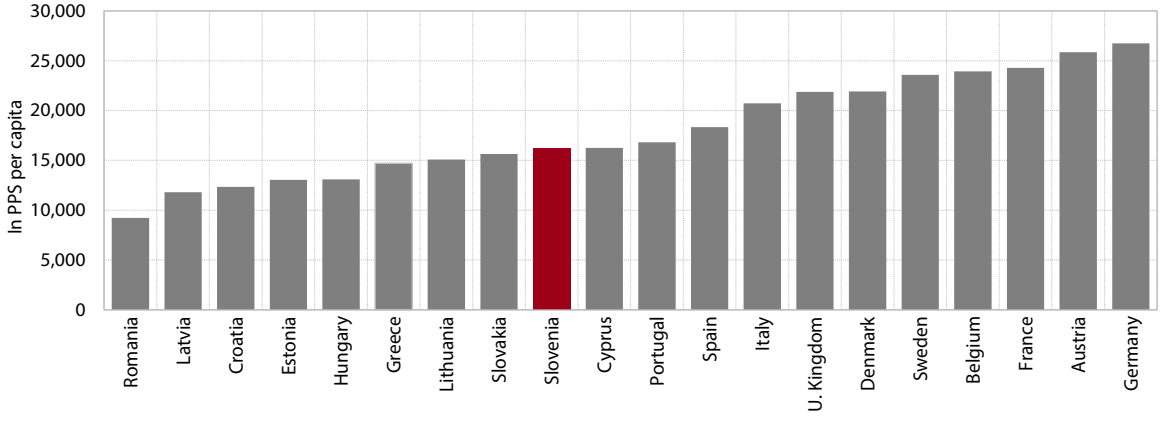
The structure of disposable income shows that Slovenian households earn more income from employment and less from property than the average EU household. Owing to the deterioration in labour market conditions, in 2008–2014 the share of income from employment (compensation of employees) declined slightly more in Slovenia than the EU average, but remained larger.[1] The share of social transfers does not differ significantly from the EU average. Its increase during the crisis was also similar to that in the EU. On the other hand, Slovenia diverges significantly from the EU average in terms of its share of income from property (in 2014 this share totalled 2.3% in Slovenia and an average of 12.2% in the EU).

Table: **Gross adjusted disposable income of households and NPISHs per capita, Slovenia and the EU average, year-on-year growth rates, in %**

	2000	2005	2007	2008	2009	2010	2011	2012	2013	2014	2015
Slovenia	5.5	6.5	7.7	8.9	0.3	0.5	1.8	-2.8	-1.3	1.1	0.3
EU	6.7	3.7	4.3	1.3	-1.4	2.5	1.6	1.9	0.3	2.0	N/A

Source: SURS and Eurostat Portal Page – Annual Sector Accounts.
Note: * according to the quarterly non-financial sector accounts, N/A – data not available.

Figure: **Gross adjusted disposable income of households and NPISHs in PPS per capita in Slovenia and selected EU countries, in 2014**



Source: Eurostat Portal Page – Annual sector accounts.

[1] In Slovenia it totalled 81.4% of disposable income in 2014; in the EU as a whole, 76.5%.

3.14 Actual individual consumption per capita

After the moderation of its growth at the onset of the crisis and a decline in 2012 and 2013, actual individual consumption per capita[1] stopped falling in 2014. After the rapid growth in the pre-crisis period, its growth eased significantly at the beginning of the crisis. We estimate that, in the first years of the crisis, the decline in consumption was prevented primarily by wage growth in 2008–2010 as a result of the introduction of the new system for public sector wages and the increase in the minimum wage. The decline in individual consumption in 2012 and 2013 was, in our view, due to the contraction in government consumption and a fall in household disposable income owing to falling employment and wages. With the recovery of economic activity and an increase in disposable income, actual individual consumption stopped falling in 2014.

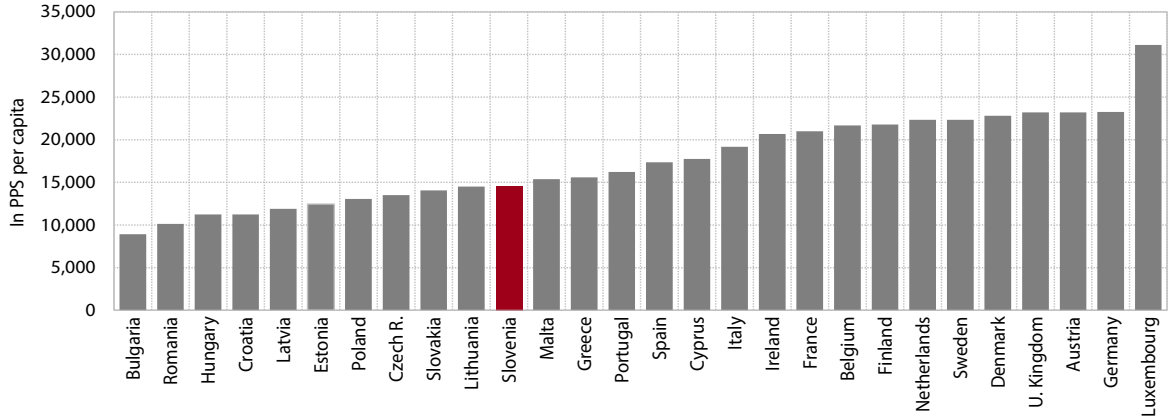
Slovenia has widened its gap in individual consumption per capita in PPS in relation to the EU average since 2010. Despite the contraction in economic activity and employment, the modest growth in disposable income at the beginning of the crisis helped individual consumption stay at the level achieved. In 2011 individual consumption reached 80.2% of the EU average, which is a slightly wider gap than in the measure of economic development (GDP per capita, see indicator 2.1). Slovenia's divergence from the EU average since 2011 reflected the urgently needed austerity measures in the public sector, which reduced expenditure on social transfers in kind and average earnings in 2012 and 2013. Despite GDP growth and modest growth in individual consumption in 2014, individual consumption per capita in PPS moved further away from the EU average to 75.7%.

Table: **Actual individual consumption per capita, year-on-year growth, in %**

	2000	2005	2007	2008	2009	2010	2011	2012	2013	2014
Slovenia	2.0	4.3	9.4	8.7	1.5	2.0	1.6	-1.7	-3.6	0.2
EU	N/A	4.4	4.5	1.0	-3.5	3.7	2.0	2.2	0.2	2.7

Source: Eurostat Portal Page - National accounts.
Note: N/A – data not available.

Figure: **Actual individual consumption per capita in PPS, in 2014**



Source: Eurostat Portal Page - National accounts.

[1] According to the national accounts methodology, actual individual consumption per capita includes resident household expenditure on goods and services at home and abroad, individual government expenditure and the expenditure of non-profit institutions serving households (NPISHs); it does not include expenditure on real estate and valuables, which fall under investment.

3.15 Income inequality

Despite the increase in income inequality indictors in 2008–2014, Slovenia is one of the countries with the lowest income inequality rates in the EU. Slovenia has the second lowest rate of income inequality in Europe as measured by the Gini coefficient, and the third lowest rate as measured by the quintile share ratio (80/20). In 2014 the Gini coefficient rose by 0.6 percentage points to 25% while income inequality as measured by the income quintile share ratio (80/20) increased by 0.1 percentage points to 3.7. In the period 2008–2014 the Gini coefficient was up 1.6 percentage points and the income quintile ratio was up 0.3 percentage points.

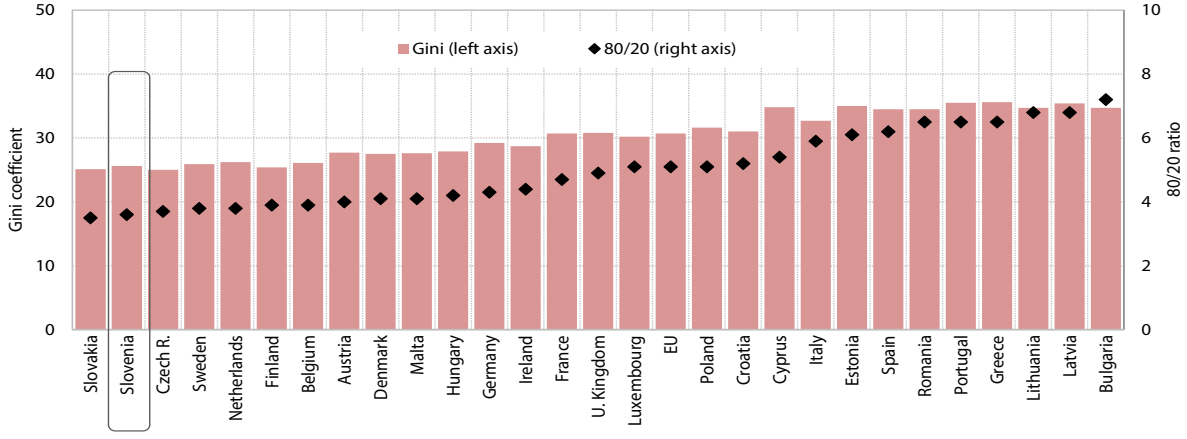
The increase in income inequality during the crisis was attributable to a decline in income[1] in lower income brackets. It reflected the economic crisis, fiscal consolidation measures and changes to social legislation[2] implemented in 2012. Since 2007, the share of income per family member in the lowest quintile had decreased by 0.8 percentage points, while the corresponding share in the highest quintile had increased by 1.0 percentage points. Regarding the deciles, the bottom income deciles experienced the largest decline and the top income deciles the largest increase in income during the crisis.

Table: **Income inequality indicators, 80/20 and Gini**

		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
80/20	Slovenia	3.4	3.4	3.3	3.4	3.2	3.4	3.5	3.4	3.6	3.7
	EU	5.0	5.0	5.0	5.0	4.9	4.9	5.0	5.0	5.0	5.2
Gini	Slovenia	23.8	23.7	23.2	23.4	22.7	23.8	23.8	23.7	24.4	25.0
	EU	30.6	30.3	30.6	30.9	30.5	30.4	30.8	30.4	30.5	31.0

Source: Eurostat.
Note: Until 2009, data for the EU-27, since 2010, data for the EU-28. Data for Ireland and Estonia are not yet available.

Figure: **Income inequality indicators, Gini and 80/20, 2014**



Source: Eurostat.

[1] The indicators of income inequality for 2014 are calculated on the basis of income distribution in 2013.
[2] In 2012 the Exercise of Rights to Public Funds Act started to be implemented.

3.16 Life satisfaction

In autumn 2015, life satisfaction[1] in Slovenia exceeded the long-term average for the first time in six years, approaching the levels seen before the crisis. According to the Standard Eurobarometer survey, Slovenians have been more satisfied with their lives than people in the EU as a whole in all the years of measurement;[2] however, the EU average had already exceeded its long-term average in spring 2014. General life satisfaction is still highest in the northern EU Member States. The results of the autumn 2015 measurement already reflect the consequences of migration pressures.

In autumn 2015 satisfaction increased in all four areas measured by the Eurobarometer: household financial situation, personal employment situation, and employment and economic situation in the country. Slovenian respondents are still the most satisfied with the financial situation of their households (64%), where in autumn 2015 satisfaction also exceeded the level seen before the crisis. They are the least satisfied with the employment situation in the country (7%). On the other hand, their optimistic expectations[3] dropped in all areas except the personal employment situation.

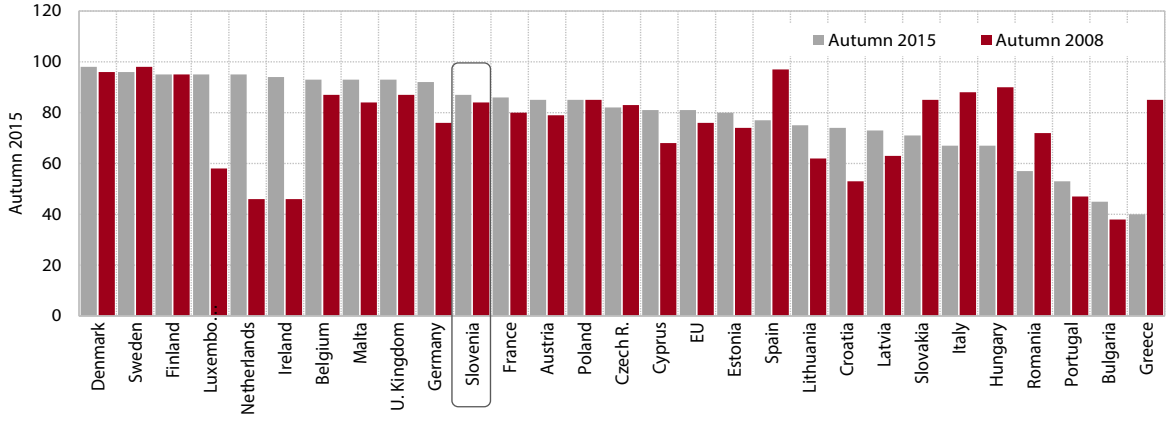
In the results of the autumn 2015 survey, the issue of migration stands out and has probably also affected evaluations of satisfaction. Migration may partly explain the relatively significant increase in the level of life satisfaction in Slovenia: on the basis of their own experiences with migration or seeing pictures of migrants, people may have adjusted their expectations and criteria for evaluating life satisfaction and are more satisfied with what that have (crisis adaptation), as what until recently has been seen as the main problem now appears less acute. When asked about the two most important issues currently facing the country, respondents stressed immigration as the main problem (48% of respondents), which has therefore overtaken unemployment (41%) and the economic situation (27%), the issues that had previously been seen as the main concerns. In evaluations of the main issues at the personal level there were no significant changes in the last measurement.

Table: **Life satisfaction, in %**

	Autumn 2008	Spring 2009	Autumn 2009	Spring 2010	Autumn 2010	Spring 2011	Autumn 2011	Spring 2012	Autumn 2012	Spring 2013	Autumn 2013	Spring 2014	Autumn 2014	Spring 2015	Autumn 2015
Slovenia	85	86	86	85	85	83	83	85	85	85	79	84	81	81	87
EU	76	77	78	78	78	79	75	77	76	75	75	80	79	80	81

Source: Eurobarometer.
Note: In the case of two annual measurements, the annual average is taken into account.

Figure: **Life satisfaction, in %**



Source: Eurobarometer.

[1] The 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 who are very satisfied and satisfied.
[2] After Slovenia's accession to the EU, since October 2004 life satisfaction has been measured by the Standard Eurobarometer survey twice a year.
[3] The proportion of those expecting things to improve.

3.17 Healthy life years

People in Slovenia can expect slightly more than 58 years of healthy life,[1] which is significantly below the EU average, but the gap has been closing despite the crisis. According to the latest data available, a girl born in 2013 can expect 59.5 years of healthy life, while a boy can expect 57.6 years. Despite the crisis, the number of expected healthy life years rose significantly in Slovenia in 2013 and the gap in relation to the EU narrowed slightly. However, this indicator is derived from subjective perceptions of limitations in daily living and so the results may also reflect the greater sensitivity of the population in evaluating their own situation.

The ratio of life expectancy to the number of healthy life years has improved in the last years but remains one of the lowest in the EU. People in Slovenia spend only 73% of their lives free from any limitation (in the EU: 76%), which leads to early retirement and increased expenditure on health and long-term care. The narrowing of the gap between life expectancy and the number of healthy life years would significantly contribute to slower growth in health spending in the future and, in turn, to the sustainable financing of health and long-term care in the long term.

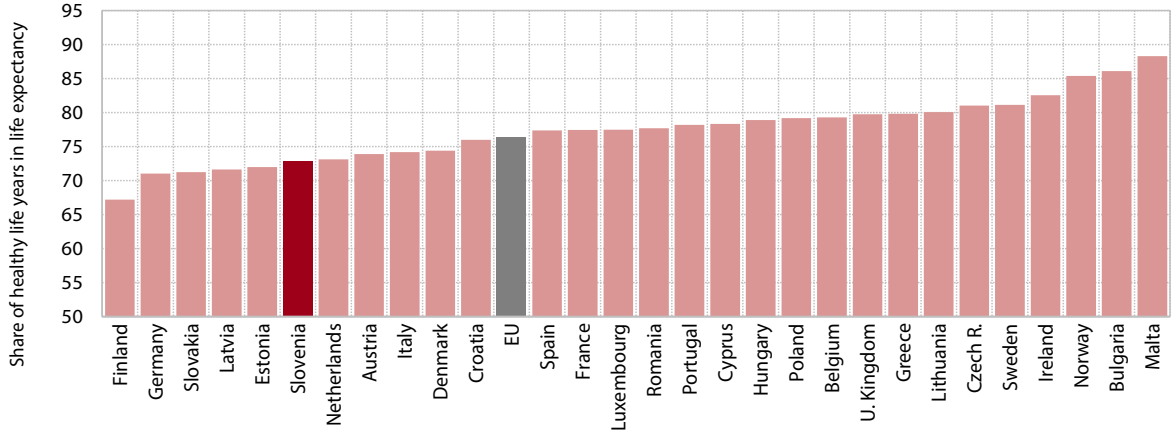
Slovenia is also narrowing its gap with the EU average as regards expected healthy life years at the age of 65. In Slovenia a person aged 65 can expect to live another 7.4 years in a healthy state, compared with 8.6 years in the EU. A few years ago the gap was much wider. During the crisis the number of healthy life years at the age of 65 rose slightly in Slovenia but declined on average in the EU. The favourable movement of this indicator in Slovenia is in all likelihood the result of successful preventive health care programmes for elderly people and the relatively high level of access to health services, which was also preserved during the crisis (see section 3.2).

Table: **Healthy life years at birth and at age 65**

	Healthy life years at birth								Healthy life years at age 65			
	Women				Men				Women		Men	
	2010	2011	2012	2013	2010	2011	2012	2013	2010	2013	2010	2013
Slovenia	54.6	53.8	55.6	59.5	53.4	54.0	56.5	57.6	7.2	7.6	6.6	7.2
EU	62.6	62.1	62.1	61.5	61.8	61.7	61.5	61.4	8.8	8.6	8.7	8.5

Source: Eurostat Database; OECD Health at a Glance 2014.

Figure: **Ratio of life expectancy to the number of healthy life years, 2013, in %**



Source: Eurostat Database – Population and Social Conditions – Health – Public Health, 2016; Eurostat Database – Population and Social Conditions – Population – Demography – Mortality, 2016.

[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 the 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 the data and recalculated the series from 2004 to 2010. For Slovenia, the translation of the EU-SILC survey question on limitations was corrected in 2010, so that only the time series from 2010 onwards is in fact comparable.

3.18 Share of population with at least upper secondary education

***Slovenia has a relatively large share of adults aged 25–64 years with at least upper secondary education,[1]* and this figure is rising further.** According to the labour force survey (for the second quarter), it stood at 86.5% in 2015, which is higher than the EU average. In the last ten years, it rose the most in the middle-age (45–54 year olds) and the oldest age (55–64 year olds) groups, which is linked to the transition of younger, more educated populations into higher age groups. The share of adults aged 25–64 years with at least upper secondary education is above the EU average in all age groups. The share of the population with at least upper secondary education is higher for men than women, although the gender gap has narrowed in the last decade.

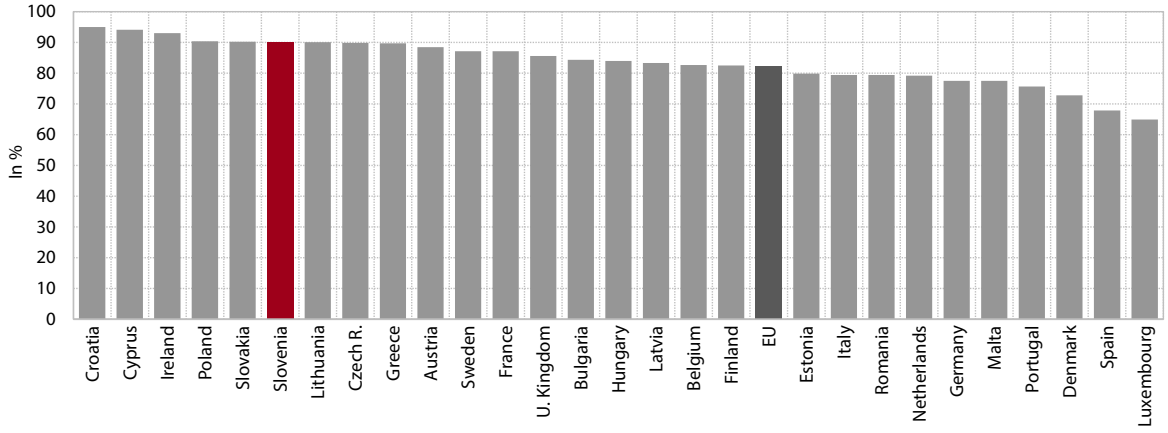
The share of young people (20–24 years) with at least upper secondary education has remained more or less unchanged in the last ten years. In 2015 it was almost the same as one year previously and higher than the EU average (Slovenia: 90.1%; EU: 82.3%). This large share is related to the high participation of young people (15–19) in upper secondary education, which has hovered around 78% for several years and is above the EU average. The financial accessibility of upper secondary education increased in 2014 thanks to the reintroduction of state scholarships for underage pupils.[2] The share of early school-leavers[3] rose to 4.4% in 2015, but was below both the EU average (11.1%) and the national target (5.0%). The share of young people with at least upper secondary education remained roughly the same throughout the crisis, which is also expected to continue in the future. There is nevertheless still some room for improvement in the share of men, which is lower than for the corresponding share of women,[4] also owing to a much larger share of early school-leavers.

Table: **Share of adult population aged 25–64 with at least upper secondary education, 2nd quarter of the year, in %**

	2000	2005	2008	2009	2010	2011	2012	2013	2014	2015
Slovenia	74.8	80.5	81.6	83.1	83.5	84.8	85.1	85.6	85.7	86.5
EU	N/A	68.9	71.1	71.7	72.4	73.1	74.0	74.9	75.6	76.1

Source: Eurostat Portal Page – Population and social conditions – Education and training, 2016.
Note: N/A – data not available.

Figure: **Share of young people (20–24 years) with at least upper secondary education, 2nd quarter, 2015, in %**



Source: Eurostat Portal Page – Population and Social Conditions – Education and training, 2016.

[1] The term 'at least upper secondary education' includes upper secondary and tertiary education.
[2] According to the Scholarship Act (Zakon o štipendiranju/ZŠtip-1), which was adopted in 2013 and entered into force in 2014.
[3] Young people aged 18–24 years with at most lower secondary education who are not engaged in further education or training.
[4] In 2015 it totalled 93.4% for women and 86.8% for men.

3.19 At-risk-of-poverty rate

In 2014[1] the at-risk-of-poverty rate in Slovenia remained the highest in the last ten years, albeit still lower than the EU average. In 2014 it remained the same as in the previous year (14.5% or around 290,000 persons). It declined slightly for the most vulnerable population groups (households with children, one-person households older than 65, unemployed people), in our estimation due to changes to social[2] and pension legislation.[3] The at-risk-of poverty rate increased the most for one-person households younger than 65. In terms of activity status, the risk of poverty increased only in the 'other inactive persons' group, which we estimate was also due to the more restrictive eligibility criteria for social assistance after the social legislation reform entered into force.

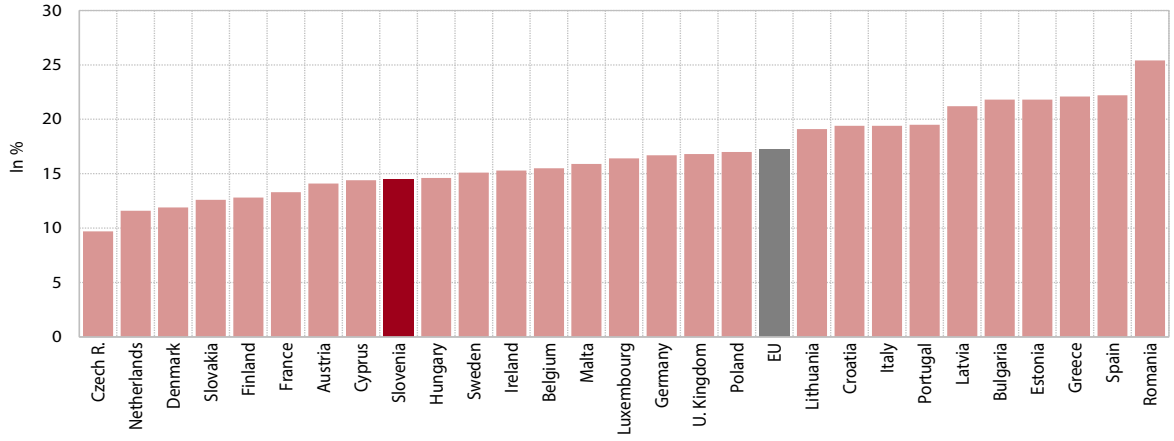
The relative at-risk-of-poverty gap[4] thus rose from 20.2% to 22.0% in comparison with the previous year and was the widest since the beginning of the crisis. The median income of people below the poverty threshold declined by another EUR 7. The at-risk-of-poverty threshold[5] rose by EUR 3 per month owing to a slight increase in the average household disposable income.

Table: **At-risk-of-poverty rate, in %**

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Slovenia	12.2	11.6	11.5	12.3	11.3	12.7	13.6	13.5	14.5	14.5
EU	16.5	16.5	16.5	16.5	16.4	16.4	16.8	16.8	16.6	17.2

Source: Eurostat.
Note: EU-27 until 2009, since 2010 EU-28.

Figure: **At-risk-of-poverty rate, 2014**



Source: Eurostat.

[1] The at-risk-of-poverty rate for 2014 is calculated based on income from 2013.
[2] Zakon o uveljavljanju pravic iz javnih sredstev (Exercise of Rights to Public Funds Act/ZUPJS, Official Gazette of the RS, No. 62/2010), which entered into force on 1 January 2012.
[3] Zakon o pokojninskem in invalidskem zavarovanju/Pension and Disability Insurance Act (ZPIZ-2), Official Gazette of the RS, No. 96/2012, which entered into force on 1 January 2013.
[4] The relative at-risk-of-poverty gap is the difference between the at-risk-of-poverty threshold and the median equivalised disposable income of people below the at-risk-of-poverty threshold, expressed as a percentage of the at-risk-of poverty threshold. The at-risk-of-poverty gap shows the depth of poverty, i.e. the distance from the at-risk-of-poverty threshold.
[5] The at-risk-of-poverty threshold is defined as 60% of median disposable income.

3.20 Material deprivation

The material deprivation rate (i.e. deprivation in at least three of the nine items[1]) rose slightly in Slovenia in 2014. In 2014 it increased by 0.2 percentage points to 17.2%, but was still lower than the EU average (18.6%). The share of materially deprived people was significantly higher among those living below the at-risk-of-poverty threshold (45%), up 1.8 percentage points over one year earlier. The severe material deprivation rate (i.e. deprivation in four of the nine items) in 2014 was somewhat lower than in 2013.

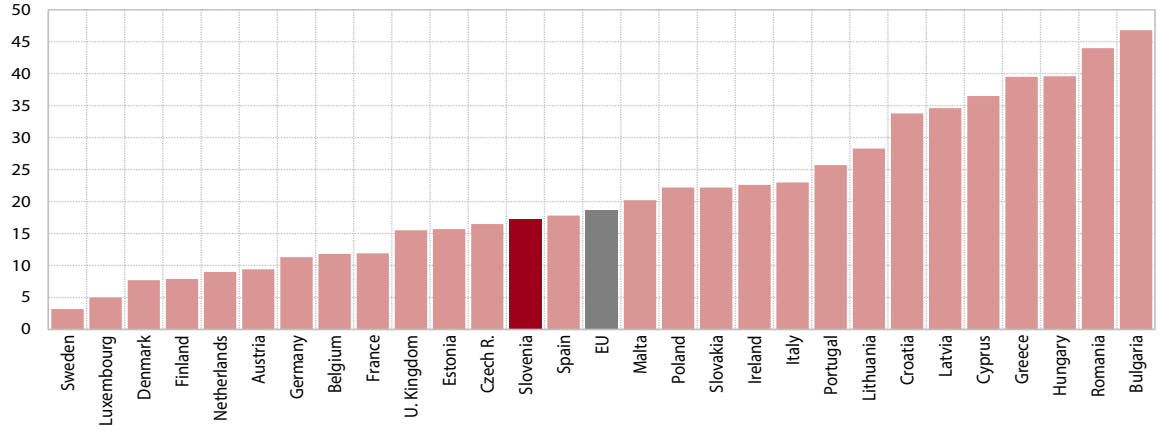
The shares of households that cannot afford a car (4.3%) and have difficulty paying housing-related bills (22.5%) were higher in 2014 than in 2013 and the highest in ten years. The shares of those who cannot keep their home adequately warm or afford a one-week annual holiday away from home were also higher than for the previous year, but had been even higher during the crisis. The share of those who cannot afford a meal with meat, or a vegetarian equivalent, was the lowest in ten years at 7.9%. The shares of people unable to afford durable goods of small value and to deal with unexpected expenses[2] remain at the previous year's level (45.8%), which is 4.2 percentage points higher than in 2007. Almost all households can afford a telephone, a colour TV and a washing machine, their shares equalling those in 2008.

Table: **Material-deprivation rate, in %**

		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Material deprivation (in at least 3 items out of 9)	Slovenia	14.7	14.4	14.3	16.9	16.2	15.8	17.2	16.9	17.0	17.2
	EU	20.0	19.2	18.1	17.5	17.4	17.8	18.5	19.8	19.6	18.6
Severe material deprivation (in at least 4 items out of 9)	Slovenia	5.1	5.1	5.1	6.7	6.1	5.9	6.1	6.6	6.7	6.6
	EU	10.8	9.9	9.2	8.5	8.2	8.4	8.9	9.9	9.6	9.0

Source: Eurostat.
Note: EU-27 until 2009, since 2010 EU-28.

Figure: **Material deprivation, 2014**



Source: Eurostat.
Note: EU-27 until 2009, since 2010 EU-28.

[1] 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 or 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; (9) to afford a personal car. Severe material deprivation in at least four out of the nine material deprivation items.

[2] The share of households able to handle, from their own resources, unexpected financial expenses in the amount of EUR 440 for 2007 and EUR 600 for 2013 or 2014.

4 Environmental, regional and spatial development

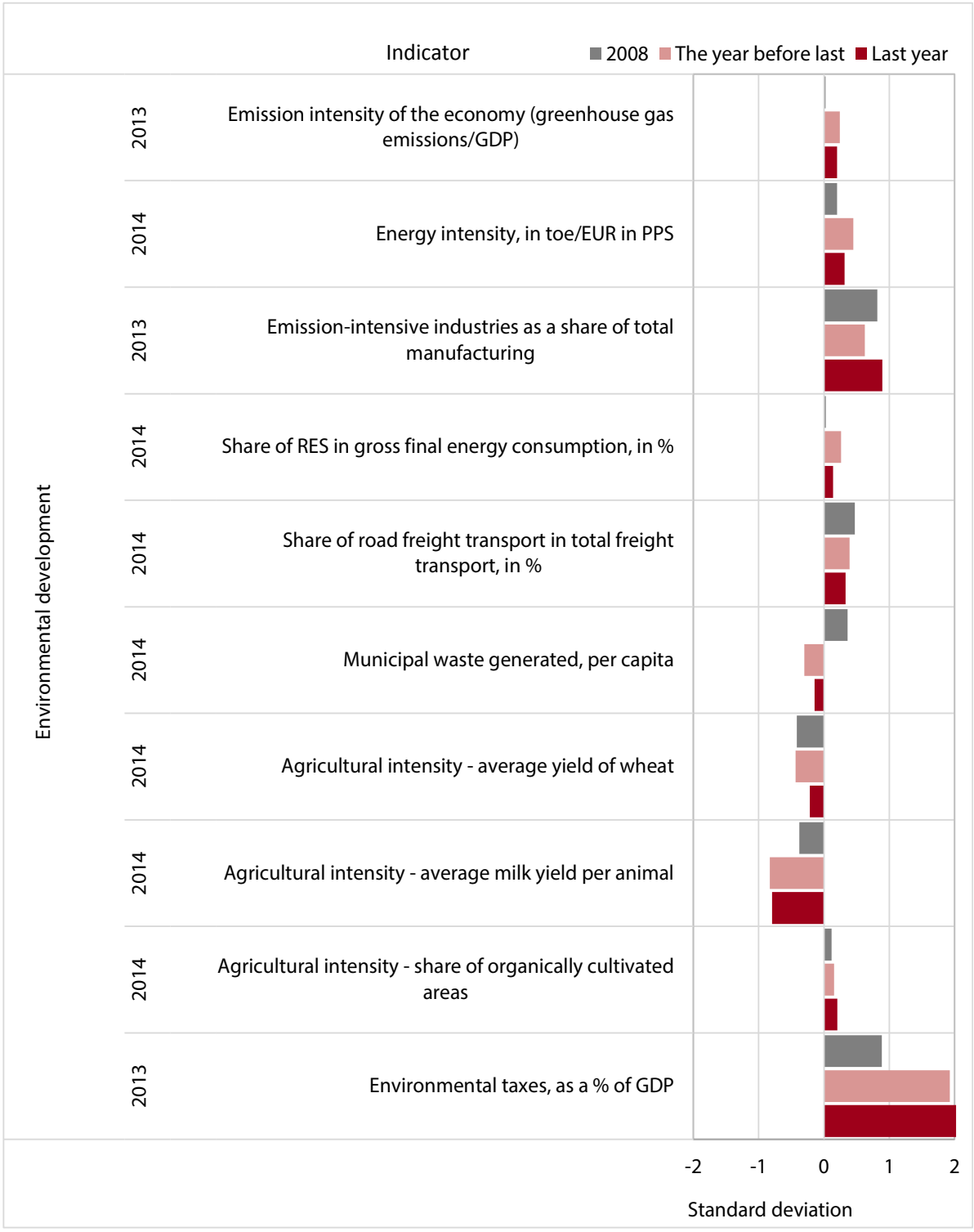
Environmental development

- 4.1 Greenhouse gas emissions
- 4.2 Energy efficiency
- 4.3 Emission-intensive industries
- 4.4 Renewable energy sources
- 4.5 Share of road transport in total freight transport
- 4.6 Waste
- 4.7 Agricultural intensity
- 4.8 Intensity of tree felling
- 4.9 Environmental taxes

Regional development

- 4.10 Regional variation in GDP per capita
- 4.11 Regional variation in the registered unemployment rate

Overview of indicators – Environmental, regional and spatial development



Source: Calculations by IMAD.
Note: The table shows Slovenia's position relative to the unweighted arithmetic average of the EU Member States. It was calculated with regard to the set of countries for which data for individual indicators were available; Cyprus, Malta, Luxembourg and Croatia were excluded from the analysis due to a lack of data. The data in the table are for 2008 and the last year for which data for EU Member States were available (the last year is indicated in the table). A positive indicator value means above-average development relative to the EU, while a negative value indicates that Slovenia lags behind the EU average on that indicator.

4.1 Greenhouse gas emissions

After declining with the onset of the crisis, greenhouse gas (GHG) emissions have continued to fall since 2011. According to the ARSO estimate, total GHG emissions amounted to around 16,600 Gg of CO_2 equivalent[1] in 2014, which was approximately 23% less than their peak in 2008 and around one-tenth less than in 2013. Since the beginning of the crisis, GHG emissions have declined in all eight source categories, but the most in the energy and transportation sectors, which account for the majority of emissions, and in the consumption of fuels in industry and households. The significant decline in the energy sector, where emissions are almost entirely due to electricity generation in thermal power plants, mainly stemmed from the shut-down of the biggest plant. The top position in terms of emissions is now occupied by the transport sector. Its emissions declined too, but are still fairly high by international standards, owing in part to the relatively favourable competitive conditions established through tax policies (the refund of excise duties) and strong merchandise flows through Slovenia. Emissions from the consumption of household fuels also declined in 2014, which could be attributed to the milder weather conditions; emissions from waste were also lower, as were emissions from other sources. Meanwhile, emissions were up in agriculture. Emissions from industrial processes also rose slightly again, but since their share was modest, they had a relatively minor impact on the quantity of total emissions.[2] 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 derive mostly from agriculture and landfilled waste.[3]

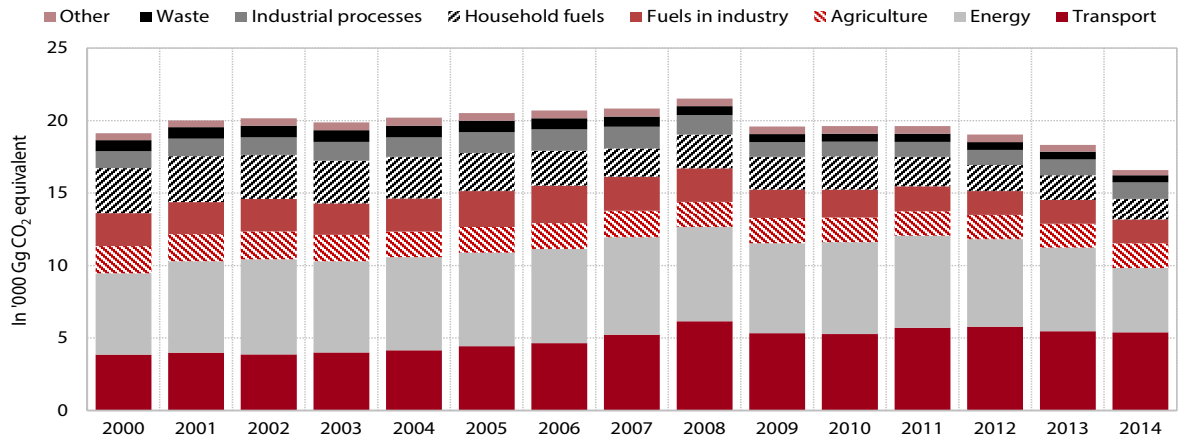
Emission intensity is also declining, but was nevertheless relatively high until 2013 by international standards.[4] GHG emissions fell considerably during the economic crisis owing to a steep decline in GDP, and this moved Slovenia much closer to meeting its international commitments. Nevertheless, with the emission intensity in the EU improving faster than in Slovenia, the gap has been widening. In 2013 Slovenia thus generated around 25% more emissions per unit of GDP than the EU as a whole, compared with 14% more in 2000. In 2014 GHG emissions fell significantly, whereas GDP at constant prices rose, which significantly improved the emission intensity of the economy.

Table: **Emission intensity of the economy (GHG/GDP ratio)**

	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Slovenia	0.61	0.51	0.49	0.46	0.46	0.46	0.45	0.44	0.43	0.41	0.36
EU	0.54	0.45	0.43	0.40	0.39	0.38	0.37	0.35	0.34	0.33	N/A

Source: Eurostat Portal Page – Environment and Energy, 2016; Eurostat Portal Page – Economy and Finance, 2016; for 2014, ARSO. Calculations by IMAD.
Note: N/A – data not available

Figure: **GHG emissions by emission source category, Slovenia**



Source: ARSO, 2016.

[1] A unit of CO_2 equivalent is the amount of GHG expressed in the amount of CO_2 which has the same greenhouse effect. 1 gigagram (Gg) is 1,000 tonnes.
[2] See Indicator 4.3 Emission intensive industries.
[3] Greenhouse gases include carbon dioxide (CO_2), methane (CH_4), dinitrogen monoxide and fluorinated gases (F-gases).
[4] Emission intensity is the ratio of a country's GHG emissions to its GDP. For methodological purposes, we used the movement of GDP at constant prices in the time comparison, and GDP in purchasing power standards (PPS) for a given year in the international comparison.

4.2 Energy efficiency

Despite the decline in primary energy consumption, energy intensity[1] has remained relatively high in recent years. One of the targets of the EU climate and energy package for 2020 is a 20% reduction in energy consumption with regard to the anticipated consumption according to the baseline scenario, with no additional measures. The Member States set their national unbinding targets according to their own scenarios. Three quarters of EU countries are required to reduce their energy consumption by 2020, while some, including Slovenia, are required to limit an anticipated strong increase. As EU Member States are well on track to meet their 2020 targets, more ambitious goals have already been set for 2030. The decline in energy consumption in Slovenia mainly reflected the weak economic activity, alongside the climate changes in the past two years, with higher annual temperatures and lower consumption of energy for heating. The decline in energy consumption is impeded by the high energy consumption in transport. Having mostly converged towards the EU average until 2007, energy intensity in Slovenia has since been falling more slowly. In 2014 it was a quarter higher than the EU average.

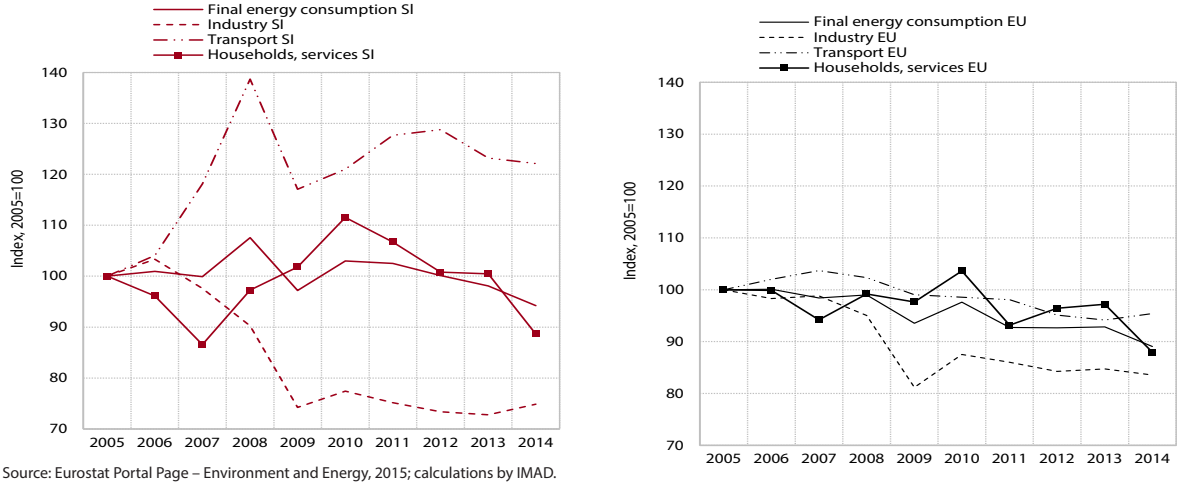
Final energy consumption[2] in Slovenia is significantly affected by strong energy consumption in transport and, in recent years, lower consumption of energy for heating. In the period 2005–2014 final energy consumption fell twice as slowly in Slovenia than in the EU. The energy consumed by industry fell faster,[3] but the improvement was cancelled out by higher energy consumption in transport,[4] which was mainly attributable to increasing freight transit through Slovenia.[5] Annual fluctuations were, in addition to economic activity, also influenced by excise policy.[6] The decline in household consumption of energy for heating in the past few years has been attributable primarily to the installation of heat distribution systems in multi-dwelling houses and increasingly efficient heating appliances; the steep fall in 2014 was also due to the unusually warm weather during the heating season.[7]

Table: **Primary energy consumption, fixed-base index 2005=100**

	2005	2008	2009	2010	2011	2012	2013	2014	2020 target*
Slovenia	100.0	106.5	97.3	101.7	102.8	98.8	96.3	93.1	104.2
EU	100.0	98.8	93.4	96.7	93.0	92.5	91.6	88.0	86.6

Source: Eurostat Portal Page – Europe 2020 indicators, 2014; EC Energy Efficiency, Reporting targets; calculations by IMAD.
Note: *One of the three 20-20-20 environmental targets of the EU.

Figure: **Final energy consumption by consumer sector in Slovenia and the EU**



Source: Eurostat Portal Page – Environment and Energy, 2015; calculations by IMAD.

[1] Energy intensity is the ratio of energy consumption to GDP in purchasing power standards (PPS).
[2] Final energy consumption includes the consumption of primary energy reduced by energy for transformations, own use and losses.
[3] The reduction in Slovenia was mainly due to the transition to a less energy-intense process of aluminium production.
[4] Liquid fuels sold in Slovenia are included in the Slovenian energy balance, regardless of where the buyer is from or in which country the fuel is used.
[5] See also indicator 4.6 Share of Road Transport in Total Freight Transport.
[6] In 2009, 2010 and since 2013, the price of fuels in Slovenia has been higher than in neighbouring countries, which has also been reflected in lower sales in Slovenia.
[7] According to the Slovenian Environment Agency, 2014 was the warmest year since 1850, which is when continuous meteorological measurements began.

4.3 Emission-intensive industries

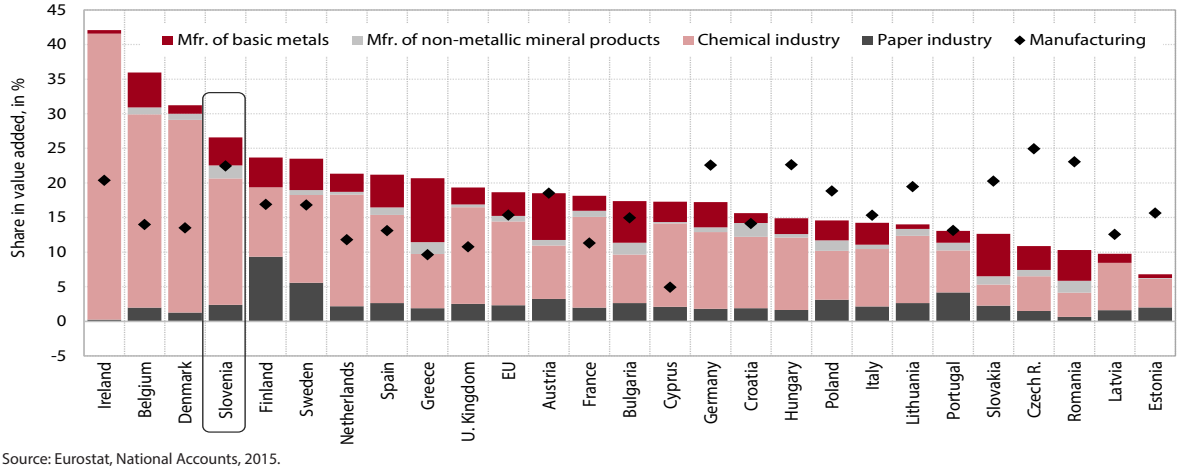
In the last few years, the total output in emission-intensive industries[1] in Slovenia mostly grew faster on average than in other manufacturing industries. This trend was interrupted in 2008 and 2009, primarily as a result of the lower output in the manufacture of basic metals, and then in 2014, mainly owing to the more modest output in the chemical industry. In the last five years under observation, emission-intensive industries generated around a quarter of the total value added in manufacturing, which is one of the largest shares in the EU.[2] Given the greater significance of emission-intensive industries and the higher energy intensity in manufacturing in Slovenia than in the EU as a whole,[3] the impact of emissions trading on production costs and, consequently, business results and competitiveness is also greater than in the EU.[4] In order to reduce exposure to higher costs, it is therefore crucial that Slovenia continues to reduce its energy intensity and proceed with technological restructuring in its emission- and energy-intensive industries.

Table: **Production in emission-intensive industries and energy intensity in manufacturing**

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Production in emission-intensive industries (annual real growth rate index)	104.2	112.1	114.3	93.7	81.2	108.9	102.3	102.0	102.7	101.9
Manufacture of pulp, paper and paper products	102.5	99.0	98.5	89.8	89.8	101.3	100.7	97.0	100.3	102.3
Manufacture of chemicals, chemical products and an-made fibres	107.6	113.0	121.7	101.0	85.8	114.7	102.4	104.6	103.9	99.2
Manufacture of other non-metallic mineral products	93.1	106.2	105.8	102.5	72.4	98.7	90.7	95.9	98.3	105.0
Manufacture of basic metals	103.2	119.6	106.7	68.6	70.3	109.5	111.0	101.1	103.4	107.1
Production in manufacturing, excluding emission-intensive industries (annual real growth rate index)	103.9	104.8	107.1	104.7	81.3	106.1	102.0	98.3	98.0	104.7
Energy intensity in manufacturing (index 2005=100)	100.0	95.8	86.6	78.9	77.2	75.2	71.1	71.3	71.2	69.2
GHG emissions from industry (index 2005=100)	100.0	103.9	98.1	93.7	76.0	75.2	70.5	68.8	70.0	71.2

Source: SI-STAT Data Portal – National Accounts and Mining and Manufacturing (SURS), 2015; calculations by IMAD.

Figure: **The share of emission-intensive industries in manufacturing and the share of manufacturing in the value added of the economy, 2013**



Source: Eurostat, National Accounts, 2015.

[1] According to the World Bank methodology, these include the following NACE subsections: the manufacture of paper and paper products; the manufacture of chemicals and chemical products; the manufacture of cement, lime and plaster; the manufacture of other non-metallic mineral products; and the manufacture of basic metals.

[2] In Slovenia, these industries generated 26.6% of the total gross value added in manufacturing in 2013 (compared with 18.6% in the EU). Moreover, manufacturing also accounts for a larger share in the total value added of the economy (22.5%; in the EU, 15.3%). The shares of the chemical industry and basic metals, in particular, are higher than the EU average.

[3] Energy intensity is the ratio of the consumption of energy (fuels, electricity and heat) to value added, expressed at constant prices.

[4] The climate and energy package adopted in 2010 and the emissions trading system are likely to have a double effect on the costs for businesses: direct costs for the purchase of emission allowances and indirect costs paid through higher electricity prices.

4.4 Renewable energy sources

The share of renewable energy sources (RES) in final energy consumption is higher than the EU average, but is increasing slightly more slowly in the long term than in the EU. In Slovenia it increased more noticeably particularly in 2009, when final energy consumption fell by almost one-tenth because of the crisis, while the consumption of RES increased by around one-fifth.[1] Since then, growth has slowed significantly. In 2014 final energy consumption fell owing to the warm weather during the heating season; the consumption of RES for heating[2] declined even more. The share of RES thus dropped somewhat that year.[3] According to our estimates, final energy consumption did not change significantly in 2015. The consumption of RES also stagnated, reflecting lower production in hydroelectric power plants, above-average temperatures during the heating season and lower consumption of liquid fuels.

The share of RES in heating in Slovenia is twice as high as the EU average, with a higher share in electricity and a lower share in transport. As in the EU, the most widely used source of renewable energy for heating is wood, while the main renewable energy source for electricity production is hydropower. The share of energy from other renewable energy sources was also relatively low in Slovenia in 2014 (12%) compared with the EU, where this share was three times higher, owing partly to the intense exploitation of wind energy. This is also the main difference in their RES structures. Slovenia is also in the bottom quarter of EU countries (and far from the targets set) in terms of its share of RES in transport. In the last ten years, the use of RES in Slovenia increased by almost 30%, mainly on account of wood, biofuels and solar energy, which contributed 39 percentage points, 18 percentage points and 14 percentage points to growth, respectively.

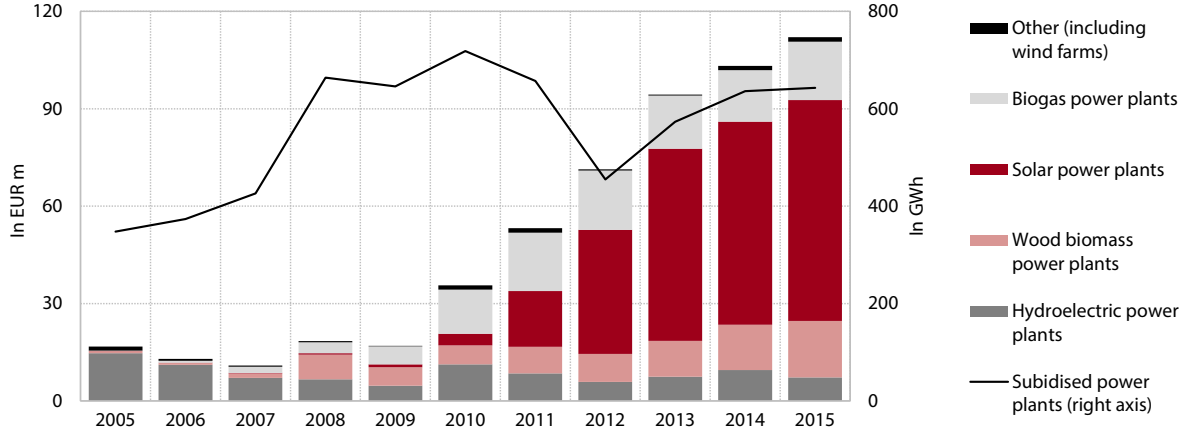
The amount of RES grants has been rising in recent years, particularly in the production of solar energy. In 2005 a total of EUR 16 million was devoted to grants for promoting electricity generation from RES, the bulk of which was intended for hydroelectric power plants. Since 2010 the amount of RES grants has been strongly rising, exceeding EUR 110 million in 2015, when the largest amount was allocated for solar power plants. With a shift towards more expensive energy sources, the amount of grants per unit of power generated from RES increased several fold.

Table: **Share of RES in gross final energy consumption, in %**

	2005	2008	2009	2010	2011	2012	2013	2014	2020 target*
SI total	16.0	15.0	20.0	20.5	20.2	21.0	22.5	21.9	25.0
EU total	9.0	11.0	12.4	12.8	13.1	14.3	15.0	16.0	20.0
SI in electricity	28.7	30.0	33.8	32.2	31.0	31.6	33.1	33.9	
EU in electricity	14.9	17.0	19.0	19.7	21.7	23.5	25.4	27.5	
SI in transport	0.4	1.4	2.0	2.8	2.1	2.9	3.5	2.6	10.0
EU in transport	1.4	3.6	4.3	4.8	3.4	5.0	5.4	5.9	10.0
SI in heating	19.0	19.2	27.3	28.4	30.2	31.7	33.7	33.3	
EU in heating	10.8	13.1	14.7	14.8	15.5	16.2	16.6	17.7	

Source: Eurostat Portal Page – Europe 2020 indicators, 2015. Note: * One of the three 20-20-20 environmental targets of the EU.

Figure: **Funds disbursed to support electricity production from RES, Slovenia**



Source: 2005–2012 Ministry of Infrastructure and Spatial Planning, 2013–2015 Borzen.

[1] The increase in the consumption of RES is also attributable to a broader capture of statistical data in this period.
[2] In recent years, the consumption of energy for heating has also declined as a result of more energy-efficient heat distribution systems and heating appliances, in addition to mild winter temperatures.
[3] Owing to the high water levels in 2014, Slovenia also recorded the highest electricity output in hydro-power plants thus far. According to the methodology, hydro-power production is normalised (i.e. averaged and distributed over a longer period of time), so that its contribution to growth in RES consumption did not offset the decline in the consumption of RES for heating.

4.5 Road freight transport

After declining since 2009, the share of road freight transport increased in 2015 and remained well above the EU average. In the EU it stagnated in the middle of the last decade, while in Slovenia it had been rapidly rising, so that Slovenia exceeded the EU average in 2005 and maintained a gap of around 6 percentage points as of 2009, before narrowing it slightly in 2014. In 2015 the number of tonne-kilometres performed by domestic hauliers increased significantly year-on-year, by 10%; the volume of rail transport rose considerably less in the same period, by around 2%. The share of road freight transport in total freight transport thus overshot 81% again. The volume of road freight transport exceeded the pre-crisis level by around one-tenth and the volume of rail freight transport by around 19%. From a sustainable development perspective, faster restructuring in favour of rail transport would be necessary, which would be best achieved through the implementation of railway infrastructure projects.

Slovenia has one of the largest freight transport volumes per capita in the EU, primarily owing to its transit location and the density of its transport infrastructure. Freight transport by domestic hauliers increased particularly significantly in 2003–2008. In 2014 domestic hauliers transported 2.3 times the amount of tonne-kilometres of freight per inhabitant transported by average hauliers in the EU. This increase is attributable to Slovenia's location at the crossing of the V and X pan-European transport corridors (where transport also expanded with the enlargement of the EU) and a highly developed motorway network, the largest in the EU in per capita terms. Slovenia also has a relatively high level of freight transport by rail where, alongside the extensive railway network, the connection with the port of Koper also plays a significant role with around 60% of freight transhipped in Koper transported by rail.

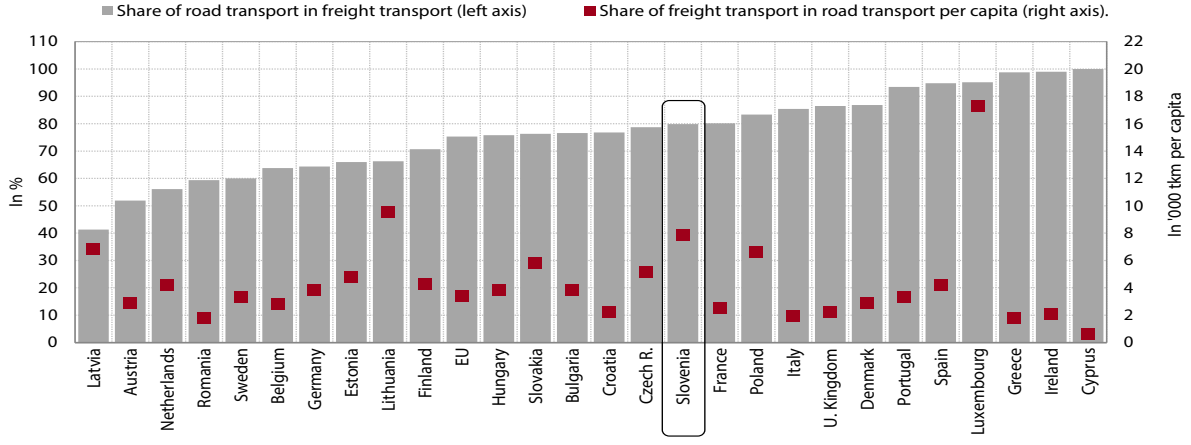
Slovenian hauliers perform more and more of their services abroad, while the share of freight transported by foreign hauliers on Slovenian roads is rising.[1] This trend also continued after 2008. In the period 2008–2014 the total distance of journeys made by Slovenian hauliers declined by more than 5%; the distance of journeys performed in the territory of Slovenia by all hauliers dropped by around 7%. Within that, the distance of journeys performed by Slovenian hauliers (solely) abroad increased by 26%, while the journeys made in the national territory and those at least partly connected to the territory of Slovenia (i.e. when goods are loaded or unloaded in Slovenia) declined by 16%. This means that transport by foreign hauliers on Slovenian roads expanded, which is also confirmed by data on the number of passages through toll stations,[2] according to which the share of foreign freight vehicles on Slovenian motorways rose by 15 percentage points to 68% in 2008–2012.

Table: **Share of road transport in total freight transport in tkm, in %**

	2000	2005	2008	2009	2010	2011	2012	2013	2014
Slovenia	71.9	77.3	82.2	84.0	82.3	81.4	82.1	80.7	79.8
EU*	73.7	76.4	76.3	77.5	76.2	75.6	75.2	75.4	75.4

Source: Eurostat Portal Page – Transport, 2015; for 2007–2013 calculations by IMAD. Note: *For some countries, data from previous years are taken into account in the calculations.

Figure: **Road freight transport in Slovenia and the EU***



Source: Eurostat Portal Page – Population and Social Conditions and Transport, 2015; calculations by IMAD. Note: *Data for Malta not available; data for some countries are from previous years.

[1] As there are no official statistical data on tonne-kilometres performed in individual countries, this is concluded from a comparison of vehicle-kilometres driven on Slovenian roads by domestic freight vehicles (source: SURS) and by all freight vehicles (source: Slovenian Infrastructure Agency).

[2] Freight vehicles registered at toll stations in the entire territory of Slovenia between 19 April 2008 and 26 April 2008, and between 4 May 2008 and 11 May 2008, DARS 2009; Proposals for the new price list, DARS 2013.

4.6 Waste

Having declined during the crisis, waste generation increased in 2013 and 2014. In 2014 approximately 4.7 million tonnes of different types of waste was generated in Slovenia, around 5% more than in 2012.[1] One fifth was *municipal waste*, i.e. waste from households and other waste of similar origin managed by the providers of mandatory local public services for environmental protection. After rising by about 15% in 2013, municipal waste increased by another 5% in 2014. The quantity of separately collected municipal waste, which is rising in the long term, increased to 65% of total waste generated. The other four-fifths was waste from *production and service activities.* After declining significantly at the onset of the crisis, the quantity of this waste has increased slightly since 2012. The vast majority of waste, around nine-tenths, was generated in four sectors: (i) manufacturing; (ii) construction; (iii) water supply, sewerage, waste management and remediation activities; and (iv) electricity, gas and steam supply.

Waste management continues to improve. The *total quantity of waste recovered* in 2014 amounted close to 6.1 million tonnes; after two years of decline, this was roughly the same as in 2010 and 2011. The actual amount recovered (excluding pre-treatment or removal and backfilling) was approximately 50% lower. *Recycling,* a very desirable form of recovery from an environmental perspective, amounted to nearly 2.7 million tonnes, which is 44% of total recovery. *Landfilling* is the least favoured option in the waste management hierarchy. The quantity of landfilled waste amounted to around 283,000 tonnes, almost one-tenth less than in 2013 and around 5% of the total amount recovered. The share of landfilled *municipal waste* decreased again, totalling around one-quarter in 2014, as two-thirds of municipal waste was already collected separately and as residual mixed municipal waste must be treated before going to landfill.

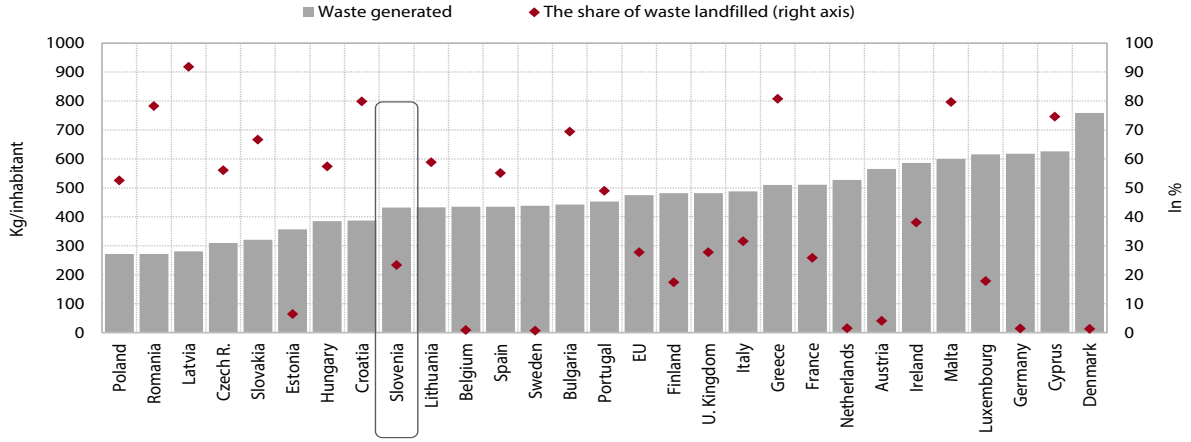
In terms of municipal waste generation, Slovenia performs better than the EU. In 2014 a total of 43 kg of municipal waste per person was generated in Slovenia, which is 9% less than the EU average. Compared with the EU, a larger share of municipal waste was recycled and a smaller share was landfilled; however, at the same time, a relatively large amount of waste remained in treatment (the "other treatment" category). In the EU, as many as six EU Member States have already reduced their share of landfilled municipal waste to below 5% of total waste generated.

Table: **Municipal waste generation and treatment, 2014**

	Generation, kg/ capita	Type of municipal waste treatment, in %				
		Recycling (without composting)	Composting	Incineration	Landfill	Other*
Slovenia	432	29.2	6.9	0.2	23.4	40.5
EU	475	27.6	15.8	26.7	27.8	2.1

Source: Eurostat Portal Page – Environment and Energy, 2016; calculations by IMAD.
Note: The 'other' category includes the pre-treatment and temporary storage of waste (waste treatment that remained unfinished in a given year).

Figure: **Municipal waste generated and landfilled, 2014**



Source: Eurostat Portal Page – Environment and Energy, 2016.
Note: Data for Romania, Ireland and Greece are for 2013.

[1] In 2012 the methodology was changed (certain waste types were reclassified as by-products).

4.7 Agricultural intensity

The consumption of mineral fertilisers and pesticides, which is declining in the long term, rose slightly in 2014. Agricultural producers used around 136,000 tonnes of mineral fertilisers in 2014, around a third of which were main macronutrients (NPK fertilisers, i.e. nitrogen, phosphorus and potassium). This was around 3% more than in 2013, but around 13% less or – per unit of utilised agricultural area (UAA) – around 11% less than the average for the last ten years. The total quantity of active ingredients in *pesticides* sold was approximately 1,000 tonnes; around two-thirds were used in agriculture, according to the preliminary estimate. Total pesticide sales were about 10% higher than in 2013, but 16% lower than the average for the last ten years. The majority of pesticides sold were fungicides for plant disease control, followed by herbicides for weed control.

Agricultural efficiency as measured by average yields of the most important crops fluctuates between the years depending on weather conditions, while agricultural efficiency as measured by the milk yield per animal is improving. Under the impact of very favourable weather conditions, the average yield per hectare increased for both main crops in 2014, by approximately one-fifth for wheat and two-thirds for maize. In both, this figure was also up on the ten-year average. As this was not too high, the increase may also indicate better exploitation of natural resources than in previous years. The relatively low average milk yield per animal is also rising in the long term, which is favourable from the perspective of the environmental burden per output. The total environmental burden per output measured by the number of animals per unit of agricultural area is relatively high but has been declining in the last few years according to surveys.

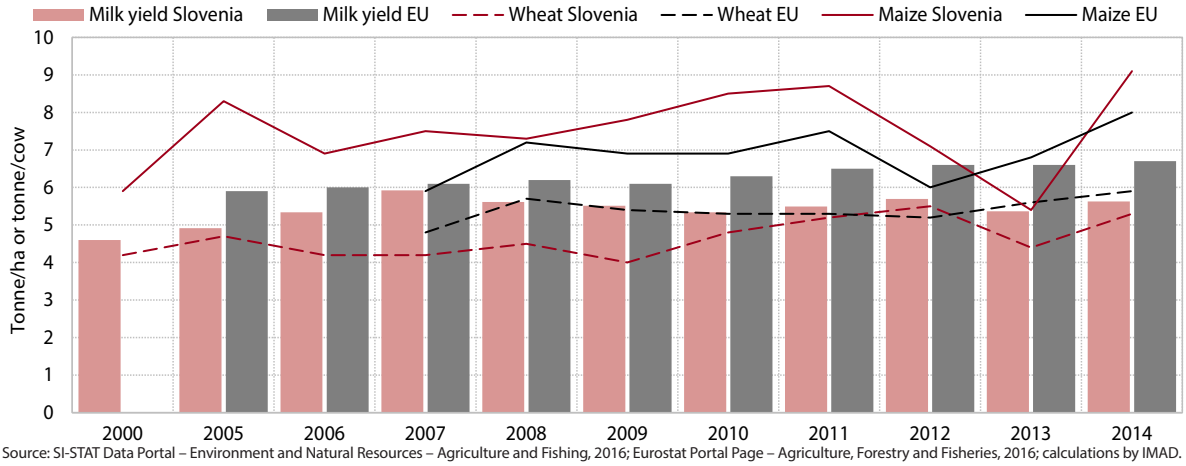
The share of agricultural holdings involved in controlled organic farming is rising and exceeds the EU average. Around 5% of agricultural holdings with around 9% of UAA were involved in controlled organic farming in 2014, which is less than planned but higher than the EU average. Only the area of agricultural holdings with a certificate for organic farming was up in 2014, while the area in conversion to organic farming declined. The largest share is accounted for by permanent grassland intended for animal production, but the fastest growth is recorded for other types of land, where production is driven by high demand. Under the impact of favourable weather conditions, total organic crop production rose notably in 2014; the production of animals was also up.

Table: **Consumption of NPK fertilisers and pesticides and the share of organic production area**

		2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
NPK fertiliser use, in kg/ha of UAA*	Slovenia	147	115	120	116	105	95	103	104	96	98	100
Pesticide sales, in thousand tonnes of active ingredient**	Slovenia	1.5	1.4	1.3	1.2	1.2	1.2	1.1	1.1	1.0	0.9	1.0
Organic production area as a share of UAA, in %	Slovenia	1.1	4.6	5.5	5.9	6.1	4.7	6.4	7.0	7.3	8.1	8.6
	EU	N/A	3.6	3.7	4.0	4.4	4.7	5.2	5.5	5.7	5.8	5.9

Source: SI-STAT Data Portal – Environment and Natural Resources – Agriculture and Fishing, 2016; Eurostat Portal Page – Agriculture, Forestry and Fisheries, 2016; calculations by IMAD.
Notes: *In 2010 the consumption of NP/UAA (excluding potassium) in Slovenia was 2.2% higher than in the EU (source of data: Eurostat). **The figure on the quantity of pesticides sold is the sum of active ingredients with very different toxicity levels, which makes international comparisons extremely difficult; N/A – not available.

Figure: **Average yields of main crops and milk production**



Source: SI-STAT Data Portal – Environment and Natural Resources – Agriculture and Fishing, 2016; Eurostat Portal Page – Agriculture, Forestry and Fisheries, 2016; calculations by IMAD.

4.8 Intensity of tree felling

Tree-felling is increasing in the long term, but in 2014 it was particularly pronounced as a result of emergency removals in the aftermath of the severe ice storm that year. Around 6.4 million m^3 of wood was cut in 2014, which is 62% more than in 2013 and almost twice the average annual removal since 2000. For the first time since measurements began, tree felling reached (and slightly exceeded) the potential for felling determined in the forestry management plans,[1] in contrast to previous years when only two-thirds of the felling permitted was carried out. As a consequence of severe ice damage, most of the removal (two-thirds) was for *sanitation* purposes, whereas *felling for tree-tending purposes*, which normally accounts for the largest share, declined. Amid a renewed slight increase in the annual wood increment, the tree-felling intensity rose significantly in 2014, by 28 percentage points, to 74%.[2] In terms of volume (but not structure), this figure is very close to that envisaged in the action plan,[3] according to which the tree-felling intensity could be increased to 75%, and 6.5 million m^3 of wood could be cut per year without jeopardising sustainable development.

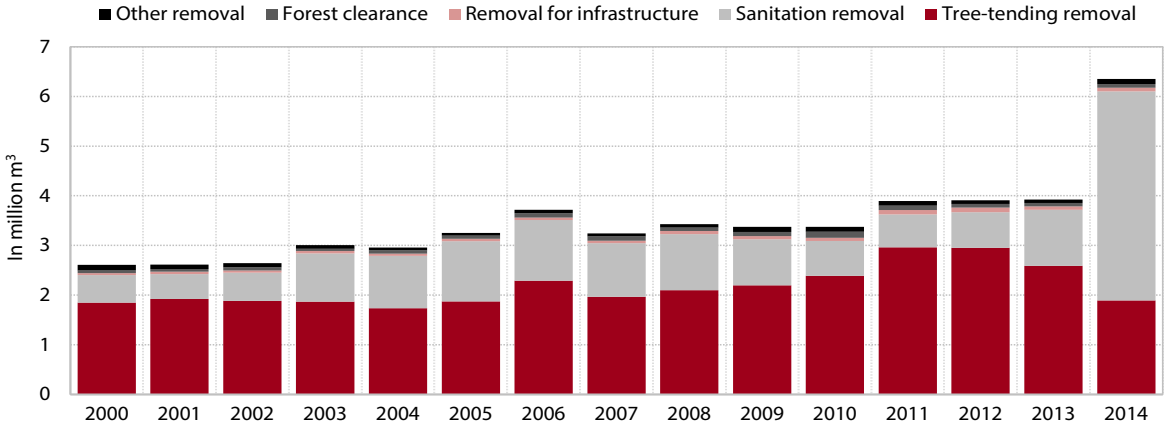
The increased felling is reflected in the higher production of raw wood categories and, in turn, higher net exports; the untapped potential in the forest-wood chain remains relatively large. In 2014 around 5.3 million m^3 of roundwood (i.e. unprocessed wood) was obtained, approximately 50% more than in 2013 and 85% more than the average since 2000.[4] The consequences of the ice storm were strongly reflected in the structure of industrial wood: the volume of *pulpwood*, which is low-quality wood that generates low value added, rose the most, while the volume of the highest quality wood, *sawlogs and veneer logs*, increased the least. With around half of the year-on-year increase in unprocessed wood production being exported, total annual wood exports – which had been growing for a long period – rose by 54%. As total imports contracted by around one-fifth, net wood exports almost doubled, reaching 1.9 million m^3. Within those, net exports of the highest-quality wood also expanded notably (by 60% or almost 400,000 m^3), although its production increased the least (by 25% or 420,000 m^3).

Table: **Intensity of tree felling, ratio**

	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Slovenia	38.0	43.0	48.6	41.4	43.6	42.3	41.6	47.1	46.4	46.2	74.0
EU	61.0	65.0	N/A	N/A	N/A	N/A	62.7	N/A	N/A	N/A	N/A

Source: Eurostat Portal Page – Agriculture, Forestry and Fisheries, 2016; SI-STAT Data Portal – Environment and Natural Resources – Forestry and Hunting, 2016; calculations by IMAD.
Note: N/A – not available.

Figure: **Tree felling and the structure of wood by category, Slovenia**



Source: SI-STAT Data Portal – Environment and Natural Resources – Agriculture and Fishing, 2016; Slovenia Forest Service; calculations by IMAD.

[1] The potential (or allowable) felling is determined in the forestry management plans of the Slovenia Forest Service with a view to ensuring sustainable development, i.e. the long-term stability of all forests and their habitats irrespective of ownership.
[2] The intensity of tree felling is calculated as the ratio of annual felling to annual wood increment.
[3] 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).
[4] The quantity obtained is dependent on the quantity of felled wood and its utilisation rate, which in turn depends on the type of trees and the structure of wood categories.

4.9 Environmental taxes

In 2014 revenue from environmental taxes as a share of GDP declined slightly after several years of almost uninterrupted growth, but was still significantly higher than before the crisis due to the high excise duties on energy. As a result of higher excise duty rates[1] and higher or new other taxes (the introduction of the CO_2 tax on motor fuels, the sale of emission allowances, the increase in annual road user charges), revenue from environmental taxes relative to GDP was 0.9 percentage points higher in 2014 than in 2008 and 0.7 percentage points higher than in 2005. In 2014 this figure fell slightly owing to the growth of revenue from excise duties on liquid fuels[2] lagging behind GDP growth and a small decline in the inflows of taxes on environmental pollution (partly due to a reduction in the tax on the use of fluorinated greenhouse gases).

More than three-quarters of environmental taxes are accounted for by energy taxes, with taxes on pollution and transport gaining importance in recent years. Revenue from *taxes on energy* accounted for 77% of environmental taxes collected in 2014, the bulk being from excise duties on liquid fuels. Their consumption is relatively high in Slovenia, given the large volume of transit and other road transport, which is related, among other things, to its dispersed settlement pattern and poorly developed public transport infrastructure.

In the past few years, a somewhat higher share of environmental tax revenues was raised from: (i) *taxes on transport*, which reached a 12% share in 2014, the bulk arising from annual road user charges; and (ii) *taxes on pollution*, which accounted for a 9% share in 2014 as a result of the more broadly based tax on CO_2 emissions. The share of *taxes on the use of natural resources*, which is low, was stable. Most of the environmental tax burden, around two-thirds, was borne by households, which can be attributed in part to methodological simplification, according to which most of motor fuel consumption, and hence energy taxes, is ascribed to households.

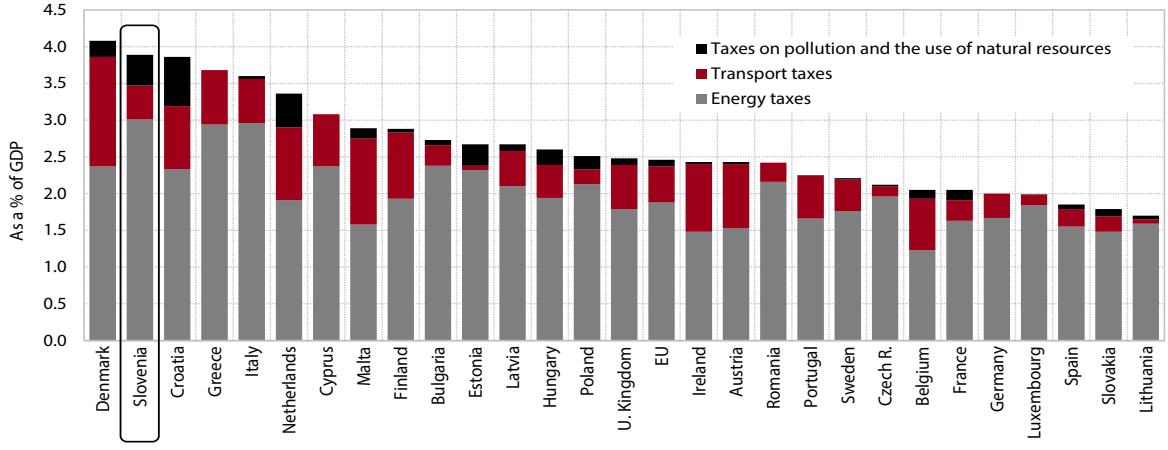
Among EU Member States, only Denmark outpaces Slovenia in terms of its environmental tax burden relative to GDP. In 2014 revenue from environmental taxes as a share of GDP was 1.4 percentage points higher in Slovenia than the EU average. The high share is mainly due to the extensive use of motor fuels in road transport, with the tax rate on energy also being relatively high. Totalling EUR 236.4 per tonne of oil equivalent of final energy consumption, the implicit tax rate on energy in 2014 was only slightly above the weighted EU average and 17% above the unweighted EU average.

Table: **Environmental tax revenues, as a % of GDP, Slovenia and the EU**

	2000	2005	2008	2009	2010	2011	2012	2013	2014
Slovenia	2.88	3.15	2.95	3.49	3.62	3.46	3.83	3.97	3.89
EU (weighted average)	N/A	2.51	2.29	2.36	2.37	2.40	2.44	2.45	2.46

Source: Eurostat Portal Page – Environment and Energy, March 2016).
Note: N/A – not available.

Figure: **Revenue from environmental taxes, Slovenia and the EU, 2014**



Source: Eurostat Portal Page – Environment and Energy.

[1] In 2014 the average excise duty rate (calculated as the average of daily rates) for petrol was 45% higher than in 2008, and for diesel fuel 38% higher than in 2008. With the sharp increase in excise duty rates in 2009, the option to obtain a partial refund of excise duties paid on diesel fuel used for commercial purposes was introduced (up to the minimum amount set in the EU energy directive).
[2] In 2014 the average excise duty rate for diesel fuel was around 2% higher year-on-year and for petrol around 1% lower.

4.10 Regional variation in GDP per capita

Economic activity measured by the real GDP growth rate was positive in 2014 in all regions except the Zasavska region. The highest economic growth rates were again recorded by the Gorenjska and the Primorsko-notranjska regions.[1] In the Zasavska region, economic growth was still negative, but to a lesser extent than in 2013. At around 58% of the national average, Zasavska also recorded the lowest GDP per capita. The Osrednjeslovenska region was again the only region that surpassed the national average, by around 42%.

Having widened during the crisis, Slovenia's gap with the EU average in GDP per capita narrowed in 2014 in both cohesion regions. Zahodna Slovenija was close to the EU average, while Vzhodna Slovenija lagged more than 30% behind (in 2008, Zahodna was at 108% and Vzhodna at 73% of the EU average in this comparison).[2] After 2008 the gap with the EU average widened across all regions,[3] notably those of Zahodna Slovenija, particularly the Obalno-kraška region. In 2014 the latter increased its gap relative to 2008 by 14 index points. Among the regions of Vzhodna Slovenija, Zasavska widened the gap the most, by 15 index points. In all regions these developments reversed in 2014, as none of the regions increased their gaps. One of the regions, Osrednjeslovenska, exceeded the EU average throughout the period under observation. In 2014 it surpassed it by 17%, which was 12 index points less than in 2008.

The crisis had a seemingly favourable impact on interregional disparities, which have narrowed since peaking in 2010. According to our calculations, the relative dispersion of GDP per capita[4] has been decreasing since 2010, but not as a result of a balanced regional development policy. The decline is attributable instead to a larger fall in economic activity in those regions that generate the largest share of Slovenia's GDP and also have the highest GDP per capita. The relative dispersion in Slovenia is one of the lowest in the EU. The ratio between the two regions with extreme values of per capita GDP is also relatively low compared with other countries in the EU, where the differences may even be 10-fold (e.g. the United Kingdom), but this is understandable given Slovenia's small size. In 2014 the trends from previous years continued in Slovenia and the ratio increased only slightly, from 1:2.4 to 1:2.5.

Table: **Regional GDP, Slovenia**

Cohesion/statistical region	GDP per capita						Real GDP growth, in % 2014 (SLO=3%)	GDP, in % 2014 SLO=100%
	Slovenia = 100					EU = 100		
	2010	2011	2012	2013	2014	2014		
Zahodna Slovenia	***121.2***	***120.2***	***120.1***	***119.7***	***119.3***	***98***	***3.2***	***56.0***
Obalno-kraška	***108.7***	***106.1***	***101.4***	***98.3***	***97.6***	***80***	***2.7***	***5.3***
Goriška	93.6	92.2	91.1	90.6	90.5	75	2.3	5.2
Gorenjska	82.8	82.9	83.3	85.6	87.5	72	5.2	8.7
Osrednjeslovenska	145.3	144.2	145.1	144.0	142.4	117	2.9	36.8
Vzhodna Slovenia	***81.7***	***82.5***	***82.5***	***82.7***	***82.9***	***68***	***2.9***	***44.0***
Primorsko-notranjska	***70.5***	***69.9***	***68.8***	***70.2***	***71.7***	***59***	***5.1***	***1.8***
Jugovzhodna Slovenia	95.2	94.9	93.9	95.0	96.1	79	3.9	6.6
Posavska	81.6	82.9	83.2	84.0	82.4	68	0.3	3.0
Zasavska	61.0	60.5	58.7	58.8	57.7	47	-2.5	1.6
Savinjska	90.6	91.8	91.9	91.5	91.9	76	3.3	11.3
Koroška	74.2	76.6	78.7	79.5	80.1	66	2.9	2.8
Podravska	82.5	83.0	82.9	82.6	82.6	68	3.1	12.9
Pomurska	64.2	66.0	67.1	68.0	67.8	56	2.0	3.8
Dispersity of GDP per capita (NUTS 3)	***23.8***	***23.1***	***23.1***	***22.5***	***21.9***			

Source: SI-STAT Data Portal – Economy – National Accounts – Regional gross domestic product, 2014, Eurostat – General and Regional Statistics, 2016; calculations by IMAD.

[1] Under Regulation (EU) No. 1319/2013, the following amendments to the NUTS classification entered into force: the Notranjsko-kraška region was renamed Primorsko-notranjska and the Spodnjeposavska region was renamed Posavska. Moreover, the borders of four NUTS 3 regions were changed: the municipality of Litija was excluded from Osrednjeslovenska and joined with Zasavska, while the municipalities of Radeče and Bistrica of Sotli passed from Savinjska to Posavska. The borders of NUTS 2 regions were also changed accordingly. The amendment applies from 1 January 2015; the data for previous years were not adjusted

[2] Under the EU cohesion policy, those regions at the NUTS 2 level with a GDP per capita less than 75% of the EU average are considered less developed.

[3] The only exception is the Osrednjeslovenska region, which still exceeds the EU average. However, this share has also declined.

[4] 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 and expressed as a percentage of national GDP per capita.

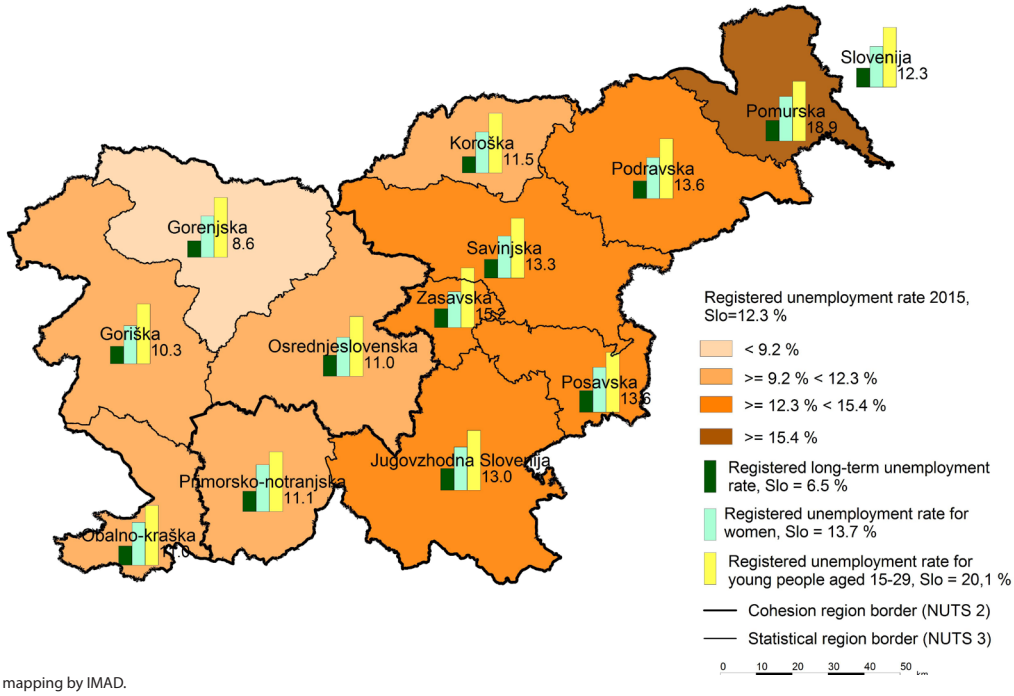
4.11 Regional variation in the registered unemployment rate

In 2015 the registered unemployment rate continued to fall in all regions, except Pomurska. The largest decline was recorded by the Zasavska region; however, this was mainly a statistical effect because, under the new NUTS 3 regulation,[1] Zasavska now also includes Litija, a municipality with a below-average registered unemployment rate, while the other three municipalities of this region still have above-average rates. The registered unemployment rate in the Zasavska region declined by 2.5 percentage points (but by only 1 percentage point excluding these changes). Not including the statistical effect, the registered unemployment rate dropped the most in the Koroška region, by 1.5 percentage points. Above-average rates were recorded by the same regions as in the previous year, all of which, with the exception of Primorsko-notranjska, are located in the cohesion region of Vzhodna Slovenija. The highest rate was posted by the Pomurska region, where it rose by 0.5 percentage points to 18.9% and surpassed the national average by more than half. The lowest rate, almost a third below the national average, was once again recorded in the Gorenjska region (at 8.6%).

Interregional disparities in the registered unemployment rate measured by absolute dispersion[2] have been stable in the last four years. In the early years of the crisis, interregional disparities had been rising, reaching their peak in 2010, when the dispersion rate was 2.4%. After 2010, however, they declined, owing to a faster increase in unemployment in those regions of Zahodna Slovenija with below-average rates; in the last four years, they remained relatively stable, with small year-on-year fluctuations. In 2015 they amounted to 1.8% of GDP, which is 0.1 percentage points more than a year earlier. On the other hand, the ratio between the two regions with extreme values increased from 1:1.9 to 1:2.2, reflecting the higher rate of registered unemployment in the Pomurska and the lower rate in the Gorenjska region.

In all regions, young people were the group of unemployed that was disproportionately affected by the contraction of the labour market during the crisis. After 2013, when the total registered unemployment rate had already started to fall across the regions, the registered unemployment rate for young people aged 15–29 had still been rapidly rising, especially in the Zasavska, Primorsko-notranjska and Osrednjeslovenska regions, and reached its peak in 2014. In 2015 it otherwise declined in all regions, the most in Zasavska (by 5.5 percentage points), but was still at least 1.5 times as high as the total rate. It was highest in the Pomurska region, at 29.8%, which is 2.2 times as much as in the Gorenjska region, which has the lowest rate.

Map: **Registered unemployment rates by region, 2015**



Source: SMARS, SURS, mapping by IMAD.

[1] See note 1 in the indicator 4.10 Regional disparities in GDP per capita.

[2] Absolute dispersion:

$$AD_{Rt} = \sum_{r} \left(\frac{A_{rt}}{A_{Rt}}\right) |SB_{rt} - SB_{Rt}|$$

where t = year,
A_r = the active population of the region,
A_R = the active population of Slovenia,
SB_r = the registered unemployment rate of the region,
SB_R = the registered unemployment rate of Slovenia.

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List of acronyms and abbreviations used

ARSO = Slovenian Environment Agency
BAMC = Bank Assets Management Company
Cedefop = European Centre for the Development of Vocational Training
CH_4 = methane
CIT = corporate income tax
CMMAC = common methodology for measuring administrative costs
CO_2 = carbon dioxide
CPC = Commission for the Prevention of Corruption
CPI = consumer price index
DARS = Motorway Company of the Republic of Slovenia
DRSI = Slovenian Infrastructure Agency
EBITDA = earnings before interest, taxes, depreciation and amortization
EC = European Commission
ECB = European Central Bank
EMU = Economic and Monetary Union
EPO = European Patent Office
ESA = European System of Accounts
ET 2020 = Education and Training 2020
EU = European Union
EUR = euro
EUROAC = Academic Profession in Europe: Responses to Societal Challenges
EUROSTAT = Statistical Office of the European Union
FDI = foreign direct investment
FURS = Financial Administration of the Republic of Slovenia
GDP = gross domestic product
GEM = Global Entrepreneurship Monitor
GERD = gross domestic expenditure on research and development
Gg = gigagram (1000 tonnes)
gha = global hectare
GHG = greenhouse gases
GURS = Surveying and Mapping Authority of the Republic of Slovenia
ha = hectare
HIIS = Health Insurance Institute of Slovenia
ICT = information and communication technology
IER = Institute for Economic Research
IMAD = Institute of Macroeconomic Analysis and Development
IMD = Institute for Management Development
IMF = International Monetary Fund
ISCO = International Standard Classification of Occupations
ITR = implicit tax rate (on labour, capital, consumption, and energy)
LFS = labour force survey
MGRT = Ministry of Economic Development and Technology
MRA = master restructuring agreement
N_2O = nitrous oxide
NKBM = Nova Kreditna Banka Maribor
NLB = Nova Ljubljanska Banka

NMS (new member states) = countries that have joined the EU since 2004
NPP fertilisers = mineral fertilisers containing nitrogen, phosphorus and potassium
NUTS classification = nomenclature of territorial units for statistics
OECD = Organisation for Economic Cooperation and Development
OHIM = Office for Harmonization in the Internal Market
OP ROPI = Operational Programme for Environmental and Transport Infrastructure Development
PDII = Pension and Disability Insurance Institute of Slovenia
PM = particulate matter
PMR = product market regulation
pp = percentage point
PPS = purchasing power standard
R&D = research and development
RES = renewable energy sources
RS = Republic of Slovenia
SEF = Slovene Enterprise Fund
SHARE = Survey of Health, Ageing and Retirement in Europe
SID Bank = Slovenian Export and Development Bank
SIPO = Slovenian Intellectual Property Office
SKD = Standard Classification of Activities
SME = small and medium-sized enterprises
SPIRIT = Public Agency for Entrepreneurship, Internationalization, Foreign Investments and Technology
SSH = Slovenian Sovereign Holding
SURS = Statistical Office of the Republic of Slovenia
TAXUD = Taxation and Customs Union Directorate
TEA = total early-stage entrepreneurial activity
TEŠ = Šoštanj Thermal Power Plant
tkm = tonne-kilometre
UAA = utilised agricultural area
USD = US dollar
VAT = value added tax
WEF = World Economic Forum
WIPO = World Intellectual Property Organization
ZGD = Companies Act
ZPIZ-2 = Pension and Disability Insurance Act, December 2014
ZUJF = Fiscal Balance Act

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