

# development report 2010

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## Introductory remarks

*The Development Report is a document that monitors the realisation of Slovenia's Development Strategy (SDS) adopted by the Slovenian Government in June 2005. SDS set out the vision and objectives of Slovenia's development until 2013, classifying them into five development priorities with action plans. This year, the report presents an overview and an estimate of the implementation of the strategy from its adoption up to 2009, except in cases where the latest data are only available for earlier years (2008, and rarely, 2007). Given that this is an annual report, emphasis has been placed on changes that occurred in the last year for which data were available. The Slovenian Government took note of the Development Report 2010 at its 79<sup>th</sup> regular session of 29 April 2010 and accepted it as the expert basis for its economic and development policies.*

*The development report is divided into two parts: part I presents an overview of the implementation of SDS in the five development areas; part II documents progress by means of indicators. The findings in the report are mostly based on results obtained through the set of indicators that were designed to monitor development. We have also consulted other sources (national and international research, reports on the implementation of sectoral strategies and programmes), particularly in areas where no relevant indicators were available due to a shortage of data. The appendix contains a quantitative aggregate assessment of development, which supplements the expert approach of the report, though it cannot replace the comprehensive assessment of progress in individual areas, given the time and geographical limitations in the availability of data necessary for calculation.*

The report is based on official statistical data of domestic and foreign institutions available by the beginning of April 2010. In the analysis, Slovenia was mostly compared with the 27 countries of the EU, and only exceptionally with the EU-25 average, if data for the most recent EU Member States, Bulgaria and Romania, were not yet available. The terms "European average" or "EU average" thus refer to the group of EU-27 countries; the term "old Member States" refers to the EU-15 group, whereas the EU-12 (or EU-10) countries that joined the European Union after the latest enlargement rounds in 2004 and 2007 are referred to as the "new Member States".





## Main findings

**SDS guidelines:** Slovenia's Development Strategy (SDS) defines the country's four key development goals: (i) the economic development goal – to reach the average level of economic development in the EU in 10 years;<sup>1</sup> (ii) the social development goal – to improve the quality of living and welfare; (iii) the intergenerational and sustainable development goal – to apply the principles of sustainability in all areas of development, including sustained population growth; and (iv) Slovenia's development goal in the international environment – to become an internationally distinctive and established country.

<sup>1</sup> As at the time of SDS adoption (2005), the most recent figures for GDP per capita in purchasing-power parity were available for 2003, Slovenia's objective to achieve the average level of economic development in the EU in 10 years refers to 2013.

*In 2009, the implementation of the SDS goals in the field of economic and social development was interrupted by the economic crisis. The crisis almost wiped out progress in the field of economic and social development resulting from strong gross domestic product (GDP) growth and rising employment in the period of favourable economic trends, when Slovenia failed to take advantage of the opportunities for radical changes to facilitate technological breakthroughs and sustainable development. The crisis has exposed numerous structural weaknesses, particularly the fact that Slovenia's GDP growth is overly dependent on low-technology industries and traditional services, which limit the competitive edge of its economy. A quick return to the trajectory of economic recovery and improvement of the population's welfare is therefore a great challenge for Slovenia, especially as the economic crisis severely affected the medium-term fiscal position and availability of sources of finance, and as the level of potential GDP also dropped. Relatively low growth of economic activity and employment in the coming years will be reflected in modest growth in general government revenue, which will make the consolidation of public finances even harder. Active measures also involve reducing pressures on the environment where major shifts have yet to be seen and where Slovenia is also bound by its obligations within the EU. Even if Slovenia is not able to realise fully its development strategy by 2013, given the difficult economic situation, it must nevertheless set ambitious targets for the next decade, focussing its key policies on their realisation as soon as possible.*

*After the significant decline of economic activity in 2009, the level of GDP per capita in purchasing-power parity, used to monitor the realisation of the **central economic goal of SDS**, declined in comparison with the EU average. After four years of accelerated growth, GDP plummeted in 2009 under the impact of the global economic crisis. Recording a much steeper GDP decline than the EU as a whole, Slovenia slipped further behind<sup>1</sup> the EU average to the level of 2007. That economic activity dropped more notably in Slovenia than in the EU average was to a great extent attributable to the strong economic cycle in previous years (particularly in construction), followed by a relatively steep decline as a result of the crisis, as well as to the structural weaknesses of the Slovenian economy (especially a relatively large share of low- and medium-technology industries), which contributed to a larger contraction of exports in the time of crisis and tougher international competition. The large decline in export activity at the onset of the economic crisis also translated into a loss in export competitiveness (a decline in market share), which was expected, given the insufficient technological restructuring of the economy in the period of strong economic growth and the relatively high lag behind the more advanced countries in terms of productivity. During the economic crisis, we have therefore witnessed what is called passive restructuring, i.e. intensive changes in the economic structure brought about by the failure of less competitive sectors of the economy, rather than planned efforts aimed at restructuring and creation of high value-added jobs. The insufficient competitive capacity of the economy has also been a consequence of insufficient consolidation of factors relating to efficient use of knowledge in economic development in the implementation of SDS to date. Amid a rapid increase in the participation of young people in tertiary education, Slovenia has almost achieved the objective of SDS in this area, but given the low efficiency of studies, the share of the population with a tertiary education has grown only modestly, and Slovenia has moved away from the EU average in recent years. Furthermore, improvement in the competitiveness of the economy is also hampered by an imbalance between the supply and demand for a tertiary-educated labour force. In the area of research and development, there have been positive shifts regarding R&D spending, innovation activity and the number of patents, but given the initial lag, they have yet to contribute to Slovenia's catching-up with developed countries or to a major*

<sup>1</sup> In terms of GDP per capita in purchasing-power parity.

breakthrough in the competitiveness of the economy. One of Slovenia's major weaknesses is insufficient knowledge transfer between R&D institutions and businesses, reflected in low efficiency of expenditure on research and development and a lack of co-ordination in measures aimed at boosting innovation capacity. In previous years, the government helped enhance the competitiveness of the economy by measures improving the efficiency of the state, reducing the tax wedge on earnings, and there were also certain positive shifts regarding administrative burdens. The unfavourable ownership structure of the economy is still one of the main downsides. As regards the quality of public finances, 2009 saw changes in the system of drafting the state budget, which represents a framework for developmental restructuring of general government expenditure. Setting development priorities in public finances is a key priority, especially at a time when Slovenia has to cope with a rapidly deteriorating public-finance position. The general government deficit had already widened in 2008 as a result of a lower tax burden and higher expenditure on wages and social transfers, while in 2009, the fiscal position deteriorated dramatically mainly as a consequence of the economic and financial crisis. General government debt also surged. Along with weaknesses related to the competitiveness of the economy, unfavourable public-finance movements thus pose the greatest risks to faster growth and development of Slovenia's economy in the years to come. The economic rebound may also be negatively affected by a potential deterioration of the stability of the banking sector in case of a pronounced increase in banks' exposure to non-performing loans due to the unfavourable economic situation.

*In terms of reaching the **central social goal of SDS**, a sustainable increase in the welfare and the quality of living, the period of the crisis mainly brought stagnation and deterioration, which was mitigated by the government with anti-crisis measures. After the living conditions of most of the population had been increasing gradually for several years, the economic crisis brought about a rapid deterioration on the labour market, which had a negative impact on the living conditions of the population. The labour-market situation had already started to deteriorate towards the end of 2008, a year that was also characterised by lower growth in disposable income. The risk of poverty rose somewhat, but remains relatively low. The increase in material deprivation was more pronounced. Satisfaction with life declined. After a significant improvement in the period of favourable economic trends, the labour-market situation deteriorated significantly in 2009. Unemployment rose while employment declined, which pushed Slovenia further away from the realisation of the target of reaching a 70% employment rate by 2013. As the labour-market situation will start improving gradually and with a lag, once the economy recovers, this goal is not expected to be realised by 2013. Wage growth in 2009 was lower than in previous years and the number of recipients of various social benefits increased significantly as a result of higher unemployment. Intervention measures put in place by the government prevented a further deterioration of the situation (subsidies to preserve jobs, a higher volume of active employment-policy programmes, special allowance for socially disadvantaged people). The social-protection system experienced no systemic changes in 2009, but the situation again confirmed that the pension, health care and long-term care systems were in a pressing need of changes to improve their efficiency and to ensure sustainability of the public finances. Nor were there any systemic changes conducive to a faster development of the flexicurity concept, in which special attention should be devoted to promoting life-long learning and all forms of education and training. In this time of crisis, it would also be reasonable to increase the income security of employees. Intensive preparation of systemic changes has been underway in all areas since 2009 (labour market and social protection), and the necessary legislative procedures may be launched in 2010. Positive trends in access to services of general interest largely continued.*

*As regards the principle of sustainability, which is the **intergenerational and sustainable goal of SDS**, after increasing significantly in the time of economic boom, environmental pressures abated somewhat in 2009 as a result of lower economic activity as well as tougher policy measures put in place to achieve environmental goals. Facing the consequences of population ageing is also one of the major challenges of sustainable development. In 2008, environmental pressures increased most notably in transport. This was also reflected in a deterioration of the energy intensity of Slovenia's economy in 2008, which is nevertheless much higher than the EU average, despite the improvement in 2006 and 2007. Significant growth in greenhouse-gas emissions, which has also mainly resulted from increased traffic in recent years, continued in 2008. However, energy consumption per unit of value added in manufacturing continued to decline, most notably in precisely those industries that are most burdensome for the environment. The share of the use of renewable energy sources increased in 2008, and also in 2009 (according to our estimate), after declining for several years. In 2009, pressures on*

the environment diminished, amid the decline in economic activity, and there was also progress in policies supporting electricity generation from renewable sources and efficient energy use. Waste management also improved slightly, according to the most recent data (for 2008), but a decisive move towards more sustainable development has yet to be made, particularly in the field of municipal waste. Regarding sustained population growth, the period since 2005 has been characterised by a growing number of inhabitants, particularly due to increasing net migration, with the fertility rate also increasing since 2004. However, in 2009, both factors had already weakened. Life expectancy is also rising, and thus also the proportion of old people in the population, which is still below the EU average, but will soon start rising rapidly, according to projections. Regional disparities in development have not changed significantly and are moderate, compared with those in other EU countries. Regional disparities in unemployment, which tend to be more volatile, declined in 2009, as the economic crisis also affected regions with lower unemployment rates; all regions saw higher unemployment rates than in previous years. Absorption of cohesion funds, which is particularly important for regional development in times of crisis, improved in 2009, but receipts from the EU budget were still much lower than planned. Spatial development is marked by strong sub-urbanisation, which adds pressure on the environment and weakens regional hubs. The year 2009 saw certain statutory amendments towards better spatial management, and a new act is being prepared to facilitate the placing of infrastructure.

*In a time of economic crisis, catching up with more advanced countries is an even greater challenge for Slovenia than in the years of strong economic growth. With fewer possibilities available, it is necessary to make immediate **strategic shifts** to improve economic competitiveness amid a concurrent consolidation and restructuring of public finances.* Enhancing competitiveness is vital for Slovenia to achieve sustainable economic recovery and further economic development. The failing non-competitive sectors of the economy should thus be more rapidly replaced by high-technology and knowledge-based industries. Such changes in economic structure would enable creation of new jobs with higher value added, which is essential to increase the population's welfare. All this will crucially depend on policies promoting entrepreneurship and development of small and medium-sized enterprises (SMEs) and attracting foreign direct investment. At the same time, it is necessary to improve the capabilities of the economy to create higher value added per employee by education and research and development (R&D) policies. Even if Slovenia had already made numerous positive shifts regarding effective use of knowledge, changes were not as profound as in more developed countries in the EU and across the world. Besides ensuring a higher volume of public funds, it is particularly important to improve the efficiency of public spending on R&D, as well as education, particularly tertiary education, which also involves adjustment of programmes and methods to the needs of the future development of the society and the promotion of life-long learning. In line with development priorities, but also from the labour-market perspective, it is also worth encouraging job creation in social care and social protection, as well as protection of the environment. For sustainable recovery and development, it is also necessary to consolidate public finances as soon as possible, which mainly involves measures to reduce general government expenditure with concurrent restructuring of public finances towards Slovenia's development priorities (enhancing competitiveness, transition to a knowledge-based and low-carbon society, coping with the challenges of the ageing society), increasing the efficiency of public administration and improving the capacity to absorb EU funds. In view of the exceptional deterioration in fiscal stance, it is also necessary to speed up the preparation of reforms of the social-protection system, which had already been planned to address the challenges of the ageing society in previous years, but had not been put in place as the favourable economic trends masked the urgency of changes in these areas (pension and health-care and long-term care systems). Under the pressure of the swelling general government debt, which will jeopardise the medium- and long-term stability of the public finances if the current trends continue, it will be all the more necessary to reduce and restructure general government expenditure during the process of consolidation.

*At the beginning of 2010, the Slovenian government adopted strategic economic policy guidelines and proposals for structural changes, the successful implementation of which will play a significant role in how quickly Slovenia emerges from the crisis.* The Stability Programme – 2009 Update and Slovenian Exit Strategy 2010–2013 envisage a gradual withdrawal of anti-crisis measures, consolidation of public finances, institutional adjustments and other structural changes to ensure the consistency of short-term anti-crisis measures with long-term strategic objectives in pursuit of SDS goals, with immediate and effective operationalisation of measures playing a crucial role.



# **Part I Development by the priorities of Slovenia's Development Strategy**



# 1. A competitive economy and faster economic growth

**SDS guidelines:** A competitive economy and faster economic growth are the foremost development priority of SDS, which encompasses the following objectives: ensuring macroeconomic stability,<sup>1</sup> promoting entrepreneurial development and increasing competitiveness, and increasing the competitiveness of services. The first objective, *ensuring macroeconomic stability*, focuses on three core tasks: to increase the adaptability of fiscal and income policies, to ensure the long-term sustainability of public finances, and to maintain price stability. The second objective, *increasing competitiveness and promoting entrepreneurial development*, focuses on the development of areas in which Slovenia has a competitive advantage, encouraging entrepreneurship and the development of SMEs, the promotion and development of an innovative environment and a culture of innovation, and internationalisation and competition in the network-industries market. The third objective, *increasing the competitiveness of services*, prioritises the need to boost the factors of effectiveness in services and simplify the administrative framework for their provision. A special emphasis is placed on those services most closely linked to business operations (business, financial, distributive and infrastructural services) because they have the greatest impact on the economy's productivity and competitiveness.

<sup>1</sup> Concrete SDS objectives in this area are successful participation in ERM II and adoption of the euro, which was achieved by Slovenia in 2007. Since Slovenia's entry to EMU, it has therefore been more sensible to set the preservation of macroeconomic stability as the primary goal.

**Slovenia's development gap to the EU widened amidst the economic crisis, pushing the realisation of the main economic development goal of SDS further into the future. Without an improvement in competitiveness, it will be difficult to catch up further in the coming years.** Slovenia's GDP in purchasing-power parity per inhabitant achieved 91% of the EU average according to the latest Eurostat data, and 88% of the average of the 25 countries that were Member States of the EU when SDS was adopted (2005). From 2003, the reference year for monitoring the implementation of the main economic goal of SDS,<sup>2</sup> Slovenia narrowed the gap to the EU average by

<sup>2</sup> The principal economic goal of SDS is to reach the average development level in the EU, measured in GDP per inhabitant in PPS, in ten years (the ten-year period starts with 2003, the latest year for which data was available when SDS was adopted).

8 p.p. Preliminary Eurostat estimates show that the gap widened by 2 p.p. in 2009, taking Slovenia back to the 2007 level in terms of GDP per inhabitant in PPS (89% of the EU average). Until 2008, the narrowing of the development gap had been underpinned by relatively high (compared to the EU average) economic growth, which was to a large extent a result of the peak of the economic cycle; the contribution of structural changes, which would have improved competitiveness and made the economy more robust, was more modest. In 2009, the gap to the EU measured in GDP per inhabitant in PPS widened as Slovenia's economy contracted much faster than the EU average due to its reliance on exports, structural differences (a larger share of manufacturing) and weaknesses (the unfavourable technological structure of the economy), and the fact that the construction boom ended in 2009. Even though the development gap had narrowed significantly by 2008, it remains high (11 p.p. in 2009), making implementation of the principal economic development goal of SDS – to achieve the average development level of the EU by 2013 by undertaking structural reforms in order to improve productivity – difficult even in the absence of an economic crisis. But the onset of crisis, which not only caused a decline in economic activity but also reduced potential output<sup>3</sup> according to our estimates, makes the goal of catching up in the coming years very questionable. What is more, in 2008 and 2009, the cost competitiveness of the Slovenian economy declined precipitously, the financial sector has been severely weakened and the state of the public finances has deteriorated substantially.

## 1.1. Macroeconomic stability

*After four years of accelerated economic growth, Slovenia's economy contracted by 7.8% in real terms in 2009 as a result of the impact of the global economic crisis.* The crisis, characterised by a huge and fast decline in international trade, reduced Slovenia's exports by 15.6%, to their 2006 level. Exports to the EU and to other markets, mostly other European countries, declined at similar rates. Slovenia's exports to Asian markets, where demand has been growing fastest and which have been the least affected by the crisis, are still negligible. The severe decline in foreign and domestic demand, coupled with difficult access to financing amidst the credit crunch, also led to a 21.6% contraction of fixed-capital formation. Drops were recorded in investments in machinery and equipment as well as in construction, where the slowdown coincided with the expected winding down of works in motorway construction. It was the relatively severe decline in exports – due to the export-oriented nature of Slovenia's economy, but also due to structural weaknesses<sup>4</sup> – and

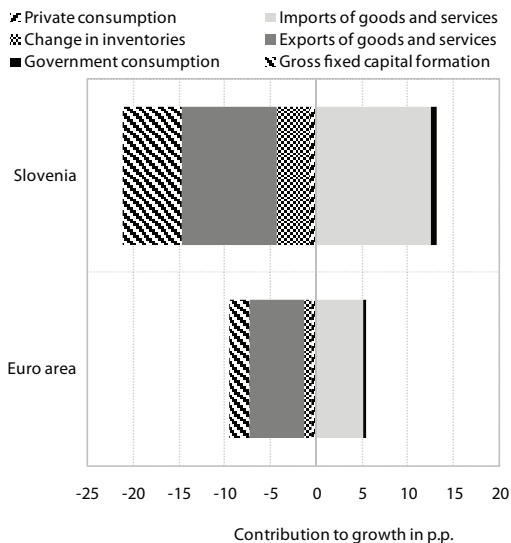
<sup>3</sup> See the Autumn forecast of economic trends, IMAD 2009, 2009 (Box 1: Movements of the output gap and potential GDP).

<sup>4</sup> See chapter 1.2: Increasing competitiveness and promoting entrepreneurial activity.



investments, following an investment boom in the previous years, that contributed the most to the above-average contraction of Slovenia's GDP compared with the EU (by 3.7 p.p.; see Figure 1). Business investment, and in particular infrastructure construction, peaked in the years before the crisis. Data on the value of construction works suggest that Slovenia saw one of the biggest declines in activity in the EU, in housing<sup>5</sup> as well as in infrastructure construction. Differences in labour-market adjustments to the decline in economic activity, and in the scope of fiscal stimulus adopted to boost domestic demand, also led to differences in private consumption between the Member States. In Slovenia, private consumption dropped by 1.4% as employment and wages declined, but in some countries it actually rose. The majority of countries saw government spending rise; in Slovenia, high growth in the compensation of employees and fiscal policy measures taken in 2008 and 2009 led to a 3.1% increase. But this was still only half the rate of a year before. Imports plunged 17.9% due to the severe drop in domestic and export demand. Inventories also underwent a major adjustment, contributing 3.5 p.p. to the contraction of GDP.

Figure 1: Structure of decline in GDP in Slovenia and the euro area by expenditure components, 2009



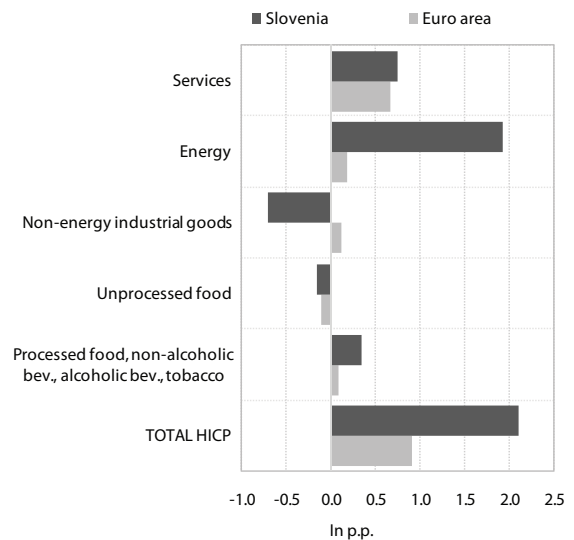
Source: SI-STAT Data Portal – National Accounts, 2010; AMECO, 2010.

**Inflation**, which had been heavily influenced by external factors in 2008, fell again slightly in 2009 and reached 1.8% by the end of the year, with domestic factors playing a much more important role in inflation than in the previous year. Annual inflation, which had hovered between 6% and 7% in the first half of 2008, was continuously and rapidly dropping from the second half of 2008 to August 2009 as prices of raw materials declined and economic activity slowed down in Slovenia as well as in its key trading partners. More products and services than in

<sup>5</sup> International comparisons show that buildings construction declined at above-average rates in countries where prices of flats and business premises had surged in the previous years.

the previous year saw price-growth slow or even drop, the exception being products (alcohol, tobacco), whose prices rose faster than in 2008 as a result of higher excise, and liquid fuels, which were affected by higher excise, as well as renewed growth in global prices of crude oil. Prices which had recently been deregulated, or where regulation changed, also rose at an above-average inflation rate. Prices of electricity for households, which have been fully deregulated since mid-2007, surged 16.6% last year and municipal services, for which regulation was transferred from state to local level last August, were 9% more expensive. The combined increase in prices of municipal services and other administered prices (except liquid fuels) for which government approval is needed stood at 4%, exceeding overall consumer-price growth. International comparison using the harmonised index of consumer prices shows that excise duties, which contributed 1.2 p.p. to the total 2.1% annual inflation, were the main reason why inflation was double the rate in the euro area (0.9%), where the impact of tax changes was just 0.1 p.p. Another segment where price movements diverged from the euro-area average was non-energy industrial goods, where prices dropped substantially as opposed to a moderate rise in the euro area.

Figure 2: Structure of increase in harmonised index of consumer prices (HICP) in Slovenia and the euro area, December 2009/December 2008



Source: Eurostat portal page – Harmonised indices of consumer prices (HICP), 2010.

**The current-account deficit** dropped to 1% of GDP in 2009 as the trade deficit narrowed substantially. High economic growth and the structure thereof – high investment demand – had widened the current-account deficit in previous years combined with higher prices of raw materials on global markets, but last year these factors were absent and the deficit shrank considerably. The biggest factor was the narrowing of the trade deficit, which had accounted for the bulk of the overall current account deficit as well as its widening in the previous years

but was down 5.4 p.p. last year to 1.8% of GDP. Analysis shows that Slovenia's trade deficit is countercyclical owing to the specific structure of exports and imports: as the economic cycle peaks, the balance deteriorates, but in a slowdown it improves. In the coming period, the simultaneous effect of stronger economic growth and commodity price shocks can be expected to increase the current-account deficit once again. Another factor behind the drop in the current-account deficit is a smaller deficit in factor income, which increased markedly after 2007 as private-sector borrowing increased and loan payments (at higher interest in the period before the crisis) rose. Last year, however, net paid interest on external debt dropped substantially as a result of bank deleveraging to the tune of EUR 3 bn and a drop in interest rates;<sup>6</sup> the general government's net paid interest on bonds and notes, on the other hand, rose marginally. The full impact of government borrowing with bonds issued last year will not show up in paid interest until 2010, when the first coupons are due. To a lesser degree, the current-account balance was propped up by the current-transfers deficit, which narrowed on the back of increased inflows of EU funds. Most notably, the drawing of cohesion funds was the best so far and the phasing of structural funds was significantly higher than in the previous years, although it was still over a half lower than planned.<sup>7</sup> In trade in services, which, unlike other current account sub-balances, has been in surplus for years, the surplus fell to its 2004 level (after more than doubling in the period 2004–2008). The decline was partially a consequence of a lower surplus in trade in travel services, as income from foreign guests dropped and outflows associated with travels of domestic tourists abroad continued to rise. At the same time, the surplus in trade in road-transport services narrowed due to negative trends in goods trade. Services dependent on goods trade and services that are closely linked to production processes were affected the most. As construction slowed down in Slovenia and abroad, trade in construction services also declined significantly.

*In 2009 there were profound changes in the movement and structure of gross external debt.* Growth in total external debt slowed alongside the decline in economic activity and under the impact of the financial crisis. After 2005, debt had never risen by less than EUR 4 bn a year, indeed in 2007 it surged by as much as EUR 10.7 bn. Last year, however, it rose only by EUR 874 m, totalling EUR 40 bn at the end of the year. Debt rose due to borrowing by the government, which issued three bonds worth a combined EUR 4.0 bn to plug the deficit and finance measures aimed at cushioning the impact of the economic crisis. The private sector, in particular domestic commercial banks, on the other hand, deleveraged the debt they amassed in previous years to finance fast-

growing real and financial investments by enterprises and households, which was also made possible by government deposits of proceeds from the bond issues. The structure of debt by maturity changed as well, with the share of long-term liabilities rising owing to a near doubling last year of long-term public and publicly guaranteed debt (from EUR 5.5 bn to EUR 10.6 bn). Excluding liabilities to affiliated entities, whose maturity is not subject to disclosure, long-term debt accounted for 74.1% of overall debt, up 7.9 p.p. over the year before. Even though the increase in general government debt improved liquidity in the financial sector over the short term, it will have the negative consequences in the coming years associated with higher interest payments and crowding out of other government expenditure. For publicly guaranteed debt, which rose 5 p.p. to 20% of GDP last year, these consequences will depend on the pace of recovery and future performance of companies that borrowed with state guarantees. Despite extensive borrowing over the recent years, Slovenia remains the least indebted euro member. Slovenia's external debt amounted to 115.0% of GDP at the end of 2009 (2008: 105.7% of GDP), significantly below the euro-area average (2008: 199.8% of GDP). This does not mean, however, that individual companies or banks are not having problems honouring their liabilities; the contraction of production and the resulting decline in revenue in the most indebted industries (manufacturing, construction, wholesale and retail trade) was considerable. The ability to service debt will be strongly dependent on the pace of recovery in these industries and the situation in domestic and foreign banking markets.

*Following the deficit increase in 2008, which was distinctly structural, public finances deteriorated substantially in 2009 amidst the financial and economic crisis.* The general government deficit rose by 1.7% of GDP in 2008, but in 2009 public finances suffered a significant deterioration due to the economic and financial crisis and the deficit swelled by another 3.8% p.p. to 5.5% of GDP. The deficit increase in 2008 was expressly structural. Despite a gradual slowdown in economic activity in the final quarter, the cyclical component was still positive and marginally higher than in the year before, but the structural balance deteriorated considerably, as our estimates suggest the cyclically adjusted general government deficit swelled by 2.3 p.p. This was a consequence of the ongoing implementation of tax reform (lower corporate income tax and payroll-tax rates), and higher expenditure associated with the beginning of implementation of the Public Sector Salary System Act and additional social transfers. But at the end of 2008 and in 2009, as the economy experienced a savage contraction, the cyclical component of the deficit surged. According to our estimate, automatic stabilisers increased the deficit by 3.7% of GDP whereas fiscal policy measures adopted in 2007 and 2008, and discretionary measures taken to mitigate the impact of the economic and financial crisis, contributed another 0.1 p.p. Discretionary fiscal policy measures which

<sup>6</sup> The implicit interest on total external debt dropped to 2.3% in 2009 from 4.5% in 2008.

<sup>7</sup> The drawing of 73% of all planned funds approached the performance from 2006, the best year for Slovenia so far, when 77% of planned funds were drawn.

had a direct impact on deficit expansion were mainly targeted at the labour market (two emergency job-preservation laws<sup>8</sup>) and, to a lesser extent, at tax breaks, support of research and development, and financing of small and medium-sized enterprises. On the other hand, deficit growth was held back with excise-duty increases. Discretionary measures were deployed on a small scale, mainly due to budgetary restrictions and the relatively limited efficiency of large-scale measures in an open economy. As a result of a breach of the 3% deficit ceiling prescribed by the Stability and Growth Pact, the European Commission launched excessive-deficit proceedings against Slovenia in December 2009 obliging Slovenia to reduce its deficit below the ceiling level until 2013.<sup>9</sup> Other EU countries also saw their deficits surge in the aftermath of the economic and financial crisis, and by December 20 countries had already been included in excessive-deficit proceedings.

*The widening general government deficit and mitigation of the impact of the financial and economic crisis amplified the demand for **government borrowing** in 2009.* After several years of relative decrease, general government debt widened from 22.6% in 2008 to 35.9% in 2009 or by EUR 4.1 bn (49%). Even though it remained among the lowest in the EU, the increase as a share of GDP was significantly above the average for the euro area (where it rose by 8.9 p.p. according to preliminary estimates) and slightly higher than on average in the EU (11.5 p.p.). A portion of the money obtained with borrowing was used to cover the general government deficit, which is estimated to have exceeded EUR 2 bn. The remaining share, including front-loaded borrowing to finance the deficit in 2010,<sup>10</sup> was channelled to the banking system to prop up liquidity<sup>11</sup> in the form of deposits whose maturity was extended during the year. The swelling of the deficit was matched with significant growth in liabilities for debt servicing, which has further increased the share of interest expenditure in total expenditure and now puts additional pressure on the reduction and restructuring of other expenditure in the consolidation process. Considering that in the coming years, expenditure associated with the ageing of the population will grow at an accelerated pace, the current pace of debt expansion increases the mid-term and long-term risks for the stability of public finances. This increases the urgency of ensuring sustainability of public

finances, which requires a restructuring of expenditure and revenue, and a modernisation of social-security systems.<sup>12</sup> What lends this urgency additional weight is that, in addition to discretionary fiscal policy measures directly increasing deficit and debt, measures were taken as part of efforts to cushion the impact of the economic and financial crisis, including public guarantees, which strongly increase potential liabilities in the coming years. To tackle the financial crisis and restore the flow of credit to the business sector, the government provided two domestic banks with guarantees<sup>13</sup> in the amount of EUR 2 bn, while commercial banks were given guarantees for risk sharing in the financing of the real sector and for the crediting of households (banks have so far used EUR 184 m of the assigned EUR 459 m quota). The balance of guarantees, excluding guarantees issued to mitigate the consequences of the financial crisis, increased in 2009 by EUR 252 m, most of which was provided to companies in transport, finance and insurance industries. Even though state guarantees do not directly increase general government debt until they are called up, their very scope and the estimate of probability of redemption can affect how a country is perceived by financial markets, and as a result make borrowing more expensive by widening spreads.

## 1.2. Increasing competitiveness and promoting entrepreneurial activity

*The economic crisis undermined **Slovenia's competitiveness** in 2008 and 2009.* Cost- and export-competitiveness, which followed a positive trajectory in the period of fast economic growth, deteriorated substantially amidst the crisis and the resulting plunge in exports and economic activity. Numerous indicators used to measure an economy's long-term competitiveness and robustness suggest that technological restructuring had not been intensive enough at the peak of the economic cycle and the productivity gap to the more developed countries remained wide. During the economic crisis we have thus seen so-called passive restructuring, where the economic structure is undergoing intensive change as less competitive parts of the economy die off. Trade, which plummeted during the crisis, had been the most important channel for international integration of Slovenia's economy in the previous years, but foreign direct investment, which could have accelerated technological restructuring and raised productivity, had been modest. The economic crisis was coupled with a decline in early entrepreneurial activity, which had been growing fast in the years before, largely spurred by fast economic growth.

<sup>8</sup> Partial Subsidising of Full-time Work Act and Partial Reimbursement of Payment Compensation Act.

<sup>9</sup> In accordance with the Growth and Stability Pact, the European Commission launches excessive-deficit proceedings against countries that breach the deficit ceiling; each country is given recommendations and a deadline for bringing the deficit below the reference level.

<sup>10</sup> Amendments to the Public Finances Act of 2008 gave the treasury the option to borrow the equivalent of due principal payments in the next budget year; see Indicator General government debt.

<sup>11</sup> A temporary change of conditions for deposits by the Treasury Single Account in commercial banks extended the maximum maturity of treasury deposits to 21 months.

<sup>12</sup> See chapters 3.1 Quality of public finance and 4.2 Modernising social protection systems.

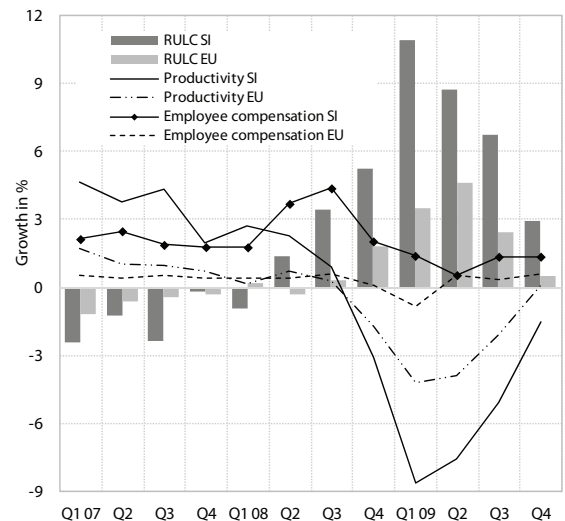
<sup>13</sup> Based on Article 86a of the Public Finance Act.

After decreasing in 2008, the **aggregate market share in goods trade** rose in 2009, but its growth was underpinned by a very small number of key export products, and this represents a downside risk for the future recovery of economic activity. The market share of goods on Slovenian export markets shrank for the first time in eight years. The decline in market share became more pronounced in the second half of 2008 and continued into the first quarter of 2009 (year-on-year comparison), whereupon it rose to levels higher than in the year before, increasing to 0.609% from 0.593% in 2008. Analysis for EU markets at the level of SICT sectors shows that renewed growth of Slovenia's market share in 2009 was for the most part the result of exports of vehicles due to car sales incentives in some EU countries (growth in the market share of machinery and transport equipment) and exports of medicinal and pharmaceutical products, a sector where foreign demand did not recede (growth in the market share of chemical products). Accordingly, Slovenia's market share in high-tech products on the EU market grew at an accelerated pace. However, until 2008, the market share of high-tech products had been growing much more slowly than in other new EU Member States, meaning that Slovenia still lags far behind comparable countries in the relative market share of high-tech products (in comparison with the market share of total merchandise). At the same time, the market share of labour-intensive products shrank much faster than in comparable countries, which indicates that this sector has significant internal weaknesses, which deepened further due to the international economic crisis. What is more, some of the industries are no longer able to compete with countries that have significantly lower labour costs. Compared to the analysed countries, Slovenia has a significantly higher relative share of medium-tech products, which has been increasing more or less constantly in the past ten years on the back of very robust expansion of road-vehicle exports. However, the high share in this segment represents a significant downside risk for the future growth of exports if the international economic crisis lasts longer and incentives for the purchase of new cars expire.

*Deterioration of cost competitiveness, which started in 2008, deepened in 2009 due to the severe drop in productivity.* The real effective exchange rate<sup>14</sup> appreciated by 3.4% in 2008 and 5.6% in 2009, placing Slovenia among the countries that suffered the biggest declines in cost competitiveness. The main reason why cost competitiveness dropped was the decline in productivity, which resulted from the economic contraction and reflected in growing unit-labour costs, which had already grown 2.3% in 2008, significantly more than in the EU (0.5%). In 2009, their growth accelerated (to 7.3%), once again exceeding the increase in unit labour costs in the EU (2.7%). In Slovenia, as in the rest of the EU, growth in unit labour costs in 2008 and 2009

was heavily affected by the slowdown and eventual decline in productivity, as employment adjusted to the drop in economic activity with a delay and to a lesser extent. Moreover, labour costs per employee rose much faster in Slovenia than in the EU in 2008.<sup>15</sup> However, in 2009, when labour costs grew at a slower pace, Slovenia experienced a much deeper drop in productivity than the EU on average. For two consecutive years, Slovenian companies, especially in manufacturing, where the increase in unit labour costs was among the greatest, thus had to cope with much greater cost pressures than their competition in the EU. In 2009, companies started to adjust by reducing employment, outpacing the EU average from the second quarter onwards, so that the decline in cost competitiveness eased off towards the end of the year. This adjustment is expected over the short term, but to avoid a rapid increase in unemployment, the growth in productivity needs to be rebuilt as soon as possible by increasing economic activity. Given a gradual recovery of international trade, it will be crucial to ensure accessibility of financing as well as an increase in value added per employee.

Figure 3: Real unit labour costs, Slovenia and EU average, year-on-year



Source: Eurostat portal page – Economy and finance, 2010; SI-STAT – Economy, 2010.

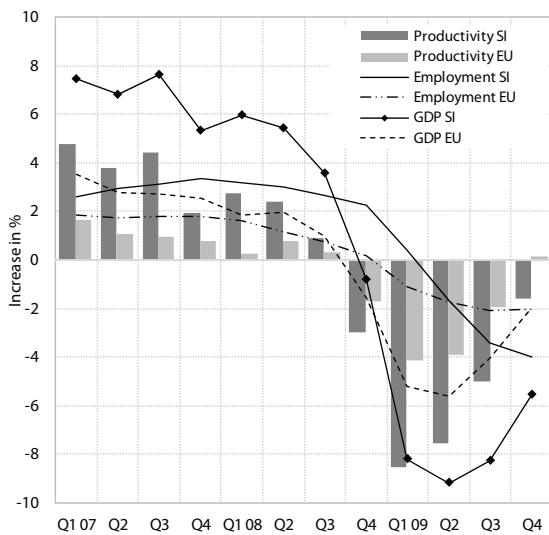
*The above-average decline in productivity in the crisis period was based on a deeper slump in economic activity, largely as a consequence of structural differences and weaknesses and differences in construction cycle between Slovenia and the EU.* The decline in productivity that Slovenia recorded during the crisis (5.7% in 2009) does not reflect technological change, it is a consequence of the fact that employment adjusts to a rapid and deep slump in economic activity with a delay and with lower intensity (European Competitiveness Report 2009, 2009), which was further augmented in Slovenia

<sup>14</sup> Deflated with nominal unit-labour costs (nominal compensation of employees per employee at current prices divided by GDP per employee at constant prices).

<sup>15</sup> Affected by the adjustment of private-sector wages to high productivity growth and inflation in the year before, and by the elimination of wage disparities in the public sector.

by two emergency labour-market laws that cushioned the drop in employment in 2009.<sup>16</sup> Accordingly, as the economy recovers and employment continues to adjust to economic activity, a pronounced short-term rise in productivity can be expected in the future. Productivity across the EU slipped for the same reasons last year, but the decline in value added per employee was much deeper in Slovenia (5.8%) than on average in the EU (2.5%). This is associated with a significantly bigger drop in economic activity in Slovenia, whereas the drop in employment was at a similar level than in the EU owing to the impact of anti-crisis measures on the labour market. The difference in the severity of the downturn can be traced to structural differences between Slovenia's economy and the economies of the EU; this is particularly in manufacturing, which accounts for a bigger share of the economy in Slovenia and is heavily dependent on foreign demand. However, the unfavourable technological composition of the economy also played a significant part, as technologically less intensive industries, which are more prevalent in Slovenia, are hit the hardest in a crisis. Moreover, the peak in construction in Slovenia coincided with the period of fast economic growth around the world, which additionally depressed gross domestic product during the crisis. The decline in productivity in the last year (Q32009/Q32008) was thus underpinned by export-oriented manufacturing, construction and some traditional services (in particular wholesale and retail trade), which had grown in the previous years largely due to the boom in construction and manufacturing.

Figure 4: Labour productivity, Slovenia and the EU average, year-on-year



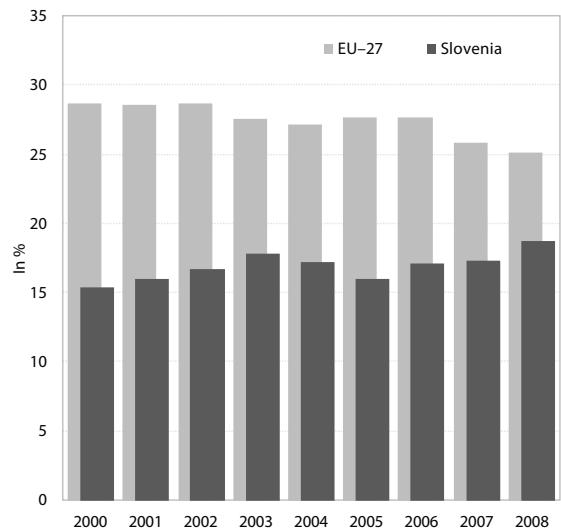
Source: Eurostat portal page – Economy and finance, 2010; SI-STAT – Economy, 2010.

In the period of high economic growth, the **economy did not sufficiently restructure** towards a higher share of high-tech industries. A breakdown of productivity growth shows that the change in economic structure after 2005 contributed 0.4 p.p. to the roughly 4% average annual

<sup>16</sup> See chapter 4.1 Increasing labour market flexibility.

growth in productivity of the market economy,<sup>17</sup> which is significantly less than in the first half of the decade (1.0 p.p. out of 4%). In manufacturing, structural shifts<sup>18</sup> had approximately the same effect on productivity in 2005–2008 as in 2001–2005.<sup>19</sup> For a country that is approaching developed countries in terms of GDP per inhabitant in PPS and economic structure, it is normal that the share of the structural component in productivity growth contracts (OECD Economic Surveys, Slovenia, 2009). Nevertheless, it has to be taken into account that Slovenia's economy has failed over the recent years to restructure towards activities that create higher value added per employee. In the period of high economic growth (2005–2008), the shares of technologically less advanced i.e. less knowledge-based industries (construction, metal industry, transport) accounted for the bulk of the structural component of productivity growth. Data on the factor structure of goods exports thus show only marginal growth in the share of high-tech products, which had only exceeded the 2003 peak in 2008 and is well below the EU average (by 6.4 p.p.). At the same time, after 2005, the share of low-tech products expanded quickly, even reaching the highest level in the whole decade in 2008. Since crisis has the biggest impact on lower-tech and labour-intensive industries, Slovenia is now faced with intensive restructuring of the economy. However, this involves mostly the loss of labour-intensive jobs and is not matched by the creation of new jobs. This is a consequence of insufficient promotion of

Figure 5: Share of high-tech products in goods exports, Slovenia, 2000–2008



Source: Handbook of Statistics 2007–2008 (United Nations), 2007; United Nations Commodity Trade Statistics Database, 2008; calculations by IMAD.

<sup>17</sup> NACE (2002) activities from A to K.

<sup>18</sup> Increase of productivity with the reallocation of production resources (employees) from low-productivity to high-productivity industries, and increase of productivity with the reallocation of resources to industries with high productivity growth.

<sup>19</sup> In the period 2005–2008, it contributed 0.6 p.p. to average annual productivity gains of 5.7% and in the period 2001–2005 0.6 p.p. to 6.3% growth.

entrepreneurship and SMEs in the previous years<sup>20</sup> and has a profound impact on the depth of crisis in Slovenia; in the future it will also affect the pace of recovery.

Even though **intersectoral<sup>21</sup> productivity growth** was fast in the period of high economic growth, Slovenia has ample scope for productivity gains in individual sectors, in particular technologically more intensive and knowledge-based industries. In manufacturing, high- and medium-tech industries (particularly chemical, machinery and electrical industries) were the biggest contributors to intersectoral growth in the period 2005–2008, as were, albeit to a lesser extent, several less technologically intensive sectors (food, textile and metal industries). In other sectors (mostly services), financial intermediation, wholesale and retail trade, transport and construction were the main engines of productivity growth. But despite a significant rise in intersectoral productivity in manufacturing and services in recent years, which was also buoyed by high economic growth, Slovenia still lags far behind developed countries in productivity terms. Manufacturing reached only 60.1% of the EU average in 2008 and the four industries with the lowest productivity relative to the EU average included three technologically intensive sectors (electrical and machinery industries and the production of transport equipment). What is more, all three industries were among those activities that had made least headway compared with the EU average after 2005. These results and trends indicate that the products of companies from these industries on average belong to the lower-end sectors of the otherwise technologically intensive industries. In services, too, the indicators<sup>22</sup> show considerable development gaps, which is particularly true of knowledge-based services such as financial and business services.<sup>23</sup>

*The onset of the economic crisis severely reduced the level of internationalisation of Slovenia's economy.* The period of rapid opening of the Slovenian economy to external trade that characterised the period of high economic growth was already ending in 2008, when the share of external trade plunged in the final quarter as the crisis deepened. As foreign demand continued to dwindle and domestic economic activity slowed down in 2009, trade in goods and services plummeted to 58.2% of GDP, down 11 p.p. The decline is largely a result of the drop in goods trade, whereas the decrease in trade in services was much smaller. Imports and exports as a share of GDP

also declined in the EU on average, but by far less than in Slovenia. The recession did not yet have an impact on foreign direct investment in 2008, as both inward and outward FDI stock rose and flows were the highest since the record year, 2002. Nevertheless, Slovenia remained one of the EU countries with the lowest degree of internationalisation by FDI. In 2009, inward FDI turned negative (disinvestment in the amount of EUR 79.5 m), while investments of Slovenian companies abroad, albeit smaller, remained relatively high (outflows of EUR 609.7 m), which means that Slovenia was a net foreign direct investor that year. Reduction of the exposure of strategic foreign investors to Slovenia is also indicated by the disinvestment of foreign companies in Slovenia in terms of a decrease in net liabilities of Slovenian subsidiaries to affiliated companies<sup>24</sup> and higher outflows of profits of foreign investors after 2006.<sup>25</sup> High net FDI outflows in 2009 and increased outflows of foreign investors' profit show that foreign investors still consider Slovenia's business environment as unfriendly. At the same time, domestic companies sustained their high investment activity abroad. A survey among foreign investors carried out at the end of 2009 by the Institute of Economic Research and the Public Agency for Entrepreneurship and Foreign Investments (IER-JAPTI, 2009) suggests that foreign investors see high taxes, non-payment, high labour costs, an inefficient judicial system, difficulties with dismissing employees, the smallness of the Slovenian market, ineffective competition protection and lack of properly qualified labour as the biggest problems in doing business in Slovenia. Most of these problems have become more acute since 2005.

*As the economy deteriorated in 2009, the level of early-stage entrepreneurial activity dropped after having grown at a fast pace in the period of high economic growth.* Data from the Global Entrepreneurship Monitor (Rebernik et al., 2010) survey show that early-stage entrepreneurial activity<sup>26</sup> dropped by 1 p.p. to 5.4% in 2009 after four years of growth. The majority of EU Member States included in the survey also recorded declines, but they were smaller on average than in Slovenia. As expected, the share of people who started a business to pursue a perceived business opportunity, which had grown fastest during the period of high economic growth, dropped the most during the downturn. There was also a decline in the level of necessity-driven entrepreneurial activity, which had been fairly stable in the years before. This is quite surprising given the deterioration in the labour market since the end of 2008 and beefed-up active employment policy measures aimed at promoting self-employment.

<sup>20</sup> See chapter 3. An efficient and more economical state (industrial policy).

<sup>21</sup> Productivity growth that would have been achieved, were it not for the change in the sectoral structure of employment (if the structure of employment had remained at the reference-year level).

<sup>22</sup> The international comparison of productivity in services is not entirely adequate: productivity of services as a predominantly non-tradeable sector is affected by price differences between countries, but data on productivity expressed in purchasing-power parity are not available at sectoral level.

<sup>23</sup> See chapter 1.3. Increasing the competitiveness of services.

<sup>24</sup> In the first nine months of 2009, the net crediting of Slovenian subsidiaries by their affiliated companies dropped by EUR 422.4 m.

<sup>25</sup> Whereas repatriated profits of foreign investors in Slovenia amounted to only EUR 134.4 m in 2005, they rose to EUR 366.1 m by 2006 and EUR 764.8 m in 2008.

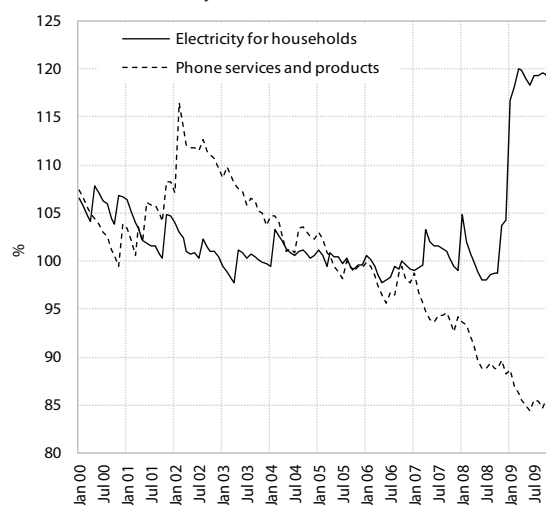
<sup>26</sup> The share of the population engaging in entrepreneurship (persons who are starting a company or entrepreneurs who have been paying wages for less than 42 months).

However, the survey was carried out in the first half of the year, hence the data include only a relatively brief period of downturn on the labour market and do not reflect the trends for the whole of 2009. In most other EU Member States, entrepreneurial activity driven by necessity declined or remained at the same level as a year earlier, whereas the decline in the share of people who started a business to pursue a perceived business opportunity was more pronounced. In the last two years (2008 and 2009), problems associated with the economic crisis (non-payment and decline in sales) rose up the rankings of the most frequent obstacles encountered by Slovenian entrepreneurs, but bureaucratic procedures, tax policy and the hiring of appropriately qualified staff remain important hurdles (Entrepreneurial Climate in Slovenia, 2009).<sup>27</sup>

*In network industries, competition on the electronic-communications market continues to improve in line with SDS guidelines, while for electricity supply positive movements have been gradual.* In electronic communications, the biggest drop in market share of the dominant provider was last year recorded in fixed telephony, where rapid expansion of VoIP<sup>28</sup> telephony played a key role. According to data by the Post and Electronic Communications Agency of the Republic of Slovenia (APEK), VoIP had a market share of 37.4% in the third quarter of 2009, exceeding that of PSTN<sup>29</sup> telephony. In fixed telephony and broadband Internet access, market concentration is already comparable to the EU average, but in mobile telephony, the market share of the dominant provider is almost 20 p.p. above the EU average (see Table 1). That competition in electronic communications is improving can also be inferred from the change in relative prices of telecommunications services (relative to the CPI), which have been falling for several years (see Figure 6), in particular in mobile telephony. The ownership structure is less favourable, as the state's stake in the dominant provider of electronic communications has remained the same. In *energy supply*, the market structure is changing more slowly.

There were some smaller-scale changes in 2008 in the production segment,<sup>30</sup> but all electricity production remains majority state-owned (the exception being the Croatian part of the Krško Nuclear Power Plant). Data by the Energy Agency of the Republic of Slovenia (AGEN-RS) show that the market share of the biggest producer dropped to 67.8% in 2008 from 87.9% in 2007, but this is merely the result of the fact that it stopped selling Slovenia's share of output from the nuclear power plant. In the EU, the share of the biggest producer is about 60%. In the retail market, the number of electricity suppliers remained the same (14) in 2008, whereas the HHI index, which had already been below 1,800 in 2007, indicating medium concentration, improved further to 1,651<sup>31</sup> in 2008. However, on the retail market for consumption from the distribution network only, which includes households, the index was 1,950, showing higher market concentration. Suppliers have a relatively strong oligopoly on this market, as evidenced by a huge price

Figure 6: Change in prices of electronic communication services and electricity relative to the CPI



Source: SI-STAT data portal - Economy - Prices, 2010; IMAD calculations.

Table 1: Market shares\* of the biggest electronic communications providers, in %

	Slovenia				EU	
	Q4 2006	Q4 2007	Q4 2008	Q4 2009		
Fixed telephony	97.8	92.6	85.7	76.1	90.5 July 2006	81.4 July 2008
VoIP	58.9	48.1	47.7	40.1		
Mobile telephony	70.3	65.6	58.9	56.3	39.4 2006	38.3 2008
IPTV – Internet television	65.6	61.4	62.0	61.1		
Broadband Internet access	52.9	50.2	49.1	46.1	46.8 Jan 2007	45.6 Jan 2009
xDSL – Internet via phone line	76.0	69.4	67.9	66.0		

Source: APEK, quarterly reports, various issues, 2006–2009, Progress Report on the Single European Electronic Communications Market 2008 (14th Report), 2009.  
Note: \*By number of lines; in mobile telephony by number of active users.

<sup>27</sup> The survey was carried out in the second half of 2009.

<sup>28</sup> Voice over internet protocol.

<sup>29</sup> Public switched telephone network.

<sup>30</sup> The Boštanj hydroelectric power plant on the lower Sava was transferred from HSE to GEN energija in 2008.

<sup>31</sup> The market share of the biggest provider was 26.8%.

rise in 2009<sup>32</sup> that followed the full liberalisation of the market in mid-2007 (see Figure 6). It is however positive that the number of customers who switched suppliers<sup>33</sup> after the market was liberalised is rising, which led to significant changes in market shares of suppliers<sup>34</sup> on the distribution market.

## 1.3. Increasing the competitiveness of services

*Services' share of the Slovenian economy is still much lower than on average in the EU. In terms of competitiveness, the main problem is the gap to the EU average in market services (G-K). The gap declined significantly after 2005. However, in knowledge-based services such as financial, business, communication and information services, the catching-up was less pronounced. Apart from directly affecting economic growth due to their high and growing share of GDP, their indirect impact on competitiveness through the intermediate consumption of services in the manufacture of goods and other services is becoming increasingly important. Public services (L-P) also account for a lower share of GDP than in the EU as a whole. The gap in this area was relatively narrow until 2005, but it widened in the period 2006–2008, largely due to relatively weak growth in the value added of public services related to the slowdown in employment growth, and the low growth of wages in the public sector in the period preceding the elimination of wage disparities. It is expected that the share of services in value added will increase in 2009, given that manufacturing and construction experienced a much more severe contraction than services, where the effect of economic crisis is typically milder and delayed.*

**Table 2: Difference between Slovenia and the EU average regarding the share of services in the structure of gross value added of the economy, in p.p.,\* 2000, 2005–2008**

	2000	2005	2006	2007	2008
Services (G-P)	-8.7	-8.7	-8.5	-8.7	-8.0
Market services (G-K)	-6.7	-6.1	-5.6	-4.9	-4.4
Trade, hotels and restaurants, transport (G-I)	-1.1	0.2	0.3	1.2	1.6
Financial and business services (J-K)	-5.6	-6.2	-5.9	-6.1	-6.0
Non-financial market services (G-K excl. J)	-6.5	-4.9	-5.0	-4.1	-3.4
Public services (L-P)	-2.0	-2.6	-2.9	-3.8	-3.6

Source: Eurostat portal page – Economy and Finance – National Accounts by six branches, 2010.

Note: \*Minus means that the share in Slovenia is below the EU average.

<sup>32</sup> Relative to the CPI, the price of electricity for households rose by 18.5% over 2007; on electronic communications markets, where competition is stronger, relative prices dropped by 5.1% in the same period.

<sup>33</sup> In 2008, 5,211 customers switched suppliers (of which 591 were households), two-fifths more than in the previous year.

<sup>34</sup> The market share of the second-largest provider in 2007 contracted by over 3 p.p. in 2008, and what had been the sixth-largest provider in 2007 gained 5 p.p.

### 1.3.1. Non-financial market services

*Slovenia made headway for the second year in succession in 2008 in terms of share of non-financial market services and knowledge-based services, but there is still significant untapped development potential. The share of non-financial market services in total employment also surged, to 33.8%. Slovenia's gap to the EU average in terms of the share of non-financial market services in value added narrowed to the lowest level ever (3.4 p.p.) in 2008, the latest year for which data are available. As was the case in the entire period after 2000, this was a consequence of the expansion of retail and wholesale trade, which has already exceeded the EU average for many years. To a much lesser extent, the narrowing of the gap was also the result of robust growth of business services, where Slovenia has the largest structural gap to the EU average. In this area, Slovenia did approach more developed countries for the second year running in 2008 (after an intermission in 2004–2006), but the gap is still relatively wide (4.8 p.p.), wider than it was in 2004, when it was at its narrowest. But it is positive that knowledge-based business services<sup>35</sup> (various consultancy, research and computer services) saw the biggest growth in the business-services sector. The share of this sector in the value added of the Slovenian economy rose to 10.2%; according to the scenario of SDS, it is projected to increase to about 12%<sup>36</sup> by 2013. Considering the importance of knowledge-based services in developed economies, there is plenty of scope for growth and improvement in quality and efficiency in the future. Indeed, productivity of knowledge-based business services, measured with value added per employee, decreased in the current SDS implementation period (2005–2008) due to high growth of employment in these industries. Faster progress in this field is required, not least because productivity of business services is far behind that in more developed countries.*

*Competitiveness of services on foreign markets,<sup>37</sup> which had been improving after Slovenia joined the EU, continued to increase in 2008, which shows that the effect of the crisis on services was delayed, just as in other countries. Competitiveness of Slovenia's services, measured by market share on EU markets, improved by nearly 10% in 2008, but this improvement was lower than on average in 2004–2007. The biggest increase in 2008 was registered*

<sup>35</sup> Activities 71–74 in the Standard Classification of Activities (leasing of machinery and equipment, data processing and related services, research and development, other business services).

<sup>36</sup> See Bednaš (ed.), Kajzer (ed.), 2005.

<sup>37</sup> Measured as change in the market share of Slovenia's services exports in the EU's and individual countries' imports. Data for services imports to the EU are provided by Eurostat and data on Slovenia's services exports by countries by the Bank of Slovenia. Estimates based on these data do not make it possible to compare the competitiveness of Slovenian services exporters with providers from other countries, as comparable data from these countries are not available.



in other services, which includes assorted, mostly knowledge-based services (15.4%), and in travel (14.9%). The market share of transport services rose by only 2.1%. Taking into account only service exports to the five most important trading partners in the EU,<sup>38</sup> the increase in market share was even more pronounced (12.4%), with changes in individual types of services mirroring the overall EU market, with the smallest increase in the market share of transport. Given the tight connection between goods exports and transport services, these trends are expected, since Slovenia's market shares in goods trade with the EU dropped<sup>39</sup> in 2008 after a multi-year increase. In transport services, Slovenia's market share declined most notably in France (by 28%), compared to 2007, but 2007 was a year marked by extraordinary transport of cars from a French-owned car assembly plant in Slovenia. On the other hand, the other services group saw the biggest increase in market share in France (about 57%) and a significant rise in Germany (around 34%). The market share of travel-related services increased most in 2008 in Austria, the United Kingdom and Italy. Market shares of services in Croatia,<sup>40</sup> Slovenia's fourth most important trading partner, rose only marginally in 2008, except for transport services, which increased by 16.5%. In addition to exports and imports, services are involved in international trade via sales through foreign subsidiaries,<sup>41</sup> which, as such services require the simultaneous presence of providers and users of services, is especially frequent in financial services, and retail and wholesale trade. At the end of 2008, 43% of all investments by Slovenian companies abroad were in financial services and wholesale and retail trade; including the other services grouping, the share rises to 67% (Direct investment, 2008, 2009). Slovenian investments are channelled primarily to markets of the former Yugoslavia, which indicates that companies selling services there are using competitive advantages that they do not have on developed EU markets.

*Insufficient competition remains a problem in certain services sectors, but data suggest the situation is improving. Industries showing signs of a lack of competition include those industries with a high rate of concentration<sup>42</sup> and above-average margins by international standards. In Slovenia, these include some network industries (telecommunications and post, air transport) and individual services in the food-retail chain (intermediation in the food, tobacco and alcohol trade and retail trade*

<sup>38</sup> Italy, Austria, Germany, the United Kingdom and France accounted for over 75% of Slovenia's services exports to the EU.

<sup>39</sup> See chapter 1.2. Increasing competitiveness and promoting entrepreneurial activity.

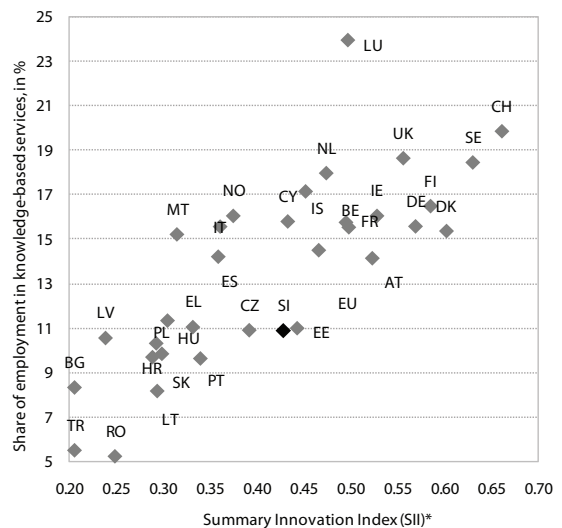
<sup>40</sup> In Croatia, Slovenian services have a 16% market share and travel services as much as 35%.

<sup>41</sup> Sale of services through foreign subsidiaries is complementary to services exports, but by international standards only sales by subsidiaries in majority Slovenian ownership can be compared to exports.

<sup>42</sup> Measured with the Hirschman-Herfindahl index of market concentration, where index values above 1,800 indicate high concentration.

in non-specialised, predominantly grocery stores). The summary indicator of regulation of product markets (OECD product market regulation – PMR indicator), which was calculated for Slovenia for the first time in 2009, shows a similar picture. The results for Slovenia are slightly above the OECD average in terms of barriers to entry in services (as a whole<sup>43</sup>), except for network industries. Although the results compare quite unfavourably to EU and OECD countries, it is encouraging that in network industries the degree of competition measured with margins and rate of concentration has been gradually improving in the recent years as a consequence of liberalisation (see chapter 1.2 for details on competition in network industries). In the other group in which indicators show a lack of competition, services in the food and retail chain, margins and concentration rates were increasing fast until 2006. But in the last two years (2007–2008) there was a slight turnaround, which can be attributed to the entry of new foreign retail chains on the Slovenian market; this was also a period in which the market regulator significantly stepped up its activity.

Figure 7: Correlation between innovation and the share of knowledge-based services<sup>1</sup> in employment, 2008



Source: European Innovation Scoreboard 2008, 2009.

Note: <sup>1</sup> According to Eurostat definition (includes financial services that are not included in this chapter). \* Summary Innovation Index for 2007 is a composite of 29 indicators.

Legend: AT-Austria, BE-Belgium, BG-Bulgaria, CY-Cyprus, CZ-Czech Republic, DE-Germany, DK-Denmark, EE-Estonia, EL-Greece, ES-Spain, EU-European Union, FI-Finland, FR-France, HU-Hungary, IT-Italy, LT-Latvia, LV-Lithuania, LU-Luxembourg, MT-Malta, NL-Netherlands, PL-Poland, PT-Portugal, RO-Romania, SE-Sweden, SI-Slovenia, SK-Slovakia, UK-United Kingdom.

*Over the past few years Slovenia has seen favourable structural changes towards a stronger role of market services, but in an economic crisis the role of knowledge-based services is even more important. In a downturn, services make a significant contribution to recovery*

<sup>43</sup> The PMR indicator of barriers to entry considers only services as a whole and network industries as a whole, making it impossible to undertake a more disaggregated comparison of sectors which are mentioned in the analysis of margins and concentrations.

(Criteria for successful reforms..., 2009) given the major role they play in economies (high share of value added and employment, integration with other sectors of the economy). In addition to traditional services (wholesale and retail trade, transport, restaurants and hotels), services based on knowledge and the use of cutting-edge technologies are key to improving competitiveness. Services create higher value added per employee and promote the introduction of technological and non-technological innovation in other industries, improving the efficiency of the entire economy. Analysis for EU Member States shows that employment in knowledge-based services has a positive and significant impact on the innovation capacity of economies (Challenges for EU support to innovation in services, 2009), which is particularly important in the process of restructuring and economic recovery. Due to the extensive use of cutting-edge technologies, these services have increasing potential for international trade. A shift towards stronger knowledge-based services depends on incentives in the entrepreneurial and innovation environment, as well as the availability of staff who combine technical and business know-how with creativity. Being a major service user, the public sector can play a key role in promoting the growth of these services, and can accelerate the introduction of innovative services through public contracting. As Slovenia's economy recovers, the role of knowledge-based services will be all the more important, given that past growth of some more traditional services<sup>44</sup> had been underpinned by booms in manufacturing and construction. Since manufacturing and construction contracted in 2009, recovery in traditional services will depend largely on the rebound of other sectors.

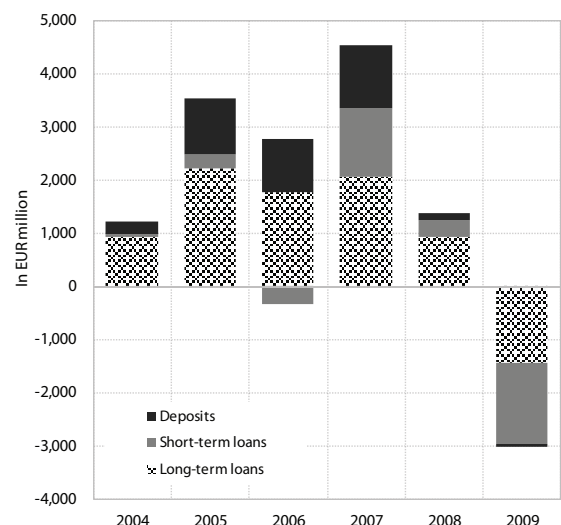
### 1.3.2. Financial services

**Traditional indicators of development of the financial sector**, which are used to monitor Slovenia's convergence with more developed countries, did not decline severely during the financial and economic crisis due to a concurrent significant decline in economic activity. Despite very subdued growth of assets in 2009, banks' total assets as a share of GDP grew at a pace seen during the years when economic growth was faster. The indicator of market capitalisation of shares as a share of GDP more than halved as the crisis struck in 2008. As the economy experienced a severe contraction in 2009, the indicator rose again, despite the fact that the value of stocks quoted on the Ljubljana Stock Exchange slightly decreased. The volume of insurance premiums as a share of GDP has remained flat in recent years: in 2008, the latest year for which data are available, it was at the same level as in 2005. More significant changes were observed in the structure of insurance, as the growth in life insurance (in particular insurance linked to

investment funds) dropped, amidst the negative trends on capital markets, to by far the lowest level since data have been available (1994). Life insurance grew more slowly than non-life insurance, which is a much more important insurance sector in Slovenia than on average in the EU. The relative gap in the development of the financial sector remained wide in 2009; according to the available data, it narrowed in terms of banks' total assets and widened in terms of market capitalisation of shares relative to GDP.

*The international financial crisis in 2008 hampered banks' access to new financing, but, following ECB and government interventions, access to credit improved despite extensive net payment of foreign credit and deposits in 2009.* In 2009, treasury deposits were the most important source of financing for Slovenian banks (net inflow of EUR 2.1 bn), but foreign credit, largely acquired more indirectly and with public guarantees, also played a major role. The treasury provided the money with three bond issues on international financial markets worth a combined EUR 4 bn (a significant share of these funds was channelled to banks) and banks acquired an additional EUR 2 bn with two issues of government-guaranteed bonds. Household deposits were a far less important source of financing in 2009. Their net inflow was 45.6% lower than in 2008, which is associated with substantially smaller net inflows from capital markets, a considerable drop in passive interest rates and unfavourable trends on the labour market. In terms of payment of due external liabilities, pressure on liquidity increased in 2009 as banks borrowed mostly on a short-term basis in 2008, meaning that more loans were due in 2009. Banks thus deleveraged, paying down foreign credit and deposits by foreign banks to the tune of EUR 3.0 bn; in the period 2004–2008, net borrowing averaged EUR 2.6 bn a year. Although liabilities of domestic banks to the ECB did not rise substantially, the maturity structure of debt improved as a result of

Figure 8: Net bank borrowing abroad, 2004–2009



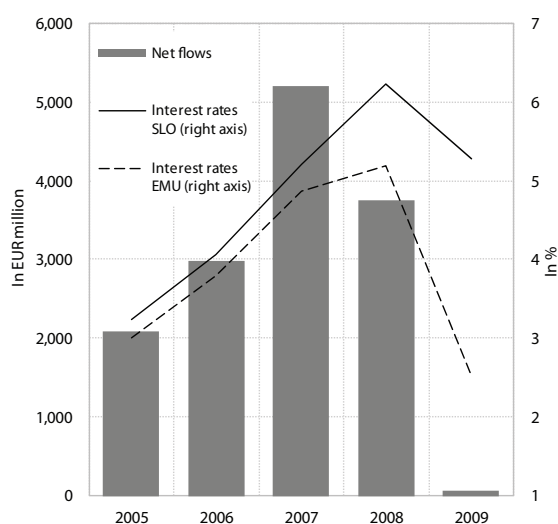
Source: Bank of Slovenia, IMAD calculations.

<sup>44</sup> Wholesale trade; retail trade in construction materials; retail trade in furniture, household appliances; goods transport.

measures by which the ECB provided financing<sup>45</sup> with longer maturity than usual. Extensive treasury deposits also led to a slight improvement in the loans-to-deposits ratio, which was at 68.3%, up 7.2 p.p. over 2008, when it was at the lowest level on record. Nevertheless, the ratio was still below the EMU average,<sup>46</sup> which stood at 83.3% in 2008.

**Lending by domestic banks slowed to a trickle in 2009.** Net lending amounted to EUR 896.7 m, only 18.6% of the figure from 2008, when the financial crisis was already starting to affect lending. In a significant change from previous years, in the sectoral structure of borrowing, borrowing by households accounted for the bulk of total borrowing and net borrowing of firms and non-monetary financial institutions (NFI) was subdued. Borrowing in foreign currency came to a complete standstill at the end of 2008 and the trend continued through 2009, when such loans recorded net outflows every month. Net flows of loans in euros were positive but almost 70% lower than in 2008.

Figure 9: Net lending to companies and NFIs and average interest rates\*, Slovenia and the EU



Source: Bank of Slovenia, IMAD calculations.

Note: \* Interest for companies for other loans over EUR 1 m with variable interest or fixed interest up to a year.

Despite measures to mitigate the consequences of the financial crisis and kick-start lending, which are mostly based on public guarantees, **net lending to companies and NFIs plunged 99.4%** over the year before. There are several reasons for the severe contraction. Firstly, a significant proportion of fresh liquidity was channelled to net payment of deposits and credits with which the banks had previously financed brisk lending. Secondly, lending was probably held back by high interest rates on loans

to the business sector, which are among the highest in the euro area. The rates show that Slovenian banks have higher margins, which we estimate may be a result of the high concentration of the banking system but could also suggest that Slovenian banks have investments on their books of above average riskiness. Bank of Slovenia data show that, in the boom years, a significant chunk of lending was allocated to the construction sector and the property market, and to companies involved in takeover activities. These groups of companies were severely affected by the crisis, which has accelerated the growth in sour assets. The quality of demand also involves additional risks. Companies mostly need financing to overcome liquidity problems and such loans are not typically spent on development projects that generate new cash flow. Banks therefore thread more carefully and demand additional collateral for additional risks, as well as higher interest, which puts off a portion of potential borrowers. Thirdly, lending was affected by subdued demand for credit. In the previous years, companies expanded output and needed additional financing for working capital as well as investments. The decline in orders and lower utilisation of production capacities, however, depressed the demand for financing.

*Provision of sufficient financing is vital for economic recovery. At the same time, additional deterioration of the economic environment could jeopardise the stability of the banking system and hold back the recovery.* In 2009, the share of non-performing loans rose to 2.3%,<sup>47</sup> near 2006 levels, as a result of higher lending in previous years, when year-on-year credit growth occasionally exceeded 30%. In 2009, banks thus made nearly EUR 500 m of additional impairments, the highest figure on record. Any further deterioration would reduce banks' access to additional financing, which would jeopardise their stability. What is more, if that were to occur, banks would use a significant portion of their financing to cover their losses. This would severely limit lending to segments of the economy that have not been severely hit by the crisis and even see it as an opportunity, which would hold back recovery. The key measures in this field involve the ongoing stimulation of lending to healthy companies and restructuring of soured loans. This would prevent major disruptions of financial stability and eliminate additional drags on the recovery of the economy.

<sup>45</sup> With a maturity of one year.

<sup>46</sup> When the treasury redeems due bonds, the indicator will be under severe pressure and it is expected that the gap to the euro area will widen again.

<sup>47</sup> Data for November 2009.

## 2. Efficient use of knowledge for economic development and high-quality jobs

**SDS guidelines:** SDS priorities aimed at efficient creation, two-way flow and application of knowledge for economic development and high-quality jobs are: improving the quality of tertiary education, promoting lifelong learning, and increasing the effectiveness and level of investment in research and technological development.

### 2.1. Education and training

An important factor of economic development is **human capital**, which Slovenia is gradually improving, despite a certain weakness in efficiency of investment in human capital. Improved quality of human capital brought about by education is a key factor for increasing productivity and economic development. Essential for improving human capital are the opportunity to acquire new knowledge and a higher level of education (measured by participation in education) and lifelong learning. The social return on investment in human capital reflects in higher productivity, a culture of innovation, and faster economic growth. The social return on investment in education depends on the efficiency of the studies undertaken and on whether the supply and structure of education correspond to the human resource needs in the business sector. Analyses show a positive correlation between the share of population with tertiary education and the economic development of the society (measured in GDP per inhabitant at purchasing-power parity). De la Fuente (2003) estimates that, on average across the EU, a one-year increase of the average number of years of schooling improves productivity by 6.2% in the short term, and by an additional 3.1% in the long term. At the level of the economy, human capital is often measured by the share of population with tertiary education or by the average number of years of schooling. Both indicators point to a gradual improvement of human capital in Slovenia in 2000–2009, although Slovenia still lags considerably behind the most developed countries. As regards investment in human capital, Slovenia's shortcomings include low efficiency and quality of schooling, and a mismatch between the supply and demand for specific skills.

*In 2009, the education structure of the population in Slovenia improved, although over a longer term this*

*progress was too modest to significantly reduce the gap behind the EU average and more developed countries.* The Labour Force Survey indicates that following a decrease in 2008, the share of population aged 25–64 with a tertiary education rose to 22.5% in 2009,<sup>48</sup> yet still lagged behind 2007 by 0.4 p.p. Due to the oscillation of this share between 22% and 23% in 2007–2009, over the period of implementation of Slovenia's Development Strategy (2005–2009) the gap to the EU average further increased (from 2.2 p.p. to 2.5 p.p.). Slovenia lags even more strongly behind the economically developed European countries, where the share of population with tertiary education exceeds 30%. Despite rather high participation in tertiary education recorded over a longer period of time (2000–2009), Slovenia was not able to significantly reduce the gap to the EU average. The reason is low efficiency of schooling, the duration of which is among the longest in the EU (see Figure 10), and modest participation of adults in tertiary education, which slows the growth in the number of graduates and the share of population with a tertiary education. 2000–2009 saw growing differences between the share of population with a tertiary education aged 25–34 and other age groups,<sup>49</sup> which was mainly due to a higher increase of the participation of youth in tertiary education compared to other age groups. Another indicator of improvement of the education structure of the population in 2000–2008 is the average number of years of schooling of the adult population, which was 11.8 years in 2008.<sup>50</sup> Over the same period, the education structure of the working population also improved, particularly in 2009 as a result of the economic crisis that most strongly hit labour-intensive activities, considerably reducing the number of low-skilled workers.

*Participation of young people in education is high and has come very close to the SDS target in recent years.* Compared with the EU countries, participation of young people in secondary and tertiary education is among the highest in Europe (see Chapter 4.3.1.). In the academic year 2008/2009, participation of the generation at enrolment age in tertiary education remained close to the SDS target (55%). Most indicators, however, show that youth participation in tertiary education in Slovenia is well above the EU average.<sup>51</sup> High participation of young people in tertiary education is welcome in terms of accessibility of education. However, it should be underlined that the high enrolment rate in Slovenia is partly attributed to the benefits offered by the status of being a student, which also impact the effectiveness

<sup>48</sup> Data refer to the second quarter of the year.

<sup>49</sup> In 2009, the difference between the share of population with tertiary education aged 25–34 and those aged 35–44 was 5.4 p.p. (2000: 3.9 p.p.), between age groups 25–34 and 45–54 10.6 p.p. (2000: 4.5 p.p.), and between age groups 25–34 and 55–64 13.3 p.p. (2000: 6.9 p.p.).

<sup>50</sup> Calculations by IMAD based on the SORS Labour Force Survey.

<sup>51</sup> The share of students in tertiary education aged 20–24 was 46.1% in Slovenia and 28.4% on average in the EU.

of schooling; the efficiency of public expenditure on tertiary education may therefore be questionable.

*Although improving, the ratio of students to teaching staff in tertiary education is still rather unfavourable compared with other European countries.* At the international level, the ratio of students to teaching staff is often used as an indicator of quality in tertiary education. In Slovenia, this ratio improved in the academic year 2008/2009 as a result of a growing number of teaching staff and a declining number of students enrolled in tertiary education. The higher number of teaching staff is also attributed to the introduction of the Bologna process, envisaging greater use of active forms of teaching. Although the ratio of students to teaching staff improved, in 2000–2007, Slovenia still lagged considerably behind most European countries (data available for OECD members). The ratio in Slovenia is also worsened by the fact that young people not only enrol in tertiary education to acquire education but also to take advantage of the benefits of being a student. The unfavourable ratio reduces the possibility of improving the teaching process, which is also reflected in the teaching methods applied. According to the Hegesco<sup>52</sup> survey carried out in Slovenia in 2008, the share of graduates who believe lectures and written assignments as teaching modes were used to a high extent over their study programme is larger than in other countries. On the other hand, the share of Slovenian graduates who believe that their study programme emphasised project and problem-based learning, participation in research projects, group assignments, and internship and work placement to a high or very high extent is below the European average. Another indicator of quality in tertiary education, in addition to the ratio of students to teaching staff, is the international mobility of students. In the academic year 2008/2009, as in the period 2000/2001–2008/2009, the share of foreign students studying in Slovenia slightly increased.<sup>53</sup> Nevertheless, the share of foreign students in Slovenia and Slovenian students studying abroad in 2007 was among the lowest in the EU.<sup>54</sup> In the future, a contribution to higher quality education could be made by the independent national agency for quality in higher education established in late 2009.

*Total public expenditure on education<sup>55</sup> as a share in GDP is relatively high in Slovenia, although it decreased drastically in 2007 due to high GDP growth and a 1.5% reduction of public expenditure in real terms.*<sup>56</sup> In 2007 (latest available data), public expenditure on education accounted for 5.19% of GDP (0.47 p.p. less than in 2006). In 2006, the year for which the latest international data are available, it exceeded the EU average, recording faster growth overall than in the EU also in 2000–2006. Expressed in relative terms, high public expenditure on education is to a great extent related to high participation in education. Nevertheless, Slovenia still lags considerably behind certain economically developed Northern European countries, and the relatively high expenditure fell significantly in 2007. In the structure of public expenditure by purpose, the share of expenditure for transfers to households is, although declining, still above the EU average. Also among the highest in the EU is the share of private expenditure on tertiary education, which however – contrary to the EU average – decreased in both 2006 and 2001–2006. The reason for this high share of private financing lies in the tuition fees for part-time students, and the downward trend in private expenditure on tertiary education, which continued in 2007, is thus related mainly to a lower number of part-time students enrolled in higher education. In the years to come, the share of private expenditure at the tertiary level will depend also on the manner of financing post-graduate studies; the current plan is for no tuition fees for full-time second-level students.<sup>57</sup>

*Expenditure on education per student is relatively high, yet not in tertiary education, in which there was a further decrease last year.* The annual expenditure per student is an important indicator of the quality of education, since higher expenditure allows more investment in learning equipment, a better ratio of students to teaching staff, teaching staff training, etc. Expenditure on educational institutions by participant at all levels of education (in EUR PPS) in 2006 was above the EU average and grew compared to the year before, exceeding the EU average growth in the period 2001–2006 also. Considerably less favourable is the situation in tertiary education, where expenditure lags strongly behind the European average with further decreases in 2006 as well as in 2001–2006. The reasons lie in the high participation of young people in tertiary education and the large

<sup>52</sup> Preliminary statistical results of the Hegesco project (Higher education as a generator of strategic competences). The survey was conducted in Slovenia in 2008 and comprised 2,950 graduates five years from graduation. This international project also involved Lithuania, Poland, Hungary and Turkey. The results are comparable with those of the international Reflex project, involving Austria, Finland, France, Germany, Italy, the Netherlands, Norway, Spain, the United Kingdom, Belgium (Flanders), Czech Republic, Portugal, Switzerland, Estonia and Japan. The European average is based on data obtained from the replies of respondents from all countries participating in the Reflex and Hegesco projects. The Slovenian average is based on data obtained from the replies of graduates from all Slovenian faculties included in the Hegesco database.

<sup>53</sup> It was 1.7% (2007/2008: 1.5%).

<sup>54</sup> According to Eurostat, it was 2.1% (2006: 2.2%).

<sup>55</sup> Expenditure is stated in accordance with an internationally comparable methodology using the UOE questionnaire (the common questionnaire of UNESCO, OECD and Eurostat).

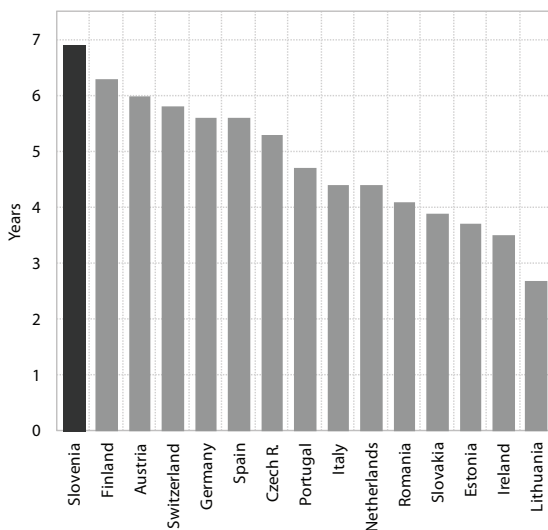
<sup>56</sup> Public expenditure mostly decreased at the level of secondary education as a result of lower enrolment in secondary schools by less numerous generations.

<sup>57</sup> Decree amending the Decree on budgetary financing of higher education and other university member institutions from 2004 to 2008 (Official Gazette of the Republic of Slovenia No. 4/2006). In the academic year 2009/2010, the Decision on co-financing post-graduate studies (Official Gazette of the Republic of Slovenia No. 77/2004) envisaging the co-financing of Masters and PhD studies will cease to apply.

share of public expenditure intended for transfers to households.<sup>58</sup>

**The efficiency of studies in Slovenia is low.** In the academic year 2008/2009, the share of repeat students enrolled in full-time undergraduate study programmes and long non-structured master's study programmes stayed at the 2007 level (about 10%).<sup>59</sup> The average duration of studies of full-time university graduates is among the highest in Europe and decreases slowly. In 2008, the average duration was 6.7 years (2007: 6.8 years). According to the latest international available data, for 2006 (2007), the average duration of undergraduate studies in Slovenia was among the highest among European countries.<sup>60</sup> The low efficiency of studies is also seen by comparing data on the number of students in tertiary education per 1,000 population aged 20–29, where Slovenia is well above the EU average,<sup>61</sup> with data on the number of graduates of tertiary education per 1,000 population aged 20–29, where Slovenia lags behind the EU average.<sup>62</sup>

Figure 10: Average duration of higher education study programmes in selected European countries, academic year 2006/2007<sup>1</sup>



Source: Data reporting module EUROSTUDENT III (2005–2008), 2008.  
Note: <sup>1</sup>Data for European countries refer to 2006 or 2007. For Slovenia, data refer to average duration of studies of undergraduate university graduates in 2006.

*In terms of labour-market needs, the structure of enrolment in tertiary education by field of study is changing too slowly.* Despite a rather favourable situation

<sup>58</sup> Transfers to households include: scholarships, child benefits, in the part where participation in education is set as a requirement for benefit payment, subsidised transport, meals, textbooks, etc.

<sup>59</sup> The share of repeat students enrolled in the first year is slightly higher.

<sup>60</sup> Data from EUROSTUDENT III (2005–2008), available for 2006 or 2007.

<sup>61</sup> In 2007, the ratio in Slovenia was 40.1, the EU average was 28.6.

<sup>62</sup> In Slovenia, the number of graduates in tertiary education per 1,000 population aged 20–29 was 57.7 (EU-27: 59.9).

at the international level, individual fields of study present differences in terms of unemployment and employability. According to Hegesco<sup>63</sup> results for 2008, the highest shares of unemployed were recorded in the fields<sup>64</sup> of agriculture and veterinary, services, arts and humanities, while the lowest were observed in health and welfare, engineering, manufacturing and construction, as well as in science, mathematics and computing. The results of the Analysis of Employment Trends among Slovenian Graduates of 2007 (Farčnik, Domadenik, 2009) revealed that the employment probabilities of graduates from undergraduate study programmes in the first six months after graduation were highest among graduates in health, computing, engineering, manufacturing and construction, and lowest among those who graduated in environmental protection, arts and humanities, and social sciences. The structure of enrolment in tertiary education by field of study is changing, yet these changes are too slow in terms of labour-market trends. In recent years, there has been a decrease of enrolment in social sciences, business, law and education, although the share of students enrolled in such programmes is still very high. On the contrary, enrolment in arts and humanities continues to rise. A similar trend is observed in science, technology, and health, although their shares remain low. This structure of enrolment leads to structural imbalances, translating into a growing number of registered unemployed people with tertiary education.<sup>65</sup>

*After decreasing for several years, participation in lifelong learning eventually rose in 2009.* Adult participation in lifelong learning<sup>66</sup> is an important factor in development of human capital and economic development, improving an individual's employment opportunities and allowing the elderly to stay in employment longer. According to the Labour Force Survey, participation of the population aged 25–64 in formal or informal learning in the second quarter of 2009 was 17.0% in Slovenia (EU average: 10%). Compared with 2008, participation rose by 1.1 p.p., thus ending the downward trend observed over the past years. Slovenia nevertheless lags considerably behind certain Northern European states (Denmark, Sweden,

<sup>63</sup> Preliminary statistical results of the Hegesco survey (Higher education as a generator of strategic competences), 2009.

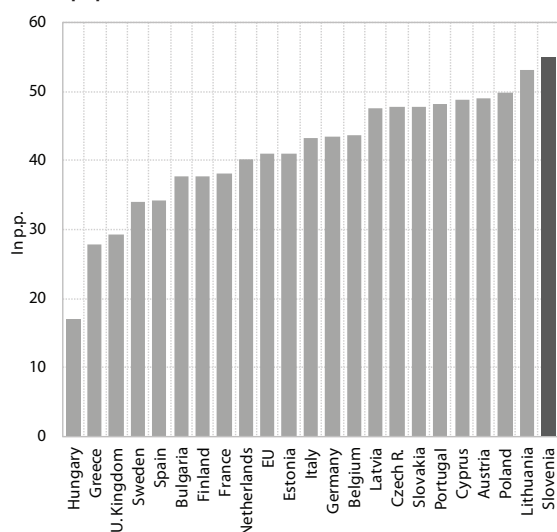
<sup>64</sup> According to the international standard classification of education Isced 97.

<sup>65</sup> The average registered unemployment among the population with tertiary education in 2009 was 79% higher than in 2000.

<sup>66</sup> The indicator measures the participation of the population aged 25–64 in education and training in the four weeks preceding the Labour Force Survey. It is calculated on the basis of data for the second quarter, as annual data (annual average) were not yet available at the time of drawing up this report. The European Commission has called attention to the methodological faults of the indicator. The measurement of participation in education and training in the final weeks preceding the survey is particularly problematic, which means that results strongly depend on the time of surveying. In 2003, the indicator calculation method changed, which means that Slovenia's values have been comparable since that year.

Finland) where participation rates are the highest. Adult participation in lifelong learning strongly depends on age and achieved level of formal education. Despite last year's increase, participation of the elderly (55–64 years) in education, which also contributes to greater employment of this age group, is modest and far below participation among the young. Also modest is participation of the less educated (with completed primary school at most) which lags significantly behind the share of those with secondary or tertiary education, ranking Slovenia at the top of comparable countries (see Figure 11).

Figure 11: Differences in participation in formal and non-formal education and training between low-skilled and high-skilled population, 2007



Source: Eurostat portal page – Adult Education survey, 2010.

## 2.2. Research, development, innovation and use of information-communication technologies

**Expenditure on research and development (R&D)** is increasing; trends were particularly favourable in private-sector expenditure in 2008 and in public-sector expenditure in 2009. Following the fall in 2007, gross expenditure on R&D in 2008 increased to 1.66% of GDP,<sup>67</sup> reaching the highest level ever, yet it needs to be underlined that this was also due to the increased number of reporting units of the business sector in Slovenia in 2008.<sup>68</sup> The gap to

<sup>67</sup> Last available data (SORS).

<sup>68</sup> As data on R&D expenditure as a share of GDP comprised a larger number of reporting units (of the business sector) in 2008, the share of expenditure in GDP rose more than it would have if the number of reporting units had not increased. The sample used as a basis for SORS assessment of gross expenditure on R&D as a share of GDP in 2008 covered 100 businesses more than in the year before.

the EU average (1.90% of GDP) dropped to the lowest level so far. The favourable trends observed in 2008 were mainly due to increased business-sector expenditure on R&D (by 25.7% in real terms), which was partly a result of broader coverage, although it is not possible – based on available data – to estimate to what extent the increase was due to including a larger number of enterprises into the sample.<sup>69</sup> The volume of existing tax relief for R&D investment recorded only a modest growth compared to 2007 and remains concentrated within a few key activities,<sup>70</sup> which is also typical of regional tax relief, the volume of which doubled in 2008. State subsidies for R&D investment also have a positive impact on the increase in R&D expenditure by businesses. A recent analysis (Bučar et al., 2010) shows that SMEs that received state subsidies for R&D in 2005–2007 increased their expenditure on R&D by an average of 21%. In such enterprises, the growth of value added was twice the average of other enterprises in the same branch. The biggest difference was observed in terms of employment: in the said three years, recipients of subsidies increased employment by 13%, while their competitors achieved only a 2.3% rise in employment. They have thus contributed to increasing employment and creating better jobs, which indeed strengthens the competitiveness of the economy (Bučar et al., 2010).

**The share of the business sector in financing R&D expenditure rose in 2008, and has been on the increase over the past few years.** Owing to much slower real growth of public expenditure on R&D in 2008, the share of the public sector decreased, while the relative importance of funds from abroad and in higher education has not changed significantly. In the light of achieving the Barcelona targets, according to which the share of the business sector in total expenditure on R&D should reach 2% of GDP and the share of the public sector 1% of GDP, Slovenia in 2008 realised half of the target to be achieved by 2013 (in 2008, the share of the business sector in R&D expenditure was 1.04% of GDP, and the share of the public sector 0.52% of GDP).<sup>71</sup> As one of the measures to combat the economic crisis, the government in 2009 significantly increased public-sector expenditure on R&D, raising the share of the public sector in R&D spending by 0.27 p.p. compared to 2008.<sup>72</sup> Considering the significant decline of economic activity in 2009 and the available assessments of expenditure on innovation

<sup>69</sup> In 2008, the average amount spent on R&D by individual businesses dropped, probably as a result of including a larger number of small enterprises.

<sup>70</sup> Manufacture of pharmaceutical preparations, manufacture of electrical apparatus, and manufacture of motor vehicles, trailers and semi-trailers. These activities contributed the most to the growth of market shares abroad in 2009.

<sup>71</sup> Funds from abroad and expenditure of higher education on R&D totalled 0.10% of GDP.

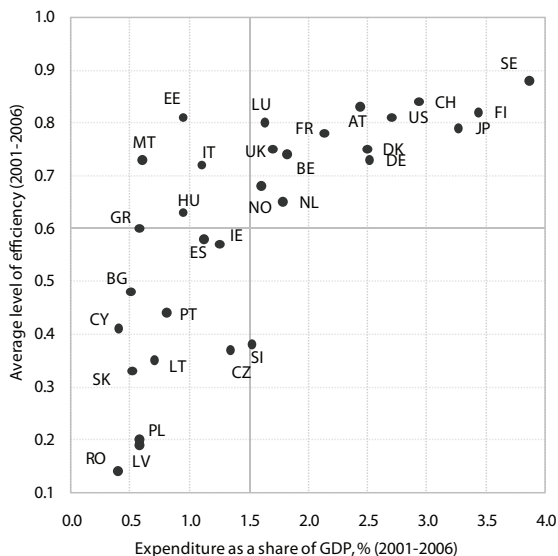
<sup>72</sup> Share was calculated based on the first estimates by SORS (2010), whereby GDP in current prices in 2009 amounts to EUR 34,894 m.

activity,<sup>73</sup> the business sector cannot be expected to increase R&D expenditure in 2009. According to the results of Innobarometer, 18.5% of Slovenian enterprises reduced expenditure on innovation, 66.6% maintained the previous levels, and only 4.6% increased them.<sup>74</sup>

Given the level of **research and development expenditure** in Slovenia, **efficiency of spending** was relatively low according to data for 2001–2006. Although the level of expenditure on R&D is not the only key factor of a successful innovation policy, analyses show that it also affects the efficiency of spending. In the period 2001–2006, the countries with the highest shares of expenditure on R&D in GDP were also the most efficient in using it.<sup>75</sup> This interrelation also derives from the fact that the countries which spend more on R&D have stronger institutional support for R&D and innovations (e.g. intellectual-

property protection systems, human resources in science and technology, relative specialisation in high-tech activities, coherence of policies and measures in various areas). Slovenia was thus among the less efficient EU countries in this period since its average level of R&D expenditure gave below-average efficiency results. Some countries with comparable R&D expenditure levels achieved much better results (e.g. Ireland, Norway or Luxembourg). On the other hand, some countries with similar levels of R&D expenditure efficiency spend much less on R&D than Slovenia. The most recent data for 2008 and 2009 show positive shifts for Slovenia in terms of the efficiency of R&D spending, indicating that the situation in Slovenia is improving; however, positive movements have also continued in other countries. Insufficient results in innovation activity are also indicated by the latest European Innovation Scoreboard 2009, measuring various dimensions of innovation activity based on 29 indicators. Although, according to the most recent calculation<sup>76</sup> of the Summary Innovation Index, Slovenia came very close to the EU average, and was for the first time ranked among the “innovation followers” (having been a “moderate innovator” before that), it still lags behind the EU average in terms of the economic effects of innovation,<sup>77</sup> but exceeds the EU average in terms of human resources.

Figure 12: Average efficiency of R&D spending and share of expenditure on R&D in GDP



Source: Measuring the efficiency of public spending on R&D, (EC) 2009.  
 Note: Efficiency of R&D spending is measured by the number of patents per million of population and scientific excellence (number of scientific publications per million of population and their quotations). \*Due to the comparability and availability of data, the figure shows data for 2001–2006 for all countries, while for Slovenia the latest data are also available, indicating positive shifts.  
 Legend: AT-Austria, BE-Belgium, BG-Bulgaria, CY-Cyprus, CZ-Czech Republic, DE-Germany, DK-Denmark, EE-Estonia, EL-Greece, ES-Spain, EU-European Union, FI-Finland, FR-France, HU-Hungary, IT-Italy, LT-Latvia, LV-Lithuania, LU-Luxembourg, MT-Malta, NL-Netherlands, PL-Poland, PT-Portugal, RO-Romania, SE-Sweden, SI-Slovenia, SK-Slovakia, UK-United Kingdom.

<sup>73</sup> Expenditure on innovation activity include: investment in R&D, purchase of equipment, acquisition of external knowledge, expenditure on training, and on introduction of innovations on the market.

<sup>74</sup> In the survey carried out in the first trimester of 2009, enterprises replied to the question how they had coped with the crisis in terms of expenditure on innovation over the last six months. In the EU, on average 22.1% of enterprises reduced expenditure of this kind, 58.5% maintained it at the previous level, while 8.8% increased it (Innobarometer, 2009).

<sup>75</sup> Efficiency of investment in R&D is measured by the number of patents per million inhabitants and scientific excellence (number of scientific publications per million inhabitants and number of their citations).

**The number of patent applications** filed by Slovenian applicants at the European Patent Office (EPO) increased considerably in 2008. Nevertheless, with 63.7 patent applications per million of population,<sup>78</sup> Slovenia still lags behind the EU average (131.1) although it ranks in the middle of all EU Member States (14<sup>th</sup>) and is ahead of almost all other new members. The number of patents in a certain country depends on several factors related to human capital, production structure<sup>79</sup> and a supportive institutional environment. It is particularly evident that the countries with a higher number of researchers<sup>80</sup> in the business sector also present higher numbers of patents per million population. It is therefore important to note that over the last two years and throughout 2000–2008, the number of researchers in Slovenia has increased mainly in the business sector, accounting for 43.5% of all researchers in 2008. Given the slower growth of research staff in the public sector and higher education, the structure of researchers by field of employment came closer to the EU average (46%) than ever before.

<sup>76</sup> Data for individual indicators refer to different years of the 2005–2008 period, mostly to 2008.

<sup>77</sup> The economic effects of innovation include the share of employment in medium-high and high-tech manufacturing activities and in knowledge-based services, the share of such activities in export and the share of sales of new products and services in total sales.

<sup>78</sup> In 2008, Slovenian applicants filed 129 patent applications at EPO, which is 12.2% more than the year before when they filed 115 applications (EPO Annual Report 2008, 2009).

<sup>79</sup> A low share of final products in the production structure has a negative effect on patenting since the suppliers of intermediate products are less motivated to apply for patents.

<sup>80</sup> Expressed as full-time equivalent (FTE).



Hitherto, trends regarding availability of adequate human resources, mainly **science and technology graduates**, which in the long term significantly increase the number of patents and innovations and improve the absorption capacity of the economy, have been slow. In 2000–2008, the number of science and technology graduates in Slovenia rose by 16.0%, but was still far below other EU countries. Slovenia also lags considerably behind the EU average in terms of science and technology graduates per 1,000 inhabitants aged 20–29 (9.8 compared to 13.4, in 2007), with an increased gap due to slow progress until 2007.<sup>81</sup> The unfavourable situation resulting from a longstanding lack of attention to the problem of low enrolment in the said study programmes is additionally proven by the fact that the share of graduates in science and technology in the total number of graduates – despite a slight increase last year (it amounted to 17.6% in 2008) – evidently lags behind both the 2000 level and the EU average (2007: 22%). Activities to increase enrolment in science and technology, also through greater accessibility of scholarships for such fields of study, have indeed increased interest, but major shifts are hardly expected in the short term. Another weakness is the fact that businesses insufficiently plan specific needs for certain profiles for some years in advance and that more applications for scholarships are filed by those students that are not enrolled in undersubscribed programmes. Since the probability of employment of science and technology graduates<sup>82</sup> and likely amount of income may be considered important factors in choosing a study programme, greater emphasis should be given to systematically informing future students and encouraging them to enrol in science and technology. Low enrolment in these programmes is recorded particularly for women.<sup>83</sup> Promoting interest in natural sciences through modern programmes at upper-secondary schools can also play an important role in the selection of science and technology as fields of study.<sup>84</sup> Along with these proposals, solving the problem of the lack of highly skilled staff in these fields calls for broader action, including study financing systems, efficiency of studies, and greater involvement of interested businesses in designing study programmes, which, however, will only bring results in the medium

term. In the short term, the solution should rely on migration policy and on acquiring highly qualified staff from abroad.

*The intensity of the use of the Internet, another competitiveness-enhancing factor, speeded up in Slovenia in 2009, both by individuals and households.* In addition to the availability of adequately skilled workers, a major contribution to competitiveness is made by modern technologies, mainly information and communication technologies (ICT), which improve the efficiency of the private and public sectors, and provide access to markets and information, enable the establishment of various social networks and interactions among the users. ICT generate the largest share of technological innovations and also lead to the creation of non-technological innovations that are important for the strengthening of the entire value chain and improved meeting of customers' needs. A key, stimulating role in such processes is played by the Internet, broadband networks, and advanced mobile telephony which decisively determine states' capacity to perform in a "networked" world. The share of Slovenian Internet users aged 16–74 in 2009 rose to 62%, narrowing the gap to the EU average (65%). Despite some positive shifts in the use of the Internet among the middle-aged (35–54 years) and low-skilled population, Slovenia still lags behind the EU average in this respect. The share of households with Internet access in 2009 reached 64% and is fully comparable with the EU average. Both in the EU and Slovenia, more than half of all households have a broadband connection, which allows access to new services offered by businesses and public institutions. Nevertheless, the data-transmission speed in Slovenia is much lower, since availability of broadband Internet with transmission capacity above 2 Mbit/s is half the capacity in the EU and the Internet is used relatively less for complex communication services. Online shopping for goods and services, e-banking, and advanced forms of communication (e.g. Internet phone calls) are below the EU average, and the differences have not diminished significantly over the years. Also fairly similar is the picture in the use of e-government by individuals, where the share of population using e-government services to obtain information and forms from public administration is above the European average, while the share of those who interact with the public administration exclusively in electronic form (electronic return of filled-in forms) is lower than in the EU. A possible cause is inadequate knowledge of users, reflected in data on the reasons for not using the Internet. Slovenia strongly departs from the European average particularly as regards the share of households without Internet access due to lack of knowledge and skills. According to the Network Readiness Index<sup>85</sup> for 2008–2009, Slovenia ranked 31<sup>st</sup> in the world

<sup>81</sup> Last available data for EU countries are for 2007.

<sup>82</sup> Among various fields of study, in 2007 the probability of employment within six months from graduation was among the highest for graduates in computing, and engineering, manufacturing and construction (which fall under science and technology) (Analysis of Employment Trends among Slovenian Graduates of 2007, 2009).

<sup>83</sup> In the total number of students in tertiary education, the share of those enrolled in science and technology in the academic year 2008/2009 was 12.2% for women and 43.2% for men. Otherwise, women hold a 58% share in the total population in tertiary education.

<sup>84</sup> The survey on the Knowledge of Mathematics and Physics among Slovenian Secondary School Graduates (Japelj Pavešič et al., 2009), carried out in 2007 and 2008, revealed that the selection of physics as subject for the matura exam depended on a positive attitude toward physics, and that 55% of all students who chose physics for the matura exam intend to study science and technology.

<sup>85</sup> The index comprises a series of indicators, from use of ICT (Internet, e-commerce in the public and private sectors, mobile communications, etc.), level of access and quality of ICT infrastructure to business and regulatory framework for the use of ICT (The Global Information Technology Report 2008–2009, 2009).

and improved its index value compared to previous years, but nevertheless lags 13 places behind Estonia, which is the best placed of the new EU Member States. A similar rank (29<sup>th</sup> in 2009) was achieved in terms of e-readiness (EIU E-readiness rankings 2009). In order to move up on these rankings, greater investment in ICT<sup>86</sup> is needed, together with support for the introduction of innovative services responding to the challenges of economic competitiveness, environmental protection, and ageing of the population (e.g. intelligent transport systems, intelligent buildings and intelligent energy networks, the green economy, modernisation of public services).

*In the period 2005–2008, Slovenia achieved certain progress in terms of increased investment in R&D, innovation activity, a higher number of patents, and intensity of use of modern technologies, but failed to take advantage of favourable conditions and rapid growth to further enhance economic competitiveness, which would be reflected in major shifts in R&D investment and greater efficiency of invested funds.* The last serves as a basis to upgrade the technological level of production and improve export structure towards technologically complex products and services. The related shortcomings, resolved much too slowly in the past, became particularly evident in the time of crisis, which mainly hit Slovenian exports due to low technological sophistication. Measures to combat the crisis adopted in 2009 indeed brought a shift in the sense of significantly increasing public funds intended for investment in research, development and innovation, although their implementation – also through their combination with financing from structural funds – was very difficult and slow. Analysts continue to point to the problem of insufficient co-ordination of such measures among the ministries and implementing institutions, leading to a certain degree of overlapping or doubling of rather similar support instruments. This is another barrier, particularly for SMEs, which lack human capacity or funds to hire external providers of services to participate in or successfully implement tenders (Inno-Policy Trendchart, Country Report Slovenia 2009, 2009). The greatest challenge for the future is certainly continuous investment in the said areas and efficient use of these funds to improve the innovation capacity of the economy and the public sector, and to provide human resources in areas where there is a shortfall. The adopted budget for 2010 envisages a larger GDP share for R&D, while the level of these funds as a share of GDP in the 2011 budget is again lower, according to the estimates of the Ministry of Higher Education, Science and Technology.<sup>87</sup> Such fluctuations in state support are

unfavourable for enterprises, as they cannot plan their research activities, which, by nature, involve long-term planning. To improve the efficiency of investment in research, development and innovation, it is essential to better co-ordinate different policy measures, to further simplify fund-raising procedures for businesses (also through better co-ordination between implementing institutions), and to rapidly adapt education programmes to economic needs.

<sup>86</sup> Between 2006 and 2008, Slovenia reduced investment in ICT from 4.8% to 4.6% of GDP. In the period of high economic growth, all EU countries (except the UK) recorded stagnation or relatively slower growth of such expenditure as a share of GDP, while Japan and the USA considerably increased investment in ICT.

<sup>87</sup> Estimate by the Ministry of Higher Education, Science and Technology is based on the second revised budget for 2009, in co-operation with the Ministry of Higher Education, Science and Technology, Ministry of Economy, and Ministry of Defence.

## 3. An efficient and less costly state

**SDS guidelines** for the third priority cover three areas. First, structural reform of public finance comprising a reduction of general government expenditure as a share of GDP by at least two percentage points, restructuring expenditure in line with the priorities of the strategy and absorption of EU funds, and comprehensive tax reform aimed at removing burdens from labour, promoting competitiveness and employment, and simplifying the system. Second, increasing the institutional competitiveness and efficiency of government, which involves a reduction of state ownership in the economy, improvement of the quality of regulations and cutting red tape, introduction of public-private partnerships in infrastructural investment and public utilities, and increasing the efficiency of the civil service. And third, improving the functioning of the judiciary by making the system more effective and reducing court backlogs.

### 3.1. Quality of public finance

After a considerable decline recorded in 2005–2007, **general government expenditure relative to GDP rose significantly over the next two years; in 2008 due to increased spending and in 2009 as a result of the economic crisis.** In 2005<sup>88</sup>–2007, general government expenditure as a share of GDP decreased by 2.8 p.p., partly as a result of the adopted measures and partly owing to rapid economic growth. A major contribution to this decrease was made by the drop in expenditure for social benefits and assistance – mainly deriving from the changed method for their adjustment<sup>89</sup> and reduced expenditure on pensions – and compensations of employees which was a result of restrained adjustment of wages to inflation because of the planned wage reform. In 2008, general government expenditure rose by 1.9 p.p. of GDP compared with the previous year, a third of which was attributed to the wage reform carried out in autumn that year (by 0.6 p.p. higher expenditure for employees), while the other two thirds (1.3 p.p. of GDP) was added by increased expenditure on intermediate consumption, social benefits and assistance,<sup>90</sup> followed by current and capital transfers and gross capital formation. In 2009, general government expenditure increased to 49.9% of

GDP owing to lower GDP and higher general government expenditure. The latter rose parallel with the growth of expenditure related to measures that had been adopted in 2008 (expanded rights in child care, meals in secondary schools, measures to mitigate the consequences of significant inflation), expenditure related to the operation of automatic stabilisers, and expenditure approved by the government to mitigate the consequences of the financial and economic crisis. The adopted wage reform and the growing number of employees in the public sector led to an increase in expenditure for wages (by 1.3 p.p. of GDP) which would have been even higher had the government simultaneously not adopted measures to restrict employment, remuneration of work performance and promotion, and postponed the elimination of a quarter of wage disparities. Measures taken to combat the crisis increased social benefits and assistance (by 1.0 p.p. of GDP) due to the higher number of beneficiaries and one-off allowances for socially deprived persons, as well as subsidies (by 0.6 p.p. of GDP), in which measures were directed to the labour market and to encouraging growth and development (R&D, SME). The Slovenian Exit Strategy 2010–2013 (2010) envisages a gradual withdrawal of anti-crisis measures (in 2010), reforms of pension and health insurance, rationalisation of social transfers, and restriction of employment in the public sector, of compensation of employees and of expenditure on intermediate consumption, which should drastically reduce the share of general government expenditure relative to GDP. The adopted Stability Programme – 2009 Update (January 2010) expects general government expenditure to drop to 44.2% of GDP by 2013, which is only one p.p. less than the level achieved in 2005, meaning that the SDS target will not be reached by the end of 2013.

*The 2005–2008 period was characterised by slight shifts toward increasing development-oriented expenditure, which however were too small to decisively accelerate development.* The economic classification of expenditure shows an increase in expenditures on capital transfers (by 0.2 p.p.) and gross fixed capital formation (by 1.4 p.p. of GDP), which can positively affect development and which are also higher the EU average. However, although growing, the shift in capital transfers was not sufficiently development oriented, as a major increase was observed in transfers to public administration. The share of capital transfers for economic activities dropped to 34.6% by 2008 (2005: 44.6%). Since the huge investments in the construction of the motorway network only partly derived from capital transfers and were mainly financed by borrowing with state guarantees, they could not significantly influence the amount of general government expenditure. A more evident qualitative shift occurred in expenditure on capital formation, where major increases were observed in terms of investment in economic affairs (transport, in particular), housing, and recreation and culture. Increased investment was partly the result of projects implemented with the support of the European Union.

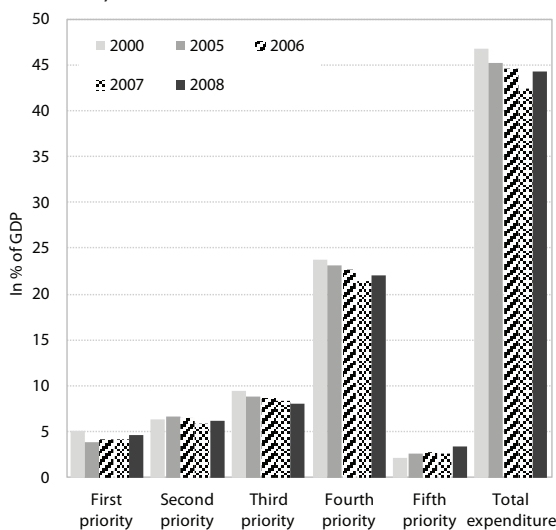
<sup>88</sup> The Slovenian Development Strategy (SDS) was adopted in 2005.

<sup>89</sup> 2007 saw the introduction of a mechanism adjusting other transfers to individuals and households to inflation.

<sup>90</sup> In 2008, expenditure on social benefits rose owing to introduction of their valorisation twice a year, the one-off pension allowance and other higher transfers (higher child benefits, child care benefits in kindergartens, meals in secondary schools).

*Favourable development shifts in general government expenditure expressed as a share of GDP by 2008 are also evident in terms of their functional classification at the first level. Relative expenditure supporting the first development priority (economic affairs) had been growing since 2005, reaching a peak in 2008 mainly as a result of a rather significant increase in investment. Expenditure on education, which supports the second development priority, first recorded a major drop (although still remaining above the EU average), but rose again in 2008 as a consequence of accelerated growth of intermediate consumption and investments. A growing share in GDP is also recorded by minor expenditure supporting the fifth development priority (environmental protection, housing and community amenities, recreation, culture and religion). In this group, the main increase was observed in expenditure on culture among which investments, intermediate consumption and compensations of employees rose by more than 50% in nominal terms. Expenditure on social protection and health supporting the fourth development priority decreased considerably. It grew slightly in 2008 but as it was below the EU average in 2007 (Slovenia: 21.4%; EU: 24.6% of GDP), any further attempts to reduce it should be carefully deliberated and target-oriented. A rapid decline was also recorded in expenditure supporting the third development priority (general public services, defence, public order and safety), which complies with SDS.*

Figure 13: General government expenditure by SDS priorities, 2000–2008, % of GDP



Source: General government expenditure according to COFOG, Slovenia, 2000 (SORS), January 2009 and 2005–2008 (SORS), December 2009; calculations by IMAD. Note: first priority – expenditure on economic affairs, second priority – expenditure on education, third priority – expenditure on general public services, defence, public order and safety, fourth priority – expenditure on health and social protection, fifth priority – expenditure on environmental protection, housing and community amenities, recreation, culture and religion.

***In the area of industrial policy, the share of subsidies in GDP has not changed since 2005, and there have been no major structural shifts toward allocating them for productive purposes. Subsidies accounted for 1.6% of GDP***

also in 2008 and were among the highest in the European Union. Most subsidies (67%) were allocated to economic affairs, mainly agriculture and transport. Compared to the previous year, subsidies to agriculture in 2008 rose in nominal terms by 61% and made up almost a half (46.9%) of all subsidies allocated to economic affairs. Subsidies to transport, particularly railways, decreased considerably (by 15% in nominal terms), but still accounted for over a third (35%) of the total subsidies to economic affairs. Subsidies to promote other economic targets were low (2008: 18% of the total subsidies to economic affairs), decreasing in nominal terms by 35% in 2008, mostly owing to reduced subsidies to general economic affairs, which mainly relate to the labour market. This allocation of subsidies did not support SDS targets in the sense of promoting faster restructuring of the Slovenian economy and increasing value added per employee. According to IMAD estimates, subsidies increased with the measures to combat the financial and economic crisis in 2009, and can be classified into “general economic affairs” (focused on the labour market) and “R&D in the economy”. A high level of subsidies can also be expected in 2010, since subsidies related to solving problems on the labour market will be phased out by 2011, while subsidies to R&D will maintain their already high level (Stability Programme – 2009 Update, 2010; Slovenian Exit Strategy 2010–2013, 2010).

*The extent of industrial policy measures having the nature of state aid increased in 2008, and there was also some improvement in relation to their orientation. Compared with 2007, state aid increased by 0.1 p.p. of GDP but was still lower than in 2005.<sup>91</sup> Railway transport excluded, state aid in Slovenia totalled 0.7% of GDP and was considerably below the EU average (2.2% of GDP). The evident growth of aid in the EU average derives from special aid intended to tackle the financial and economic crisis (known as crisis aid) in 13 Member States, accounting for 1.7% of EU GDP and intended for the financial sector (State Aid Scoreboard, 2009). The European Commission granted crisis aid for the Slovenian financial sector in October 2008, yet no measure was implemented in that year. A partial improvement of the structure of state aid in Slovenia is reflected in the increase of horizontal aid that returned to the 2006 level after a huge drop in 2007, and the consequent reduction of sectoral aid that is much less efficient (Eleventh Report on State Aid, 2009). It needs to be underlined that the structure of horizontal aid is not very favourable. In 2008, there was a significant increase in regional aid (by 10.3 p.p.), and a decline in the aid for targets that have a more favourable impact on development (R&D, energy saving, SME, training). Crisis aid was used by Slovenia in 2009. According to IMAD estimates, 2009 was characterised by a considerable*

<sup>91</sup> Data are comparable only for years since 2005. Before EU accession, Slovenia reported all state aid, while since accession state aid has excluded almost a half of the aid earmarked for agriculture, which is expressed as measures granted based on the Common Agricultural Policy that are no longer considered state aid.

increase of sectoral aid intended to support the financial sector and of horizontal aid to employment, R&D, and SME. However, given the amount of aid earmarked for the financial sector, the structure of sectoral and horizontal aid in terms of implementing the SDS targets deteriorated.

**The burden of taxes and contributions** measured as a share of GDP fell after 2005 as a result of lower taxes on labour and consumption. The total tax burden in Slovenia in 2008 was 37.7% of GDP and was the same as in 2000. The tax burden grew in 2000–2005 but fell in 2005–2008 following the implementation of tax system reforms. In 2007 it reduced by 0.6 p.p., while in 2008 it fell by an additional 0.3 p.p. The 2007 and 2008 tax reforms, mainly in personal income tax, corporate income tax, and payroll tax (gradual phasing out), and changes in excise duties improved the tax structure by increasing the share of taxes on capital and reducing the share of taxes on consumption and labour. Yet, despite these changes, an international comparison of tax systems<sup>92</sup> reveals that, in 2007, Slovenia had much higher taxes on labour and lower taxes on capital than the EU average. In that year, taxes on consumption accounted for 34.8% of total taxes and only slightly exceeded the EU average (33.6%). The share of taxes on labour was 51.5% and much above the average in EU countries (45.2%). The share of taxes on capital in Slovenia was low. Given the increase of the corporate income tax and favourable capital income, it rose slightly in 2007 but still equalled only 13.9%, which was far below the EU average (21.3%). The analysis of implicit tax rates<sup>93</sup> indicates that in Slovenia in 2007, taxes on labour were above the average and mainly burdened with social-security contributions. In 2009, the tax wedge of labour costs per employee receiving an average salary was 42.5%, which is above the OECD average (OECD Economic Survey, Slovenia, 2009). The Slovenian Exit Strategy 2010–2013 (2009) thus envisages the fixing of an upper limit on the insurance base for social-security contributions.

*In a situation of economic downturn, the stability of general government revenue becomes an issue.* The loss of general government revenue in 2009 was estimated at about 2.5% of GDP and was mainly the result of the operation of automatic stabilisers and the effect of lower tax rates, and non-payment of contributions by certain

<sup>92</sup> The classification of taxes is based on ESA–95 and the uniform basic rules of classification. Taxes on consumption are defined as taxes on transactions between consumers and producers, and taxes on the final consumption of goods. Taxes on labour are directly linked to wages and are paid by employees or employers. Taxes on capital refer to taxes paid on capital, corporate income, household capital income (annuities, dividends, interests, other property revenue), capital gains, property, etc.

<sup>93</sup> The implicit tax rate on consumption is the ratio between taxes on consumption and the final consumption of households in the territory of the state by the national accounts methodology. The implicit tax rate on labour is the ratio between taxes on labour and employee compensation by the national accounts methodology, increased by payroll tax.

enterprises, while the impact of additional discretionary measures to reduce the tax burden was low. Tax revenue would have been even lower if its decline had not been mitigated by increased excise duties on all types of products, mainly oil derivatives (Stability Programme – 2009 Update, 2010).

## 3.2. Institutional competitiveness

**The withdrawal of the state from direct and indirect ownership in companies and financial institutions** was also modest in 2009, which was a consequence of the international financial crisis and conceptual disagreements on this issue. The state thus remains one of the most important direct and indirect owners of Slovenia's economy. According to data for 2007 (latest data), the public sector<sup>94</sup> owns a 23% share in Slovenian joint-stock companies. Among the 21 EU countries for which data are available, only Lithuania features a higher public sector share (26.5%).<sup>95</sup> Following the guidelines of Slovenia's Development Strategy, in July 2006 the government decided that the state would withdraw from companies in which it was an indirect owner through SOD (Slovenska odškodninska družba – Slovenian Restitution Fund) and KAD (Kapitalska družba – Pension Fund Management).<sup>96</sup> The state nevertheless withdrew slowly or not at all, particularly from direct-ownership shares of the Republic of Slovenia in enterprises. KAD and SOD sold their portfolios at a faster pace, although this process also slowed in 2008 and 2009 (see Tables 3 and 4) and lags behind the plans.<sup>97</sup> Both the Republic of Slovenia as the owner and KAD and SOD were mainly selling investments in non-listed and listed companies, whereas the withdrawal of the state from the most important strategic investments was notably slower.<sup>98</sup>

<sup>94</sup> The public sector comprises shares owned by the government/ state/municipalities, or state-related institutions.

<sup>95</sup> FESE, 2008, based on data provided by the Bank of Slovenia.

<sup>96</sup> KAD and SOD are to withdraw from active ownership management in non-listed companies within 30 months and in listed companies within 24 months. No deadline has been set for strategic investments (18 companies)..

<sup>97</sup> In accordance with the programme of the withdrawal of KAD and SOD from active management of companies, both institutions should have sold their listed investments by the end of July 2008 and non-listed investments by the end of January 2009.

<sup>98</sup> On 31 December 2008, the state directly owned shares in 92 companies: it owned majority shares in 42 companies and minor shares in 50 companies. In 2007–2008, it sold its ownership shares in 56 companies, of which it owned more than 10% in only 4. The other ownership shares it sold were less than 10% shares. Altogether, in 2007–2008, the state sold its shares in companies in the amount of EUR 410.3 m. Within that, the sale of the 48.1% share in NKBM (Nova kreditna banka Maribor) was worth EUR 303.3 m and the sale of the 55.35% share in Slovenska industrija jekla (Slovenian Steel Group) brought EUR 105 m. In the last few years, there were therefore only two major deals in which direct ownership shares of the state were sold (Slovenian Steel Group and NKBM).

Table 3: Pension Fund Management: Overview of cumulative sales and stock (as at 31 December) in 1999–2009

	1999	2000	2005	2006	2007	2008	2009
Fully sold companies – cumulative	553	862	1127	1181	1226	1243	1256
No. of companies in the year-end balance sheet*	735	458	210	160	112	95	82

Source: Pension Fund Management.

Note: \*The decrease in the number of companies in the year-end balance sheet may differ from the number of sales in the same year due to free transfers, swaps, purchases or removals from the register of companies.

Table 4: Slovenian Restitution Fund: Overview of the stock of capital investments and sales in 2004–2009

STOCK			SALES		
End of year	No. of investments	No. of active investments <sup>1</sup>	Year	No. of investments sold <sup>2</sup>	Sales value of investments (EUR m)
31.12.2004	227	179	2004	43	76.1
31.12.2005	194	151	2005	37	111.7
31.12.2006	134	102	2006	57	85.2
31.12.2007	86	56	2007	47	225.8
31.12.2008	69	53	2008	7	167.6
31.12.2009	58	42	2009	10	16.9

Source: Slovenian Restitution Fund.

Notes: <sup>1</sup>Capital investments in companies that are not involved in a bankruptcy procedure and capital investments in which no sales contract was signed. <sup>2</sup>A sales contract was signed.

The economic downturn makes the withdrawal of the state from ownership in companies even more difficult. Due to the economic recession, the ownership of the state, particularly of entities within its domain, in companies is in fact increasing; entities related to the state (KAD, SOD, banks) have entered companies that have had problems surviving or are unable to repay their loans. In the long term, the lengthy process of direct and indirect withdrawal of the state from company ownership is mainly a result of the Slovenian concept of privatisation and post-privatisation consolidation. At the same time, the economic crisis also reduces the interests and capabilities of potential new investors. With some certainty, (new) privatisation will significantly affect the shaping of Slovenia's economic future. This is formally announced by the Act on Corporate Governance of State Capital Investments, which has already been drawn up, and by the expected transformation of KAD and SOD. The Slovenian Exit Strategy (2010) forecasts the sale of capital shares in the amount of about 2 p.p. of GDP. In terms of content, privatisation will also be stimulated by the problems companies have in repaying loans granted by banks for management buyouts, or – generally speaking – by the problems of the companies in which the state has its ownership shares, as well as by the necessity to reduce the general government deficit and public debt. This will indeed prove beneficial for the companies as they will be given the opportunity of managing with a clearer strategic vision.

In **public administration**, no improvement was observed in 2009 in relation to activities highlighted by SDS. In implementing the project of *better regulation and regulatory assessment*, tasks carried out in 2009 complied with the envisaged time schedule. At the end of the year, the parliament adopted the Resolution on Legislative Regulation, providing for the assessment of impact

of draft regulations and policies on the economy, the environment, social affairs, and public finance. A special manual on the implementation of regulatory impact assessment is close to completion. The programme of eliminating administrative barriers and reducing administrative costs was only partly successful in 2009. The first part of the programme, i.e. the action plan to reduce administrative burdens by 25% by 2012, is being successfully implemented, in parallel with procedures to measure administrative burdens. As regards the second part of the programme, which comprises 41 specific measures, only 6 out of 30 measures were fully realised by the end of October 2009. Some of the measures pending realisation include: simplification of the payment of taxes and other compulsory charges, the possibility for sole proprietors of arranging their retirement at a single location, the introduction of registers of children and young people attending schools, and reduction of administrative burdens in environmental regulations (Ministry of Public Administration, 2009). The use and quality of *e-services* in public administration improved. In 2007, Slovenia already had 90% of e-government services set up for twenty basic public-administration services (EU: only 59%), and the possibility of accessing public services in electronic form expanded further over the following years.

Nevertheless, there are still some weaknesses in terms of institutional structure as regards the activity of public administration, and in particular the implementation of adopted regulations. This is mainly due to the processes of privatisation and denationalisation ("quasi" investment funds, by-pass companies, management buyouts) that created a new economic elite, which set up a symbiotic relation with politicians, making the operation of institutions subordinate to the interests and needs of the wealthy strata of the society – to the interests of a

Table 5: State efficiency according to IMD\*

IMD indicators of state efficiency	2005		2006		2007		2008		2009							
	Rank	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Value						
Policy direction of the government <sup>i</sup>	50	3.6	42	+ 4.21	+	35	+ 4.28	+								
Legal and regulatory framework <sup>ii</sup>	48	3.03	43	+ 3.39	+	36	+ 3.83	+	30	+ 3.98	+	27	+ 4.38	+		
Adaptability of government policy <sup>iii</sup>	57	2.63	46	+ 3.43	+	38	+ 3.44	+	40	- 3.29	-	41	- 3.25	-		
Implementation of government decisions <sup>iv</sup>	46	3.58	34	+ 4.03	+	30	+ 4.04	+	25	+ 3.98	-	30	- 3.63	-		
Transparency of government policy <sup>v</sup>	50	3.71	40	+ 4.34	+	37	+ 3.98	-	32	+ 3.79	-	25	+ 4.22	+		
Bureaucracy <sup>vi</sup>	53	1.73	45	+ 2.17	+	41	+ 2.19	+	37	+ 2.35	+	25	+ 2.85	+		
Bribing and corruption <sup>vii</sup>	39	3.13	34	+ 3.95	+	28	+ 4.00	+	26	+ 3.79	-	26	o 3.98	+		

Source: IMD World Competitiveness Yearbook, various issues.

Note: Rank means the rank of Slovenia among 57 countries. Value is the value of the indicator. The maximum (best) value is 7. + means improvement over the preceding year, - means deterioration, o means no change.

The legend of indicators represents ranking between two extremes: (i) policy direction of the government is assessed as consistent or inconsistent; (ii) the legal and regulatory framework encourages or restricts corporate competitiveness; (iii) the adaptability of government policy to changes in the economy is high or low; (iv) government decisions are implemented effectively or ineffectively; (v) transparency of government policy is satisfactory or low; (vi) bureaucracy either restricts or does not restrict business activity, and (vii) bribing and corruption either exist or do not exist.

political and economic elite (Brandt, 2009). This is also supported by IMD indicators for Slovenia, prepared on the basis of perception – surveys. Slovenia ranks rather high although the values of individual indicators are relatively low (Table 5).

*Institutional competitiveness is also expressed by certain international competitiveness indicators, e.g. of IMD and the World Bank.*<sup>99</sup> According to the IMD report (IMD World Competitiveness Yearbook, 2009),<sup>100</sup> a key factor affecting the changes in Slovenia in 2009 was the improvement of government efficiency,<sup>101</sup> namely of the institutional framework which is one of the main indicators of government efficiency. Between 2005 and 2009, Slovenia improved the legal and regulatory framework and achieved a better rank and higher value also in bureaucracy and in bribing and corruption. At the same time, in the past two years, Slovenia deteriorated in the adaptability of government policy to the changes in the economy, and in the implementation of government decisions. A slightly different picture is revealed by the indicators of the World Bank (World Bank Governance Indicators, 2010), available for 2005–2008. In this way, Slovenia improved government efficiency, mainly the quality of work of state administration, government decisions, implementation and credibility of government actions, while deteriorating in control of corruption. The survey also indicates progress in terms of improvement of the regulatory framework and of trust in the legal framework, which stimulates the competitive strength of undertakings.

<sup>99</sup> These indicators are based on surveys rather than on actual indicators of economic trends, which is probably one of the reasons why Slovenia has advanced in certain key international comparisons of economic competitiveness.

<sup>100</sup> Among 57 countries, Slovenia maintained its position, ranking 32nd; among EU countries, it is ranked 14th, up by one position.

<sup>101</sup> Government efficiency comprises the following sub-indicators: public finance, fiscal policy, institutional framework, business legislation, and social framework.

**Public-private partnerships in infrastructure investments and public services have not yet been established.** Despite the adoption of a regulatory framework for public-private partnership, the state and municipalities only grant concessions for provision of services rather than for more complex forms that would include the construction of infrastructure facilities. At the level of municipalities, the reason lies mainly in the fact that projects are small and their economic effects expected by the private sector are too modest.

### 3.3. Efficiency of the judiciary

*The reduction of court backlogs (excluding misdemeanour cases) also continued in 2009. Looking at individual courts, backlogs increased mainly in labour courts and the social court. In 2009, the number of pending cases in all courts together dropped by 7.9%, but rose in district and labour courts and in the social court. As regards cases of major importance, the number of pending cases in all courts decreased more slowly (2009: by 3.2%). These results were achieved amid a high increase in caseload in 2009 compared with the previous year, mainly under the influence of the global economic crisis, but also, according to the Ministry of Justice, due to the new competences of courts.*

*Looking at all cases excluding misdemeanour cases, the Lukenda project was almost fully realised, although some weaknesses still persist in major cases and individual courts. A calculation of court backlog<sup>102</sup> shows that the Lukenda project is close to realisation on average in all courts (51.6% of annual caseload<sup>103</sup>), the only exceptions*

<sup>102</sup> According to the statistical definition of court backlog provided in "Lukenda project, court backlogs, elimination 2010", court backlogs are pending court cases in individual courts that exceed half of the average annual caseload of an individual court.

<sup>103</sup> The goal of the Lukenda project will be achieved when the value of the annual caseload is 50 or less.

being the supreme court where the number of pending cases is contracting too slowly, as well as labour courts and the social court, where the backlog is increasing. In cases of major importance, where backlog is declining on average in all courts, the Lukenda goal is still far from attainment (80.2% of annual caseload), while in district and labour courts and in the social court, backlog in major cases is even rising. Despite the increased caseload, the number of pending cases dropped in 2009 to the lowest level since 2006, and this trend will also continue in 2010, as estimated by the Ministry of Justice, among other reasons due to the completion of the computerisation of registers; electronic land-registration will likewise be upgraded and streamlined.

*The reduction of court backlog is also reflected in the international estimates of the efficiency of the judiciary. WEF estimates point to an improvement in terms of independence of the judiciary and efficiency of the legal system, in which Slovenia ranked much higher in 2009<sup>104</sup> but was still relatively low on the list compared to the EU-26 (Latvia was not included); Slovenia ranked 16<sup>th</sup> for independence of the judiciary and 15<sup>th</sup> for efficiency of the legal system.*

## 4. A modern welfare state and higher employment

**SDS guidelines:** Maintaining and improving the achieved level of social security and quality of living and health is an important social value endorsed by SDS. The transition from a welfare state to a welfare society requires a more efficient welfare state, greater responsibility of citizens themselves, promotion of the activities of individuals, stronger public-private partnerships, and a more diverse and partly competitive range of social services. At the same time, it also calls for stronger social cohesion, improved access to social-protection systems, healthcare, education, culture and housing, and special care for the most vulnerable groups of the population. It is necessary to adapt social-protection systems to the needs of the long-living a society and to reduce social risks, poverty and social exclusion. The sustainable increase in welfare and quality of life is strongly underpinned by a higher employment rate, to be achieved mainly through economic growth and investment in knowledge.

### 4.1. Improving labour-market flexibility

*Due to the economic crisis, the **situation in the labour market** deteriorated significantly in 2009, which is reflected in a reduced number of persons in employment and higher unemployment. Following strong growth (above 3%) in the 2007–2008 period, the average number of employed persons according to the Statistical Register of Employment fell by 2.4% in 2009, while the number of persons in employment according to the Labour Force Survey was 1.6% lower. In the first nine months of 2009, the employment rate dropped to 67.5%<sup>105</sup> (1.3 p.p. below the level of 2008), which halted the process of attaining the SDS target of achieving a 70% employment rate in 2013. The reduction in the number of persons in employment would even have been higher had the state not passed two intervention acts aimed at preserving jobs.<sup>106</sup> The average number of people registered as unemployed in 2009 was 36.6% higher than in the previous year. The registered unemployment rate increased from 6.7% in 2008, the year when it was at its lowest since 2000, to 9.1% in 2009. The internationally comparable unemployment rate (according to the*

<sup>104</sup> On independence of the judiciary, it rose from 60th to 51st; on efficiency of the legal system, it improved from 53rd to 50th among 133 countries.

<sup>105</sup> Calculated by IMAD on the basis of quarterly figures obtained by the Labour Force Survey.

<sup>106</sup> Subsidising of Full-time Work Act and Partial Reimbursement of Payment Compensation Act.



Labour Force Survey) also increased to 5.9% (4.4% in 2008), which is, however, still below the EU average. The high inflow of newly registered unemployed persons in 2009 resulted in a considerable decrease in the share of the long-term unemployed in the total number of unemployed persons, which contributed to a further decrease of the long-term unemployment rate. In the second half of 2009, however, the number of long-term unemployed started to increase, which indicates the presence of the long-term unemployment issue in Slovenia and its gravity, and again highlights that close attention should again be devoted to forming active employment-policy programmes aimed at reducing and preventing long-term unemployment. The highest increase in the unemployment rate last year was recorded in the low-skilled population and the young, while for women, the unemployment rate dropped below that recorded for men.

**Part-time and temporary employment** played an important role in the labour market's adjustment during the economic crisis. Reduction of working time is one of the possible ways for companies to adjust to lower demand, which has been encouraged by several EU Member States through various forms of subsidies. As early as January 2009, Slovenia passed an intervention act<sup>107</sup> which, according to our estimates, helped increase the share of part-time employment. Another method of adjustment was reducing temporary employment. To avoid dismissal costs, companies first opted for non-extension of fixed-term employment contracts (which in Slovenia, as in other countries, resulted in reduced temporary employment), and, to a smaller extent, for dismissal of permanent employees. This means that the major part of the adjustment took place in the sector of the labour market that is more flexible, which supports theories about the Slovenian labour market being segmented into a so-called primary and secondary labour market.<sup>108</sup> Although the aforementioned labour-market flexibility indicators have several shortcomings, they have featured as the main instruments of the labour market's adjustment in Slovenia. Flexibility was also encouraged by the state through subsidising reduced working time.

Even though **the employment structure by activity** has undergone considerable change in the past decade, the restructuring process was fairly modest in the period of

*SDS implementation until 2008, particularly in the field of manufacturing.* A breakdown of employment by activity shows that the share of those employed in manufacturing diminished and the share of those working in services rose in 2000–2008; however, the share of people working in the service sector in Slovenia is much lower than in more advanced countries and below the EU average, which mainly reflects the structure of the economy. In the period of SDS implementation, employment restructuring to the benefit of high- and medium-high-technology industries within manufacturing was only speeded up by the economic crisis. In terms of technology intensity, the structure of employment in manufacturing did not change significantly in the 2005–2007 period; major changes occurred in 2008 and 2009 when the economic crisis mainly affected jobs in low-technology industries. Although the number of people employed in activities of low-technology intensity was considerably lower in 2007 than at the beginning of the decade, the share of people employed in low- and medium-technology industries remained high.

*No major changes were made in 2009 as part of the development of flexicurity.* No systemic changes were made over the year in the area of flexible employment relations, as no modifications of the Employment Relationships Act were adopted. With a view to greater flexibility of the labour market, one anti-crisis measure (Partial Subsidising of Full-time Work Act) was adopted, supporting working-time flexibility. Implementation of active employment-policy programmes in 2009 was more intense and on a larger scale than in the previous year, but the increase was mainly observed in programmes promoting employment.<sup>109</sup> To develop flexicurity and to help overcome the crisis, it would be reasonable to further strengthen education and training programmes within the framework of active employment policy. After several years of decline, participation of adults aged 25–64 in lifelong learning, which represents an important element of flexicurity, increased in the second quarter of 2009, reaching 17.0%.<sup>110</sup> The employee training

<sup>107</sup> The Act on Partial Subsidising of Full-time Jobs provides for subsidies to enterprises shortening working hours to 36 or 32 hours per week. Enterprises are eligible for a subsidy of EUR 60–120 per month per employee included in the short-time working scheme. The Act does not define any criteria to tie eligibility for subsidies to the crisis. With an amendment to the Act adopted in mid-July 2009, the period for receiving subsidies was extended for another 6 months (12 months in total) and the deadline for enterprises to apply for subsidies was postponed from 30 September 2009 to 31 March 2010.

<sup>108</sup> The primary labour market includes jobs of a higher level of stability and security (e.g. permanent employment), whereas the secondary labour market mainly includes temporary jobs (fixed-term employment, student work).

<sup>109</sup> In the first eleven months of 2009, programmes promoting employment included about three times the number of people involved in the same period of 2008. Programmes promoting employment comprise assistance and subsidies for self-employment, encouraging recruitment of older unemployed people and of the young, recipients of financial social assistance, promoting part-time employment, and the programme for promoting employment of people with a lower level of employability called "Employ me".

<sup>110</sup> According to the Labour Force Survey. The indicator refers to the proportion of people aged 25–64 participating in some form of lifelong learning in the four weeks preceding the survey. It is calculated on the basis of data for the second quarter, as annual data (annual average) were not yet available at the time of drawing up this report. The European Commission has called attention to the methodological deficiencies of the indicator. The measurement of participation in education and training in the final weeks preceding the survey is particularly problematic, which means that results strongly depend on the time of surveying. In 2003, the indicator's calculation method changed, which means that values have only been comparable since 2003.

scheme<sup>111</sup> implemented in 2009 could be equally important, but should include a greater number of employees. In 2009, no steps were taken towards enhancing the income security of the unemployed, although changes in the field of unemployment insurance are being prepared, with the aim of improving access to unemployment benefits for young people who are repeatedly working on a temporary basis. No additional measures were introduced to reconcile work and family life, but the use of the existing measures expanded somewhat despite the economic crisis.<sup>112</sup>

## 4.2. Modernisation of the social-protection systems

**Social-protection expenditure**<sup>113</sup> in Slovenia increased somewhat in real terms in 2007 (according to the latest data), but fell again as a share of GDP, mainly as a result of strong economic growth in 2007. In 2007, Slovenia committed a solid 1% more funding in real terms for social protection than the year before. Expressed as a share of GDP, social-protection expenditure amounted to 21.4% of GDP, which is 1.3 p.p. less than the year before, and 4.8 p.p. below the EU average. Since 2001, its share has been steadily declining,<sup>114</sup> which can be attributed to a combination of factors: fast GDP growth, changes in the social-protection systems (e.g. pension system reform), as well as the reduced unemployment rate and higher wage levels in a period of strong economic growth, which resulted in a reduced volume of social transfers. In terms of expenditure on social protection in purchasing-power standards per capita, Slovenia reached 70% of the EU-25 average, a level that has remained almost unchanged in the whole period since 2000 (69%). The major source of finance for social protection in Slovenia is contributions from the insured (41%; in the EU-27 as a whole, the share is half the size), whereas in the EU the main source is employers' contributions (38.5%) immediately followed by government taxes (38%). Compared to the EU countries, administration costs associated with the implementation of social-protection programmes are low.

<sup>111</sup> One of the measures taken by the state to promote enrolment in upper secondary education is co-financing school fees to reduce the education deficit.

<sup>112</sup> Under the Equal Initiative Programme and through support from the Ministry of Labour, Family and Social Affairs, 16 Family Friendly Enterprise certificates were granted in Slovenia in 2008. The certificates support the principles of corporate citizenship and human resource management. In the 2007–2008 period, the basic certificate was granted to 49 companies, which means that 25,700 people are employed in enterprises that have adopted policies to help parents balance professional and family life.

<sup>113</sup> According to the ESSPROS methodology.

<sup>114</sup> In the EU-25 (for the EU-27, data are only available from 2005 onwards), the average share of social-protection expenditure had been increasing from 2000 when it totalled 26.5%, until 2003, while in 2004 it started to decline.

*The expert basis for the preparation of **changes to the systems of pension insurance, health and long-term care** were brought forward more speedily in 2009.* Although these systems have remained unchanged despite a longstanding need for adjustment, they were of great help in mitigating the impact of the economic crisis on the population in 2009. However, their deficiencies have become ever more obvious and the solutions they offer are inadequate in times of a significant deterioration of macroeconomic stability parameters. Funding based almost exclusively on contributions from activities results in a drop in revenues, while the social systems' obligations remain identical or have even increased. Since there were no changes in the regulations impacting the level of public finance obligations, either transfers from the state budget were increased or the surplus from previous years was used for funding. Extensive changes aimed at enabling the long-term public finance and social sustainability of these systems, more effective management of public funds, and improved access and quality of services are underway. New legislation is planned for adoption by the end of 2010. The starting points for the modernisation and reform of the pension system were prepared and presented, while, in the health system, amendments to the Health Services Act and to the Health Care and Health Insurance Act have been drawn up and a draft law on long-term care is undergoing public debate.

*In 2009, only certain **intervention measures** were adopted.* Adjustment of pensions and social transfers by half of the growth determined by law is a measure mainly intended to consolidate public finance, which will partly reduce the obligations of the social-protection systems in the next two years. Pensions for 2010 will not be valorised in line with wage growth, which will, under the current assumptions on wage growth, again deteriorate the net pensions to wages ratio. The measure is not inadequate in itself, but should be verified in terms of content and finance, also because of the planned changes in the method of determining the minimum wage level. Addressing the issue of minimum pension and wage levels without harmonisation will create pressure for their readjustment – this time on the part of pensions. A one-off benefit granted to those facing the highest social deprivation due to the economic crisis was another emergency measure. In the second half of 2009, one-off social assistance was thus provided to slightly more than 100,000 individuals in the lowest income bracket.

*The results of the **pension reform** of 2000 are still beneficial. However, the situation in 2009 highlighted the pressing need for further adjustments and changes to the system.* The following should be pointed out:

- The average retirement age is no longer increasing substantially,<sup>115</sup> whereas the average pension-drawing

<sup>115</sup> In the 2000–2009 period, the average age of recipients of old-age pensions who were granted the right to old-age pension under the general rules for the first time increased by two years and four months (two years and seven months for women, and

period is rising faster than the average retirement age.<sup>116</sup>

- The average age of persons leaving the workforce in Slovenia is 1.4 years below the EU average. Pension legislation provides for incentives to postpone retirement,<sup>117</sup> but combined with the current tax system and the discrepancies between labour and pension legislation, they are obviously too low. Employees staying in employment should be supported financially and presented as an option to the insured in an accurate, appropriate and timely fashion. This condition has not been fulfilled, as the pension provider is not providing insured persons with timely and ongoing information about the state of their pensions or their outlook for the future.

- The share of people included in supplementary pension insurance schemes, as well as the level of premiums and the achieved yield, are still too low to ensure, in combination with pensions from the compulsory insurance scheme, the social sustainability of the pension system. In 2009, about 60%<sup>118</sup> of persons insured under the compulsory pension and disability insurance scheme<sup>119</sup> were included in voluntary supplementary pension insurance. More than one third are civil servants who are fully included, which means that the share of insured persons in the private sector is relatively low. The premiums of those insured have always been insufficient<sup>120</sup> for supplementary pension levels to bridge the gap resulting from the relative decrease in pensions from compulsory pension insurance,<sup>121</sup> and in 2009 premiums decreased further.

- Capital-funded supplementary pension insurance policies were affected by the financial crisis in 2008, while in 2009 they achieved the guaranteed returns

one year and seven months for men). In addition to the basic rule, which raises the age criterion for men and women, the effects of additional conditions that reduce the main criterion are already starting to show.

<sup>116</sup> In the 2000–2009 period, it increased by three years (four years and five months for women, and one year and ten months for men).

<sup>117</sup> A one-year postponement of retirement after attaining the retirement age results in a 5.5% increase in the amount of pension, whereas a five-year postponement brings a 17.4% increase. For more information, see Economic Issues 2008 (IMAD), 2008.

<sup>118</sup> According to data provided by the Ministry of Labour, Family and Social Affairs for 2009, the participation rate was 59.67%, whereas in December 2008 it was 56.78%.

<sup>119</sup> According to projections for the development of supplementary pension insurance, the participation rate is expected to exceed 70% by 2060.

<sup>120</sup> In the January–December 2009 period, the average monthly premium per insured person in insurance companies (gross premium) amounted to EUR 32.64, whereas in pension insurance companies (gross premium) it was EUR 41.27, and in mutual funds (net premium) it was EUR 35.74 in December 2009.

<sup>121</sup> Given the current average premium and an average 3% annual return, the replacement rate of annuities from supplementary pension insurance schemes would be about 1.9% of the net wage at the beginning of payout, rising to 3.5% by 2060.

more easily. But even when capital markets normalise, the low yields of supplementary pension insurance funds<sup>122</sup> will remain unattractive and will discourage people from opting for this form of old-age social protection. The guarantee schemes in capital-funded pension insurance will have to be upgraded to include a number of guarantee elements that the state is introducing in the current financial crisis for other financial activities and products; they will also have to be diversified depending on the number of years left until retirement.

- Very little time is left until supplementary pensions begin to be disbursed (in the year 2011), but the relevant regulations have not yet been put in place. In Slovenia (as elsewhere in Europe), the pension annuities market is not sufficiently developed or transparent for payouts to be left entirely up to insurance companies. As additional pension insurance has the characteristics of supplementary insurance (and, consequently, has a social function), the conversion of savings will have to be regulated by a separate law.<sup>123</sup>

*After several years of decrease in **expenditure on pensions** relative to GDP, the trend reversed in 2008.*<sup>124</sup> Until 2007, expenditure on pensions as a share of GDP was dropping due to the restricting rule for equalisation of old and new pensions, and because wages grew more slowly than productivity.<sup>125</sup> If wages and productivity had grown at the same rate, amid identical nominal increases of pensions and wages, expenditure on pensions would have reached about 14% of GDP in that period, but since the restrictive valorisation rule<sup>126</sup> was in place, expenditure would have reached about 12% of GDP, had other parameters remained the same. However, due to the changed valorisation rule<sup>127</sup> as well as the fact that the number of pensioners was rising faster than the size of the active population paying pension contributions, the share of expenditure on pensions started to rise, increasing most in 2009, according to the Health Insurance Institute of Slovenia (Monthly Statistics Overview, December 2009). For 2010, changes to the indexation rule are planned. Given that its effects will only be seen in the following year, the growth of expenditure

<sup>122</sup> The main reason for low returns is a rigid and restrictive guarantee policy because of which supplementary insurance fund managers, who have an extremely low minimum annual return stipulated by law, pursue very conservative investment policies, while at the same time no other measures are in place to motivate these managers to achieve higher returns.

<sup>123</sup> Special arrangements for the payment of supplementary pensions are in place, for example, in Sweden and Poland.

<sup>124</sup> In the 2000–2007 period, it dropped from 11.08% to 9.71% of GDP, in 2008 it rose to 9.91%, and in 2009, according to the PDII, to 10.76% of GDP.

<sup>125</sup> In the period 2000–2006, with the exception of 2001, real wages rose more slowly than productivity.

<sup>126</sup> Based on this rule, nominal growth of pensions was lower than wage growth.

<sup>127</sup> The principle that pensions should grow at the same rate as wages is inconsistently implemented in the valorisation rule, and is inappropriate in certain provisions.

on pensions will still be higher than GDP growth in 2010. Given the trends in the labour market, where the number of wage recipients will decrease further while the number of pensioners will rise, the increased share of pension and disability insurance expenditure will have to be covered with transfers from the budget, i.e. from general taxes. Modifications to pension legislation should therefore also include changes in the system of financing pension expenditure by means of transfers from the state budget. The share and scope of expenditure on transfers covering pension-insurance liabilities should be determinable in advance (not as coverage of the difference between other revenues and expenditures), while the part of expenditure which would, together with the transfer from the budget, secure payment of pensions in the amount determined by the Pension and Disability Insurance Act should be covered with pension and disability insurance contributions (compulsory social-security contributions). The currently diverging trends in the growth of wages, productivity, the number of pensioners and the number of pension contribution payers caused by demographic changes (the ageing of the population) and the effects of the economic crisis will, earlier than estimated by long-term projections, result in unsustainability of the current system from the public finance perspective. Keeping people in employment and postponing retirement is therefore a policy mix that reduces fiscal pressures and increases the economic and social security of the entire population. The assets managed by KAD (Pension Fund Management) should retain the function of a “demographic reserve fund”, as they may significantly contribute to successful management of pension-insurance expenditure in the future. However, if these assets are also used to settle current pension-insurance costs, this will further aggravate the issue of long-term financing.<sup>128</sup>

*Due to the economic crisis and parallel high wage growth in the **health sector**, urgent measures were needed in 2009 to streamline operations in the public health service and to ensure financial sustainability of the compulsory health-insurance system.* Financial issues the Health Insurance Institute of Slovenia (HII) was facing in 2009 were partly due to the gap between health-fund revenues and the compulsory health-insurance contributions, and partly to a high increase in wages of employees in the health sector, coupled with elimination of wage disparities in the public sector.<sup>129</sup> Given the

measures<sup>130</sup> to ensure sustainability of the compulsory health-insurance system adopted in June 2009 along with a revised financial plan, a deficit was recorded (amounting to EUR 75.7 m, according to preliminary estimates), which could still be covered by the surplus from previous years. Consequently, the HII did not need to raise any credits in 2009, despite unchanged contribution rates. Simultaneously, the contributions of health service beneficiaries rose as a result of an increase in the shares of co-payments for public health services from the compulsory health programme (a reduction in the shares of compulsory insurance coverage). Health-insurance companies therefore increased their insurance premiums.

*Expansion of **private practice in the public health network** has slowed in the past years.* According to the HII data, the number of contracts with private health-care providers rose by 13 in 2009, compared to 22 in 2008, 115 in 2007 and 124 in 2006. Slower growth in the number of private providers was recorded both at the primary level and in specialist outpatient services. The share of private providers in public funds allocated for health programmes totalled 12.9% in 2009, compared with 12.5% in 2008, and 13.1% in 2007. The smaller number of concessions granted within the public health service over the past two years can mainly be associated with anticipated systemic changes and the fact that the granting of concessions, along with insufficient regulation and non-transparent network of public health care providers, can adversely affect access to public health services both at the primary and secondary level.

*Relatively high growth of **expenditure on health**<sup>131</sup> in 2008 and 2009 was mainly associated with high growth in the wages of health-care employees.* According to the latest data, the share of health expenditure in Slovenian GDP amounted to 7.8% in 2007, whereas in 2008, according to the preliminary estimate of the HII, it totalled 8.1%, and in 2009 8.9% (Annual Report of

of wages increased by 9.8% in real terms in 2009 (Financial plan 2010, February 2010).

<sup>130</sup> On the side of revenues, measures were directed towards more efficient recovery of contributions, changing the rules on inclusion of individual private entrepreneurs and partners in the insurance scheme, and more intensive filing of claims related to holiday-allowance payments. As far as expenses are concerned, measures were aimed at revising the medicines on reimbursement lists and reducing their prices, determining the maximum allowable values for certain interchangeable medicines, promoting activities for correct use of medicines, reducing absenteeism, strengthening lay control, and reducing HII spending. Major measures for streamlining health services included a cut in health-care service prices by 2.5%, and a selective reduction in the share of material costs in prices. Additional measures in the revised financial plan were reducing depreciation in health-care service prices by 20% and calculated wages by 5%; a reduction in the costs of dialysis, a 5% cut in expenses for tertiary healthcare, and a reduction in expenditure on the operating costs of the HII.

<sup>131</sup> Expenditure data are collected in accordance with the internationally comparable System of Health Accounts methodology (SHA).

<sup>128</sup> It would therefore be reasonable to consider establishing a system of regulations to allocate this and other state property for the financing of expenditure after the year 2020, while banning their use before that time and for other purposes. Regulations of this type have been introduced in Ireland.

<sup>129</sup> Compared to material costs and depreciation, the share of funds for wages calculated in prices of health services increased considerably in 2009. According to the General Agreement for 2009, the share of funds for wages in the costs of all health services accounted for 62.4% (61.5% in 2008, and 60.1% in 2007), whereas the average share of material costs and depreciation totalled 37.6%. According to a preliminary estimate by HII, transfers to public institutions for the payment

the Health Insurance Institute for the years 2009 and 2010). In 2009, the high increase in health expenditure as a share of GDP was partly attributable to high public expenditure growth (6.4% in real terms, according to the preliminary estimate), and partly to a significant drop in GDP. In 2008, expenditure growth also reflected the expansion of specific programmes,<sup>132</sup> whereas public-expenditure growth in 2009 was almost exclusively due to the increase in employees' wages aimed at eliminating wage disparities in the public sector. Otherwise, 2009 saw significantly higher funds to finance new capacities of social-welfare institutions, as well as various programmes such as the magnetic-resonance programme, programmes of outpatient health-resort therapy, extended hospital treatment, and the lactating mothers programme, but growth in funding for most other health service programmes was lower than in the last two years.

*The share of **private expenditure on health** in total expenditure increased to 28.4% in 2007 (2.3% of GDP), mainly due to strong growth of out-of-pocket expenditure. The EU average amounted to 27.6%. Amid a concurrent high growth of public expenditure, the share of private expenditure dropped to 27.7% in 2008, and to 26.8% in 2009, according to preliminary figures (Annual Report of the Health Insurance Institute for 2009). Out-of-pocket household expenditure recorded a much greater rise than expenditure from voluntary insurance, particularly in 2007. It accounted for 13.8% of total expenditure (13.4% in 2008, according to the HII estimate), while the share of expenditure from voluntary health insurance was 12.9% (12.7% in 2008, according to the HII estimate). Within out-of-pocket expenditure, the share of expenditure on medications dropped in the 2003–2007 period; expenditure on outpatient curative care rose most notably, while there was also a significant increase in expenditure on rehabilitation and long-term health care.*

*Due to rapidly growing health-care requirements associated with demographic changes as well as the urgent need to introduce new medical technologies and medications, prompt systemic changes are needed to ensure the sustainability of compulsory health-insurance financing, as well as additional financing sources and further streamlining in the provision of public health services. The share of private funds, a changed internal structure and increasing supply of health services outside the public health network will result in the need for a more advanced definition of which health-care services have to be provided by the public health system within the compulsory programme and which can be performed by health-care providers as their own profit-making or non-profit-making activity, in either private or public legal*

<sup>132</sup> Additional funds were allocated for reducing waiting times in acute hospital treatment, the programme of non-acute hospital treatment increased by 20%, health care increased by 6.9%, whereas major increases were recorded in the magnetic-resonance programme.

forms. Accordingly, the public health service will also have to develop other forms of insurance.

*According to the latest data, **expenditure on long-term care (LTC)** from private sources mainly increased in 2007. After public expenditure on LTC grew rapidly in 2004–2005, 2006 and in particular 2007 saw stronger growth of expenditure from private sources. A strong increase was also recorded in both private expenditure on long-term health-care services and in private expenditure on long-term social-care services, the latter being mostly co-payments for accommodation and food at old people's homes, which increased due to increased capacities and to the possibility of choosing a higher (and more expensive) standard of care in the newly built homes. A drop in the growth of public expenditure on LTC results from changes in financing of home-care assistants and/or from a considerable reduction in public expenditure for this purpose. There is also a pressing need for systemic changes in this area, since the current system fails to promote development of home care and is therefore not able to meet all the requirements.*

*In 2008, **work incentives arising from the social protection and taxation systems**<sup>133</sup> slightly diminished. Until 2007, the systems were shifting towards increased work incentives. In 2008, however, only the tax wedge on labour costs diminished (due to the ongoing phasing out of the payroll tax), whereas the rates of transition from unemployment to employment and from lower- to higher-paying jobs were less encouraging than the year before (due to higher tax relief for the lowest wages, and slightly higher social transfers). In terms of the tax wedge on labour costs measured in calculating work incentives (i.e. at the level of 67% of the average gross wage), Slovenia is at the level of the EU, whereas other indicators show that work incentives declined from the previous year. The adopted changes to the level of the minimum wage, along with the anticipated changes in certain social transfers should therefore be also assessed in terms of their impact in stimulating work.*

<sup>133</sup> Indicators of work incentives: tax wedge on labour costs, unemployment trap and low-wage trap. **Tax wedge on labour costs** reflects the combined effect of taxes, social security contributions and social transfers on labour costs; the conversion is made for a single person without children receiving 67% of the average employee's gross earnings. The **unemployment trap** indicator shows the ratio of net to gross earnings of a single person without children upon transition from unemployment to employment, taking into account unemployment benefit in the amount of 70% of gross earnings of an employed person receiving 67% of the average employee's gross earnings. The **low-wage trap** for a single person shows the ratio of net to gross income of an employed single person in transition to a better paid job (from 33% to 67% of the gross wage of the average employee). The **low-wage trap** for a couple with two children, with only one being employed, shows the ratio of the net to gross wage of an employed person in a four-member household upon transition to a better paid job (from 33% to 67% of the gross wage of the average employee).

Table 6: Work-incentive indicators, Slovenia, EU27, 2001 and 2005-2008, in %

	Tax wedge on labour costs		Unemployment trap		Low-wage trap			
					Single person, no children		Couple, one spouse in employment, two children	
	SLO	EU	SLO	EU	SLO	EU	SLO	EU
2001	44.0	40.5	82.6	74.0	39.1	48.2	99.4	54.9
2005	41.6	40.4	82.6	75.5	50.8	47.0	76.4	61.4
2006	41.2	41.1	82.2	76.1	51.6	49.3	72.6	63.9
2007	40.9	40.9	80.7	74.9	51.0	49.7	67.4	63.1
2008	40.3	40.8*	83.4	73.2**	53.1	48.4	68.0	58.4***

Source of data: Eurostat.

Notes: No data available for 2000, except for tax wedge on labour costs (41.0% in Slovenia, and 41.0% in the EU). \*Data for EU-15. \*\*Data for new EU members (EU-12). \*\*\*Data for the euro area (EU-16).

### 4.3. Living conditions, and reduction of social exclusion and social risks

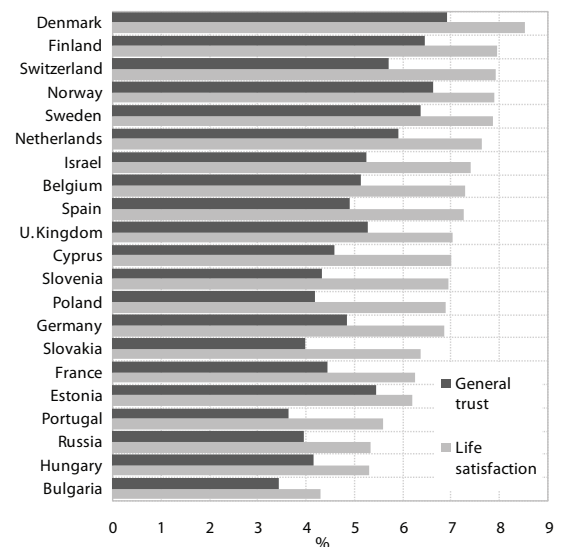
The values of all the three **human-development indicators** monitored by the United Nations Development Programme (UNDP) again increased slightly in 2009.<sup>134</sup> It should be noted, however, that the values published in 2009 are based on data from 2007 and therefore do not yet reflect the consequences of the economic crisis. The level of human development in Slovenia is high (HDI index increased to 0.929; in 2009, Slovenia ranked 29<sup>th</sup> in the group of 182 countries, while it was 26<sup>th</sup> among 179 countries in 2008). Men and women have almost equal access to health, income and education (GDI index 0.927), whereas economic and political power is still unevenly distributed by gender (GEM index 0.641).

**Risk of poverty**, subject to no significant change over the past few years, recorded a slight increase in 2008, which was also the case with **material deprivation**. The at-risk-of-poverty rate<sup>135</sup> was 12.3% in 2008, 0.8 p.p. higher than in 2007 (11.5%). The material deprivation rate was 16.9%, an increase of 2.6 p.p. over the year before. Despite a slight increase, both rates remain relatively low. A lower poverty risk level is only recorded in three EU countries, in three countries the level is identical, while in terms of material deprivation Slovenia ranks somewhere in the middle of the EU Member States. Some other indicators of income distribution inequality also show that income inequality in Slovenia is low (Slovenia is among the EU countries with the lowest income inequality).<sup>136</sup> In 2008, the Gini coefficient was 23.4% and the quintile share ratio

3.4 in Slovenia, which shows a fairly even distribution of income. The increase in the risk of poverty among the most vulnerable population groups is nevertheless a matter of considerable concern.

In 2008, the average **level of life satisfaction** in Slovenia was slightly lower, whereas **trust in other people and institutions** was higher than that identified in the previous survey in 2006. The level of satisfaction in 2008 (6.93) was lower than in 2006 (6.97), yet still slightly higher than in 2004, when it was 6.90. In terms of satisfaction with life, Slovenia was ranked highest among the new EU Member States, overtaking Portugal, France and Germany. With a median of 7, Slovenia was among the countries with a medium level of satisfaction. From the average of 4.06 in 2006, the level of trust rose to 4.32<sup>137</sup> in 2008. On this indicator, Slovenia also overtook all the new EU Member States taking part in the survey (with the exception of Estonia and Portugal). In terms of the median (5), it was ranked among the countries with a medium level of trust, while it took last position in terms of the average value.

Figure 14: Life satisfaction and general trust, 2008



Source of data: European Social Survey (ESS) 2008\*.

\*In 2008, the survey was carried out for the fourth time (between September and December 2008). The survey involved 22 countries (data have been analysed for 21 countries).

Note: Scales from 0 to 10. General trust was measured with the following question: "Generally speaking, can the majority of people be trusted or does one have to be cautious in one's contacts with other people?" On a scale from 0 (you can't be careful enough) to 10 (most people can be trusted). Life satisfaction was measured with the following question: "All things considered, how satisfied would you say you are with your life these days?" Scale from 0 (very dissatisfied) to 10 (very satisfied).

With the onset of the economic crisis, the growth of **household disposable income** slowed in 2008. In real terms, household disposable income increased by 3.1% in 2008, which is slightly below the 4.8% increase

<sup>137</sup> Source: European Social Survey (ESS) 2008. General trust was measured by asking the following question: "Generally speaking, can the majority of people be trusted or does one have to be cautious in one's contacts with other people?" On a scale of 0 (you can't be careful enough) to 10 (most people can be trusted).

<sup>134</sup> Measured by means of indices covering values within the 0 to 1 range.

<sup>135</sup> Calculated on the basis of disposable income, excluding income in kind.

<sup>136</sup> Data for the EU for the year 2008 show the following values: Gini coefficient: 31, quintile share ratio: 5, at-risk-of-poverty rate: 17%.

recorded the year before. This lower growth resulted from lower wage growth and from a reduction in entrepreneurial household income, which can be attributed to the beginning of the decline in economic activity. Per-capita disposable income increased by 2.7% (in 2007: 4.0%), reaching 71.6% of per-capita income in the EU<sup>138</sup> (2000: 49.6%). The net wage bill, which accounts for the bulk of disposable income,<sup>139</sup> increased by 11.1% in nominal terms in 2008, which is more than the increase in disposable income (9%), given that amid a 7.8% nominal increase in the net wage per employee, employment rose by as much as 3.1%. Real growth of the net wage per employee in 2008 was 2%. In 2009, real disposable income was slightly lower, by our estimate, as last year the net wage per employee increased by 3.4% in nominal terms (2.5% in real terms), but the number of wage recipients slumped due to the economic crisis (by 2.8%), which decelerated nominal growth in the net wage bill to 0.5%. In real terms, the net wage bill shrank by close to 0.5%.

Following strong growth in the previous two years, **household expenditure** also slowed in 2008. Following 6.7% real growth in 2007, it increased by 2.0% in 2008. This was mainly due to slower growth of consumption of durables<sup>140</sup> (particularly household equipment and cars) and services (accommodation and food service activities, arts, entertainment and recreation). Since 2002, relatively high growth had been recorded particularly in consumption of durables, while in late 2008 consumption started to slow down, which was also due to the start of the economic crisis. The highest share of household expenditure was allocated for housing (rents, including imputed rents, water, energy), and after 2004, for transport (16.2%), on account of a falling share of expenditure on food and non-alcoholic beverages (14.4% in 2008).

After several years of lagging, the **minimum wage** recorded higher growth than the average wage in 2009. In 2009, the minimum wage increased by 2.8% in real terms, and by 3.7% in nominal terms, which is 0.3 p.p. more than the average gross wage, and 1.9 p.p. more than the average gross wage in the private sector.<sup>141</sup> The ratio of the

minimum wage to the average gross wage in the private sector therefore improved in 2009, reaching 44.2%. But due to a considerable reduction in 2006 and 2007 (resulting from an extremely unfavourable adjustment mechanism<sup>142</sup>), the ratio recorded in 2005 (45.3%) was still not achieved. The inappropriate adjustment mechanism and a real reduction of the minimum wage over previous years called for extraordinary increases in the minimum wage in 2008 and for another considerable increase in 2009, which was implemented at the beginning of 2010 through adoption of the Minimum Wage Act.<sup>143</sup> In the EU countries where minimum wage is regulated by law, the ratio of the minimum wage to the average gross wage in the private sector ranges between 29% (Romania) and 51% (Luxembourg). Slovenia is ranked in the top half of the countries where the ratio of the minimum wage to the average gross wage in the private sector exceeds 40%. In 2009, 2.8% of employees in Slovenia received the minimum wage, whereas in the EU Member States indicated above, the share of minimum-wage recipients in all employed persons ranged from 16.8% in France to 0.8% in Spain. In half of these countries, this share is lower than 4% (Key figures on Europe, 2007/2008).<sup>144</sup> The share of minimum-wage recipients in Slovenia will also rise significantly upon the increase in the minimum wage in 2010.

The **income-inequality indicators** mostly show a deteriorating trend: increased inequality in distribution of gross wages in the private sector and increased share of low-wage employees.<sup>145</sup> Inequality in distribution of wages in the private sector measured by the interdecile ratio (9decile/1decile) increased from 3.44 in 2007 to 3.55 in 2008. It increased most in the upper section of the distribution of high-wage employees (9decile/5decile) and to a lower extent in the lower half of the distribution, among low-wage employees (5decile/1decile). According to our estimates, the increase in the lower half of the distribution was largely due to movements in the minimum wage. The distribution in the public sector is more even, mainly due to the structure of educational attainment.<sup>146</sup> In 2008, inequality in the public sector

<sup>138</sup> Conversion from data in current prices, as data in PPS for disposable income are not available.

<sup>139</sup> The net wage bill accounts for 35% of the household disposable income, while together with other work-related remuneration, it accounts to 50%. Other shares are mainly accounted for by social transfers (about 25%), and net operating surplus and net mixed income of individual private entrepreneurs and farmers (about 25%).

<sup>140</sup> Data on consumption structure are only available for the domestic market, while resident household consumption is part of GDP (household expenditure in the domestic market + direct spending of residential households abroad – direct spending of non-residential households in Slovenia).

<sup>141</sup> This growth level was due to two minimum-wage adjustments carried out in 2008, which, by the level reached at the end of 2008, contributed as much as 3.1 p.p. to the average growth in 2009, while the remaining 0.6 p.p. came from the adjustment carried out in 2009.

<sup>142</sup> Up to 2004, the minimum gross wage was adjusted to inflation and, additionally, with regard to real GDP growth. There was no additional adjustment to GDP growth in 2004 or 2005. The minimum wage was nevertheless adjusted by more than the growth of inflation; since 2006, the minimum wage has only been adjusted for part of inflation.

<sup>143</sup> The law stipulates an increase in minimum wage from EUR 597.43 EUR to EUR 734.15, with the possibility of gradual rises (by 31 December 2011) in enterprises that would otherwise face substantial loss or could not survive an immediate minimum wage increase.

<sup>144</sup> Data for 2005.

<sup>145</sup> According to OECD methodology, these are employees whose wage is below or equal to two thirds of the median wage.

<sup>146</sup> The private sector includes around 15% of employees with higher education (relative to 45% in the public sector), 60% of employees with upper secondary education (45% in the public sector) and 25% with lower education (10% in the public sector).

diminished, in the upper half of the distribution (9decile/5decile) the ratio dropped from 1.86 in 2007 to 1.76 in 2008, whereas in the lower half (5decile/1decile) it fell from 1.83 in 2007 to 1.78 in 2008. Such restructuring was the result of the newly introduced wage system. In 2008, the share of low-wage earners in the private sector rose to 16%, a 0.4 p.p. increase over 2007, and a 3.3 p.p. increase over 2005 (12.7%), when the lowest percentage of low-wage earners was recorded. The average wage of a female employee in 2008 was 7.6% lower than the average wage of a male employee (about 7% in the 2003–2006 period, and 7.8% in 2007).

*In 2009, conditions on the labour market caused a considerable increase in the number of **social-transfer recipients**.* Towards the end of 2008, the number of recipients of unemployment benefits and financial social assistance started to rise. From September 2008, when it reached an all-time low, the number of recipients of unemployment benefits and financial social assistance increased by as much as 129% until December 2009 (to 31.172), and the number of social-assistance recipients rose by 41% (53,252). Moreover, 103,638 recipients at social risk received one-off social assistance in the second half of 2009. A separate law was adopted to mitigate the socio-economic crisis affecting the Slovenian population,<sup>147</sup> according to which supplements in the amount of EUR 80–200<sup>148</sup> began to be disbursed depending on the level of the recipient's income. Those eligible for these supplements were social-assistance recipients, recipients of pensions and pension supplements, recipients of disability compensations,<sup>149</sup> as well as recipients of parental compensations and parental allowance.

### 4.3.1. Access to services of general interest<sup>150</sup>

*Kindergarten attendance increased last year in a continuation of the positive trend of previous years.* In the school year 2008/2009, 49.2% of children aged 1–2 attended kindergarten, along with 84.1% children in the age group of 3–5, with both shares rising rapidly.<sup>151</sup> Last year's increase is also a result of the amendment<sup>152</sup> adopted in 2008 that waives payment for younger

children if more than one child in the family attends kindergarten. The share of children attending organised pre-school education is rising faster than the EU average. In 2007 (the latest internationally comparable data), the share of children aged 3–5 involved in organised forms of pre-school education was 79.5%, with Slovenia exceeding the EU average by 0.7 p.p. Public expenditure on pre-school education accounted for 0.56% of GDP in 2007, increasing in the 2000–2007 period as a share of GDP. A rise in the number of births over the past years and the aforementioned regulatory changes produced a lack of available kindergarten places. Considering that the number of live-born children increased considerably in 2008 (10.1%), a new wave of increased demand for kindergarten places can be expected in the years to come, along with a need for further enhancement of kindergarten capacities.

*Participation of young people in education strongly exceeds the EU average, having recorded a slight additional increase in 2007 (the latest available data).* In terms of participation of young people aged 15–24 in all levels of formal education,<sup>153</sup> Slovenia is one of the leading EU countries;<sup>154</sup> moreover, in the 2000–2007 period, the participation of young people in Slovenia increased more than that in the EU. Participation of young people aged 15–19 in upper-secondary education diminished slightly in 2007, but is the highest of all EU countries, increasing more than the EU average in 2000–2007. The number of young people enrolled in upper secondary education diminished substantially in the 2000/2001–2008/2009 period, which is largely the result of the shrinking size of the cohorts eligible for enrolment. The completion rate in upper-secondary education is also high,<sup>155</sup> though it decreased in 2007. Accordingly, the share of early school leavers<sup>156</sup> is also among the lowest in the EU countries, yet it rose in 2008. In the 2008/2009 school year, the share of students enrolled in upper-secondary education programmes enabling direct access to tertiary education increased, while in the 2007/2008 school year, an increase was recorded in the share of students completing these programmes. Along with the increased number of available places in higher professional and university undergraduate programmes in the 2000/2001–2008/2009 period, this has improved access to tertiary education. In the 2009/2010 academic

<sup>147</sup> Special Allowance for Socially Disadvantaged Persons Act.

<sup>148</sup> On the average, each beneficiary received about EUR 133.

<sup>149</sup> Pursuant to the Act Concerning Social Care of Mentally and Physically Handicapped Persons.

<sup>150</sup> For more information on Access to services, see the Social Overview 2009 (IMAD), 2009.

<sup>151</sup> In the 2000/2001–2008/2009 period, the kindergarten attendance rate increased by 20.0 p.p. for the first age group, and by 16.2 p.p. for the second age group.

<sup>152</sup> The Act Amending the Pre-School Institutions Act (ZVrt-D) provides that in case that more than one child in a family attends kindergarten, the fee for the older child is one bracket lower than the fee assigned, and the fee for younger children is waived altogether.

<sup>153</sup> Primary, upper-secondary and tertiary education.

<sup>154</sup> In 2007 (the 2006/2007 school/academic year), participation in all the levels of education was 70.1% in Slovenia, exceeding the EU average by 10.6 p.p., whereas in the 2000–2007 period, it rose by 10.8 p.p. (in the EU, it rose by 4.5 p.p.).

<sup>155</sup> The upper-secondary education completion rate is the share of young people who have completed upper-secondary education relative to the total population at the typical completion age for secondary education. In 2007 (the last year), the secondary-education completion rate in Slovenia was 91%, 6 p.p. above the average of the EU-19 countries that are also OECD members, and a 6 p.p. reduction compared to 2006.

<sup>156</sup> Young people aged 18–24 with completed or uncompleted primary school or without any formal education, who do not participate in education or training.



year, the number of applications for higher professional and university undergraduate programmes was lower than the number of available places for the second consecutive year, with the gap increasing further.<sup>157</sup> The ratio of the number of those enrolled in tertiary education to the number of the population aged 20–29 slightly rose in the 2008/2009 academic year, having considerably exceeded the EU average according to the data available for 2007 (the latest international data). According to our estimates, this is also due to the system of student benefits. Since eligibility for these benefits is contingent upon student status, a part of the enrolment is misleading.

**Participation of adults in formal education dropped slightly in 2007; particularly participation of low-skilled population in educational programmes should be encouraged further.** In 2007 (the latest available data), participation of adults aged 25–64 diminished for all levels of formal education. Participation in tertiary education exceeds participation in upper-secondary education and also increased more in the 2000–2007 period, whereas it fell slightly in the 2008/2009<sup>158</sup> academic year. Participation of adults in upper-secondary education has been maintained at almost the same level over the past few years. Adult participation in education and the level of formal education attained are important factors of social inclusion, particularly for the low-skilled population where the unemployment and at-risk-of-poverty rates are higher, on average, than in the population with upper-secondary and tertiary education. Although participation of adults in upper-secondary education was above the EU average in 2007, it should be noted that, according to the data obtained by the Labour Force Survey (LFS), 16.9% of the population aged 25–64 had a low level of education (having completed no more than primary school) in the second quarter of 2009. According to data obtained by the Adult Education Survey for 2007, the most frequent barriers to education among those that did not pursue education but wished to do so were that education was too expensive and that they could not afford it.<sup>159</sup> An important measure taken by the government to promote enrolment in upper secondary education is co-financing of tuition fees to reduce the education deficit.<sup>160</sup> According to this measure, however, co-financing of tuition fees will be carried out through reimbursement of education costs, which can represent a major obstacle to participation

<sup>157</sup> In the year 2009/2010, the number of applications was 15.5% lower than the number of available places (in 2008/2009) by 7.8%).

<sup>158</sup> According to SORS. For tertiary education, the latest data are available for the 2008/2009 academic year.

<sup>159</sup> Stated by 68.1% of low-skilled population attending no formal education but wishing to do so. In the population with secondary and tertiary education, this share is considerably lower (secondary education: 48.9%; tertiary education: 33.2%).

<sup>160</sup> In 2009, the Fund for Development of Workers and Scholarships launched a tender for co-financing of scholarships to reduce education deficit in the 2007/2008, 2008/2009 and 2009/2010 academic years.

in education. Unemployed adults can also enrol in upper-secondary education programmes within the Education and Training Programme for the Unemployed. Nevertheless, the number of unemployed persons enrolled in upper-secondary schools is low and has been declining over recent years.<sup>161</sup>

**Differences in the shares of adults participating in formal and non-formal education as regards the socio-economic characteristics of the population are large.** According to data obtained by the Adult Education Survey<sup>162</sup>, in 2007,<sup>163</sup> 40.6%<sup>164</sup> of the population aged 25–64 years took part in formal or non-formal education, with Slovenia exceeding the EU average of 36.0%. Participation differs substantially with regard to age, attained level of formal education, activity status and occupation. Female participation is higher than male participation, while the participation of older people (aged 50–64) lags considerably behind the participation of the young (aged 25–34) and behind the participation of the population group aged 35–54. The level of participation of the low-skilled lags considerably behind the participation of the population with upper-secondary and tertiary education, while the participation of the unemployed and non-active population lags behind the participation of the employed. The participation of individuals performing occupations classified 8–9<sup>165</sup> according to the Standard Classification of Occupations lags considerably behind the participation of those performing occupations 1–3.<sup>166</sup> In terms of participation in education, the gap between individual socio-economic groups is larger in Slovenia than in the EU as a whole.

**Looking at the health-care system, access to acute hospital treatment improved, but Slovenia's households have been burdened by increasing expenditure on health in recent years.** At the primary level, uneven regional distribution of general practitioners and the provision of prevention services are persistent problems. Waiting lines are particularly long in adult dental care. Access to acute hospital treatment improved in the 2003–2008 period as a result of further investment aimed at shortening

<sup>161</sup> According to SORS, 1,015 unemployed persons were enrolled in secondary schools in that year, a 46.4% decrease on the 2006/2007 school year.

<sup>162</sup> The survey was carried out for the first time, and is planned to be carried out every 5 years. Respondents reported on educational activities performed over the past 12 months or in the last calendar year. In Slovenia, respondents reported on educational activities performed in the 12 months preceding the conduct of the survey. Owing to a different methodology applied, the data obtained by the Adult Education Survey differs substantially from the data obtained by the Labour Force Survey.

<sup>163</sup> The international Adult Education Survey is a pilot survey and data are only available for the year 2007.

<sup>164</sup> Provisional data.

<sup>165</sup> Plant and machine operators, and assemblers (SCO 8), and elementary occupations (SCO 9).

<sup>166</sup> Legislators, senior officials and managers (SCO 1), professionals (SCO 2), technicians and associate professionals (SCO 3).

waiting times (the number of acute treatments increased by more than 10%, but the number of people waiting dropped by almost a third). After several years, some major projects of investment in buildings and equipment were completed in 2009, which will improve the quality of services, and partly increase existing capacities.<sup>167</sup> In terms of information infrastructure, all health-care providers should become fully integrated by 2010. Major activities aimed at improving access to health-care services also include developing a nationwide waiting list and a central health-care portal to enable exchange of data in the digital health-care record. The share of out-of-pocket household expenditure in total private expenditure on health has already exceeded expenditure from voluntary insurance. In 2007, it rose to 2.1% (compared to 1.9% in 2006, and 1.8%, on average, in 2000–2006), which, compared to other EU countries, is not high (in 2007, the EU average was 2.6%), but is, despite the system of supplementary health insurance, approaching the level attained in countries that do not have such an insurance arrangement in place.

**Access to social-care services and programmes is improving.** As in years before, the most rapid growth was observed in the capacity of centres for protection and training of adults with special needs.<sup>168</sup> Long-term care capacities also increased more in 2008 than in the previous years,<sup>169</sup> which, despite a growing number of elderly persons and increasing demand, improved inclusion in these services (in 2008, 4.6% of the population aged 65 and more were included in institutional care services, and 1.7% in home care). Compared to other EU countries and with regard to the current strategic objectives,<sup>170</sup> Slovenia lags behind particularly in terms of home-care development and fails to meet needs, while having to cope with increased pressure on admission to old people's homes.

## 5. Integration of measures to achieve sustainable development

**SDS guidelines:** The fifth priority covers development in the areas of the environment, sustained population growth, regional and spatial development and culture. *The environmental objectives of SDS* involve reducing energy intensity and increasing the use of renewable energy resources, improving resource intensity and promoting waste recycling. Promoting development and environmental technologies will contribute to the achievement of these objectives. In the area of transport, the aim is to promote sustainable modes of mobility and boost the use of public passenger transport. Another goal is to protect nature, halt the decline in biodiversity and enforce Slovenia's natural spatial quality as a quality for the entire EU. The objective of *sustained population growth* involves ensuring better conditions for greater inclusion of the working-age population, creating suitable working and societal conditions for elderly active citizens, and providing appropriate conditions for starting families. *More balanced regional development* extends to a wide range of activities – from establishing regions, making the system more polycentric and planning for regional development to preserving population density, maintaining transport networks and boosting local economies. The planned measures are mostly aimed at strengthening local economies, the higher-education network, development aid and local self-government, which would enable municipalities and regions to develop endogenously. The key priorities in the area of better *spatial management* focus on improving spatial management, with an emphasis on providing building plots and creating the conditions for improved operation of the housing market. The development of the *national identity and culture* calls for supporting ethical, social, economic and political aspects of culture.

### 5.1. Integrating environmental criteria with sectoral policies

*The energy intensity of the economy worsened in 2008.* After a significant drop in energy intensity in 2006 and 2007, in 2008, energy consumption per unit of GDP increased by 2.1%.<sup>171</sup> In the period since 1995, the only other year in which energy intensity has increased was

<sup>167</sup> The new Children's Hospital, Division of Neurology, the Institute of Oncology – an extension for radiotherapy, informatisation in the University Medical Centre of Maribor; finishing works are being conducted in the Department of Otorhinolaryngology in Ljubljana, and psychiatric hospitals in Ormož and Idrija.

<sup>168</sup> In 2008, they increased by 15%, which represents a 53% increase compared with 2000.

<sup>169</sup> 10% compared to 2007, and 28% compared with 2000.

<sup>170</sup> See the Resolution on the national social-assistance programme 2006–2010.

<sup>171</sup> According to SORS data (the Energy intensity indicator is based on Eurostat data).

2001. The deterioration in 2008 was to the greatest extent the result of exceptional growth in energy use in transport; the 17.3% growth was the highest after 1993. For the first time since 1993, electricity consumption decreased (by 4%), the reason being the drop in electricity consumption in manufacturing and construction as a result of lower production due to the economic crisis and of abolishing production of primary aluminium in potline B. Energy consumption per unit of value added in manufacturing significantly improved in 2008 for the second consecutive year, which was probably a result of energy prices increasing in the first six months of 2008 and lower energy consumption due to the economic crisis at the end of the year. After four years of declining, energy consumption by households increased again in 2008.<sup>172</sup> This was the result of a colder winter of 2008<sup>173</sup> and probably also of the postponement of buying liquid fuels during the time of high prices at the end of 2007 to 2008 and buying stocks at the end of 2008 when fuel prices were low. After rapid growth in 2007, energy consumption in transport increased further.<sup>174</sup> Such trends were predominantly the result of the rise in goods transport, both domestic and transit, spurred by high economic growth in the first half of the year. Transit was additionally driven by cheaper tolls for motor vehicles in Slovenia compared with neighbouring countries; the significant rise in fuel sales was also due to the lower price of fuels in Slovenia than in the neighbouring countries from 2005 to the end of 2008.<sup>175</sup>

*In 2008, production in **emission-intensive industries** was no longer growing faster than production in other manufacturing activities, to the largest extent due to a strong fall in metal industry. All through the 2000–2007 period, production by **emission-intensive industries**<sup>176</sup> was rising faster than production by other manufacturing activities. After a considerable difference in 2006 and 2007, production by emission-intensive industries decreased in 2008, while production by other manufacturing activities increased further. The fall in emission-intensive industries was mostly the result of the fall in aluminium production. In 2009, the fall of production by emission-intensive industries was similar as in other manufacturing activities; production decreased in all emission-intensive industries, and by most in the metal*

industry (by 30%). Energy consumption per unit of value added in manufacturing improved again significantly in 2008, especially in manufacture of chemicals and chemical products, and in manufacture of basic metals and fabricated metal products. The main reason was lower electricity consumption, which happened in manufacturing for the first time after 2001, as a result of the closure of facilities<sup>177</sup> as well as lower production in metal and paper industries. As laid out by the European IPPC Directive,<sup>178</sup> an environmental-protection permit needed to be obtained by 2007 for the construction and operation of all facilities with a substantial impact on the environment. After the reprimand from the European Commission, the administrative procedure of issuing permits was strengthened, but still a fifth of permits are missing.<sup>179</sup>

*The share of the use of **renewable energy sources** increased in 2008 mainly on account of favourable hydrological conditions. The shares of renewable energy sources (RES) in total energy consumption and in electricity production fluctuate with regard to hydro-electric output, which depends on water levels. In 2008, they increased to 11.3% and 29.1%, respectively (see Figure 15), mostly due to a large increase in hydroelectric power-plant production and the use of biomass in thermal power plants. High growth was also recorded in the use of liquid biofuels and biogas as well as in all other alternative energy sources except wind; however, these sources still represent only 7.7% of total use of renewable energy sources.<sup>180</sup> As regards the use of biofuels, despite the increase in the energy share of biofuels in total motor fuels sold (to 1.2%), the goal set for that year (2%) was not achieved.<sup>181</sup> For 2009, we estimate that with the drop in energy consumption and favourable hydrological conditions once more, the share of RES in total energy increased again, as did the share of RES in electricity consumption (to around 38%). Due to natural conditions and the effects of the economic crisis, Slovenia is thus approaching the target of 12% of renewable sources in total energy consumption and 33.3% in electricity consumption in 2010 (National Energy Programme, 2004). For a long-term increase in the use of RES a more active policy in this area would be needed. Within this framework, in 2009, a new support*

<sup>172</sup> Electricity consumption, which has been constantly rising after 2000, except in 2005 and 2007, also increased.

<sup>173</sup> According to estimates by the Jožef Stefan Institute, in 2008, energy intensity in households increased by 0.6% only if the impact of winter temperatures is not taken into account; otherwise it jumped by 6.1%.

<sup>174</sup> In the 2000–2006 period, average annual growth was 4.1%, in 2007 12.8% and in 2008 17.3%.

<sup>175</sup> In 2009, fuel prices in Slovenia were higher than in the neighbouring countries, except in Italy (Oil Bulletin, AMZS, 2009). See the indicator *Implicit tax rate*.

<sup>176</sup> Total chemical and paper industries, manufacture of metals (of metal industry), manufacture of cement, lime and plaster (of the manufacture of non-metallic mineral products) and manufacture of abrasive products and other non-metallic mineral products.

<sup>177</sup> In aluminium production, the closure of potline B as well as the closure of the chemical factory TDR Ruše.

<sup>178</sup> Integrated Pollution Prevention and Control.

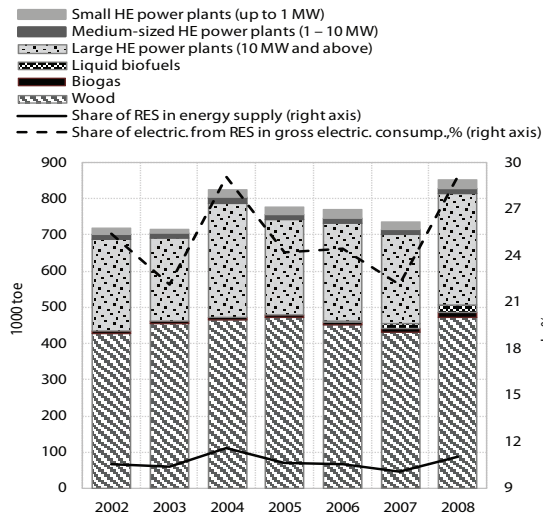
<sup>179</sup> In 2008, 38 and in 2009 59 integrated environmental permits (IPPC) were issued. By the end of 2009, the total number was 125; in addition, 19 applications for industrial facilities and 13 applications for municipal landfills were submitted. In total, 157 facilities operating in Slovenia require IPPC permits.

<sup>180</sup> Geothermal and solar energies are not covered in statistical data.

<sup>181</sup> As a consequence of the negative impact of promotion of the use of biofuels from arable crops on food prices and on food security in general, on deforestation and biodiversity, the global trend is to focus on the production of second-generation biofuels, i.e. fuels produced from organic remains, and waste from agriculture and forestry.

scheme was set up for promoting electricity production from RES and combined heat and electricity production with high utilisation rate. This scheme significantly increased incentives for operation in all technologies except photovoltaics, and prolonged the period of subsidy. The year 2010 thus saw an increase in the contribution that is paid to this end with the electricity price and with which twice as much funds will be collected in 2010 as a year before.

Figure 15: Use of renewable energy sources in Slovenia



Source: SI-STAT data portal – Energy, 2010; calculations by IMAD.

**Greenhouse-gas emissions** from transport increased further in 2008. Total greenhouse-gas (GHG) emissions rose by 3.5% in 2008 and were 5.2% higher than in 1986 (the Kyoto target base year). Growth was highest after 2001 and exclusively the result of emissions from transport and households (see Figure 16). Transport emissions grew by 17.8%, which was a record growth in the entire period after 1986. This was the result of still very high growth in transport<sup>182</sup> and low prices of motor fuels in Slovenia, which encouraged purchase of fuels in Slovenia.<sup>183</sup> The growth of emissions from fuel consumption in households was, along with the fact that they had been decreasing since 2000, the result of a colder winter and the dynamics of households buying fuels.<sup>184</sup> GHG emissions in other sectors decreased in 2008, most of all in industry due to the decline in production at the end of the year. The Operational Programme for Limiting

<sup>182</sup> Linked to the favourable economic situation in mid-2008 both in Slovenia and in the international environment, which increased not only domestic goods transport but also transit. (See also the section on energy intensity at the start of this chapter).

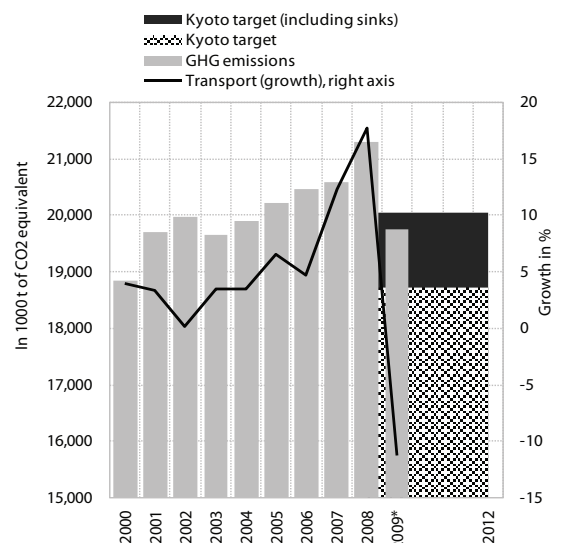
<sup>183</sup> According to UNFCCC methodology, the record of GHG emissions includes emissions on the basis of fuel sold and not on the basis of actual emissions on the territory of Slovenia.

<sup>184</sup> The postponement of buying fuels due to high prices at the end of 2007 to 2008 and buying stocks at the end of 2008 when fuel prices were low.

Greenhouse Gas Emissions by 2012, which contains measures, competence, deadlines and a financial structure for the implementation, was amended in 2009. According to our estimates, due to changes in excise policy for motor fuels in 2009<sup>185</sup> and due to the impact of the economic crisis on lowering energy consumption, achieving the Kyoto target will be less problematic. In early 2010, the Motor Vehicles Tax Act was amended as well; the tax is levied according to CO<sub>2</sub> emissions and the type of fuel used by vehicles.

*Promotion of projects for efficient energy use and the use of renewable energy sources by means of public resources slightly strengthened in 2009 due to the beginning of the absorption of cohesion funds.* In 2008, funds were provided in the amount stipulated by the Action Plan for Energy Efficiency for the 2008–2016 Period; however, only about a third was spent since the option of drawing cohesion funds within the Sustainable Energy Programme was not exploited. In 2009, more funds were available, although only half of the amount stipulated by the Action Plan. They were still not fully spent. Cohesion funds also started to be drawn. Already in the early years of implementing the Action Plan, Slovenia has thus lagged behind targets regarding energy saving. In addition, the implementation of the Rules on Efficient Energy Use in Buildings, adopted in 2008, and on the basis of which new buildings should use up to 60% less energy, was postponed to 2010, and there have also been delays in implementing the concept of the energy-performance certificate. The second package of crisis measures (19 February 2009) included a programme to increase energy efficiency of buildings in public ownership, which should be implemented within the cohesion funds. In early 2010, the programme was still in preparation.

Figure 16: Greenhouse-gas emissions and their growth in transport



Source: Environmental Agency of the Republic of Slovenia, 2010.

<sup>185</sup> See the indicator *Implicit tax rate*.

*With the introduction of the additional charge at the energy price, funds for measures regarding efficient energy use and the use of renewable energy sources will be much larger. The contribution for improving the efficiency of electricity consumption and the fuel-price supplement started to be charged with the use of fossil energy in 2010.<sup>186</sup> These funds will go towards implementing programmes to achieve energy savings: in compliance with the EU directive and the national action plan, in 2010 all energy suppliers must achieve 1% annual energy savings. In this way, available funds for programmes of more efficient energy use will greatly increase and approach the funds needed for realising objectives in this area.*

*“Eco” credits, which are an important instrument of environmental policy, especially of promoting efficient energy use and the use of renewable energy sources, are also increasing. The lending activity of the Eco Fund,<sup>187</sup> which promotes environmental investments, declined slightly in 2009, but with the capital increase from the central government budget it should significantly increase in the next few years. In 2008, activities promoting environmental projects started to be implemented by the Slovenian Export and Development Bank. The major portion of assets in 2009 was devoted to development projects that include investments in research, development and innovation in the car industry and are designed to meet EU requirements on CO<sub>2</sub> emissions and other emission regulations, particularly on the development of new-generation technologies to reduce emissions and increase efficiency.*

*Due to the economic crisis, **goods transport** decreased in 2009; railway goods transport decreased more than road goods transport. According to data for the first three quarters of 2009, road goods transport, which was increasing in 2008, decreased by a tenth. Railway goods transport, which had already declined in 2008, decreased even more; in the first nine months of 2008, the year-on-year result was more than a quarter lower. In public passenger transport, the downward trend in road transport continued, whereas railway transport continued to stagnate. Air and airport passenger transport decreased substantially, but the reason for this was high growth in 2008, during which Slovenia held the Presidency of the Council of the European Union. As the data on road passenger transport by passenger cars are not available, the slight slowdown in growth can be inferred from the number of newly registered road vehicles, which after growing for three years in 2009 decreased by a fifth. Sales of motor fuels dropped by more than a tenth in 2009. Sales of gas oil declined significantly as a result of lower goods transport – both domestic and transit – due to the economic crisis, as well as the higher price of motor fuels compared with*

*neighbouring countries.<sup>188</sup> As one of the measures to mitigate the effects of the economic crisis, in the middle of the year, a scheme was introduced for reimbursing excise paid on fuel for commercial purposes to the minimum level of excise. The aim of this measure is to reduce the costs of transporting goods and passengers and thus improve the competitiveness of this sector. This measure should also reverse the decrease in the sale of motor fuels, especially to foreign nationals who, due to high fuel prices in Slovenia, were buying fuel in the neighbouring countries and, with the same burden on the environment, did not contribute to Slovenian revenue. According to our estimates, in 2008, investment in railway infrastructure slightly increased, but the trend of modest investment in railway infrastructure and high investment in road infrastructure continued.<sup>189</sup>*

***Air quality** is a problem, especially as regards air pollution with PM<sub>10</sub> and ozone. The level of ambient pollution due to particles (PM<sub>10</sub>) was reduced in the 2002–2008 period. Nevertheless, in 2008 the annual limit value of PM<sub>10</sub> was still exceeded in one monitoring site (Zagorje), while the number of days in which the daily limit values of PM<sub>10</sub> may be exceeded was exceeded in all measuring sites except Nova Gorica and Koper. Particle pollution is mostly caused by transport, small firing installations and industry. The situation regarding particle pollution is worst in urban centres (especially in Celje and Trbovlje). Air concentration of particles in Slovenia was high above the average for EU Member States: only Spain, Poland, Italy, Bulgaria and Romania had higher concentrations.<sup>190</sup> High concentration presents an important risk, especially for the health of children.<sup>191</sup> The Operative Programme<sup>192</sup> was adopted in 2009, by which prescribed limit values for this type of pollution should be achieved by 2011. The programme presents measures at the national level, while at regional and local levels, the programmes of measures have yet to be prepared in partnership with local communities. The programme does not provide the necessary funds to implement measures. As regards ozone, all areas in Slovenia are in the worst quality class, since everywhere, including rural areas and higher areas, concentrations exceed target values, which is to the greatest extent caused by transport.*

*Failure to implement measures to reduce greenhouse-gas emissions also has a negative impact on achieving the*

<sup>188</sup> See the paragraph on greenhouse-gas emissions and the indicator *Implicit tax rate on energy consumption*.

<sup>189</sup> 0.4% of GDP (investment less regular maintenance), in road infrastructure 2.1% of GDP (SORS, Reports on the implementation of the annual plan of development and upgrading of motorways).

<sup>190</sup> In 2007, Slovenia 32.4 µg/m<sup>3</sup>, EU average 28.1 µg/m<sup>3</sup> (Eurostat).

<sup>191</sup> In the 2002–2007 period, the highest number of children aged 0–15 admitted to hospital due to diseases of the respiratory system was recorded in Zasavje.

<sup>192</sup> Operational programme for the protection of ambient air against pollution caused by PM<sub>10</sub> (Ministry of the Environment and Spatial Planning), 2009.

<sup>186</sup> Regulation on Energy Savings Ensured to Final Customers, 2010.

<sup>187</sup> Public fund for promoting environmental investments in Slovenia.

goals of ambient air quality, especially due to failure to implement measures in the field of transport. Due to the inefficiency of public passenger transport, the increase in road goods transport, slow technological modernisation of thermal power plants and failure to implement the planned activities of stimulating efficient energy use and the use of renewable energy sources, achieving the targets of ambient air quality and national upper limits of NEC emissions is also threatened.<sup>193</sup> This is especially problematic since there is no alternative measure for providing air quality as there is in meeting Kyoto commitments (purchasing greenhouse-gas emission allowances).

In the field of **waste**, only small progress was achieved regarding municipal waste, on which Slovenia is lagging behind its development goals. In 2008, a slightly increasing trend in the amount of separately collected waste continued (to 26%), although there is still considerable room for improvement, as only about a third of municipal packaging waste and only a fifth of biodegradable waste are collected separately. In 2008, the Operational Waste Removal Programme was amended, anticipating development of up to 15 regional centres with landfill space where only the remains of waste after recovery should be landfilled. The programme anticipated that by 2008 32% of all municipal waste would be separately collected and that by 2013 the share should double. In the first year of implementing the programme, the collected amounts were already behind targets: the greatest lag was recorded with biological waste and plastics. A low share of waste recovery is in part the result of the infrastructure for recovery of municipal waste, which was not built in time, though EU cohesion funds could have been used for this purpose. In addition, many municipalities do not have appropriate waste collection and sorting centres, which are indispensable for successful implementation of the Operational Programme. The share of landfilled municipal waste slightly decreased again in 2008, but it is still exceptionally high. The target on reduction of landfilled biodegradable waste was therefore not achieved; its share did decrease from 44% in 2006 to 39%<sup>194</sup> in 2008, against a target value of 32%. In 2009, it was therefore necessary to extend the period for achieving this long-term objective.<sup>195</sup> At the same time, a possibility was introduced of extending operation of existing landfill facilities before regional centres become operational.<sup>196</sup> To achieve environmental objectives and for municipal waste to be redirected from landfill to

waste treatment, the Operational Programme for the Management of Separately Collected Municipal Waste is currently being prepared.

*The management of individual types of non-municipal waste is mostly achieving the set goals.* Recovery of waste from industry is on the rise. For some types of waste (packaging waste, tyres, batteries, waste electric and electronic equipment, waste candles and waste medicines) a system has been set up that asserts the principle of extended producer responsibility, holding producers liable for the costs of managing their products at end of life. The goals of these systems were mostly achieved. In the area of packaging waste management, in 2007 target shares for recovery and recycling were met; however, for achieving goals in the coming years, recovery and recycling of packaging waste generated in municipal waste will also have to be increased.

*The introduction of systems for environmental management in production is modest in Slovenia.* For enterprises, the inclusion of enterprises into voluntary environmental management schemes, which provides all important aspects of environmental management (use of raw materials and energy, management of technological processes, requirements regarding use of products) and leads to elimination and decrease of negative impacts on the environment, represents an internationally recognised approach to their operation. Only two enterprises in Slovenia are included in the EMAS scheme (ECO - Management and Audit Scheme)<sup>197</sup> and three enterprises were awarded the EU eco-label flower.

*With the impact of agriculture on the environment (measured by the use of fertilisers and pesticides, average yield of crops, intensity of livestock breeding and the share of sustainable farming), improvement was recorded in 2008 in the use of mineral fertilisers; however, in the area of sustainable farming no significant improvement was observed.* The improvement has largely been the result of integrating environmental-protection measures into agricultural policy, as producers must meet a wide range of prescribed standards to be eligible for subsidies. In 2008, the use of *NPP fertilisers* per unit of utilised agricultural area decreased further and was the lowest since 1995. The sale of *pesticides* grew, but was nevertheless a sixth lower than in 2000. Production intensity of the two main *crops* differed: wheat production, which had been relatively less intensive, increased, whereas the intensity of maize production, which had been relatively high in the past, decreased. The impact of *livestock* on the environment is relatively strong in Slovenia, because of the high share of livestock breeding in agriculture, but in the long term the impact of livestock on the environment is easing off. The growth of sustainable farming (organic and integrated production) slowed in 2008, so despite the significant potential for improvement, the achievement of strategic goals in this area is becoming ever more questionable.

<sup>193</sup> National Emission Ceilings Directive (2001/81/EC), 2001.

<sup>194</sup> Data from the sieve analysis of the Ministry of the Environment and Spatial Planning collected on the basis of the Decree on the Landfill of Waste; due to a small sample and low frequency of measurement, it is estimated that even more biodegradable waste was actually landfilled.

<sup>195</sup> Slovenia will exercise the right to extension in implementing the last target of the Council Directive on the Landfill of Waste, i.e. to reduce the amount of biodegradable components in landfilled waste to 35% compared to the amount in 1995.

<sup>196</sup> Decree Amending the Decree on the Landfill of Waste, 2009.

<sup>197</sup> E.g. Latvia 8, Slovakia 5, Hungary 13 in 2007 (Eurostat).

Despite the increase, **the economic utilisation of forests**, which are an exceptionally important source of ecologically acceptable raw materials and energy, is still relatively low. The removal of trees and the production of raw-wood categories are increasing in the long term; however, due to a more rapid rise in wood increment, the intensity of tree felling is relatively low. Although tree felling increased by 5.7% in 2008, it was still at the level of 70% of potential. Two facts are especially problematic; that in the long term, removal for sanitation purposes is increasing more than tree-tending removal, and that there is also a large lag in removal of small wood, which is the main source of wood for energy purposes. Any greater exploitation of forest potential has been hampered by the fragmentation of forest property, inappropriate technological equipment and insufficient skills of private forest owners, as well as a lack of co-operation and market orientation. To increase the use of wood for energy purposes, programmes started to be implemented last year for promoting wood biomass heating,<sup>198</sup> which represent the first exploitation of cohesion funds within the Sustainable Energy Programme. For achieving higher value added in the use of wood, it would be necessary to strengthen all links in the forest-wood chain, from production through processing of wood to marketing of wood and wood products.

As regards **nature protection**, measures are being carried out for the protection of special protection areas – Natura 2000 sites. Within the Operational Programme – Natura 2000 Management Programme, further nature protection measures were implemented (one of the most demanding was a new case of protection and preparation of two management plans for protected areas), a third of forestry management plans which include Natura 2000 objectives were prepared, in two areas (the Škocjan inlet and the Triglav national park) procedures for implementing investment necessary for the development of the park and visitor infrastructure began, and the setting up of monitoring of species and habitat types continued. At the start of 2009, 20,188 hectares were included in nine types of agri-environmental measures within Natura 2000 objectives, which is 85% of the target for 2010. Greater inclusion is expected in 2010 as the amounts of some payments are being increased, and because the possibility for more extensive inclusion of new areas in these measures is being opened. Realisation of the disbursement of structural funds for implementing these programmes is smaller than anticipated as regards tourist, park and visitor infrastructure, especially in the part of the programme in which municipalities are responsible for implementation.

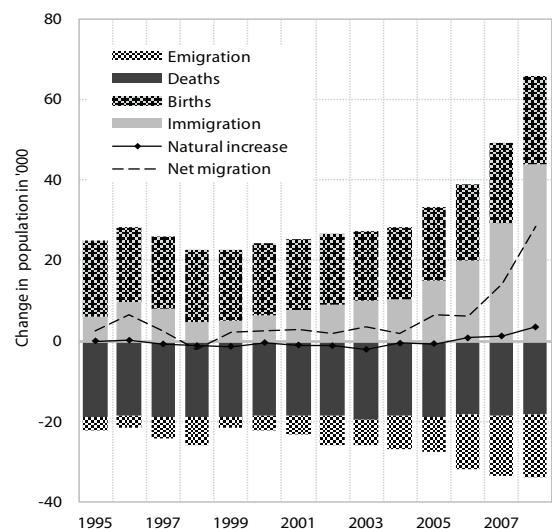
<sup>198</sup> Public tender for co-financing of district heating using wood biomass for local energy supply and Public tender for co-financing of individual heating systems using wood biomass for local energy supply, 2009.

## 5.2. Sustained population growth

**The population** in Slovenia has been rapidly growing in recent years, especially due to high **net migration**, which, however, levelled off in 2009. The population in Slovenia exceeded 2 million in 2005 and by June 2009 reached 2,042,335. The main reason behind the increase in the 2005–2008 period was high net migration, especially of foreign nationals (see Figure 17), which increased year to year. It was linked to high economic growth after Slovenia's accession to the EU in 2004 and even more in 2007, when Slovenia started to experience shortages in a number of domestic occupational profiles, especially in construction, and businesses hired foreign workers more frequently, so that their number doubled in this period. In 2008 alone, 30,693 new permanent residents migrated to Slovenia from abroad and only 12,109 people emigrated from Slovenia, so that net migration in 2008 was 9.2 per 1,000 population, among the highest in the EU. A further reason for the strong increase in immigration in 2008 was Slovenia's accession to the Schengen agreement, in which several abuses were recorded as foreigners with residence permits in the Republic of Slovenia were seeking employment or the opportunity to live in other countries that are parties to the Schengen agreement (Information on the situation and necessary measures in the field of migration policy, 2009). Provisional data for the first two quarters of 2009 show that, after further growth in the first quarter, net migration of Slovenia's population started to fall in the second quarter.

Since 2006 the **population** has also been growing due to **natural increase**. Employment growth, which enabled the number of registered unemployed persons to drop by a third in the 2004–2008 period, was, in addition to the postponement of births in the past due to study, unemployment, lack of housing, etc., probably one of the

Figure 17: Components of population growth, Slovenia, 1995–2008



Source: SI-STAT data portal – Demography and social statistics, 2010.

reasons for breaking the trend in the number of births, which was in 2006, for the first time in ten years, higher than the number of deaths. After more than twenty years of decline, in 2003, the number of births reached the lowest level (17,321; the total fertility rate was 1.20); but, since 2004, it has been rising. In 2008, 21,213 children were born in Slovenia and the total fertility rate was 1.53. The age of women at birth continues to increase. At the same time, life expectancy continues to rise and infant mortality remains among the lowest in Europe.

*According to projections, the population in Slovenia will decline, while the proportion of old people will increase. With rising life expectancy, the share of the old-age population in Slovenia continues to increase, but it is still below the EU average. According to projections, in view of the past trends in births it will soon start to grow rapidly. According to Eurostat's demographic projections, in less than ten years, the population will start to decline and the process of population ageing will accelerate. These expected demographic changes therefore require systematic measures in the fields of population, employment and public-finance policy.*

### 5.3. More balanced regional development

*According to the latest data for 2007, regional variation in GDP per capita slightly increased; however, it has been fairly stable since 2003. Disparities of regions at the NUTS 3 level increased in 2007 by 0.1 p.p. and were up by 2.8 p.p. compared with 2000. Regional variation was, however, still modest relative to the EU average. The concentration of economic activity in the Osrednjeslovenska region continued in 2007.*

**Regional variation in unemployment decreased in 2009, since the economic crisis also hit regions with lower unemployment rates.** After several years of decline, in 2009, the registered unemployment rate increased in all regions. Because it also strongly increased in regions with below-average rates, regional variation decreased. In 2008, disparities of regions in registered unemployment rate were thus 4 p.p. lower than in 2008, and at the same time the lowest since 2000. Unemployment is an important factor in poverty. As there are no data on poverty by statistical regions, it must be inferred from the number of financial social-assistance recipients. With the economic crisis, their number increased significantly: most strongly in Goriška, Koroška, Jugovzhodna Slovenija and Gorenjska, although the Pomurska region still has the highest number of financial social-assistance recipients per capita. Various studies in Slovenia and around the world have shown that the socio-economic situation of the population has a significant impact on their health. While an individual's health depends on a number of factors, a detailed analysis (Hanžek, Pečar, 2009) at the level of regions confirmed the hypothesis

that in Slovenia regional differences in mortality have a statistically significant impact on the socio-economic situation of individuals. In view of the difficult situation in regions as a result of the economic crisis, we can expect that the health of people will continue to deteriorate precisely in those regions that were, according to both socio-economic indicators and life expectancy, already worse off before the crisis, i.e. especially in the eastern regions of Slovenia.

*The economic crisis additionally caused higher unemployment in the Pomurska region, which before the crisis was already the least developed region in Slovenia. The Government adopted a special act on development support to the Pomurska region to alleviate this. The act should create conditions for restructuring the region, while providing financial resources from new and existing programmes. The region should thus be able to catch up with other regions in Slovenia<sup>199</sup> on development. Because a similarly critical situation could also appear in another region, it will be necessary to regulate more efficiently, and as soon as possible, the systematic provision of balanced development in Slovenia within the Promotion of Balanced Regional Development Act.*

*In tighter economic and social conditions, cohesion policy plays an important role in regions; within cohesion policy, a number of measures to accelerate **disbursement of cohesion funds** were adopted in 2009. Promotion of balanced regional development within the cohesion policy for the period 2007–2013 involves the Operative Programme for Strengthening Regional Development Potentials (SRDP); within this, the development priority is the development of regions. Initially, the disbursement of cohesion funds was insufficient, so measures were taken in 2009 for its simplification, which contributed to the situation at the end of 2009 of a net surplus to the EU budget for the first time in this programming period. The funds received under cohesion policy nevertheless still represented only about 60% of the funds envisaged by the revised national budget for 2009 and only about half of the envisaged disbursement from structural funds.<sup>200</sup> In 2009, cohesion policy through its measures mostly supported the activities of enterprises in successfully tackling the crisis, such as minimising the reduction in*

<sup>199</sup> The registered unemployment rate increased from 13.2% in December 2008 to 20.4% in December 2009.

<sup>200</sup> According to data to the end of 2009, activities in the amount of EUR 1.8 billion of European funds were confirmed (42.8% of all entitlement spending of the programming period), of which 55.8% were within the framework of the Operational Programme of Strengthening Regional Development Potentials (SRDP), which, among other things, pursues the objective of balanced regional development. This Operational Programme represents over 40% of entitlement spending of all Operational Programmes in the entire programming period. By the end of 2009, only 5% of entitlement spending for the entire programming period was certified refund applications to the EC, of which more than a third (38.7%) of all were from the SRDP, while in 2009 all were certified.



investment in research and development, and various measures in the area of employment.

*In terms of balanced regional development, participation of the population in tertiary education is important, with regional differences diminishing.* In 2008, the participation of the population aged 20–29 years in tertiary education slightly decreased in most regions, most of all in the Osrednjeslovenska region (by 2 p.p.). The greatest increase was recorded in the Pomurska region (by 1.1 p.p.). On this indicator, regional differences are not large and continue to narrow, due to the expansion of the higher-education network and thus the increased availability of tertiary education. As regards the number of graduates per 1,000 population, regional differences are also decreasing. In 2008, the number of tertiary-level graduates increased most in Koroška and Notranjsko-kraška regions and decreased most in the Osrednjeslovenska region. Reconciliation of the number of available jobs requiring tertiary education and the number of tertiary-level graduates also plays a vital role in reducing regional disparities, but these data are not available.

*In the field of population settlement, the unfavourable trends of recent years continue: the concentration of population and jobs in the Osrednjeslovenska region and the continued process of suburbanisation and deurbanisation, which weakens regional centres.* Slovenia's population is concentrated in the Osrednjeslovenska region (more than a quarter) as are jobs, which adds to higher short- and long-distance daily mobility. This increases transport and pressures on the environment. The process of suburbanisation, which is still closely related to the unregulated real-estate market and spatial planning, also contributes to greater daily mobility. Suburbanisation causes problems in the functioning of cities and maintenance of the existing housing fund and also puts pressure on agricultural land and the existing municipal and social infrastructure areas receiving migrants, which is usually not adapted to the increased population.

## 5.4. Improving spatial management

*Activities in the field of legal and administrative basis for spatial management were intensive in 2009, but only the future will show if they are sound.* In 2009, the Spatial Planning Act was amended; amendments did not involve improvement of the set of administrative spatial measures such as expropriation and land consolidation, but did attempt to address other problems. The deadline by which municipalities can partially amend the valid spatial-planning documents without completing new, comprehensive municipal spatial plans, was thus extended by a year (to the end of 2010). The Act tries to reduce the rigidity of the spatial-planning system, so

that the adoption of municipal spatial plans no longer requires a government decision; instead, ministries will be able to check subsequently whether these plans take into account sectoral legislation and guidelines, and will be able to enforce them subsequently. However, it has yet to be proven whether such a softer regulatory approach will be successful. The most important and most complex municipal spatial plan in the country is being prepared by the Municipality of Ljubljana (Draft Implementing Spatial Plan of the Urban Municipality of Ljubljana, 2009), which seeks a certain area of manoeuvre for subsequent specific decisions on priorities, site-development work and method of building in a large area for which detailed spatial plans are only envisaged. However, this could mean risking development in these areas being blocked longer as any interventions in these areas will be very limited until these plans are prepared. Activities for changing other land-related legislation started in 2009; e.g. amendments to the Agricultural Land Act are being adopted, while the National Farm Land and Forest Fund Act was amended in early 2010. This amendment transfers vacant construction land that was at the disposal of the Fund to the municipalities. The Infrastructure for Spatial Information Act is also being adopted, by which Slovenia will meet the requirements of a directive in this area at the EU level; however, this will only set the legal basis and not other conditions for enforcing the European directive in Slovenia. There is still the problem that the present spatial-planning system lacks transparency, is constantly being changed and is still developmentally unfriendly and risky, especially for small investors (Prelovšek, 2009).

*Spatial regulations are a bottleneck for development, especially in the placing of infrastructure in physical space.* Spatial regulations enabled a broader expansion of private projects than could be realised with the drop in demand due to the economic crisis. Just when it would be sensible to compensate for diminished investment with intensified government demand, regulations appear to be a bottleneck for development in national activities which affect infrastructure placing, given that spatial plans to intensify activities, especially in the field of road and railway infrastructure, have yet to be prepared. Preparation of spatial planning documents is also hampered by transport-policy decisions often being taken too late and by poorly functioning spatial-planning instruments in the conditions of the existing judicial system. An act is being prepared that will facilitate placing of infrastructure to meet this challenge.

*The economic crisis has greatly reduced the number of real-estate transactions, while its impact on real-estate prices is smaller.* According to Surveying and Mapping Authority data on recorded transactions<sup>201</sup> for (mainly) second-hand dwellings, the number of dwellings sold continued to fall (by 18%) in 2009, while compared to 2007, when the number of transactions was the highest,

<sup>201</sup> Surveying and Mapping Authority of the Republic of Slovenia, calculations by IMAD.

it was cut in half. The increased supply of dwellings that were started in times of favourable economic situation mostly piled up in stocks of unsold dwellings. The decrease in trading was in part caused by dwelling prices not adjusting to the lower demand caused by the crisis. Compared to 2007, in 2009, prices of new dwellings were only 4.3% lower,<sup>202</sup> while prices of second-hand dwellings fell by 5.3%.<sup>203</sup> Demand for dwellings primarily declined as the result of the increased risk of unemployment, while the decline in demand for commercial real estate was a general reflection of the crisis. That such trends will continue is shown by the data on issued building permits, the number of which decreased further in 2009 after a large drop in 2008. There is also a strong need for non-profit rental housing, but the government has not yet drawn up a new housing policy for the changed circumstances to replace the National Housing Programme that ended in 2009.

*A mass real-estate valuation is being prepared.* The preparations for implementing mass real-estate valuation, expected in 2010, intensified in 2009. This would open the possibility of introducing a real-estate tax in 2011, which would replace the present charge for the use of building land. However, a decision on the introduction of the real-estate tax has yet to be adopted. Preparations are significantly improving the present real-estate records, which will have a long-term positive impact on the functioning of the real-estate market and thus also on economic growth.

## 5.5. Culture

Culture is an important factor in the formation of the value system in society, and thus influences development goals and achievement of social well-being. This chapter presents trends in the field of culture: books, cultural events and film, and, in accordance with available data, also household expenditure on culture and employment in cultural activities. Trends in the field of cultural activities were mostly favourable in 2008; however, individual sectors point to lower attendance or consumption in these activities.

*Trends in the field of books and public libraries are mostly favourable.* The increase in the number of published books and brochures in 2008 was the largest since 2000. The annual addition to library material is also increasing, which is also the result of author's remuneration for public-library loans<sup>204</sup> introduced in 2004. The number

of recipients of author's remuneration increased in 2008, as did the number of scholarships granted on the basis of funds from the author's remuneration. The number of people visiting public libraries decreased in 2007,<sup>205</sup> but, as in the last few years, the number of borrowed units of library material per person increased. An important addition to classical libraries is the Digital Library of Slovenia (D-LIB.SI),<sup>206</sup> which increases the accessibility of information sources and reaches a larger number of users than classical libraries. The Digital Library presents a method of sustainable preservation of cultural heritage and makes it available to the widest public. The number of people visiting the Digital Library increased significantly in 2008.

***The number of museum exhibits, collections, exhibitions, seminars and workshops increased in 2008, while the number of people attending exhibitions decreased.*** In 2008, the number of museum exhibits<sup>207</sup> increased substantially, with the greatest number being archaeological exhibits. The increase in museum exhibits was mostly caused by the adoption of the Cultural Heritage Protection Act,<sup>208</sup> while the increase in archaeological exhibits was also due to the increase in archaeological excavations. The number of collections and exhibitions also increased in 2008. Despite increased supply of museums and exhibition grounds, the number of people attending exhibitions decreased and was lower than in 2004.<sup>209</sup> The fall in attendance compared to 2004 was probably also the result of a significant reduction in the number of exhibitions in the 2004–2008 period. As a way of promoting participation in cultural activities and as part of cultural education, in addition to exhibitions, museums and exhibition grounds offer various seminars and workshops for children and young people and for

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translation, music, film and illustration. The system of author's remuneration for public-library loans is designed as a concrete instrument of cultural policy to support authors in those areas of creativity in which library material is created.

<sup>205</sup> It amounted to 26.0% and thus decreased by 0.8 p.p. compared to the previous year.

<sup>206</sup> The Digital Library of Slovenia in an Internet library that is available to everybody, any time, any place via a computer or a mobile phone. Access is free, without limitations. The Digital Library offers texts (newspapers, books, Slovenian Research Agency reports, higher-education theses), pictures (artoteque, photographs, sheet music, posters, picture postcards, manuscripts, maps) and multimedia (virtual exhibitions, audio recordings).

<sup>207</sup> Museum exhibits are visual art, art history, archaeological, historical, natural-science, technical-science and ethnological exhibits.

<sup>208</sup> The Cultural Heritage Protection Act (2008), which determines, inter alia, the registration of movable heritage objects, enforced abolition for persons who, on the day when the Act came into force, held archaeological artefacts without a certificate of origin (they were not punished for previous crimes and misdemeanours related to these artefacts), if they reported these artefacts to the national or authorised museum within one year of the Act coming into force).

<sup>209</sup> Due to changes in methodology, comparison is only possible from 2004 onwards.

<sup>202</sup> Quarterly price indices of new dwellings, Slovenia (SORS), 2010.

<sup>203</sup> Housing price index (SORS), 2010.

<sup>204</sup> Implementation of author's remuneration for public-library loans was introduced in 2004 and is being implemented in the form of payment to authors depending on the borrowing of their works in public libraries and in the form of scholarships granted by professional associations in the field of literature,

adults, as well as additional programmes for promoting the museum or exhibition ground. The number of programmes increased substantially in 2008, which was followed by a substantial increase in attendance. Growth was also characteristic for the 2004–2008 period. In addition to the size, quality and variety of events offered by museums and exhibition grounds, their opening hours are also important as regards accessibility. In the 2005–2008 period, museums and exhibition grounds increased the number of days in operation, which contributed to greater accessibility for these institutions.

**Theatrical and film production** increased in 2008. An increase was registered in both the number of theatrical performances and the number of performances of theatrical companies on tour.<sup>210</sup> The number of theatrical performances dropped significantly in the 2004–2008 period; and the number of new productions in theatres is also declining. Attendance in theatres is on the rise, which is probably due to a strong increase in the number of seats in theatres, which also means better accessibility for these performances. As regards film production, in 2008 the number of cinema films produced and shown for the first time increased significantly,<sup>211</sup> especially the number of short films. The same is true for the entire 2004–2008 period. However, the number of cinema-goers watching Slovenian long films increased only slightly in the 2004–2008 period. In 2008, the number of Slovenian feature films that participated in international film festivals also grew substantially.<sup>212</sup>

In 2007 (for which the latest data are available), **expenditure on culture per household member** grew less than in previous years. The growth of expenditure in 2007 was slower than the average growth in the period after 2001. Household expenditure on books dropped for the third year in a row, but this does not necessarily show less interest in reading books because library borrowing is on the increase. After modest growth in the previous year, expenditure on cinema, theatres and concerts again decreased (by almost a quarter). Ever since 2003, households have most significantly increased their expenditure on technical equipment (buying TV sets, video recorders, photographic and cinematographic equipment). According to internationally comparable data on household expenditure on recreation and culture,<sup>213</sup> the share in Slovenia in 2008 decreased more than the EU average, but remained higher than in the EU.

**Employment in culture**<sup>214</sup> has been increasing for a number of years. Relatively favourable trends in culture

reflect in the number of persons employed in this area. In 2008, there were 33,329 persons employed in culture, 4.7% more than in the previous year. Employment in culture has been increasing since 2004; in the 2000–2008 period it increased by almost a tenth.

<sup>210</sup> In the central theatre.

<sup>211</sup> In 2008: 45 (in 2007: 12).

<sup>212</sup> Po podatkih Ministrstva za kulturo je bilo na mednarodnih filmskih festivalih udeleženi 11 celovečernih filmov (leta 2007: 6).

<sup>213</sup> According to the national accounts methodology, only data for the group recreation and culture are available.

<sup>214</sup> Activity of culture according to the Statistical Register of Employment.

# **Part II**

## **Indicators of Slovenia's development**



## **THE FIRST PRIORITY:**

### **A competitive economy and faster economic growth**

- Gross domestic product per inhabitant in PPS
- Real growth of gross domestic product
- Inflation
- General government debt
- General government balance
- Balance of payments
- Gross external debt
- Labour productivity
- Market share
- Unit labour costs
- Structure of merchandise exports by factor intensity
- Exports and imports as a share of GDP
- Foreign direct investment
- Entrepreneurial activity
- Share of non-financial market services in GDP
- Total assets of banks
- Insurance premiums
- Market capitalisation of shares

## Gross domestic product per inhabitant in PPS

In 2008 Slovenia made further headway in catching up to the EU average in terms of GDP per inhabitant in PPS, but Eurostat estimates suggest the development gap widened amidst the economic crisis in 2009. The latest Eurostat<sup>1</sup> data show that GDP per inhabitant at purchasing-power standards reached 22,800 PPS<sup>2</sup> or 91% of the EU average in 2008, 2 p.p. closer to the EU average than in the year before. Despite a slowdown in economic growth in 2008, Slovenia's economy grew at a faster pace than the EU average (by 2.7 p.p.), much as it did at the height of the economic cycle (2004–2007). By the time the global financial and economic crisis deepened in 2008, GDP growth had already halved in most EU countries and GDP even contracted in real terms in six. This was also reflected in GDP at PPS, which had been rising in all EU Member States in the 2004–2007 period but dropped in six in 2008 – five old Member States<sup>3</sup> and one newcomer (Estonia). Slovenia was thus in the group of twelve countries that improved their position relative to the EU average in 2008. Six countries merely retained their relative position over the year before and the rest saw their GDP in PPS decline, in particular Ireland (by 13 p.p.). All the countries whose position improved by more than Slovenia's in 2008 have lower GDP per inhabitant than Slovenia (Romania, Slovakia, Bulgaria, Lithuania). Greece and Cyprus have been the closest to Slovenia in GDP per inhabitant at PPS since 2004, whereas Portugal, which had been roughly on a par with Slovenia at the beginning of the decade, had fallen well behind Slovenia by 2008 (by 2 p.p. in 2000 and by 15 p.p. in 2008). As in most other countries with relatively greater changes in GDP per inhabitant in PPS, the overall level of prices in Slovenia also increased in previous years (from 73% of the EU average in 2005 to 81% in 2008) so the convergence of GDP was slower than would be expected merely based on the ratio between real GDP growth rates in Slovenia and the EU average. Eurostat forecasts suggest that GDP per inhabitant in PPS will drop in all EU countries in 2009, with Slovenia's expected to contract by 7% in nominal terms. According to our calculations, Slovenia thus reached 89% of the EU average. This effectively offset the headway made in 2008, as Slovenia returned back

to 2007 levels. But the slide had been expected given that Slovenia experienced one of the steepest drops in economic activity<sup>4</sup> in the whole of the EU in 2009.

*With real convergence grinding to a halt during the economic crisis, Slovenia fell behind in meeting the principal economic objective of Slovenia's Development Strategy (SDS) in this field, which will thus not be achievable by 2013.* Compared to the 24 other countries that had been members of the EU when SDS was adopted (2005), Slovenia achieved 88% of their average GDP in PPS in 2008.<sup>5</sup> From 2003, the reference year for the development scenarios in the SDS, Slovenia was 8 p.p. closer to the EU-25 average, making better progress than the other countries which had been at a similar level in 2003 (Malta, Cyprus, Portugal and Greece). Despite relatively brisk progress at the peak of the economic cycle, Slovenia closed only half of the gap to the EU average halfway into the ten-year period (2003–2013) in which it was expected to reach the EU average (EU-25 average when the SDS was adopted) according to the principal economic objective in SDS. In order to achieve this target between 2009 and 2013, Slovenia would have to close the gap by another 12 p.p., which is untenable given that the process of real convergence ground to a halt in 2009 according to preliminary Eurostat estimates, and considering the structural weaknesses of the Slovenian economy (in particular an unfavourable technological structure<sup>6</sup>).

<sup>1</sup> In December 2009, Eurostat released data on GDP per inhabitant in purchasing-power standards for 2006–2008. The data are based on reviewed purchasing-power parities for these years and the latest reviewed data of individual countries for GDP in national currencies and population size. The next Eurostat release is scheduled for June 2010.

<sup>2</sup> Purchasing-power standard (PPS) – selection of currency and expression of results is a convention. In Eurostat's comparison, the results are shown in a «currency» called PPS. PPS is an artificial, fictitious currency which equals one euro at the level of the EU average. PPS or «EU-27 euro» is a «currency» that reflects the average price level across the EU-27.

<sup>3</sup> Denmark, Ireland, Spain, Italy and Sweden.

<sup>4</sup> See also indicator *Real growth of gross domestic product*.

<sup>5</sup> IMAD calculation.

<sup>6</sup> See indicators *Structure of merchandise exports according to factor intensity*, *Market share*.

Table: GDP per inhabitant in PPS, indices, 1995–2008, EU-27=100

	1995	2000	2003	2005	2006	2007	2008
<b>EU-25</b>	<b>105</b>	<b>105</b>	<b>104</b>	<b>104</b>	<b>104</b>	<b>104</b>	<b>103</b>
<b>EU-15</b>	<b>116</b>	<b>115</b>	<b>114</b>	<b>113</b>	<b>112</b>	<b>112</b>	<b>111</b>
Austria	135	131	127	124	124	123	123
Belgium	129	126	123	120	118	116	115
Bulgaria	32	28	32	34	36	38	41
Cyprus	89	89	89	91	91	94	96
Czech Rep.	73	68	73	76	77	80	80
Denmark	132	132	124	124	124	121	120
Estonia	36	45	55	62	65	69	67
Finland	108	117	113	114	115	118	117
France	116	115	112	111	109	108	108
Greece	84	84	93	92	93	93	94
Ireland	103	131	141	144	145	148	135
Italy	121	117	111	105	104	103	102
Latvia	31	37	43	49	52	56	57
Lithuania	36	39	49	53	55	59	62
Luxembourg	223	244	248	255	272	275	276
Hungary	52	55	63	63	63	63	64
Malta	87	84	78	78	77	76	76
Germany	129	118	117	117	116	116	116
Netherlands	124	134	129	131	131	132	134
Poland	43	48	49	51	52	54	56
Portugal	75	78	77	77	76	76	76
Romania	N/A	26	31	35	38	42	47
Slovakia	48	50	55	60	63	68	72
<b>Slovenia</b>	<b>74</b>	<b>80</b>	<b>83</b>	<b>88</b>	<b>88</b>	<b>89</b>	<b>91</b>
Spain	92	97	101	102	105	105	103
Sweden	125	127	123	120	121	123	120
U. K.	113	119	122	122	120	117	116

Source: Eurostat Portal Page – National Accounts, 2010.  
Note: N/A – not available



## Real growth of gross domestic product

*The contraction of GDP that started in the final quarter of 2008 accelerated in 2009. Affected by the global crisis, Slovenia's GDP dropped by 0.8% year-on-year in the last quarter of 2008 and by as much as 7.8% in 2009. A drop in export demand and lower gross fixed-capital formation were the biggest factors behind the start of the contraction in 2008. In 2009, both declined further, which was coupled with a delayed contraction of household spending as the labour market deteriorated. Only government spending had a net positive impact on growth, but even its growth halved compared to 2008. After a multi-year increase in inventories, stocks declined last year, contributing a third to the drop in GDP.*

*The international economic crisis, which was characterised by a significant and steep decline in trade flows, severely reduced Slovenia's trade. Following a 15.6% drop in 2009, real exports fell to 2006 levels. The severe decline in exports was underpinned by Slovenia's heavy reliance on exports, the structure of GDP contraction in the EU as the chief export market (where trade declined precipitously as well<sup>1</sup>), and also by the structure of Slovenia's exports (Slovenia exports mainly low- and medium-tech products). Production of vehicles<sup>2</sup> and pharmaceuticals were less affected than other export industries and their shares on Slovenia's main export markets started to increase from the second half of 2009. Regional trade data show that the decline in exports to the markets of the former Yugoslavia was even more pronounced than the drop in exports to the EU. Given the substantial drop in export and domestic demand, in particular investment, goods imports declined even more than exports last year, by 19.1%. Trade in services contracted substantially as well (exports were down 16.9% in real terms and imports by 10.2%), affecting in particular services dependent on external trade and construction.*

*Declining orders and restricted access to financing affected companies' decisions regarding investment activities. The strong drop in output, largely a consequence of dwindling exports, reduced utilisation of production capacities and caused a 26.7% contraction of investments in machinery and equipment (particularly transport equipment). Another major factor behind the decline*

*in capital formation was a slowdown in the investment cycle in the construction industry, as construction of motorways wound down and residential and commercial housing tailed off (-19.9%). The slowdown in construction had been expected to a certain degree, but the crisis accelerated it. Moreover, companies had restricted access to financing, which severely hampered or even postponed the completion of construction and other investment plans.*

*Deterioration of the labour market caused private consumption to drop for the first time in nine years, whereas government consumption expanded. Private consumption contracted by 1.4% last year as employment dropped and wage growth slowed down substantially compared to 2008. In these circumstances, households restricted purchases of all goods, including durables, which, along with real-estate purchases, had been an engine of rising private consumption in recent years. Final-consumption expenditure of the general government continued to rise last year, by 3.1%, but this was still less than half the increase in the previous year. The increase in general-government consumption was underpinned by growing expenditure on employees and on certain kinds of social security in kind, which were signed into law before the start of the crisis and implemented in 2009.<sup>3</sup>*

*The biggest drops in value added were recorded in manufacturing, construction and wholesale and retail trade. The three industries most affected by the crisis saw double-digit drops in value added, but overall value added decreased by 7.9%. With the exception of wholesale and retail trade, the drop in value added in market services was much smaller. In public services, however, value added continued to grow; in public administration and education, it even increased faster than in the previous year, whereas in health and social work growth eased off.*

*In 2009, the contraction of economic activity in Slovenia was more severe than on average in the euro area. Individual countries were affected by the crisis to very varying degrees depending on the exposure to bad bank investments, the size of the export sector, the size of manufacturing industry relative to services and differences in macroeconomic imbalances before the crisis, in particular the current-account balance of payments and property markets (European Economy, 10/2009). In the euro area, Slovenia, Ireland, Finland and Slovakia experienced the most severe contractions. In general in the EU, GDP dropped even more outside the euro area, with contractions into double-digit rates in the Baltic countries. On average, GDP dropped by 4.1% in real terms in the euro area, largely due to declining exports and investment activity. In Slovenia, exports and investment plunged even deeper and were the main*

<sup>1</sup> In the EU, exports dropped by an average of 13% and imports by 12.7%.

<sup>2</sup> In some countries, the car industry was among the worst hit, but Slovenia's sole car-maker even managed to increase output during the crisis. This can be attributed to scrappage schemes in France and Germany, which are among the main markets for the Slovenian car-maker, and the greater attraction of compact cars in times when consumers' purchasing power declines. But despite higher output, the nominal value of exports dropped, as the car-maker had to reduce vehicle prices.

<sup>3</sup> These measures include introduction of subsidised lunch for secondary-school students, higher child allowance, and the co-funding of kindergarten payments for parents who have two or more children in kindergarten at the same time.

reason why the economy contracted by 3.7 p.p. more than on average in the euro area. Slovenia's economy is heavily dependent on exports, which are also structurally inadequate, whereas the reason why the decline in investment was more pronounced is because the crisis coincided with a slowdown in the construction cycle. Civil-engineering activity came to an abrupt slowdown in Slovenia as the motorway programme was wound down, whereas in many EU Member States it picked up, probably as a result of counter-cyclical fiscal policy. The

decline in private consumption made a much smaller contribution to Slovenia's above-average contraction than other demand components. The consumption of households varies widely across the EU. Indeed, the countries that coupled job-preservation measures with direct incentives for households managed to avert a decline in private consumption altogether (Czech Republic, France, Austria, Poland, Germany).

*Table: Contribution of individual expenditure components to GDP growth in Slovenia in 1996, 2000 and 2000–2009, in p.p.*

	1996	2000	2005	2006	2007	2008	2009
Real GDP growth, %	3.6	4.4	4.6	5.8	6.8	3.5	-7.8
Trade balance of goods and services (exports-imports)	0.3	2.5	2.2	0.2	-1.8	-0.1	2.1
- Exports of goods and services	1.4	6.2	6.1	7.8	9.1	2.0	-10.5
- Imports of goods and services	1.1	3.7	3.9	7.6	10.9	2.1	-12.6
Domestic consumption, total	3.3	1.8	2.3	5.6	8.6	3.6	-9.9
- Private consumption	1.9	0.7	1.5	1.6	3.5	1.1	-0.7
- Government consumption	0.5	0.6	0.6	0.8	0.1	1.1	0.6
- Gross fixed capital formation	1.8	0.6	0.9	2.5	3.1	2.1	-6.3
- Changes in inventories	-1.0	0.0	-0.7	0.7	1.9	-0.7	-3.5

Source: SI-STAT Data Portal – National Accounts. GDP, annual data, GDP by quarters, 2010; calculations by IMAD.

## Inflation

*In 2009, consumer-price growth continued to slow.* Inflation had been relatively high in 2007 (5.6%), but it slowed to 2.1% in 2008 and continued to drop in 2009, reaching 1.8% at the end of the year. From its peak in June 2008 (7.0%), the highest since 2003, inflation declined steadily until July 2009, when it turned negative and reached the lowest level that year. It hovered around zero until November, when it again increased due to higher underlying prices of liquid fuels. Average inflation, which tracks annual inflation with a delay, stood at 0.9% last year, the lowest on record.

*Even though price growth at the end of 2009 was not significantly different from that in the same period in the previous year, there was a considerable difference in factors affecting it.* Weak economic activity left a strong mark on price movements, as price growth slowed down in seven of the twelve components of the consumer-price index. Weaker demand was reflected in particular in declining prices of non-energy industrial goods.<sup>1</sup> Higher growth than in 2008 was recorded for products that saw higher excise duties last year, i.e. alcohol, tobacco, and liquid fuels for transportation and heating, where, besides higher excise duties, growth was also affected by rising global prices of oil. Prices of liquid fuels for transportation and heating contributed approximately 1.2 p.p. to last year's 1.8% inflation rate, of which higher excise duties accounted for 0.7 p.p. Higher excise on alcohol and tobacco contributed 0.3 p.p. The contribution of tax changes to inflation thus amounted to 1.0 p.p. last year, the highest since 2002. Electricity prices also grew at a fast pace (16.6%), which contributed 0.5 p.p. to overall inflation. Prices of other energy products, natural gas and district heating reduced inflation by a combined 0.2 p.p. Food prices, one of the key generators of inflation in 2008, declined by 1.1%. The increase in prices of services slowed down substantially (from 3.8% to 1.6%), with prices of restaurants and hotels rising the most (2.6%).

*Prices under various forms of regulation grew faster than planned in 2009, but their share of the consumer-price index continued to drop.* We estimate that administered prices rose 12%, largely as a result of a 22% increase in prices of liquid fuels. Over half of the growth in liquid-fuel prices is attributed to higher excise duties. Prices of natural gas and heat energy, which are, like those for liquid fuels, adjusted based on models, dropped last year and other administered prices rose by 4%, slightly faster than planned.<sup>2</sup> Prices of municipal services grew<sup>3</sup> relatively fast year-on-year (9.8%), due to a change in the way these prices are regulated. In August 2009, the government ceded authority for approval of proposed changes in prices of municipal services from state to local level, which loosened price controls and led to price hikes

in several municipalities across Slovenia. The transfer of jurisdiction for regulation of municipal services prices led to a decrease in the share of administered prices in the consumer price index to 9% at the end of 2009 from an estimated 13.1% the year before. The contraction of the share of administered prices has been accompanied by oversight changes over the years. Since 2000, direct government oversight has gradually been replaced by oversight by independent regulatory agencies and price models, which came to be used for three quarters of all administered prices by 2009.

*Slovenia's 2009 inflation was among the highest in the euro area.* As in Slovenia, in the euro area, inflation receded from its peak in June 2008 (4%) to the summer of 2009, whereupon it rose to 0.9% due to the same factors that drove price growth in Slovenia. The fact that Slovenia's inflation was among the highest in the euro area and double the EMU average is largely a consequence of the contribution of tax changes, which was the highest in the entire euro area. If excise duties had remained at 2008 levels, Slovenia's inflation at the end of 2009 would have been on a par with the euro-area average.

*The overall level of prices was about 20% below the EU-27 average in 2008. The biggest gap was recorded in prices for services, while prices for semi-durable goods were above the EU-27 average.* In 2008, Slovenia's overall prices remained lower than those in neighbouring Austria and Italy, but they were higher than those in Croatia and Hungary. Prices of semi-durable consumer goods had almost achieved the EU average in 2007 and by 2008 they exceeded it by 5%. Despite the gradual convergence, as expected, the biggest gap to the EU average and to other countries was registered in prices for services, which are associated with the level of economic development. In 2008, these prices in Slovenia were 25% below the EU average. Prices of services depend to a large extent on labour costs, which are generally lower in less developed countries and change based on labour-productivity growth in the tradable sector. Slovenia can be expected to retain prices for services at lower levels than more developed countries as long as the productivity of the tradable sector is lower than in more developed economies.

<sup>1</sup> In particular prices of cars (-11%) and clothing & footwear (-3.4%).

<sup>2</sup> The plan for administered prices envisaged 0.34% growth.

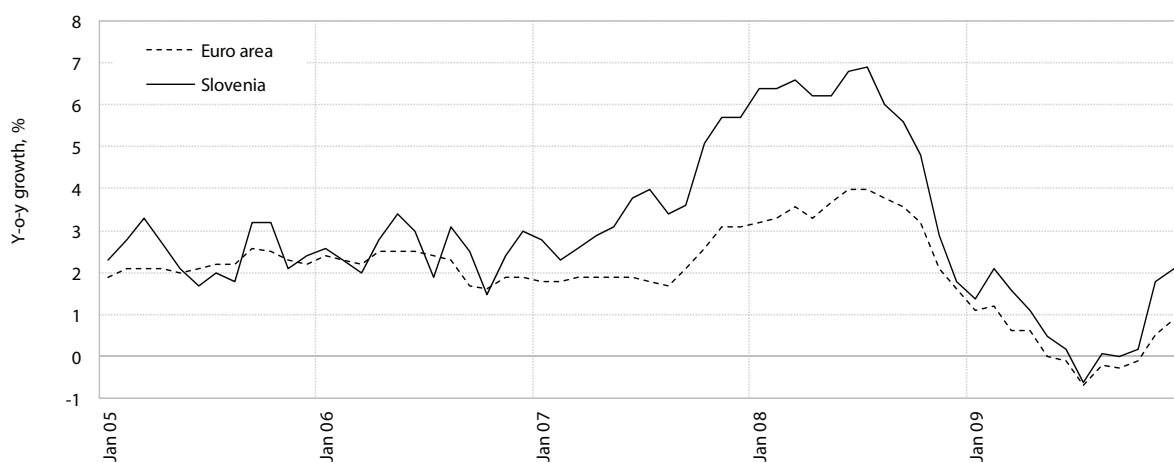
<sup>3</sup> The impact of actual increases in prices of municipal services on inflation is limited, as the methodology for monitoring prices does not include changes in all municipalities. Since SORS collects data in only a few municipalities, we estimate that the effect of higher prices of municipal services is underestimated.

Table: Year-on-year price growth in Slovenia and the euro area, in %

	1995	2000	2005	2006	2007	2008	2009
Consumer prices	9.0	8.9	2.3	2.8	5.6	2.1	1.8
Goods	7.1	8.8	2.0	2.1	6.0	1.3	1.9
Services	15.9	9.2	3.0	4.3	4.8	3.8	1.6
Administered prices	10.0	16.0	7.7	2.1	7.2	-7.8	12.6
Energy	8.2	18.9	9.8	3.7	9.6	-11.9	14.7
Other	11.4	12.0	3.0	-2.1	1.5	0.4	4.0
Consumer prices in euro area	2.5	2.5	2.2	1.9	3.1	1.6	0.9

Source: SI-STAT Data Portal – Prices – Consumer-price indices, annual data, 2010; calculations by IMAD. Eurostat Portal Page – Economy and Finance – Prices – Harmonised index of consumer prices, 2010.

Figure: Year-on-year consumer price growth in Slovenia and the euro area (HICP), in %



Source: Eurostat Portal Page – Economy and Finance – Prices – Harmonised index of consumer prices, 2010.

## General government debt

*General government debt stood at 35.9% of GDP at the end of 2009.* Following a period of steady reduction, debt surged in 2009. Debt of the central government accounts for the bulk of general government debt (97.4% at the end of 2009). Debt of local government, which had been below 1% of GDP for many years, edged up in 2009 but still remained at a relatively low level<sup>1</sup> (1.5% of GDP at the end of 2009). Social-security funds again recorded a minimum deficit (EUR 2.5 m).

*General government debt soared in 2009, mainly as a result of a high deficit and pre-financing of the deficit in 2010.* Debt of the central government accounted for almost the entire increase in general government debt (12.5 p.p. of 13.3 p.p.). The primary reason for the increase was the high state-budget deficit, which accounted for 4.6% of GDP and resulted from lower tax inflows and higher expenditure related to automatic stabilisers and, to a lesser extent, anti-crisis measures. The second key reason for last year's growth of the debt burden was front-loaded borrowing for financing of the deficit in 2010, which was made possible with amendments to the Public Finance Act passed in the autumn of 2008.<sup>2</sup> These funds were earmarked for boosting the liquidity of the banking system. Increased indebtedness of local governments and social-security funds contributed a combined 0.5 p.p. to last year's increase in the general government debt.

*Over recent years, most government borrowing was carried out with long-term debt securities and, despite tighter borrowing conditions, Slovenia issued three bonds on international markets in 2009 in the total amount of EUR 4 bn.* Debt securities, most of them long term, accounted for about 90% of overall debt at the end of 2009. Slovenia has thus borrowed in the long term, mostly at fixed interest rates, and since joining the EMU the bulk of the debt has been denominated in euros. Having entered the European securities market,<sup>3</sup> Slovenia has formed an investor base that has allowed it to issue three new bonds, one issue worth EUR 1 bn and two worth EUR 1.5

bn each (at an average interest rate of 4.42%), despite difficult conditions on international financial markets.<sup>4</sup> Slovenian bonds have been mainly purchased by the same investors as in previous years. Comparison of ten-year government bonds of some euro-area countries shows that Slovenia is among the countries with above-average yields, but the spreads, which peaked between November 2008 and July 2009, returned roughly to pre-crisis levels in the second half of the year.

*Measured by debt and interest as a share of GDP, Slovenia is still one of the least indebted EU countries.* European Commission<sup>5</sup> estimates show Slovenia's debt was well below the euro-area average of 78.2% of GDP in 2009.

<sup>1</sup> Borrowing by local communities is limited with the Financing of Municipalities Act, which stipulates that a local community's debt in a given year may not exceed 20% of the previous year's revenue and expenditure on debt servicing (interest and principal) may not exceed 5% of realised revenue from the previous year. The figures can rise to 8% and exceed 20%, respectively, in case of investments in education, housing, waste treatment, water supply and projects co-financed with EU funds.

<sup>2</sup> Amendments to the Public Finance Act of 2008 make it possible for the treasury to borrow not only in order to finance the budget deficit and the deficit on the account of financial liabilities and investments, but also to pay off the principal in the next budget year.

<sup>3</sup> Slovenia issued the first benchmark bond, worth EUR 1 bn, in 2007 and the second one, also worth EUR 1 bn, in 2008, making a successful debut on the European market of government bonds.

<sup>4</sup> Government bonds in the euro area had long had similar yields, but the spread widened with the onset of the financial crisis.

<sup>5</sup> EC interim forecast – autumn 2009.

Table 1: Consolidated general government debt by sub-sectors, Slovenia, 2000–2009

	EUR m	2000 <sup>1</sup>	2005	2006	2007	2008	2009
1	<b>General government, total</b>	<b>4,946.90</b>	<b>7,754.7</b>	<b>8,288.7</b>	<b>8,084.9</b>	<b>8,388.8</b>	<b>12,518.9</b>
1.1	Central government	4,790.40	7,653.0	8,208.6	8,008.5	8,299.8	12,182.4
1.2	Local government	59.6	210.5	235.7	255.1	353.6	519.6
1.3	Social-security funds	97	20.3	3.1	2.8	2.7	2.5
1.4	Cosolidated debt among sub-sectors	0	129.1	158.7	181.5	267.3	185.6
	<b>% of GDP</b>						
1	<b>General government, total</b>	<b>26.8</b>	<b>27.0</b>	<b>26.7</b>	<b>23.4</b>	<b>22.6</b>	<b>35.9</b>
1.1	Central government	25.9	26.7	26.5	23.2	22.4	34.9
1.2	Local government	0.3	0.7	0.8	0.7	1.0	1.5
1.3	Social-security funds	0.5	0.1	0.0	0.0	0.0	0.0
1.4	Cosolidated debt among sub-sectors	0	0.4	0.5	0.5	0.7	0.5

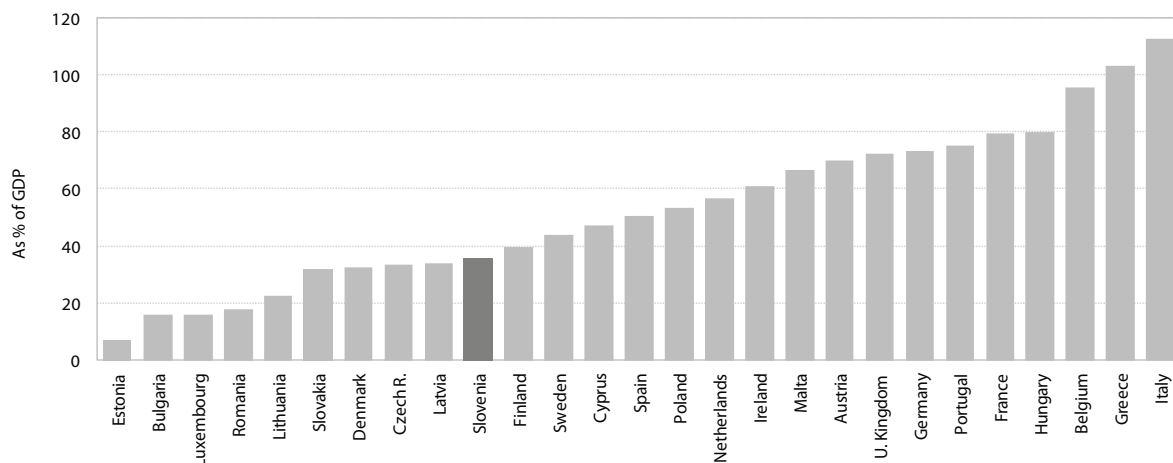
Source: For 2009, internal Ministry of Finance data; for 2008, Main aggregates of the general government (SORS), 2009; for 2005–2007 Report on general government debt and deficit (Ministry of Finance and SORS), 2008; for 2000, internal SORS materials; figures before 2007 converted using the irrevocably fixed exchange rate of 239.64 tolar per euro.  
 Note: <sup>1</sup> Debt for 2000 is not consolidated.

Table 2: Consolidated general government debt by instrument and maturity, Slovenia, 2000–2009

	EUR m	2000 <sup>1</sup>	2005	2006	2007	2008	2009
	<b>Consolidated final governmental debt</b>	<b>4,946.90</b>	<b>7,754.7</b>	<b>8,288.7</b>	<b>8,084.9</b>	<b>8,388.8</b>	<b>12,518.9</b>
1	Currency and deposits	3.3	14.5	15.0	39.7	41.9	39.8
2	Securities excluding shares	3,816.60	6,601.1	7,270.3	7,100.9	7,482.8	11,398.6
2.1	short-term	144.5	259.1	295.8	133.5	88.4	739.0
2.2	long-term	3,672.10	6,342.0	6,974.5	6,967.3	7,394.5	10,659.6
3	Loans	1,127.00	1,139.1	1,003.4	944.4	864.0	1,080.5
3.1	short-term	100	91.4	120.3	137.5	104.7	68.3
3.2	long-term	1,027.10	1,047.8	883.0	806.9	759.3	1,012.2

Source: Report on general government debt and deficit (Ministry of Finance and SORS), October 2009; for 2000, internal SORS materials; for 2009, internal Ministry of Finance materials; before 2007, converted at the irrevocably fixed exchange rate of SIT 239.64 per EUR.  
 Note: <sup>1</sup> Debt for 2000 is not consolidated.

Figure: Consolidated general government debt by EU Member States, 2009 (forecast), as % of GDP



Source: Eurostat Portal Page – Government Finance, 2010.

## General government balance

*The general government deficit surged in 2009.* It is estimated at 5.5% of GDP,<sup>1</sup> up 3.8 p.p. on 2008 when it was at 1.7%. Relative government revenue increased by 1.8 p.p. but expenditure rose 5.6 p.p.<sup>2</sup> General government revenue declined as a result of a deterioration of the macroeconomic environment, amidst the economic and financial crisis, and the effects of tax changes implemented in the years before. At the same time, current government spending remained high, buoyed by automatic stabilisers, the effects of the wage reform and the impact of anti-crisis measures.

*The financial and economic crisis is the main reason why public finances severely deteriorated in 2009.* After 2001, when the general government deficit reached 4% of GDP, public finances were gradually approaching a balanced position. Relative expenditure dropped and relative revenue increased until 2005, whereupon the drop in revenue was slower than the decline in expenditure. Slovenia achieved the best net position with a minimal positive balance (EUR 7.5m) in 2007, mostly due to positive cyclical factors. The position started to deteriorate in the second half of 2008, a trend that accelerated in the first half of 2009, when general government revenue dropped but expenditure remained at a high level. Expenditure growth did not slow down until the second half of 2009, when the deficit dropped to 4.5% of GDP from 6.5% in the first half of that year.

*In 2009, general government revenue as a share of GDP rose by 1.8 p.p.<sup>3</sup>* Despite the decline in revenue, the burden of taxes and social security contributions as a share of GDP rose by 1.3 p.p. as overall GDP contracted even faster. Among the key categories, revenue from social-security contributions increased by 1.1 p.p. year-on-year. Production and export taxes dropped as a result of the slowdown in economic activity and abolition of the payroll tax, but their share rose by 0.2 p.p. due to increases in excise duties and higher excise revenue. Current taxes on income and property dropped as income tax and corporate income-tax receipts declined, but they remained unchanged as a share of GDP. Corporate income-tax revenue declined due to poorer company performance as well as legislative changes that reduced the tax rate and expanded tax relief, while income-tax revenue was affected by additional general relief in the lowest income brackets. Other (non-tax) revenue rose by 0.5 p.p.

*In 2009, general government expenditure as a share of GDP soared by 5.6 p.p.* The share of social benefits and support in cash and in kind increased most (by 2.3 p.p.) as automatic stabilisers kicked in when the labour-market deteriorated. Higher compensation of employees increased revenue by 1.5 p.p. due to wage reform and growth in the number of employees in the public sector. As a consequence of anti-crisis measures, subsidies as a share of GDP rose by 0.6 p.p. and expenditure on intermediate consumption and capital formation by 0.5 p.p. each. Interest expenditure was up 0.3 p.p. as government borrowing expanded and interest rose. Other expenditure did not increase significantly in relative terms over the year before.

*The general government deficit was generated primarily at central government level, much as it was in previous years, but the deficits of local government and the social-security funds were also relatively high compared to the previous mid-term period.* In the period 2000–2009, central government accounted for over 90% of the total deficit on average. The rise in local government deficit was more pronounced in 2008 and in 2009 it remained above the levels recorded in the period 2000–2007 despite a relative decline (by 0.1 p.p.). In 2009, social-security funds posted the first deficit (0.4%) since 2004.

*Public finances deteriorated across the EU in 2008<sup>4</sup>, but the deficit in Slovenia grew at an above-average rate.* At EU level the general government deficit rose by 1.5 p.p. in 2008 to 2.3% of GDP and in the EMU by 1.4 p.p. to 2.0% of GDP. The deterioration was a consequence of falling revenue as the economy slowed down (by 0.3 p.p. in the EU and 0.6 p.p. in the EMU), but the biggest factor was increased government spending, which rose as a share of GDP by 1.1 p.p. in the EU and by 0.8 p.p. in the EMU. Nineteen EU Member States ran deficits in 2008 and eleven breached the Stability and Growth Pact ceiling (3% of GDP<sup>5</sup>). Eight countries were in surplus, with the highest surpluses recorded by Finland and Denmark.

<sup>1</sup> ESA95 methodology.

<sup>2</sup> The decline in GDP also affected the increase in the share of aggregates in 2009.

<sup>3</sup> Even though nominal revenue declined, its share of GDP increased since GDP contracted at an even faster pace in 2009.

<sup>4</sup> For EU Member States, the latest data are available for 2008.

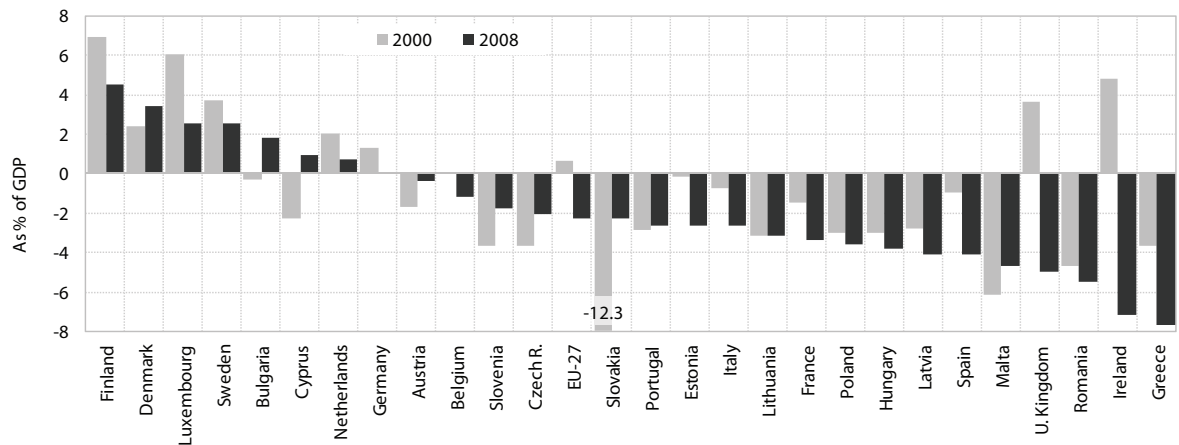
<sup>5</sup> The Stability and Growth Pact, which applies to all EU Member States, stipulates that the general government deficit may not exceed 3% of GDP.

Table: General government revenue, expenditure and balance according to ESA95, Slovenia, as % of GDP

	1995	2000	2005	2006	2007	2008	2009
General government revenue	44.8	43.0	43.8	43.2	42.4	42.6	44.4
General government expenditure	53.3	46.7	45.2	44.5	42.4	44.3	49.9
<b>General government deficit</b>	<b>-8.5</b>	<b>-3.7</b>	<b>-1.4</b>	<b>-1.3</b>	<b>0.0</b>	<b>-1.7</b>	<b>-5.5</b>
Central government	-7.9	-3.2	-2.2	-1.3	-0.1	-1.1	-4.6
Local government	0.2	0.0	0.0	-0.1	-0.1	-0.6	-0.5
Social-security funds	-0.8	-0.5	0.8	0.1	0.2	0.0	-0.4

Source: SI-STAT Data Portal – Economy – National accounts – Main aggregates of the general government, 2010, First release (SORS), 31 March 2010 (for 2006–2009). Non-financial sector accounts: General government S-13; calculations by IMAD (for 1995, 2000, 2005).

Figure: General government deficit/surplus, 2000 and 2008, as % of GDP



Source: Eurostat Portal Page – General Government Deficit (-) Surplus (+), EDP, January 2010.



## Balance of payments

*The current-account deficit, which had been increasing during the period of rapid economic growth, saw a strong contraction in 2009.* In 2008, it reached an all-time peak of EUR 2,286.6 m or 6.2% of GDP, but by last year it declined to EUR 340.4 m or 1.0% of GDP. The contraction was a consequence of a drop in the trade deficit and, to a lesser extent, a reduction of deficits in the factor-income balance and the balance of current transfers. The surplus in the services balance, which had more than doubled between 2004 and 2008, dropped as well. There was also a change in how the deficit was generated by sectors. Between Slovenia's EU entry and 2008, deficit growth in the current-account balance had been largely the result of a private-sector deficit underpinned by strong investment. Last year's deficit, however, was the consequence of the general government deficit, whereas the balance of private-sector transactions was positive.

*Quantity and price factors had a significant impact on the narrowing of the deficit in goods trade.* The deficit in goods trade dropped to EUR 621.2 m from EUR 2,028.9 m in 2008 as imports declined by more than exports volume-wise and the terms of trade improved substantially. In nominal terms, goods imports were down 19.0% and exports plunged 25.9%. The terms of trade steadily improved from November 2008, when import prices of energy products and raw materials started to drop. This was followed by a decline in export prices of industrial products that Slovenian exporters are selling in the euro area and other markets, but the effect was less pronounced.

*Trade in services declined less than goods trade and exports of services dropped more than imports, hence the significant drop in the services surplus.* The services sector was affected by the economic crisis to a lesser degree than manufacturing and goods trade. Unlike goods trade, services exports dropped by more than imports. In nominal terms, services exports dropped 14.3% and imports were down 3.9%. The services surplus declined by EUR 586.9 m to EUR 1,022.2 m, mostly as the result of a shrinking surplus in travel and road-transport trade. In other sectors, the biggest contraction in surplus was recorded for construction services and intermediation. Meanwhile, the deficit also increased in the trade of licences, patents and copyright.

*The factor-income deficit shrank on the back of lower net interest paid abroad.* The factor-income deficit stood at EUR 651.0 m, down EUR 388.0 m on the previous year. With lower interest and higher repayments of debt by the domestic private sector, net paid interest on external debt plunged. The biggest decrease was recorded in net paid interest by commercial banks, which had been borrowing abroad extensively in previous years but paid off foreign loans of EUR 3.0 bn last year. Net paid interest of the Bank of Slovenia for liabilities to the Eurosystem

(lower liabilities and interest) and of other sectors, most notably companies, also dropped. Net received interest on securities also dropped. Labour income posted a small net outflow in 2008, but in 2009 this turned into a net inflow, as the number of foreign workers in Slovenian companies and their wages dropped, reducing the outflow of their labour income abroad.

*The current-transfers deficit shrank mostly as a result of better net drawing of funds from the EU budget.* The current-transfers deficit stood at 90.3 m, a drop of EUR 116.1 m over the year before. Net surplus towards the EU budget was at EUR 155.7 m following two years of deficit.<sup>1</sup> Of the EUR 814.1 m in revenue from the EU budget planned in the second supplementary budget, 73.1% was realised. On the other hand, Slovenia paid 97.2% of the planned EUR 452.1 m contribution to the EU budget. In other general government transfers, the deficit widened due to increased net tax payments and contributions abroad. The deficit in private-sector transfers narrowed marginally due to a lower net value of other transfers.

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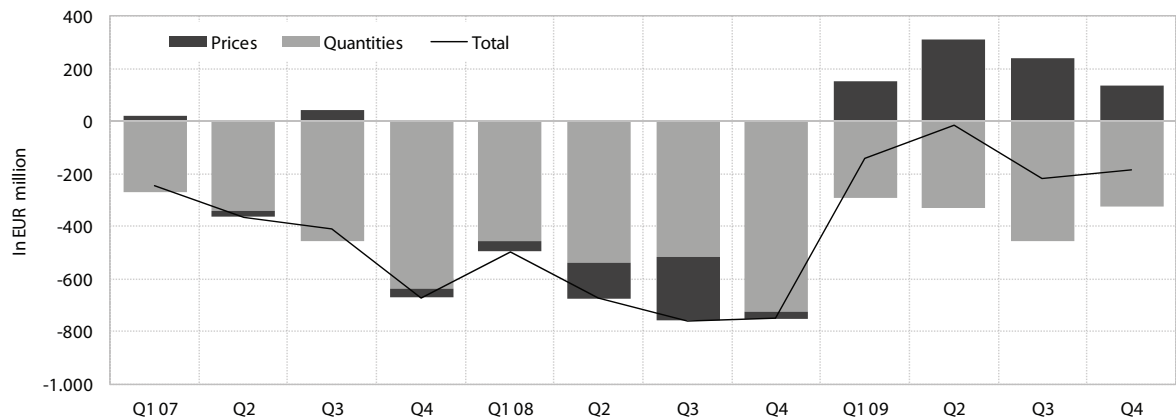
<sup>1</sup> EUR 64.7 m in 2008 and EUR 8.7 m in 2007.

Table: Current account of the balance of payments and terms of trade, Slovenia, 1995–2009

	1995	2000	2005	2006	2007	2008	2009
<b>Current account, % of GDP</b>	-0.3	-2.7	-1.7	-2.5	-4.8	-6.2	-1.0
Trade balance	-4.7	-5.7	-3.6	-3.7	-4.8	-7.1	-1.8
Services balance	2.9	2.3	3.2	3.2	3.0	4.3	2.9
Labour and investment income balance	1.0	0.1	-1.0	-1.4	-2.3	-2.8	-1.9
Current-transfers balance	0.5	0.6	-0.3	-0.6	-0.7	-0.6	-0.3
<b>Real growth rates of trade in goods and services, %</b>							
Exports of goods and services	1.1	13.1	10.6	12.5	13.7	2.9	-15.6
Imports of goods and services	11.3	7.1	6.6	12.2	16.3	2.9	-17.9
<b>Terms of trade, index</b>							
Goods	103.1	96.2	97.6	99.6	100.2	98.2	104.6
Services	100.6	102.1	100.0	99.5	102.8	96.4	100.0

Source: SI-Stat data portal – National Accounts, 2010; Financial accounts, External economic relations (Bank of Slovenia), 2010; calculations by IMAD.

Figure: Contribution of quantities and prices to the balance of trade in goods, in EUR m, 2007–2009



Source: SI – STAT, National Accounts, 2010.

## Gross external debt

*In 2009, gross external-debt growth came to a rapid slowdown as private-sector debt contracted. The share of long-term debt increased. Slovenia's gross external debt rose 0.9 bn to EUR 40.1 bn at the end of 2009, a massive slowdown given the increases of EUR 10.7 bn in 2007 and just under EUR 5 bn in 2008, which were underpinned by strong borrowing by domestic commercial banks. The bulk of borrowing abroad was generated by loans received, and currency and deposits of non-residents, by which banks financed real and financial investments of companies and households. But as the financial crisis deepened in the final quarter of 2008, access to foreign financing dried up. The private sector, in particular commercial banks, was thus paying off the debt it had amassed in the previous years. Conversely, bond issues led to a significant increase in general government debt. The maturity ratio also changed: the share of long-term debt swelled at the expense of short-term debt.*

*The total increase in gross external debt in 2009 was fuelled by the general government, whereas the debt of all other sectors (commercial banks, Bank of Slovenia, other sectors, affiliated entities) contracted. The gross external general government debt rose by EUR 2.9 bn to EUR 6.6 bn as funds were secured for the financing of the general government deficit, the payment of due liabilities and for anti-crisis measures. In February and April 2009, the treasury completed 3- and 5-year benchmark bond issues worth EUR 1 bn and EUR 1.5 bn respectively at interest rates of 4.25% and 4.375% respectively. In September, this was followed up with a EUR 1.5 bn issue of a 15-year 4.625% benchmark bond. At the end of 2009, the general government accounted for 16.4% of gross external debt, up significantly from 9.5% in the year before. Debt of the Bank of Slovenia was at EUR 3.6 bn, down EUR 36 m year-on-year as a result of transfer of part of the central bank's financial investments from foreign accounts to liabilities to the Eurosystem. Over the year, the net position fluctuated wildly, as the Bank of Slovenia used monetary policy operations to manage swings in commercial banks' liquidity. Short-term debt, i.e. the net position to the Eurosystem, in the amount of EUR 3.4 bn, accounted for the bulk of the central bank's external debt. But, for the first time, the central bank also took on long-term debt in the form of other debt liabilities worth EUR 235 m. Commercial banks' external debt totalled EUR 16.4 bn, down EUR 1.5 bn over the year before. Commercial banks paid off loans in 2009. Deposits by non-residents also dropped. Banks reduced total external debt by EUR 3 bn, partially replacing foreign loans with the issue of long-term bonds. Commercial banks' debt accounted for 40.9% of total gross external debt at the end of last year, down from 45.6% the year before. Changes in the borrowing of other sectors, which comprises mostly companies and non-monetary financial institutions, were much less pronounced. The volume of short-term commercial loans, the most important corporate debt*

*instrument, contracted as imports of goods declined. Total liabilities for short-term loans were EUR 3.2 bn, down EUR 854 m over the previous year. Three quarters of these liabilities were to EU countries (almost half to key trading partners) and over a tenth to countries from the territory of the former Yugoslavia. Loans increased the overall external debt of other sectors by EUR 69.4 m. Debt of affiliated entities was marginally lower than at the end of 2008. The bulk of it was attributed to non-banking financial companies involved in financial leasing and the rest to non-financial companies.*

*In the structure of gross external debt, the share of public and publicly guaranteed debt surged and non-guaranteed private debt declined. Public<sup>1</sup> and publicly guaranteed<sup>2</sup> debt rose by EUR 4.8 bn to EUR 14.0 bn. Public debt increased by EUR 3.0 bn and publicly guaranteed debt by EUR 1.8 bn. Borrowing with state guarantees was practically the only source of financing for commercial banks, as access to financing on the international inter-bank market was severely restricted following the onset of the crisis. Two banks issued 3-year state-guaranteed bonds worth a combined EUR 2.0 bn on international capital markets. Publicly guaranteed debt thus rose to EUR 7.2 bn or 20.0% of GDP, up by 5 p.p. over the year before. Private non-guaranteed debt dropped by EUR 4.0 bn to EUR 26.1 bn, largely as a result of deleveraging by the banking sector. Excluding liabilities to affiliated entities, for which maturity is not published, long-term debt accounted for 74.1% of total debt at the end of 2009, up 7.9 p.p. over the year before. Long-term debt increased solely due to the rise in public and publicly guaranteed debt, as long-term non-guaranteed private debt shrank.*

*Despite extensive borrowing over the recent years, Slovenia remains the least indebted member of the euro area. Gross external debt amounted to 115.0% of GDP at the end of 2009, up 5.9 p.p. year-on-year, but this was still well below the 2008 euro area average of 199.8% of GDP.*

<sup>1</sup> External public debt is generated with borrowing of the institutional government sector (according to ESA95) on foreign financial markets. The government may borrow from international financial institutions, foreign governments or government agencies, foreign commercial banks and even from private borrowers in the event of an issue of transferable securities on a foreign financial market.

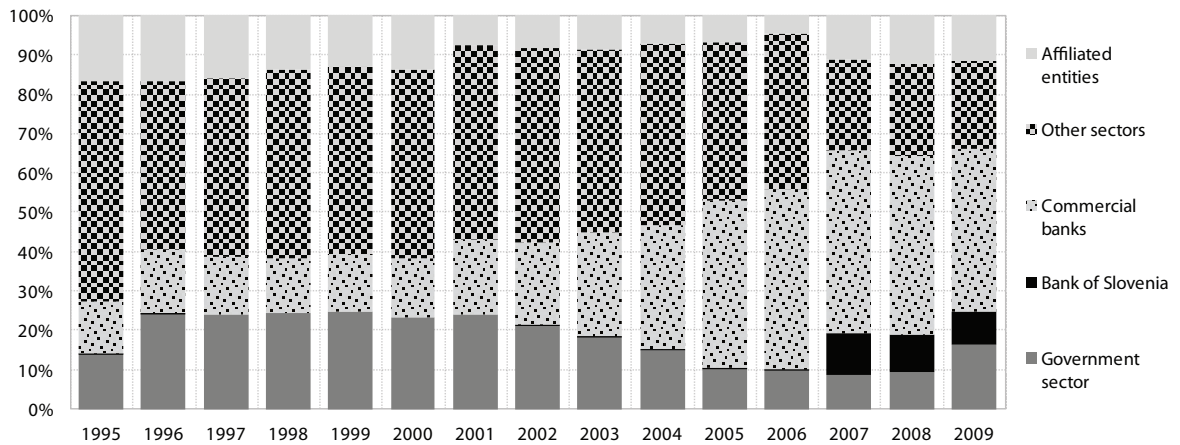
<sup>2</sup> Publicly guaranteed debt is a liability of a private legal entity, but payment is guaranteed by the state. Publicly guaranteed debt includes Bank of Slovenia liabilities to the Eurosystem incurred by the transfer of monetary policy from the BS to the ECB.

Table: Slovenia's gross external debt position, in EUR m, 1995–2009

	1995	2000	2005	2006	2007	2008	2009
<b>Total gross external debt</b>	4,275	9,491	20,496	24,067	34,783	39,238	40,112
Short-term debt	1,470	2,283	4,573	5,239	10,733	11,624	9,159
Public & publicly-guaranteed debt	0	0	70	77	3,588	3,631	3,360
Private non-guaranteed debt	1,470	2,283	4,503	5,162	7,145	7,993	5,799
Long-term debt	2,083	5,895	14,509	17,710	20,058	22,789	26,260
Public & publicly-guaranteed debt	1,178	2,883	3,729	4,275	4,508	5,501	10,610
Private non-guaranteed debt	905	3,012	10,780	13,435	15,550	17,288	15,650
Liabilities to affiliated entities	722	1,312	1,415	1,119	3,992	4,825	4,692
Public & publicly-guaranteed debt	0	0	0	0	0	0	0
Private non-guaranteed debt	722	1,312	1,415	1,119	3,992	4,825	4,692

Source: Bulletin of the Bank of Slovenia, 2010.

Figure: Structure of gross external debt by sector, 2000–2009



Source: Bulletin of the Bank of Slovenia, 2010.

Note: Significant structural changes between 2006 and 2007 are a result of two factors. Firstly, when Slovenia joined the euro area, the Bank of Slovenia took on debt as a result of changes in monetary policy and its instruments. Secondly, a share of loans in other sectors was transferred to loans between affiliated entities due to methodological changes, which altered the shares of these two sectors in the structure of gross external debt.

## Labour productivity

*Labour productivity*<sup>1</sup> in Slovenia started to decline with the onset of the economic crisis, as employment dropped at a slower pace than economic activity. After over a decade of relatively high growth (on average over 4% a year), labour-productivity growth slowed down considerably in the final quarter of 2007, when employment growth was still relatively high, and turned negative in the final quarter of 2008, making for an annual increase in 2008 of just 0.7%. The drop in productivity accelerated in 2009, reaching 5.8%. Order books and market opportunities declined as foreign demand dwindled due to the deepening of the international economic crisis, which led to a severe contraction of economic activity. The contraction of the economy was much deeper than the decline in employment, which usually follows the slowdown of economic activity with a delay. The reduction in employment was also mitigated by active employment-policy measures and two emergency labour-market laws.<sup>2</sup> Labour productivity decreased most in the first quarter of 2009, as a result of a severe contraction of the economy. The contraction eased off towards the end of the year, while employment continued to decline; the year-on-year drop in productivity thus narrowed in consecutive quarters,<sup>3</sup> but still remained high. It should be emphasised that hour productivity is a better measure of labour productivity; however the SORS is not yet releasing this data due to the provisional nature of the statistics of hours worked. Provisional statistical data show that the number of hours worked declined faster than employment, which we estimate to be an offshoot of the adoption of emergency laws for the preservation of jobs. This means that the decline in hour productivity, if it were calculated, would be lower than the drop in value added per employee.

*In 2009, labour productivity dropped in all market segments bar financial intermediation.* The biggest drops were registered in construction, retail and wholesale trade, manufacturing, and electricity, gas and water supply. In manufacturing, which is the most export-oriented part of the Slovenian economy and had already been hit by decline in foreign demand in 2008, it dropped by 7.8%. The precipitous slowdown in activity and productivity in construction (by 14.5%) is cyclical, but was accelerated by the economic and financial crisis. Retail and wholesale trade are typically badly hit by economic crisis, in particular vehicle sales, and are tightly connected to trends in construction and manufacturing (wholesale, furniture sales, etc.), hence the drop in value

added per employee of 12.8%.<sup>4</sup> Most services also saw a considerable drop in productivity, but this was still far smaller than that in industry and construction, as services are typically affected by economic crisis with a delay and to a lesser extent. Meanwhile, productivity in financial intermediation grew by 3.8%.

*In 2009, Slovenia's gap to the average productivity in the euro area and the EU widened.* In 2008 (latest available internationally comparable data), labour productivity in Slovenia averaged EUR 37,544 per employee, which in purchasing-power standards was 84.4% (2007: 84%) of the EU average and 76.9% of the euro-area average. Whereas productivity growth in the majority of the most developed EU members slowed down in 2008, growth in Slovenia was still above the EU average. In 2009, it dropped in Slovenia and in most other European countries, but the decline in Slovenia was much more severe (5.8%) than on average in the EU (2.5%), because Slovenia's economy experienced a more severe contraction.<sup>5</sup> Slovenia's productivity gap thus widened, after years of catching up with the most developed countries. According to Eurostat estimates, productivity expressed in purchasing-power standards was at 81.8% of the EU average in 2009, down 2.6 p.p. over the previous year.

<sup>1</sup> Measured as the ratio between GDP at constant prices and the number of employees based on the methodology of national accounts.

<sup>2</sup> Partial Subsidising of Full-time Work Act and Partial Reimbursement of Payment Compensation Act.

<sup>3</sup> It dropped to 1.6% in the fourth quarter from 8.6% in the first quarter.

<sup>4</sup> IMAD estimate.

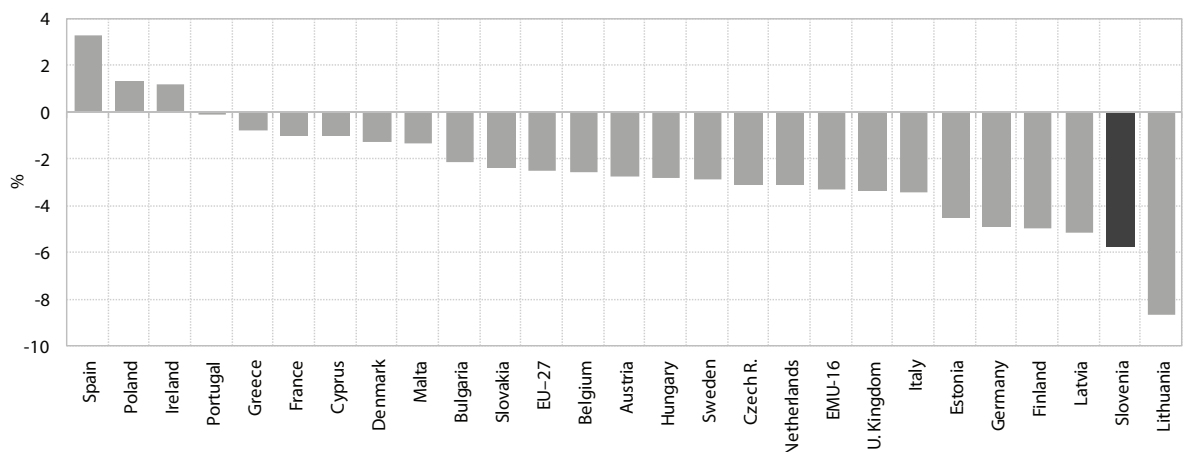
<sup>5</sup> See also chapter 1.1. Macroeconomic Stability and indicator *Real growth of gross domestic product*.

Table: Labour productivity in PPS in Slovenia and the EU, 1997–2008, in %, EU-27=100

	1997	2000	2005	2006	2007	2008
<b>EU-27</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Austria	119.9	120.7	115.1	115.6	114.0	113.6
Belgium	137.4	136.6	129.8	128.5	126.8	125.5
Bulgaria	26.3	30.4	33.6	34.6	35.1	37.2
Cyprus	80.7	85.0	82.9	83.8	86.2	87.3
Czech Rep.	60.5	61.8	68.6	69.3	71.5	72.0
Denmark	110.0	110.5	106.7	106.7	103.2	102.5
Estonia	40.0	46.9	60.5	61.4	65.1	63.8
Finland	110.9	114.7	110.1	110.7	113.1	111.6
France	125.7	125.1	122.2	121.2	121.6	121.6
Greece	93.2	93.7	98.8	99.7	99.8	102.2
Ireland	125.3	127.4	134.5	135.1	137.9	130.2
Italy	128.9	126.0	111.0	110.1	110.2	109.8
Latvia	35.5	40.1	48.0	49.1	51.5	52.6
Lithuania	38.5	42.7	54.5	56.3	59.2	62.0
Luxembourg	166.3	175.9	169.5	179.9	179.2	175.8
Hungary	63.5	63.8	67.3	67.8	68.1	71.1
Malta	N/A	96.8	90.8	90.4	88.8	87.4
Germany	114.2	108.0	109.4	109.2	108.3	107.0
Netherlands	110.2	114.4	114.0	113.9	113.6	114.5
Poland	49.5	55.2	61.4	60.8	61.8	62.0
Portugal	68.1	68.9	70.2	70.4	70.7	71.2
Romania	N/A	23.6	36.0	39.6	43.3	50.0
Slovakia	54.4	58.0	68.6	71.5	75.8	79.3
<b>Slovenia</b>	<b>73.3</b>	<b>76.2</b>	<b>83.9</b>	<b>84.0</b>	<b>84.0</b>	<b>84.4</b>
Spain	108.3	103.7	101.3	102.7	103.3	103.6
Sweden	113.3	113.5	110.1	110.9	112.4	110.7
U. K.	109.0	110.8	112.5	112.0	110.0	110.0

Source: Eurostat Portal Page – Economy and Finance – National Accounts, 2010.  
Note: N/A – not available.

Figure: Real annual productivity growth in EU Member States in 2009, in %



Source: Eurostat Portal Page – Economy and finance – National accounts, 2010; calculations by IMAD.

## Market share

Slovenia's aggregate market share again increased in 2009, after dropping in 2008 after seven years of steady growth. Growth was regained (from 0.593% in 2008 to 0.609%<sup>1</sup>) thanks to higher market shares recorded in France, Germany and Croatia, and to a much smaller extent also Austria. In Slovenia's main trading partners, which all saw a drop of Slovenia's market share in 2008, a moderate decline continued in Italy and Russia.

Broken down by sectors of the Standard International Trade Classification (SITC), a renewed growth in market share in the EU was largely generated by trade in chemical products, machinery and transport equipment. After a one-year decline,<sup>2</sup> market share in the EU continued to grow in 2009 (3.9%, in 2008: -4.5%). The accelerated rise in the market share of chemical products was mostly fuelled by higher growth in exports of medicinal and pharmaceutical products, which unlike most other subsectors were not faced with shrinking EU demand during the international economic crisis. Growth in the market share of machinery and transport equipment was predominantly spurred by exports of road vehicles encouraged by additional sales incentives for cars in some EU countries. This is also revealed in higher market shares on the French and German markets. The market share of electrical machinery, apparatus and appliances also rose notably. The stagnation of the market share of manufactured goods classified by material,<sup>3</sup> which followed a drop in 2008, was largely a consequence of a more pronounced drop in exports of iron and steel, as well as non-ferrous metals. A decline in the market share of miscellaneous manufactured goods,<sup>4</sup> comprising mostly labour-intensive products, further deepened in 2009, largely owing to a drop in exports of furniture.<sup>5</sup> As for other sectors, which are relatively less important as they represent a mere one-tenth of total goods exports, market shares of food and beverages, and raw materials picked up after a decline in 2008.

<sup>1</sup> In calculating Slovenia's aggregate market share and market shares in the EU according to SITC, data on exports of goods according to the "national concept" were used, and in the international comparisons of the market-shares growth, including by factor intensity, data on exports of goods according to the "Community concept" were used. The latter dataset also includes trade in goods by business entities with foreign (non-Slovenian) tax numbers.

<sup>2</sup> In addition to a drop in export competitiveness, one reason for a declining market share in 2008 was the high energy prices in the first half of the year, which affected the high value of EU imports, as well as fluctuating exports of vehicles, which dropped in 2008 after recording high growth in 2007.

<sup>3</sup> Sector 6 according to SITC: leather, rubber, paper, wood, textiles and metals.

<sup>4</sup> Sector 8 according to SITC: prefabricated buildings, furniture, clothing, footwear and other manufactured goods.

<sup>5</sup> In addition to furniture, also miscellaneous manufactured goods, prefabricated buildings and clothing.

Market shares by factor intensity in the EU reveal that in 2008 and 2009, the competitiveness of labour-intensive products deteriorated considerably, whereas the competitiveness of high-tech products as well as medium-tech products continued to strengthen, the former more rapidly than the latter. In Slovenia, the process of restructuring towards a higher share of high-tech products was less intensive than in the EU-12 in the 2000–2007 period, and consequently the narrowing of the gap behind the developed countries was also less pronounced; Slovenia, however, achieved above-average growth in the market share of high-tech products on the EU market in 2008 and in the first seven months of 2009 (provisional data).<sup>6</sup> At the same time, there was a larger drop in the market share of labour-intensive products, which reveals the inherent weaknesses of this sector, which were further accentuated by the global crisis. A drop in the market share of resource-intensive products and of low-tech products has in Slovenia – as in the EU-12 – been less noticeable since 2008. Nevertheless, in comparison with the market share of total merchandise, the size of Slovenia's market share of high-tech products in the EU market was still considerably smaller than in most countries (or groups of countries) included in the analysis, and the relative size of the market share of labour-intensive products was still larger. Compared to the analysed countries, Slovenia has a considerably higher relative share of medium-tech products, which has been rising more or less constantly over the last ten years, largely thanks to extremely high growth in road-vehicle exports. If the international economic crisis lasts and car-sales incentives are abolished, the high relative share of these products will also entail a great risk for future growth of Slovenian exports.

After a substantial deterioration in 2008, the aggregate market share again increased in 2009, thus contributing to an improved position of Slovenia among the EU Member States. In the (relatively larger) group of EU Member States which recorded a drop in the market share in the world market (19) in 2008, Slovenia's drop was among the lowest (-1.4%, 11<sup>th</sup> in the EU). But Slovenia's relative position also deteriorated substantially compared to the previous years (in 2007, 12.2% growth – third; on average in 2004–2006, 4.5% – eighth). The improvement of Slovenia's market share on the EU market in 2009 (4.3%) thus points to a new improvement in competitiveness and a relatively more favourable position among the Member States (eighth – according to the Community concept).

<sup>6</sup> The average annual growth in market share of Slovenia's high-tech products on the EU markets was 6.2% in 2000–2007, 20% in 2008, and 19% in the first seven months of 2009. In the EU-27, growth was rather weak throughout this period (in 2000–2007 0.2%, 2008: 0.6%, v 2009: -0.3%), while a drop was recorded in the EU-15 (2000–2007: -0.5%, 2008: -1%, 2009: -0.6%). The EU-12 (largely CZ, HU, PL, SK) recorded strong growth in the entire period; growth in Slovenia was nevertheless even higher in 2008 and in the first seven months of 2009.

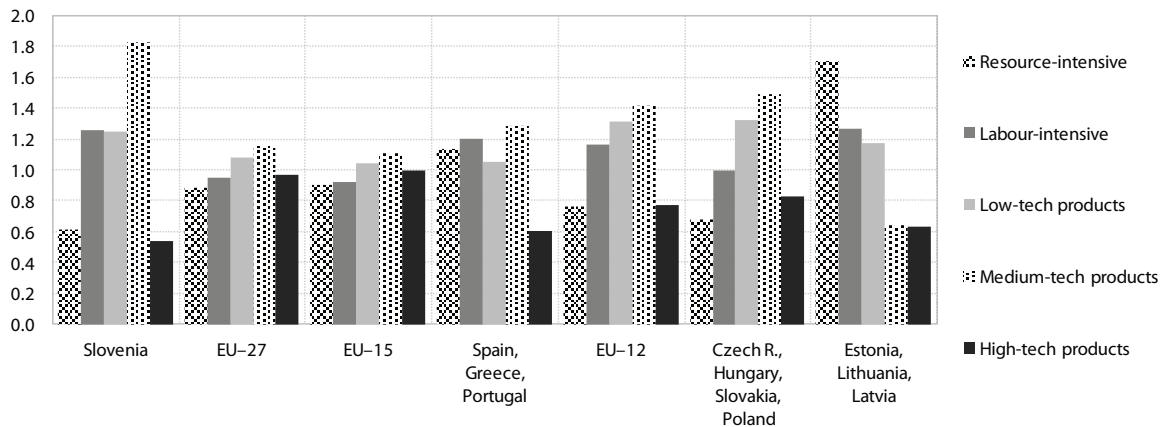
Table: Slovenia's market share<sup>1</sup> in main trading partners, 1996–2009, in %

	1996	2003	2004	2005	2006	2007	2008	2009
<b>TOTAL 15 countries</b>	<b>0.583</b>	<b>0.528</b>	<b>0.542</b>	<b>0.561</b>	<b>0.586</b>	<b>0.611</b>	<b>0.593</b>	<b>0.609</b>
Austria	0.816	0.940	0.991	1.133	1.328	1.272	1.241	1.248
Belgium	0.046	0.045	0.061	0.062	0.066	0.061	0.064	0.071
Czech Rep.	0.536	0.448	0.435	0.521	0.526	0.568	0.504	0.516
France	0.206	0.181	0.217	0.292	0.263	0.283	0.270	0.345
Croatia	10.980	8.049	8.736	8.724	8.561	8.400	8.159	8.429
Italy	0.537	0.562	0.583	0.588	0.612	0.687	0.635	0.631
Hungary	0.665	0.527	0.511	0.531	0.618	0.928	0.832	0.825
Germany	0.562	0.488	0.480	0.458	0.456	0.474	0.465	0.474
Netherlands	0.067	0.084	0.074	0.071	0.071	0.088	0.087	0.080
Poland	0.386	0.515	0.477	0.446	0.482	0.510	0.489	0.445
Russia	0.443	0.517	0.536	0.464	0.546	0.475	0.441	0.433
Slovakia	0.621	0.812	0.724	0.766	0.762	0.708	0.718	0.696
Spain	0.037	0.089	0.094	0.111	0.123	0.125	0.094	0.091
USA	0.031	0.037	0.034	0.022	0.026	0.023	0.019	0.019
U. K.	0.057	0.071	0.076	0.087	0.098	0.116	0.110	0.110

Source: SI-STAT data portal – Economy, 2010; Eurostat Portal Page — External trade, 2010; The Vienna Institute Monthly Reports (WIIW), 2009; Foreign Trade Statistics (U.S. Census Bureau), 2010.

Note: <sup>1</sup>Market shares are calculated as a weighted average of Slovenia's merchandise exports in the imports of its main trading partners determined by the size of their shares in Slovenia's exports. The shares of individual trading partners in Slovenia's merchandise exports are also used as weights in calculating the weighted average (using Fisher's formula).

Figure: Relative market shares by factor intensity on EU market in 2008, total market share of merchandise =1



Source: Eurostat Portal Page — External trade, 2010.

Note: relative market shares are calculated by dividing the market share of an individual group of products (by factor intensity) by the market share of total merchandise of a country on the EU market.



## Unit labour costs

*After several years of improvement, the ratio of labour costs per employee to the GDP per employee in the Slovenian economy deteriorated in 2008. Real unit labour costs rose in 2008 (2.3%) as a consequence of much slower growth in labour productivity and a higher increase in compensation of employees per employee. Labour productivity decelerated as a result of a gradual slow-down of economic activity, but at the same time, further relatively high growth in employment. An accelerated rise in the compensation of employees per employee in 2008 partly stemmed from the adjustment of wages to high past inflation and productivity, in particular in the private sector, and partly also from the beginning of abolishing wage disparities in the public sector.*

*In 2008, the ratio of unit labour cost per employee to value added per employee deteriorated even more in manufacturing than in the overall economy. As manufacturing activities are the most export oriented, they were hit most by the slow-down in foreign demand and worsened terms of trade in 2008. A rise in the value added of manufacturing was thus much slower than in the overall economy.<sup>1</sup> Employment, which still grew at relatively high rates in other activities, had already dropped in manufacturing in 2008, which, however, only partly eased the negative effects of the virtually halted growth in value added on labour productivity.<sup>2</sup> Consequently, the rise in real unit labour costs in manufacturing was higher (3.6%) than in the economy as a whole (2.3%), despite more modest growth in compensation of employees per employee.*

*In comparison with the average of the euro area and the EU Member States, the cost competitiveness of the Slovenian economy, after having been relatively stable since the late 1990s, deteriorated in 2008. Owing to a higher rise in the compensation of employees per employee in Slovenia than in the euro area and the EU, the growth of real unit labour costs in Slovenia's economy was much higher than in the euro area and the EU in 2008 (see table). At the same time, labour-productivity growth in Slovenia levelled off, whereas in the euro area and the EU it even slightly decreased. Cost competitiveness deteriorated more than in Slovenia in eight Member States and less*

*in all others. Since the late 1990s, this has been the third major deterioration of cost competitiveness in Slovenia, after those in 2000 and 2004. Over a longer period of time, from 2000–2008, Slovenia's cost competitiveness thus slightly deteriorated compared to the euro area and the EU, which, however, followed a significant improvement in the second half of the 1990s.<sup>3</sup>*

*According to the quarterly data, the deterioration in the ratio of labour cost per employee to GDP per employee has continued at an accelerated pace in 2009 and the competitiveness of Slovenia's economy worsened even more than in 2008. Despite a marked slow-down in growth of real unit-labour costs since the second quarter of 2009, their average growth in total 2009 remained extremely high (7.3%). The reasons for deterioration lie in a slump in labour productivity, although this eventually slightly eased, mostly thanks to substantial cuts in employment.<sup>4</sup> Except for the last quarter (due to the base effect), a decline in economic activity was significant throughout 2009. Since the growth in the real unit-labour cost in the euro area and the EU was much smaller (2.7%) thanks to a much smaller drop in labour productivity, the competitiveness of the Slovenian economy deteriorated more than in 2008, but the gaps to the average of the euro area and the EU have narrowed since the second quarter. Growth in the compensation of employees in Slovenia was similar to that in the euro area and the EU in 2009.*

<sup>1</sup> Real growth in value added was 3.1 p.p. lower in manufacturing than in the total economy (0.1% and 3.2%, respectively), and in nominal terms, even 6.1 p.p. lower (1.4% and 7.5%, respectively).

<sup>2</sup> A slow-down in real growth in labour productivity was – because of the cuts in employment in manufacturing – similar to that in the total economy (0.6% and 0.5%, respectively), whereas the nominal growth in labour productivity of manufacturing (1.9%) was significantly lower than in the total economy (4.6%). As manufacturing is more export oriented, the deteriorated terms of trade (lower growth in export prices than that of import prices) – causing lower nominal growth in value added and a higher rise in the costs of intermediate consumption – were more expressed in manufacturing than in the total economy.

<sup>3</sup> The average annual drop in real unit-labour costs in the period 2000–2008 was 0.1% in Slovenia, and 0.4% in the euro area and the EU; in the second half of the 1990s, the average annual drop was 2.6% in Slovenia, 0.8% in the euro area and 0.6% in the EU.

<sup>4</sup> In manufacturing, where the drop in the first three quarters in labour productivity was much larger than in the total economy, labour productivity surged in the last quarter (8.5% year-on-year), as manufacturing activities responded with a delay to a dramatic drop in activity by drastically higher cuts in employment. Consequently, the real unit-labour cost in manufacturing dropped in the last quarter year-on-year (by 1.4%, compared with a rise of 4.2% in the total economy).

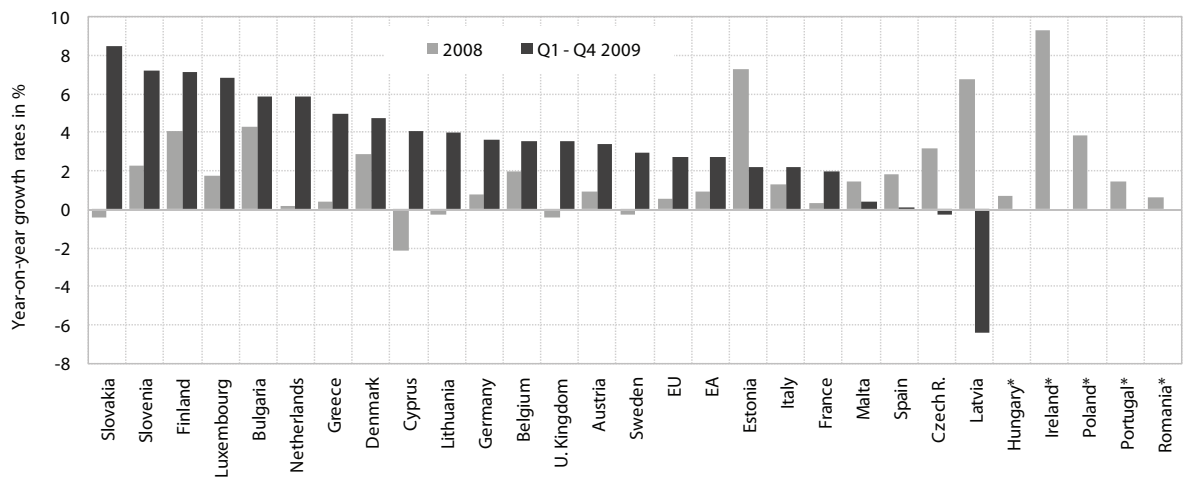
Table: Unit-labour costs in Slovenia and the EU

Real annual growth rates, %	1996–2004	2005	2006	2007	2008	2009
<b>Unit-labour costs (per unit of GDP)<sup>1</sup></b>						
Slovenia	-1.2	-0.7	-1.0	-1.5	2.3	7.3
EU-27	-0.5	-0.6	-1.3	-0.6	0.5	2.7
EMU-16	-0.6	-0.7	-0.9	-0.8	0.9	2.7
<b>Unit-labour costs (per unit of value added)<sup>2</sup> – Slovenia</b>						
Total	-1.4	-0.9	-1.1	-1.6	2.3	8.1
Manufacturing	-2.5	2.0	-2.6	-2.2	3.6	8.1

Source: SI-STAT data portal – Economy, 2010; Eurostat Portal Page – Economy and finance, 2010.

Notes: <sup>1</sup>compensation of employee at current prices divided by GDP per employee at current prices; <sup>2</sup>compensation of employee at current prices divided by value added per employee at current prices.

Figure: Real growth of unit-labour costs in Slovenia and EU Member States in 2008 and 2009



Source: Eurostat Portal Page – Economy and Finance, 2010.

Note: \*quarterly data are not available.

## Structure of merchandise exports by factor intensity

Although the structure of merchandise exports in terms of technological intensity of products<sup>1</sup> in Slovenia improved somewhat in recent years (2006–2008), the technological intensity of exports remains well below that in the EU. After declining for two years, the share of high-tech products in merchandise exports rose by 1.1 p.p. in 2006, by 0.3 p.p. in 2007 and by 1.4 p.p. in 2008. It was not until 2008 that the share reached 18.8% and thus exceeded the former record level of 2003 (17.9%). However, in 2008, the share of high-tech products in merchandise exports was still well below the EU average (by 7 p.p.), and also below the average of the new EU Member States (EU-12). The lag behind the EU, as well as behind the EU-12, slightly narrowed, but this was to some extent also a result of a decline in the share of high-tech products in the EU.<sup>2</sup> The main reason behind a higher share of high-tech exports in Slovenia's merchandise exports in 2008 was a further rise in exports of pharmaceutical products, as well as a rise in exports of office equipment. Although the share of medium-tech products in Slovenia's merchandise exports decreased in 2008 (by 1.6 p.p.), it remained above the EU average. This is related to a drop in exports of products, demand for which plunged at the outset of the crisis (cars, car accessories, tyres, household equipment). The total share of medium-tech and high-tech products covered 58.2% of Slovenia's merchandise exports in 2008, which was 3.5 p.p. more than the EU-12 average and 3.0 p.p. more than the EU-15 average.

The share of products with low value added per employee in merchandise exports has been in decline for several years, mostly due to a lower share of labour-intensive products,<sup>3</sup> whereas the share of low-tech products, which had been relatively high for a number of years, even slightly increased in 2008 for the second year in succession. The total share of labour-intensive and low-tech products in merchandise exports has been declining since 2000, mostly due to a lower share of exports of textile products, furniture and paper and cardboard. In 2008, these products made up 22.8% of Slovenia's

merchandise exports (15.7% in the EU-15, 21.3% in the EU-12). Their share has narrowed by 8.7 p.p. since 2000 and by 5.8 p.p. in the years since Slovenia's accession to the EU. According to the data for 2008, the narrowing of the share of labour-intensive products has continued, as it dropped by a further 0.9 p.p. This also resulted in a further drop in the relative export-advantage index,<sup>4</sup> which, nevertheless, remains the largest for this group of products. In terms of allocation efficiency,<sup>5</sup> the movements of low-tech products are structurally less favourable, as their share, which averaged around 10% since 2000, rose in 2008 for the second year in succession and reached the highest level of the decade (11.1%). The manufacture of miscellaneous metal products contributed most to the higher share of this group of products in merchandise exports.<sup>6</sup>

*The share of exports of natural-resource-intensive products slightly increased after 2005, thus interrupting a downward trend recorded in the period 1995–2004. After a slight decline in 2007, data for 2008 reveal a new increase in the share of resource-intensive products in merchandise exports<sup>7</sup> to the average level of 2005 and 2006. As the major part of the increase is accounted for by locally renewable or reproducible natural resources, such as wood and agricultural products, the high content of natural resources in exports is not problematic from the sustainability aspect. These trends are, however, less favourable in view of their contribution to economic development, as these products generate a relatively low value added per product.*

<sup>1</sup> The classification of products into individual groups is based on the UN methodology (Trade and Development Report, 2002).

<sup>2</sup> After four years of great expansion, exports of information-communication products slowed down in most of the EU Member States in 2007 and 2008, which is related to the weakening of demand for these products by the developed countries and toughening of competition from rapidly growing economies (India, China). In most EU countries, exports of these products stagnated or declined.

<sup>3</sup> The groups of low-tech products and labour-intensive products comprise products with lowest value added per employee, such as: clothing, textile products, footwear, furniture, glass, glass products, flat and rolled iron products, base-metal products.

<sup>4</sup> Relative Export Advantage Index –RXA Balassa index or coefficient compares the share of Slovenia's exports of a certain group of products with the share of exports of this group of products in the exports of a group of countries which serves as a reference level (in this case, the EU-27).

<sup>5</sup> This indicator is about an inefficient allocation of resources in terms of economic development (products with low value added per employee) or in terms of environmental or sustainable development (metal production is energy intensive).

<sup>6</sup> Flat- and rolled-iron products, iron and steel shaped products, other metal products and structures and their parts.

<sup>7</sup> The major groups of exported resource-intensive products in Slovenia's merchandise exports are: aluminium, finished mineral products, electricity, rough and worked wood, veneer and other manufactured wood, wood manufactures, and non-alcoholic and alcoholic beverages.

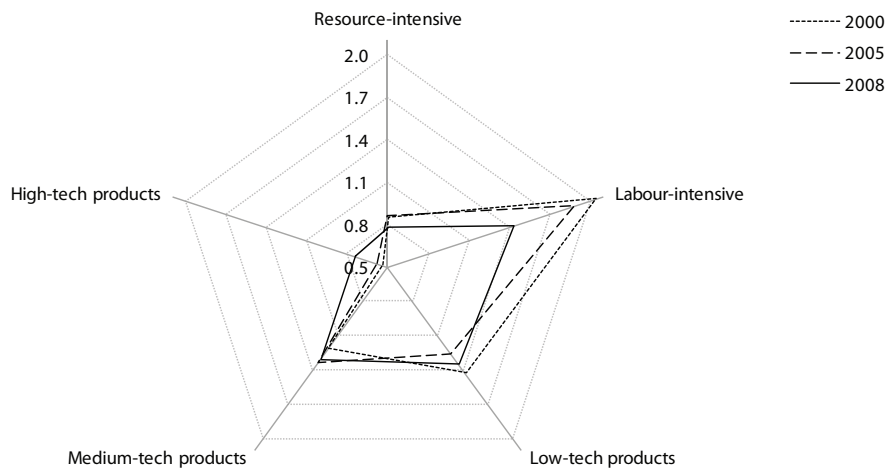
Table: Structure of merchandise exports by factor intensity<sup>1</sup> in Slovenia and the EU in the period 2000–2008

		2000	2001	2002	2003	2004	2005	2006	2007	2008
Resource-intensive	EU-27	18.2	17.7	17.7	17.7	18.2	17.9	19.4	19.2	20.3
	EU-15	18.0	17.5	17.7	17.6	18.2	17.8	19.4	19.3	20.5
	EU-12	20.7	19.7	18.8	18.2	18.8	19.2	19.0	18.5	19.5
	Slovenia	15.3	15.1	14.6	14.6	14.0	15.4	16.1	15.5	15.8
Labour-intensive	EU-27	10.6	10.7	10.7	10.4	9.8	9.0	8.6	8.5	8.2
	EU-15	10.1	10.1	10.1	9.8	9.3	8.6	8.2	8.1	7.9
	EU-12	18.5	18.9	18.8	17.7	15.8	14.0	12.3	11.4	10.2
	Slovenia	21.6	21.3	20.0	18.7	17.8	17.0	14.2	12.6	11.7
Low-tech	EU-27	6.9	7.0	7.0	7.2	7.7	7.0	7.4	7.9	8.2
	EU-15	6.6	6.7	6.7	6.9	7.4	6.6	7.1	7.6	7.8
	EU-12	10.5	10.9	11.0	11.0	11.5	10.6	10.8	11.1	11.0
	Slovenia	9.9	9.9	9.9	10.1	10.8	8.8	10.2	10.4	11.1
Medium-tech	EU-27	29.8	30.4	30.5	30.9	31.0	30.1	29.9	30.8	30.0
	EU-15	29.8	30.3	30.5	30.7	30.8	29.8	29.5	30.2	29.5
	EU-12	30.1	30.6	31.5	33.1	33.3	33.3	34.3	35.5	34.1
	Slovenia	36.2	36.2	37.3	37.3	38.3	40.2	39.1	40.9	39.3
High-tech	EU-27	28.7	28.7	28.7	27.6	27.1	27.7	27.7	25.8	25.2
	EU-15	29.4	29.4	29.5	28.3	27.9	28.5	28.6	26.5	25.8
	EU-12	18.1	17.3	17.9	18.0	18.8	18.2	19.2	19.7	20.6
	Slovenia	15.5	16.0	16.7	17.9	17.2	16.0	17.1	17.4	18.8

Source: Handbook of Statistics 2007–2008 (United Nations), 2007; United Nations Commodity Trade Statistics Database, 2008; calculations by IMAD.

Note: <sup>1</sup>The classification of products into groups is based on the UN methodology (Trade and Development Report, 2002). The classification does not include all products and therefore the sum of the five product groups does not necessarily equal 100.

Figure: Relative export advantage index of Slovenia's exports by factor intensity of products



Source: Handbook of Statistics 2007-08 (United Nations); United Nations Statistics Division: Comtrade; calculations by IMAD.

## Exports and imports as a share of GDP

*The level of Slovenia's international trade integration, measured by the share of external trade in GDP, slumped in 2009 because of the economic and financial crisis. A rapid increase in the openness of Slovenia's economy recorded in the period of economic upturn was interrupted in 2008, when the global economic crisis caused the share of external trade to shrink significantly in the last quarter of the year. As a result of a further decline in foreign demand and cooling of economic activity at home, the average share of Slovenia's goods and services trade plunged by as much as 11 p.p. to 58.2% of GDP in 2009. The share of goods exports was down 7.6 p.p., and the share of goods imports 13.2 p.p. The value of imports did not go down only because of weaker foreign demand (lower imports of intermediate products) – which was the main factor in the decline in goods exports – but also because of lower investment activity, both investment in machinery and equipment and construction investment (lower imports of investment products). Moreover, the value of imports was additionally affected by lower prices of energy and raw materials, which is why import prices decreased more than export prices, which consequently led to a marked improvement of the terms of trade in 2009 (by 4.6 p.p.)* The level of international trade in services declined much less than that in goods, which only confirms that services trade is usually less hit by economic crises than goods trade. The share of services exports was down 1.2 p.p. compared to the previous year, and the share of services imports in GDP slipped by 0.1 p.p.

*By 2007, the level of international-trade integration was increasing faster in Slovenia than in the EU and in most smaller EU Member States, while in the last two years (2008 and 2009), the gap between Slovenia and the EU narrowed. Amid the global economic upturn in the period 2003–2008, the level of trade integration in the EU increased, but in 2009, the share of foreign trade in GDP shrunk, according to Eurostat. By 2007, the share of foreign trade in GDP grew at a slower rate in the EU (a rise from 35.8% to 39.9% in the period 2000–2007) than in Slovenia (a rise from 55.7% to 70.4%). In 2008, a slight decline in Slovenia's openness resulted in a slightly narrower gap between Slovenia and the average of the EU countries; in 2009, when the share of trade in GDP in Slovenia shrunk more than in the EU, it narrowed even further. Thus, the gap in openness between Slovenia and the EU average decreased from its highest level of 30.5 p.p. in 2007 to 22.2 p.p. in 2009. In the period 2000–2007, Slovenia's foreign trade openness increased much more than in the smaller EU Member States. In the eleven Member States that by demographic criteria are classified among small countries,<sup>1</sup> the share of international trade relative to*

GDP increased on average from 59.1% in 2000 to 64.7% in 2007. After Slovenia's openness started to decline in 2008, it increased on average in the group of small countries, although in half of them the increase was lower than the previous year. In 2009, the dwindling global trade also affected most of the small and open economies, with imports dropping more than exports (in Slovenia and other countries). Compared with Slovenia, openness decreased less in Denmark, Estonia, Cyprus, Latvia and Finland, but more in Luxembourg, Slovakia, Lithuania and Malta. Ireland's openness slightly increased.

<sup>1</sup> As a measure of the size of an individual country, the demographic criterion was used (absolute number of

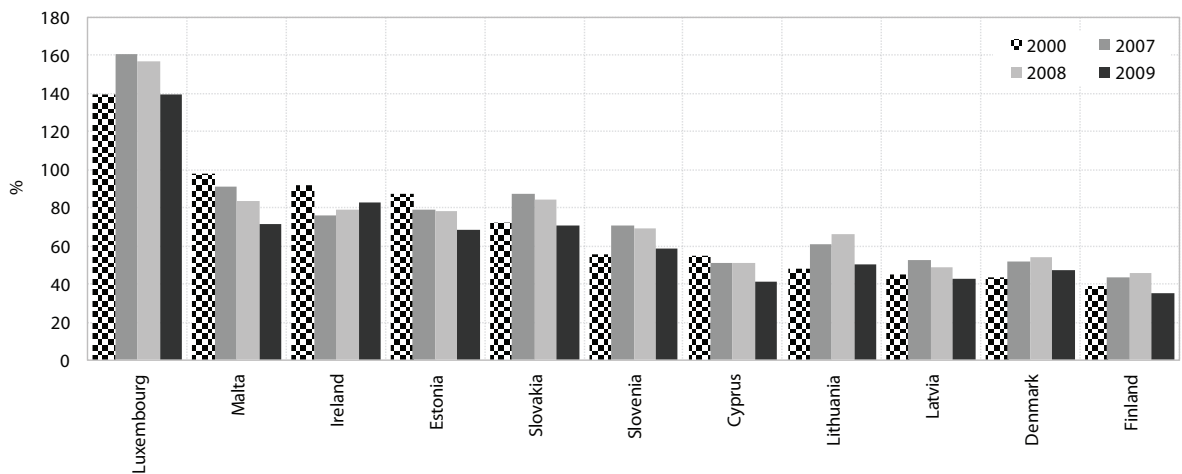
population). In the EU, 11 Member States have fewer than 10 million inhabitants: Cyprus, Denmark, Estonia, Finland, Ireland, Latvia, Lithuania, Luxembourg, Malta, Slovakia and Slovenia.

Table: Average trade-to-GDP ratios (exports and imports)<sup>1</sup> in Slovenia and the EU, in %

	1995	2000	2005	2006	2007	2008	2009
<b>Trade-to-GDP ratio in Slovenia</b>	<b>51.5</b>	<b>55.7</b>	<b>62.3</b>	<b>66.8</b>	<b>70.4</b>	<b>69.2</b>	<b>58.2</b>
Products	42.9	47.3	52.6	56.7	59.7	57.6	47.2
Services	8.6	8.4	9.7	10.1	10.7	11.6	11.0
<b>Exports of goods and services</b>	<b>50.5</b>	<b>53.9</b>	<b>62.1</b>	<b>66.5</b>	<b>69.5</b>	<b>67.7</b>	<b>58.9</b>
Products	40.5	44.4	50.8	54.8	57.3	54.0	46.4
Services	10.0	9.6	11.3	11.7	12.3	13.7	12.5
<b>Imports of goods and services</b>	<b>52.5</b>	<b>57.4</b>	<b>62.5</b>	<b>67.0</b>	<b>71.3</b>	<b>70.7</b>	<b>57.4</b>
Products	45.2	50.2	54.4	58.6	62.2	61.2	48.0
Services	7.3	7.3	8.1	8.4	9.1	9.5	9.4
<b>Trade-to-GDP ratio in EU-27</b>	<b>28.8</b>	<b>35.8</b>	<b>36.9</b>	<b>39.4</b>	<b>39.9</b>	<b>41.0</b>	<b>36.0</b>
Products	22.9	28.0	28.5	30.7	30.8	31.7	27.0
Services	5.9	7.9	8.4	8.8	9.1	9.4	9.0

Source: SI-STAT data portal – National Accounts, 2009; Eurostat Portal Page – Economy and Finance, 2010; calculations by IMAD.  
Note: <sup>1</sup>The ratio between the average value of total exports and imports according to the balance of payments statistics and GDP at current prices.

Figure: Average trade-to-GDP ratio (exports and imports) in Slovenia and selected small EU Member States, in %, 2000, 2007–2009



Source: SI-STAT data portal – National Accounts, 2010; Eurostat Portal Page – Economy and Finance, 2010; calculations by IMAD.

## Foreign direct investment

*In 2008, the economic recession had not yet reached Slovenia in the area of FDI, as the stocks of inward and outward FDI surged. The stock of inward FDI rose by 12.6% to EUR 10,996 m and the stock of outward FDI totalled EUR 5,660.5 m, up 15.1%. FDI flows reveal a slightly different picture. FDI inflows rose by 18.7% to EUR 1,313.4 m, whereas FDI outflows shrank by 29.2% to EUR 923.3 m. Inflows were the highest since the record high seen in 2002. In 2008, the net FDI inflows to Slovenia thus amounted to EUR 381.1 m. As for the origin of the rise in FDI stock (increase in equity capital and reinvested earnings vs. increase in net mutual claims or liabilities between affiliated companies), foreign investors in Slovenia behaved differently from Slovenia's investors abroad in 2008. Foreign investors in Slovenia increased their FDI stock by raising the net liabilities of their affiliates in Slovenia (by 26.0%) more than by raising equity capital and reinvesting earnings (by 6.7%). Slovenia's investors abroad, on the other hand, increased their FDI stock abroad by raising equity capital and reinvesting profits (a rise by 17.6%) more than by increasing their net claims to their affiliated companies abroad (a rise by 9.9%).*

*Although the importance of inward and outward FDI for Slovenia's economy increased, their relative share remained lower than in most EU Member States in 2008. The ratio of inward FDI stock to GDP rose from 14.8% to 28.2% in the period 2000–2007, and further to 29.6% in 2008. The outward FDI stock climbed from 3.9% to 14.2% of GDP in the period 2000–2007 and further to 15.2% in 2008. In a large majority of EU Member States, the turmoil in capital markets led to a decrease in the inward FDI stock relative to GDP in 2008; in the EU as a whole it was down from 40.9% to 35.1%.<sup>1</sup> However, Slovenia remains one of the EU Member States with the lowest inward FDI stock relative to GDP, with lower levels recorded only by Greece, Italy, Germany and Lithuania. As for outward FDI relative to GDP, Slovenia lags behind Cyprus, Estonia and Malta, taking into account only new Member States.*

*In 2009, the flows and changes in FDI stock exposed the strongly negative effects of economic recession and a deterioration of FDI impact on the balance of payments. In 2009, FDI inflows to Slovenia were negative, amounting to EUR 79.5 m. FDI outflows decreased much less, amounting to EUR 609.7 m. Net FDI outflow in 2009 is indicated in the disinvestment of foreign companies in Slovenia in the form of cutting of net liabilities of Slovenian affiliates to affiliated companies, as well as in the outflows of profits of foreign investors from Slovenia.*

In the first nine months of 2009, net loans of foreign companies to their affiliates in Slovenia shrank by EUR 413.4 m.<sup>2</sup> In the same period, the equity capital and reinvested profits in foreign affiliates in Slovenia rose by EUR 258.1 m, as estimated by the Bank of Slovenia. In total, net disinvestment of foreign affiliates in Slovenia amounted to EUR 155.4 m in the first nine months of 2009. In the same period, the equity capital and reinvested earnings of the affiliates of Slovenian companies abroad rose by EUR 323.1 m, whereas disinvestment in the form of cutting of claims of Slovenian investors to their affiliated companies amounted to only EUR 82.3 m. This means that the total stock of Slovenia's outward FDI increased by EUR 270.8 m in the first nine months of 2009. Recent years have also witnessed a higher outflow of foreign investors' profits from Slovenia. In 2005, the repatriated profits of foreign investors in Slovenia stood at a mere EUR 134.4 m, rising to EUR 366.1 m in 2006, and further to EUR 764.8 m in 2008, but they were down to EUR 556.9 m in 2009. The ratio of repatriated profits to the inward FDI stock rose from 2.2% in 2005 to 7.0% in 2008, but reduced to 5.1% in 2009. Although the inflows from repatriated profits of Slovenian investors abroad are increasing, the amounts are much lower in absolute and relative terms. They rose from EUR 28.9 m in 2005 to EUR 208.6 m in 2008, only to drop again to EUR 177.2 m in 2009; at the same time, the ratio of repatriated profits to outward FDI stock increased from 1.0% in 2005 to 3.7% in 2008, but fell to 3.0% in 2009. The outflow of inward FDI from Slovenia has been much higher than the drop in the outward FDI, and the outflow of foreign investors' profits has been rising since 2006, all of which supports the view that in the eyes of foreign investors, Slovenia has been considered an increasingly unfriendly business environment.

<sup>1</sup> On the global scale, inflows fell from EUR 1,978.8 m in 2007 to EUR 1,697.4 m in 2008. According to EBRD (2009) estimates, in 2009, inflows of FDI to the Central European and Baltic States dropped below one-third of the level recorded in 2008.

<sup>2</sup> At the end of 2008, net liabilities of Slovenian affiliates to their affiliated companies amounted to EUR 3,765.9 m, and at the end of September 2009 were down to EUR 3,343.5 m.

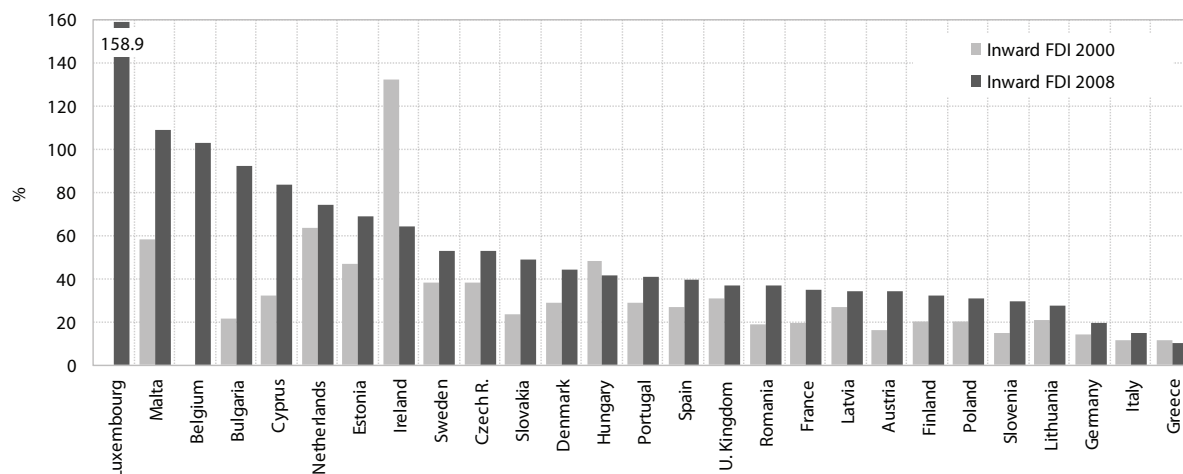
Table: Flows and stocks of inward and outward FDI<sup>1</sup> in Slovenia in the period 1995–2009 in EUR m

	1995	2000	2005	2006	2007	2008	2009
<b>INWARD FDI</b>							
Year-end stock	1,376.0	3,109.8	6,133.6	6,822.3	9,765.1	10,996.4	N/A
Annual inflow	117.4	149.1	472.5	513.3	1,106.4	1,313.4	-79.5
Stock as a % of GDP	9.5	14.8	21.7	22.0	28.2	29.6	N/A
<b>OUTWARD FDI</b>							
Year-end stock	382.3	825.3	2,788.7	3,452.2	4,916.6	5,660.5	N/A
Annual outflow	7.8	-71.7	-515.6	-687.0	-1,316.6	-932.3	-609.7
Stock as a % of GDP	2.6	3.9	9.9	11.1	14.2	15.2	

Source: www.bsi.si; SI-STAT data model – National accounts, 2009, 2008.

Notes: <sup>1</sup> Companies in which foreign investor has a 10% or higher share. <sup>2</sup> Since 1996, the figure includes also direct investment of companies in second affiliation. Since 2007, equity-related claims and liabilities cover all claims and liabilities a company has with the direct foreign owner as well as with all non-resident companies which are part of the foreign owner's group of companies (see International economic relations – Bank of Slovenia, March 2007, pp. 11-13). <sup>3</sup> A minus sign denotes an outflow; N/A – not available.

Figure: Inward and outward FDI stock relative to GDP in the EU in 2000 and 2008



Source: UNCTAD World Investment Report, 2004, 2006, 2007, 2008 and 2009 (for EU); www.bsi.si (for Slovenia). Note: <sup>1</sup> EU-25 for 2000, 2005 and 2006 and EU-27 for 2007 and 2008.



## Entrepreneurial activity

According to the *Global Entrepreneurship Monitor (GEM)*, after four years of growth, the rate of early-stage entrepreneurial activity in Slovenia dropped in 2009, and consequently also the overall entrepreneurial activity rate declined. The share of the population entering entrepreneurial activity (the early-stage entrepreneurial activity rate or the TEA index<sup>1</sup>) stood at 5.4% in 2009,<sup>2</sup> which was down 1.0 p.p. from the year before. In the difficult economic conditions, the rate of early-stage entrepreneurial activity in the EU countries (the average of 14 countries included in the analysis<sup>3</sup>) also declined in 2009, but less than in Slovenia. The gap between Slovenia and the average rate for 14 EU countries narrowed to 0.5 p.p.<sup>4</sup> from 2008, when for the first time Slovenia recorded a higher rate of early-stage entrepreneurial activity than the average of the countries included. Along with a decline in the share of population entering entrepreneurial activity, the rate of overall entrepreneurial activity also declined in 2009 to 10.8%, down 1.2 p.p. from the year before. Apart from those entering entrepreneurial activity (early-stage activity), the share of the overall population engaged in entrepreneurial activity (overall entrepreneurial activity) also includes established business owners/managers. In 2009, the share of the latter in population remained the same as in the previous year, and was also above the average of the 14 countries (10.3%).

As expected, amid the deterioration of economic conditions, the share of the population who engaged in entrepreneurial activity to exploit a perceived business opportunity declined most. The share of those engaged in early-stage entrepreneurial activity because of a business opportunity surged during the economic upturn (by 1.8 p.p. in the period 2005–2008) and they were also main lever of early-stage entrepreneurial activity in Slovenia by 2008. Owing to the financial and economic crisis, and the related decline in economic activity, this share dropped by 0.9 p.p. to 4.7% in 2009. The rate of those engaged in early entrepreneurship out of necessity was much lower (0.5% in 2009) and quite stable in the past. Despite the worsening of conditions on the labour market since the end of 2008 and strengthened active employment-policy measures in the area of self-employment,<sup>5</sup> the share

of those engaged in entrepreneurship out of necessity slightly declined in 2009 (by 0.3 p.p.). It should be noted, however, that due to the timing of the survey (the first half of the year) the data fail to include all of 2009 and thus cover only a relatively short period of unfavourable labour-market conditions. In most of the European countries included in the survey, the rate of early-stage entrepreneurial activity out of necessity decreased or was preserved at the 2008 level (the only exception being Latvia), whereas the drop in activity because of a perceived business opportunity was more significant (on the average of 14 countries by 0.5 p.p. to 3.7%).

*The mortality rate of nascent companies slightly declined in 2009, but remained above the EU average.* In 2009, the mortality rate measured by the ratio of the nascent entrepreneurs to new business owners/managers, declined by 0.2 p.p. In most EU Member States, this rate decreased (on average by 0.1 p.p. to 1.1%). The ratio of nascent entrepreneurs to new business owners/managers thus remained more favourable in the EU Member States than in Slovenia, but the gap narrowed considerably. Nevertheless, Slovenia was ranked second out of 14 EU countries (after France) in terms of companies' mortality rate in 2009.

*In 2009, entrepreneurs identified the lack of financial discipline as the greatest obstacle to their business activity.* Because of the economic crisis, the financial-discipline problem worsened in 2008 and even more so in 2009. According to Interstat data,<sup>6</sup> 74.6% of the surveyed entrepreneurs faced this problem in the second half of 2009, which is 9.8 p.p. more than in the first half of the year. Dwindling sales is said to be another major problem (by 34.2% of entrepreneurs), with the number of entrepreneurs who mentioned lower sales levels as a problem doubling in the second half of the year compared with the last quarter of 2008 (a rise from 49 to 89 entrepreneurs), when their share soared. Red tape, tax policy and the difficulty of recruiting competent staff remain the main factors hampering business, although to a lesser extent than in past years.

<sup>1</sup> For a methodological explanation of indicators of entrepreneurial activity, see the notes below the table.

<sup>2</sup> The data are based on the survey, which is conducted in the first half of the year.

<sup>3</sup> In 2009, 14 EU Member States participated in the GEM survey, but 15 in 2008 (the same as in 2009 plus Ireland).

<sup>4</sup> In 2008, the TEA index in Slovenia was by 1.1 p.p. above the average of the 15 EU Member States included in the survey (see previous footnote).

<sup>5</sup> In the first ten months of 2009, 4,101 unemployed people received the subsidies for self-employment (in 2008 1,599

people and in 2007 417 people) (IMAD, Economic Mirror, November 2009).

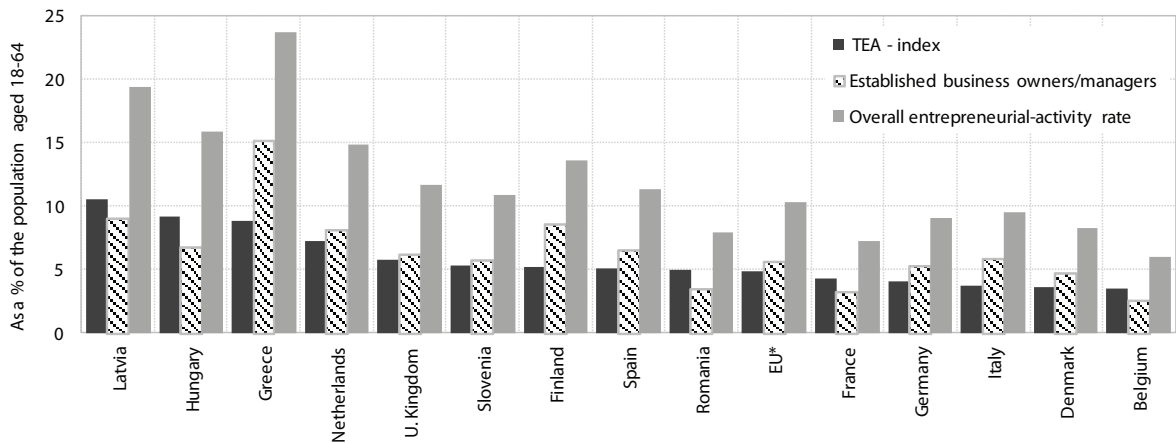
<sup>6</sup> Interstat conducts the survey on the entrepreneurial climate in Slovenia.

Table: Selected indicators of entrepreneurial activity in Slovenia in the period 2002–2009

In % of the population (aged 18–64)	2002	2005	2006	2007	2008	2009
TEA-index <sup>1</sup>	4.6	4.4	4.6	4.8	6.4	5.4
TEA-nascent entrepreneurs <sup>2</sup>	3.3	3.0	2.9	3.0	4.1	3.2
TEA-new business owners/managers <sup>3</sup>	1.5	1.4	1.8	1.8	2.4	2.1
TEA-opportunity <sup>4</sup>	3.3	3.8	4.0	4.2	5.6	4.7
TEA-necessity <sup>5</sup>	1.4	0.5	0.5	0.5	0.8	0.5
Established business owners/managers <sup>6</sup>	-	6.3	4.4	4.6	5.6	5.7
Overall entrepreneurial-activity rate <sup>7</sup>	-	10.1	9.0	9.3	11.8	10.8

Sources: Rebernik et al., 2002; Rebernik et al., 2004; Rebernik et al., 2005; Rebernik et al., 2006; Rebernik et al., 2007; Rebernik et al., 2008; Bosma et al., 2009; Rebernik et al. 2010.  
Notes: <sup>1</sup> The TEA-index is the rate of total early entrepreneurial activity measuring the share of the population engaging in entrepreneurship. It comprises individuals that have started setting up new businesses or engaging in new business activities, including self-employment. <sup>2</sup> TEA-nascent entrepreneurs that have paid wages or salaries for no more than three months). In addition, it also includes individuals employed as owners/managers of new businesses who have been paying salaries for no longer than 42 months. <sup>3</sup> TEA-new business owners/managers). <sup>4</sup> TEA-opportunity measures the share of the population who engage in entrepreneurial activity to exploit a perceived business opportunity. <sup>5</sup> TEA-necessity measures the share of the population who have set up a business out of necessity. <sup>6</sup> Established business owners/managers represent the share of people who own a firm that has been operating for more than 42 months. <sup>7</sup> The overall entrepreneurial-activity rate includes the TEA index and the share of established business owners.

Figure: Selected indicators of entrepreneurial activity in Slovenia and 14 EU Member States included in the GEM project in 2009



Source: Rebernik et al., 2010.

Note: \*Weighted average of 14 EU Member States included in the GEM 2009 survey, calculations by IMAD.

## Share of non-financial market services in GDP

In 2008, the share of non-financial market services in value added of Slovenia's economy markedly increased for the second consecutive year, and the share of knowledge-based services also strengthened. According to the latest available data, non-financial market services<sup>1</sup> generated 40.4% of total value added of Slovenia's economy in 2008, 0.8 p.p. more than the year before and 3.6 p.p. more than in 2000. They provided employment to 33.8% of all employees, which is 0.6 p.p. more than in 2007 and 4.9 p.p. more than in 2000. The increase last year largely stemmed from a greater share (by 0.5 p.p.) of wholesale and retail and repair of motor vehicles (trade – SKD G), and (by 0.4 p.p.) real estate, renting and business activities (business services – SKD K); the shares of hotels and restaurants (SKD H) and transport, storage and communications (transport – SKD I) remained at around the same levels as in the previous year. Over a longer period of time (since 2000), the importance of business services and trade in total value added of the economy increased the most of all non-financial market services. Since business services, except real-estate activities (SKD K70),<sup>2</sup> account for an important share of knowledge-based non-financial market services<sup>3</sup> (81%, the rest is post and telecommunication services<sup>4</sup>), after the stagnation in the period 2004–2006, 2008 saw, for the second consecutive year, a significant increase in the share of knowledge-based non-financial market services in Slovenia's economy (from 12.4% in 2007 to 12.6% in 2008). Among them, other business activities (various consultancy and research services) increased in particular, and, to a smaller degree, computer services. This was a further positive shift towards fulfilling SDS, the objective of which is to increase the share of knowledge-based business services to a level of around 12% of the value added of the economy by 2013 (in 2008, it was 10.2%).

<sup>1</sup> Activities of the Standard Classification of Activities (SKD): wholesale and retail, repair of motor vehicles and personal and household goods (G), hotels and restaurants (H), transport, storage and communications (I) and real estate, renting and business activities (K).

<sup>2</sup> The share of real-estate services in total value added decreased from 8.0% in 2000 to 7.6% in 2008. Real-estate business mostly consists of the estimated housing activities of households characterised by relatively low and constant value-added growth rates. Housing activity accounted for 94.1% of value added in real-estate business in 2000, or 47.1% of value added of activity K, and for 81.5% of value added in real-estate business in 2008, or 34.8% of the value added of activity K.

<sup>3</sup> According to the OECD methodology, knowledge-intensive services, in addition to business services (leasing machinery and equipment – 71, data processing and associated services – 72, research and development – 73 and other business services – 74) also include post and telecommunication services (64).

<sup>4</sup> The share of post and telecommunication services, which has been around the EU average for several years, decreased by 0.1 p.p. in 2008.

*In 2008, the gap between Slovenia and the EU average on share of non-financial market services in value added narrowed considerably for the second consecutive year. However, despite a positive shift in the last two years, knowledge-based services remain the greatest development potential. In 2008, Slovenia again posted the smallest lag behind the EU average in share of non-financial market services in the structure of the economy (3.4 p.p.) since the comparable data have been available (1995 onwards). The closing of the gap was again (as in the period since 2000) largely a result of the widening of the trade gap, which has for several years held a greater share in the structure of value added of Slovenia's economy than in the EU; to a lesser extent, the share in business services also drew closer to the EU average. The shift in business services was positive but slow, in particular since, throughout the observed period, Slovenia's economy lagged behind the EU average the most in terms of share of business services. After it slightly increased in the 2004–2006 period, the gap in this area slightly narrowed in 2007 and 2008 (by 0.4 p.p.), but still stood at 4.8 p.p., which was more than in 2004, when the lowest gap was recorded (4.6 p.p.). Given the lack of relevant internationally comparable data,<sup>5</sup> one can conclude based on the considerable share which business services hold in the group of knowledge-based services that similar trends were also present in the group as a whole, and that this is where Slovenia still has the largest potential for further development.*

<sup>5</sup> The latest data for EU Member States at a detailed sector level that enables calculation of the share of knowledge-intensive services are only available up to 2006 (OECD STAN Database); therefore, we can only predict the future trends on the basis of trends in wider aggregates (in this case total business services – SKD K).

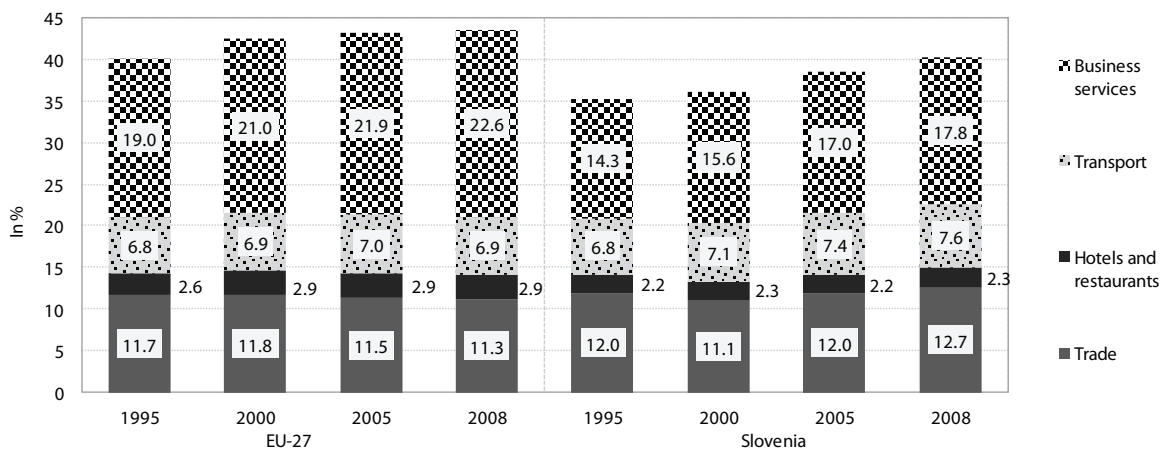
Table: Share of non-financial market services in value added, 1995, 2000, 2005–2008

%	1995	2000	2005	2006	2007	2008
Non-financial market services	35.4	36.1	38.5	38.5	39.6	40.4
Trade (G)	12.0	11.1	12.0	11.8	12.2	12.7
Hotels and restaurants (H)	2.2	2.3	2.2	2.2	2.3	2.3
Transport (I)	6.8	7.1	7.4	7.5	7.7	7.6
Business services (K)	14.3	15.6	17.0	17.0	17.4	17.8
excluding K 70 <sup>2</sup>	6.3	7.6	9.3	9.5	9.9	10.2
Knowledge-based non-financial market services <sup>1</sup>	8.3	9.7	11.9	12.1	12.4	12.6

Source: SI-STAT data portal – National Accounts, 2010; calculations by IMAD.

Note: <sup>1</sup> Post and telecommunications – division 64, renting machinery and equipment – division 71, computer and related activities – division 72, research and development – division 73, other business activities – division 74.2 Real-estate activities.

Figure: Share of non-financial market services in value added in Slovenia and the EU, 1995, 2000, 2005, 2008



Source: Eurostat Portal Page – Economy and Finance – National Accounts, 2010; calculations by IMAD.

## Total assets of banks

*The value of total assets of banks relative to GDP increased in 2009 climbing to 147.4%. However, this time, a drop in GDP was an important factor of growth, as its nominal value was down by 6.0%, and total assets grew by a mere 8.3% in 2009, which was the lowest in the past five years. A slow-down in growth in total assets was on the asset side related to weak growth in loans, and on the liabilities side, to fewer new sources of finance. After direct financing from abroad<sup>1</sup> had been the main source of growth of the banking sector in the past, the role of foreign sources was less direct last year and supported by state guarantees. Net repayments of loans and deposits from abroad amounted to EUR 3.0 bn, but net inflow of state deposits reached EUR 2.1 bn; the state acquired these assets by three issues of bonds amounting to EUR 4.0 bn.<sup>2</sup> In the second half of the year, the issuing of state-guaranteed bonds became an important source of assets (at the level of EUR 2.0 bn). Household deposits were a significantly less important source of assets, totalling only EUR 624.0 m of net inflows, down by almost a half from in 2008. Growth in banks' loans to the domestic non-banking sector was much slower for the second year in succession in 2009, reaching a mere 2.8%, which is the lowest level since comparable data have been available<sup>3</sup>. After a period in which the share of loans in total banks' assets had been constantly growing, it dropped this year by 1.4 p.p. to 76.7%. Investment in debt securities of domestic non-monetary sectors contributed most to growth in total assets, which has been to a large extent a consequence of investment in state securities at the beginning of the year, as well as loans to domestic and foreign banks, which also increased.<sup>4</sup> In 2009, relatively high growth was recorded in investment in shares and other equity, which was largely a consequence of cashing in of insurance for granted loans. After banks had strongly increased investment at central banks in 2008, their balance strengthened by almost one quarter at the end of 2009, which in our estimation is largely a consequence of the long-term financing operation with ECB carried out in December, with banks depositing these assets at the central bank.*

*In 2008, the narrowing of the relative lag of Slovenia behind the EU average continued; the data on lending activity in 2009 indicate that the process of catching up with the EU average could strengthen once more. In 2008, the indicator of total bank assets relative to GDP reached 38.8% of the EU average (in 2007, 37.5%). Although the growth in total bank assets relative to GDP slowed down in Slovenia in 2008, it slowed down even more in the EU*

Member States (total bank assets relative to GDP grew by a mere 1.3%), so the process of narrowing the gap continued; however, the development gap in this area remains large. The average value of total bank assets relative to GDP for EU Member States reached 330.5% in 2008, which again ranked Slovenia in the bottom third of the EU Member States. Along with all old Member States, higher values of this indicator were recorded by Malta (736.5%), Cyprus (672.7%), Latvia (141.7%) and Estonia (135.6%). As in 2009, growth in the volume of loans to non-banking sectors was also modest in the EU (0.7%), and it is estimated that the growth in total bank assets in the EU lagged behind that in Slovenia. As GDP fell less in the EU than in Slovenia, we can expect that the gap between Slovenia and the EU average on this indicator also narrowed in 2009.

<sup>1</sup> Borrowing in the form of loans and inflow of foreign deposits.

<sup>2</sup> The state borrowed an additional EUR 1.5 bn in January 2010, and that month, the inflows of state deposits to banks amounted to EUR 1.0 bn.

<sup>3</sup> Since 2005.

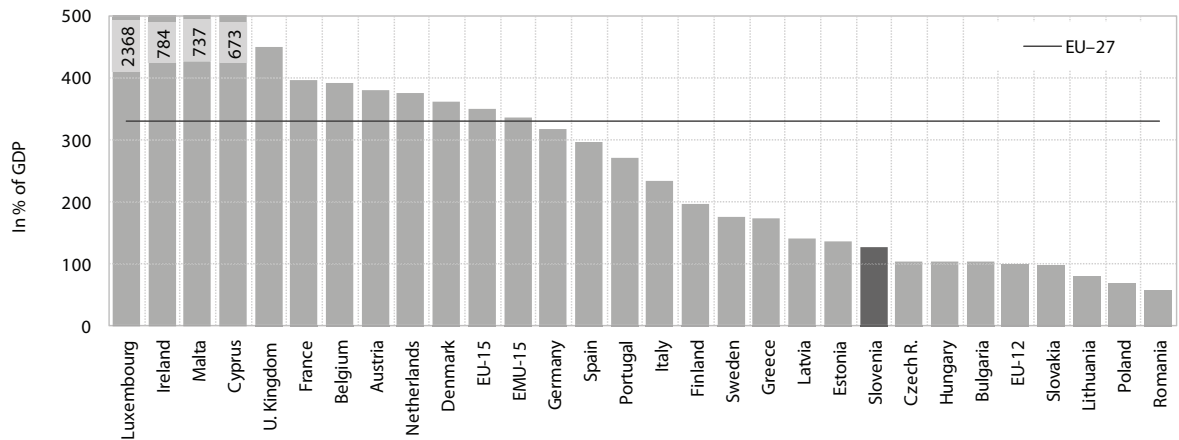
<sup>4</sup> Loans to foreign banks are related largely to forming of reserves for repayment of matured liabilities.

Table: Structure of banks' total assets, 1995–2009, in EUR m

	1995	2000	2005	2006	2007	2008	2009
Assets	9,137.8	14,776.3	29,134.5	33,717.1	42,343.3	47,498.4	51,441.1
as a % of GDP	61.8	73.1	103.7	110.7	122.5	127.9	147.4
Loans to banking sector	1,570.5	1,722.8	2,848.8	3,057.6	4,072.4	4,022.6	5,694.0
Loans to nonbanking sector	3,764.4	7,731.4	15,909.4	20,088.5	28,301.8	33,312.7	33,741.8
Other assets	3,802.9	5,322.1	10,376.4	10,596.0	9,969.1	10,163.1	12,005.3

Source: Bank of Slovenia's Annual Report (various volumes).

Figure: Total assets of banks in selected EU Member States in 2008, as % of GDP



Source: Bank of Slovenia Annual Report, 2009; European Banking Federation, 2009; National accounts (SORS), 2010, Eurostat, 2010.

## Insurance premiums

*In 2008, the value of insurance premiums relative to GDP dropped for the second consecutive year; it accounted for 5.4% of GDP. Apart from relatively high nominal GDP growth, the decline was a consequence of a further levelling out of growth in the volume of insurance premiums, which was 6.6% in 2008 and thus the lowest in the last three years. The structure of insurance premiums changed as well. For the first time in the last ten years, the 5.5% growth in the volume of life insurance was below that of non-life insurance, thus hitting the lowest level since 1994, when comparable data started to be available. This was largely a consequence of negative developments on the capital markets due to the international financial crisis. Compared with the previous year, the growth of life insurance tied to investment funds dropped most. The value of total life insurance premiums relative to GDP fell by 0.1 p.p. to 1.7% in 2008. Conversely, growth in non-life insurance premiums has been much steadier, averaging between 5 and 10% for several years; in 2008, it was 7.1%, only slightly below the ten-year average. The volume of non-life insurance premiums relative to GDP remained unchanged from the previous year (3.7%).*

*In 2008, the volume of insurance premiums relative to GDP in the EU declined much more than in Slovenia, by 1.1 p.p. to 8.0% – the 2001 level. While the volume of premiums on average rose by almost one-tenth in the past three years, in 2008 it slipped by more than one-tenth. The drop can be almost fully attributed to a plunge in the volume of life-insurance premiums by almost one-fifth, as they represent more than 60% of all premiums, whereas non-life insurance premiums dropped only 0.5%. In geographical terms, the decrease in insurance premiums relative to GDP was mainly a consequence of a lower value of this indicator in the EU-15 (down by 1.2 p.p. to 8.4%), and in particular a slump by 4.3 p.p. in the United Kingdom, which accounts for almost one-quarter of the total premiums of the EU Member States. On the other hand, the value of this indicator for EU-12 increased by 0.3 p.p. to 3.7%.*

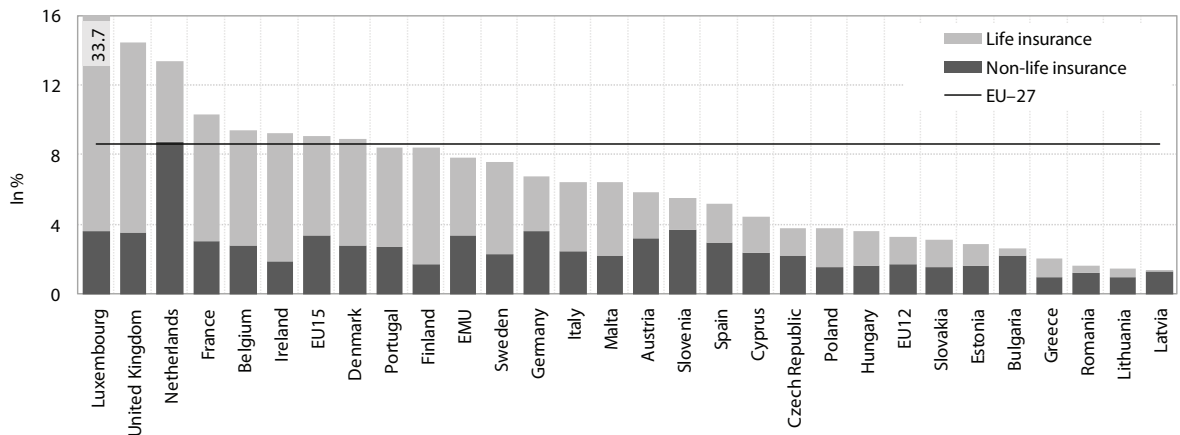
*As the value of this indicator in the EU fell more than in Slovenia, the development gap in relative volume of insurance premiums narrowed in 2008. Slovenia reached almost two-thirds of the EU average, and its volume of insurance premiums relative to GDP was higher than in other new Member States, as well as in Spain, Greece and Luxembourg. Nevertheless, Slovenia still differs greatly from most other EU Member States in terms of the structure of insurance, although the gap in the share of life insurance slightly narrowed in 2008. Life insurance premiums account for only slightly more than 30% of all premiums (on average in the EU, 61%), and their share even slightly narrowed for the first time in 2008, although less than in the EU. Slovenia still reveals a higher value of non-life insurance indicator than the EU average, widening the gap to 0.6 p.p. in 2008.*

Table: Insurance premiums by type of insurance in Slovenia

	1995	2000	2005	2006	2007	2008
As a % of GDP						
Insurance premiums, total	4.3	4.5	5.4	5.6	5.5	5.4
Life insurance	0.6	0.9	1.6	1.7	1.8	1.7
Non-life insurance	3.6	3.6	3.8	3.8	3.7	3.7
Structure, %						
Insurance premiums, total	100.0	100.0	100.0	100.0	100.0	100.0
Life insurance	14.8	19.4	30.0	31.3	32.2	31.8
Non-life insurance	85.2	80.6	70.0	68.7	67.8	68.2
Year-on-year nominal growth rates, %						
Insurance premiums, total	61.8	6.3	6.3	11.4	9.8	6.6
Life insurance	66.9	14.2	8.3	16.3	12.7	5.5
Non-life insurance	60.9	4.5	5.5	9.3	8.4	7.1

Source: Statistical Insurance Bulletin 2009 (Slovenian Insurance Association), 2009; <http://www.zav-zdruzenje.si/>.

Figure: Total insurance premiums, life and non-life insurance premiums in the EU Member States in 2008, as % of GDP



Source: Statistical Insurance Bulletin 2009 (Slovenian Insurance Association), 2009; CEA: European Insurance in Figures, 2009; National accounts (SORS), 2010; Eurostat, 2010.



## Market capitalisation of shares

After its value had more than halved in 2008, the market capitalisation of shares relative to GDP slightly increased to 24.3% in 2009. Despite more than 10% growth in the SBI20 index in 2009, the value of shares listed on the Ljubljana Stock Exchange was down by 0.1% from the year earlier,<sup>1</sup> but at the same time, GDP decreased by much more, so that the value of the indicator rose. Growth in market capitalisation was recorded only by shares on the prime market (26.4%), which was not only thanks to a rise in the value of shares but also because of an expansion of the prime market by a new share. On the other hand, market capitalisation of shares from the standard and entry markets was down by 14.8% and 41.7%, respectively. A slump in market capitalisation of shares from the entry market largely resulted from a drop in the value of securities, and to a smaller extent also withdrawal of some shares from the Stock Exchange. In 2009, there was a further decline in turnover on the Ljubljana Stock Exchange (-24.4%), which was this time not evenly distributed among the types of listing; the drop in the turnover of shares on the standard market was the smallest – 3.0%,<sup>2</sup> whereas the turnover of the shares on the entry market plunged by as much as 54.5%. This resulted in a further deterioration of the liquidity of the Ljubljana Stock Exchange. The turnover ratio of shares, measured as the ratio of turnover value to market capitalisation of shares, slipped to 0.08 in 2009, which is well below the value usually recorded on developed capital markets (above 0.5).

*Slovenia's development gap to the EU average<sup>3</sup> in terms of market capitalisation widened for the second year, with Slovenia attaining only less than 40% of the EU average value.* This was a consequence of strong growth in market capitalisation of shares in the EU (30.9%) which reached the highest level in the last five years. The value of this indicator in the EU thus rose to 61.1% of GDP, up by 16.8 p.p. from the value in 2008. Since Slovenia in the same period recorded one of the lowest rates of growth in market capitalisation of shares of all EU Member States, its ranking in the EU-27 also slightly worsened, compared with 2008. Among the new Member States, market capitalisation relative to GDP was thus higher in Poland (34.1%), Malta (50.0%) and Cyprus (40.8%) in 2009.

<sup>1</sup> In the past year, the SBI20 index was not the most representative indicator of developments on the Ljubljana Stock Exchange. While the value of shares of the 15 companies making up this index largely recorded growth, a significant part of the companies which are not included in the index recorded a drop. The drop in the value of shares was recorded mainly by holdings and investment companies.

<sup>2</sup> Such a small drop was largely a consequence of the transfer of an important share of securities pledged for manager takeovers to banks.

<sup>3</sup> Data for the EU also include Iceland.

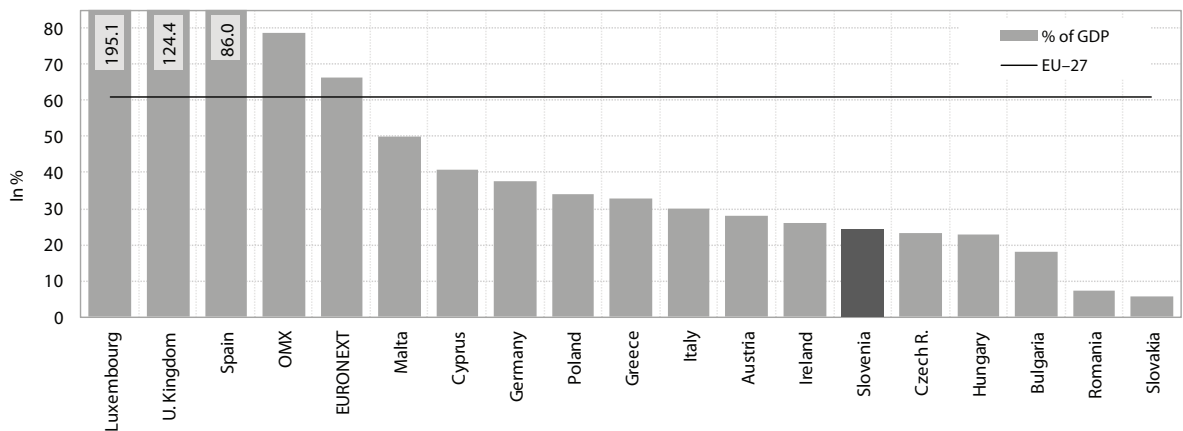
Table: Selected capital market indicators in Slovenia, 1995–2009

	1995	2000	2005	2006	2007	2008	2009
Market capitalisation of shares, excluding investment funds, EUR' m	250.7	3,333.7	6,696.6	11,513.1	19,740.1	8,468.4	8,462.2
Market capitalisation of shares, excluding investment funds, % of BDP	1.6	15.4	23.3	37.1	57.3	22.8	24.3
SBI20	1,448	1,808	4,630	6,383	11,370	3,696	4,079
Number of securities							
Shares	49	267	227	202	185	187	174
of which investment funds' shares	27	197	128	109	96	96	89
Bonds	0	44	10	7	10	11	11
Bonds	22	68	99	93	89	90	85

Sources: Annual Statistical Report (Ljubljana Stock Exchange), 2010; National accounts (SORS), 2010; calculations by IMAD.

Notes: SBI – Slovenian stock-exchange index, <sup>1</sup>IMAD's conversion into EUR taking into account the exchange rate on the last day of the current year.

Figure: Market capitalisation in selected EU Member States in 2009, as % of GDP



Source: Annual Statistical Report (Ljubljana Stock Exchange), 2010; First Release – national accounts (SORS), 2010; Stock-market capitalisation (Eurostat), 2010; calculations by IMAD.

Note: Since January 2001, Euronext incorporates Paris, Amsterdam, and Brussels Stock Exchanges, joined by the Lisbon Stock Exchange in February 2002. OMX incorporates Scandinavian (Denmark, Finland, Sweden), Baltic (Estonia, Latvia, Lithuania) and Iceland Stock Exchanges.



## **THE SECOND PRIORITY:**

### **Efficient use of knowledge for economic development and high-quality jobs**

- Share of population with tertiary education
- Average years of schooling of the adult population
- Ratio of students to teaching staff
- Public expenditure on education
- Expenditure on educational institutions per student
- Gross domestic expenditure on research and development
- Science and technology graduates
- Patents and researchers
- Internet use and access

## Share of population with tertiary education

*Over the past three years (2007–2009), the share of the population with a tertiary education ranged between 22% and 23%, thus considerably widening the gap to the EU average. According to the Labour Force Survey (LFS), the share of the population with a tertiary education aged 25–64 totalled 22.5% in the second quarter of 2009, which is 0.6 p.p. more than the year before, yet still lower than in 2007 when it was the highest to date. On this indicator, Slovenia lags behind the majority of economically more developed countries. In 2000–2009, this share rose by 6.7 p.p. but Slovenia nevertheless failed to notably reduce its gap to the EU average (it lagged by 3.1 p.p. in 2000 and by 2.5 p.p. in 2009). Due to the stagnation between 2007 and 2009, the gap behind the European average grew from 0.5 p.p. in 2007 to 2.5 p.p. in 2009.*

*Enrolment in tertiary education per 1,000 population aged 20–29 strongly exceeds the EU average, yet Slovenia lags behind in the number of graduates per 1,000 population of the same age. The growing share of the population with a tertiary education recorded in 2000–2009 was the result of greater participation in tertiary education and a higher number of graduates. The number of students enrolled in tertiary education per 1,000 population aged 20–29 in 2007 was 40.1, much above the EU average (28.6), and grew faster than in the EU also throughout 2000–2007 (by 11.8 in Slovenia, by 4.9 in the EU). Despite the above-average enrolment in tertiary education, Slovenia (according to latest internationally comparable data for 2007) lags behind the EU average in the number of graduates from tertiary education per 1,000 population aged 20–29 (Slovenia: 57.7; EU: 59.9), and did not significantly narrow this gap over the period 2000–2007. Owing to the low efficiency of studies and modest adult participation in tertiary education, the share of the population with a tertiary education in Slovenia is growing very slowly.*

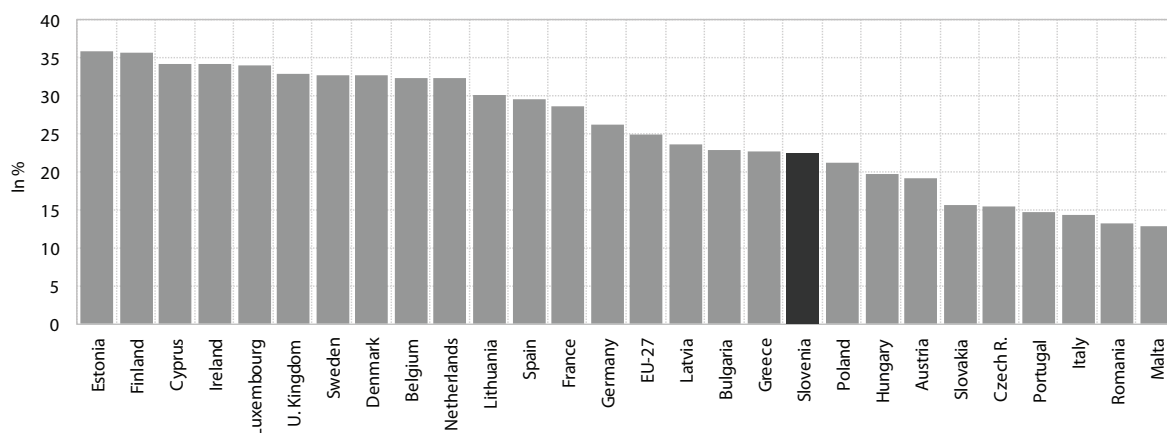
*The proportion of women with a tertiary education is much higher than for men, and it also increased more in 2000–2009. Between 2000 and 2009, the proportion of women with a tertiary education increased more than for men (women: by 9.8 p.p.; men: by 3.9 p.p.). Thus, in 2009, 27.1% of women and 18.0% of men aged 25–64 had a tertiary education. In the age group 25–34, the difference is even greater (women: 39.0%; men: 20.8%). This higher share is mainly a consequence of the higher share of women enrolled in tertiary education (58.0% in 2008/2009) and among tertiary-education graduates (62.8% in 2008). Since 2000, the proportion of women among students grew by 1.9 p.p., and among graduates by 5.6 p.p.*

Table: Share of the population aged 25–64 having attained a tertiary education, EU, 1995–2009 (second quarter), %

	1995	2000	2005	2006	2007	2008	2009
<b>EU</b>	<b>N/A</b>	<b>18.9</b>	<b>22.2</b>	<b>22.8</b>	<b>23.4</b>	<b>24.1</b>	<b>25.0</b>
Austria	N/A	14.5	17.6	17.7	17.7	18.1	19.1
Belgium	23.3	27.1	30.7	31.0	31.4	31.9	32.4
Bulgaria	N/A	18.4	21.4	21.7	22.1	22.8	22.9
Cyprus	N/A	25.1	27.8	29.9	33.0	34.6	34.3
Czech Rep.	N/A	11.5	13.1	13.5	13.7	14.3	15.4
Denmark	27.2	25.2	32.9	34.8	30.5	34.3	32.7
Estonia	N/A	28.9	33.6	32.9	34.0	33.5	35.9
Finland	21.0	32.3	34.5	34.9	36.4	36.5	35.7
France	N/A	N/A	25.0	25.9	26.8	27.1	28.7
Greece	14.3	16.9	20.5	21.3	21.9	22.5	22.7
Ireland	19.9	21.2	28.3	29.9	31.1	32.7	34.2
Italy	7.4	9.4	11.9	12.7	13.5	14.3	14.4
Latvia	N/A	18.0	21.5	21.4	23.6	24.2	23.7
Lithuania	N/A	41.8	26.5	27.2	29.8	30.5	30.2
Luxembourg	15.4	17.9	26.5	24.0	28.6	28.3	34.0
Hungary	N/A	14.0	17.0	17.8	17.9	19.1	19.8
Malta	N/A	5.4	12.1	12.4	12.4	13.3	12.8
Germany	21.1	22.5	24.5	24.2	24.3	25.1	26.3
Netherlands	N/A	24.0	29.9	29.8	30.3	32.0	32.3
Poland	N/A	11.4	16.5	17.8	18.8	19.6	21.2
Portugal	11.3	9.0	12.7	13.4	13.6	14.2	14.7
Romania	N/A	9.2	11.0	11.8	12.0	12.9	13.2
Slovakia	N/A	10.2	13.9	14.4	14.4	14.6	15.6
<b>Slovenia</b>	<b>14.2</b>	<b>15.7</b>	<b>20.0</b>	<b>21.5</b>	<b>22.9</b>	<b>21.9</b>	<b>22.5</b>
Spain	16.4	22.5	28.2	28.4	28.9	29.3	29.5
Sweden	26.1	29.5	29.3	30.3	31.2	31.9	32.8
U. K.	21.0	24.4	28.3	29.3	30.4	31.6	32.9

Source: Eurostat Portal Page - Population and Social Conditions, 2010.  
 Note: N/A – not available.

Figure: Share of the population having attained a tertiary education, Slovenia and the EU, 2009 (second quarter), %



Source: Eurostat Portal Page - Population and Social Conditions, 2010.

## Average years of schooling of the adult population

The average number of years of schooling of the adult population recorded no increase in 2008 and continues to lag behind the most developed countries. According to the Labour Force Survey, the population aged 25–64 had completed an average of 11.8 years of schooling in 2008 (the same as in the previous year and 1.1 years more than in 1995).<sup>1</sup> Generally speaking, the average number of years of schooling is increasing due to a rise in the proportion of recent educational cohorts completing tertiary education. However, the number remained unchanged in 2008 partly because of the fact that fewer adults completed upper-secondary schools than the year before, and partly owing to higher net migration in that year.<sup>2</sup> More than half of immigrants have low educational attainment, and as immigrants are mainly men, the low education of the growing number of male immigrants also has an impact on the relatively slow increase of the average level of education of men in Slovenia compared with women (see Figure), whose average level of education has been above that of men since 2003 also due to the higher participation of women in tertiary education. In terms of the average years of schooling of the adult population, Slovenia is only slowly narrowing the gap behind the developed countries where in 2004 (for which latest data are available) the average number of years of completed schooling exceeded 13 (e.g. Denmark, Germany, Netherlands).

The decrease of employment<sup>3</sup> in 2009 led to an improvement in the educational structure and thus to an increase of the average number of schooling years of the working population. The 2009 decline in economic activity mostly hit sectors employing a less qualified labour force (construction, labour-intensive manufacturing). A strong decrease was recorded among the employed population with lower and upper secondary vocational education, while the number of those with a general upper secondary and higher education rose. This is indicated by comparison of data from the statistical register of employment for March 2009 and September 2008, when the average number of schooling years grew by 0.08 after changing very slowly in 2006–2008 for structural reasons

<sup>1</sup> Calculations made by IMAD, taking into account the following assumptions on the average regulatory length of schooling: 5.5 years without completion of primary school, 8.0 years with completion of primary school, 9.5 years with lower vocational education, 11.0 years with secondary vocational education, 12.2 years with completion of vocational or general secondary school, 14.0 years with post-secondary vocational education, 16.2 years with university education and 19.0 years with postgraduate education.

<sup>2</sup> See the indicator *Migration coefficient*.

<sup>3</sup> See the indicator *Employment rate*.

(by about 0.04 of a schooling year per calendar year).<sup>4</sup> Since SORS introduced a new technology in 2009 for gathering and, particularly, monitoring data on people in employment,<sup>5</sup> data have no longer been comparable with those for previous years. According to the new methodology, the population in employment according to the statistical register had attained on average 12.0<sup>6</sup> years of schooling in December 2009.

<sup>4</sup> The slow increase of the average number of years of schooling of people in employment in 2006–2008 (at the level of 11.7, expressed with one decimal) was due to the structure of economic growth, which also depended on increased investment in construction, reflecting in a relatively high growth of workers in this sector, which mainly employs a low-qualified labour force.

<sup>5</sup> This technology also corrected and improved the data on the highest attained level of vocational education, which had not been regularly updated in previous years. This correction showed that there were fewer people in employment with a low or secondary vocational education and more of those with a general secondary and higher education than indicated by the insufficiently updated data prior to the change of methodology.

<sup>6</sup> The estimate of the average number of years of schooling according to the register thus came very close to the calculation based on the Labour Force Survey, according to which the population in employment had completed 12.1 years of schooling. Nevertheless, the number is still much below the available data for developed countries (see indicator Average number of years of schooling in the Development Report 2007).

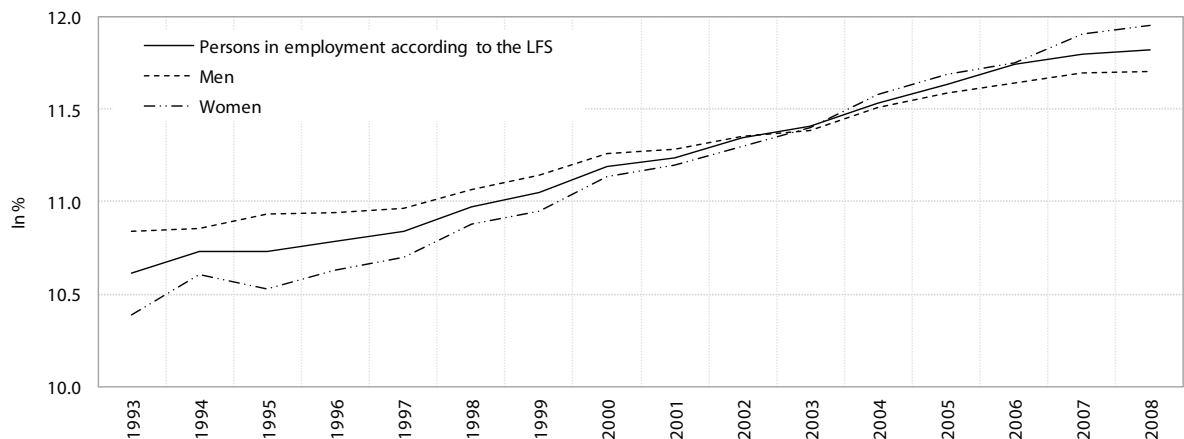
Table: Average years of schooling attained by persons in employment, Slovenia in 1995–2009

	1995	2000	2005	2006	2007	2008	2009 <sup>1</sup>
<b>Persons in employment according to the LFS</b>	<b>11.1</b>	<b>11.5</b>	<b>11.9</b>	<b>12.0</b>	<b>12.0</b>	<b>12.1</b>	
<b>Persons in employment according to the statistical register of employment</b>	<b>11.0</b>	<b>11.3</b>	<b>11.6</b>	<b>11.7</b>	<b>11.7</b>	<b>11.7</b>	<b>12.0</b>
Agriculture, forestry, hunting, fishery	10.3	10.7	10.6	10.5	10.62	10.6	10.8
Mining and quarrying	10.3	10.6	11.1	11.1	11.2	11.2	11.5
Manufacturing	10.1	10.3	10.6	10.6	10.7	10.8	11.0
Electricity, gas and water supply	11.2	11.6	11.9	12.0	12.1	12.1	11.8
Construction	10.2	9.9	10.0	10.0	10.0	9.9	10.2
Wholesale and retail trade; repair of motor vehicles	11.2	11.4	11.6	11.7	11.7	11.7	12.0
Hotels and restaurants	10.2	10.4	10.5	10.6	10.6	10.6	10.8
Transport, storage and communications	10.9	11.1	11.3	11.4	11.4	11.4	11.4
Financial intermediation	12.7	12.9	13.3	13.4	13.5	13.6	13.7
Real estate, renting and business activities	12.0	12.2	12.4	12.4	12.5	12.6	12.9
Public administration, defence & social insurance	12.9	13.3	13.6	13.7	13.8	13.9	14.0
Education	13.0	13.4	13.9	14.0	14.1	14.1	14.2
Health care and social assistance	11.9	11.8	12.7	12.8	12.9	12.9	13.0
Other community, social and personal services	11.8	11.9	12.3	12.3	12.3	12.4	12.6

Source: Persons in employment (farmers excluded) by level of education, activity and sex on 31 December (for 2009: 30 September), SORS; calculations by IMAD.

Note: <sup>1</sup>Given the improved methodology for gathering and monitoring data on the highest attained level of education and the changed classification of activities, calculations for 2009 are not comparable with data for previous years. LFS – Labour Force Survey.

Figure: Average number of years of schooling of the adult population by sex, 1993–2008



Source: SI-STAT data portal - Labour Market, 2010; calculations by IMAD.  
Note: LFS – Labour Force Survey.



## Ratio of students to teaching staff

*The ratio of the number of students<sup>1</sup> to the number of teaching staff<sup>2</sup> is a widely used indicator for measuring the quality of tertiary education.<sup>3</sup> From the viewpoint of economic development, in addition to participation in tertiary education, the number of graduates and the share of the population with a tertiary education, the quality of the acquired knowledge, competences and skills is also relevant. On the international level, quality is often measured by the ratio of students to teaching staff. A lower ratio (lower number of students per teacher) facilitates greater use of active teaching modes, as well as enhanced communication between students and teachers, thus increasing the possibilities for a high-quality teaching process.*

*The ratio of students to teaching staff in Slovenia is improving, yet the gap behind other European countries is still considerable. In 2007 (academic year 2006/2007), for which the latest international data are available, the ratio of students to teaching staff was 21.0 in Slovenia, lagging notably behind the average of the 19 EU countries (that are also members of the OECD) where this ratio was 16.0. In that year, Slovenia lagged significantly behind the economically most developed Northern European countries, such as Sweden, Norway and Iceland, where the ratio is the lowest, and was only better than Greece. Slovenia's ratio is also worsened by formal participation in tertiary education that does not result from interest in acquiring knowledge. In 2007, the ratio of students to teaching staff improved more than in most other European countries, and the gap behind the EU-19 average narrowed. The ratio continued to improve also in the academic years 2007/2008 and 2008/2009, reaching 20.1 in 2008/2009. The ratio of students to teaching staff in tertiary education is improving due to a growing number of teaching staff resulting from the introduction of the Bologna process and reduced enrolment in 2007/2008 and 2008/2009. In the period 2000–2007, the ratio in Slovenia improved more than in most other European countries.*

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<sup>1</sup> All students participating in tertiary education are covered in the equivalent of full-time study = full-time students + 1/3 (i.e. part-time students + candidates for graduation + postgraduate students) (SORS, Teaching staff at higher education institutions and vocational colleges, Slovenia, 2006).

<sup>2</sup> The teaching staff comprises instructional and professional support staff at vocational colleges (vocational-college lecturers, exercise instructors and laboratory assistants) and teaching faculty (assistant professors, associate professors and full professors, lecturers and senior lecturers, and lectors), excluding research faculty members and faculty assistants (assistants, librarians, specialist advisors, senior researchers, researchers and skills teachers).

<sup>3</sup> Tertiary education includes full-time and part-time post-secondary vocational studies, higher undergraduate studies and postgraduate studies.

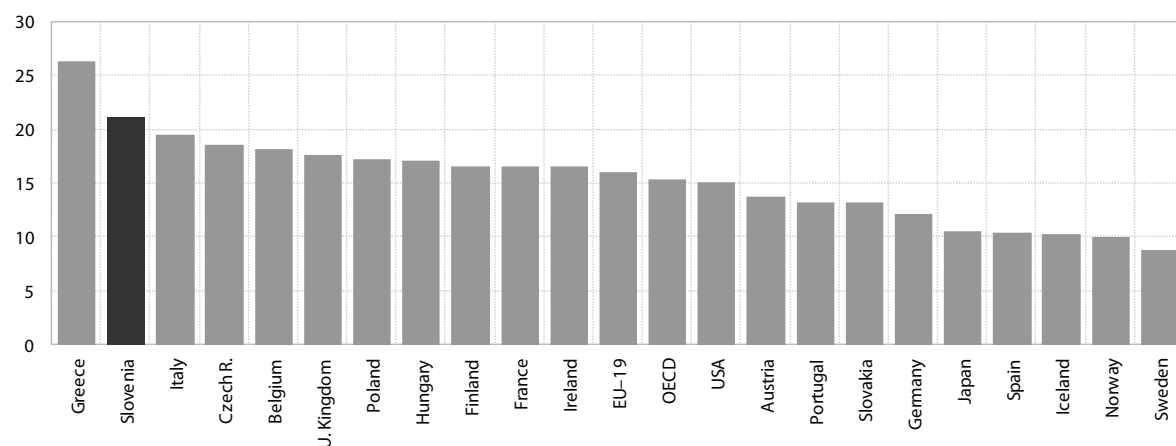
Table: Ratio of students to teaching staff in tertiary education, Slovenia and OECD countries, 1998–2007

	1998	2000	2005	2006	2007
<b>OECD</b>	<b>14.8</b>	<b>14.7</b>	<b>15.8</b>	<b>15.3</b>	<b>15.3</b>
<b>EU-19</b>	<b>N/A</b>	<b>N/A</b>	<b>16.4</b>	<b>16.0</b>	<b>16.0</b>
Austria	N/A	N/A	15.3	13.0	13.7
Belgium	N/A	19.9	19.6	18.7	18.1
Czech Rep.	13.5	13.5	19.0	18.5	18.6
Finland	N/A	N/A	12.5	15.8	16.6
France	N/A	18.3	17.3	17.0	16.6
Greece	26.3	26.8	30.2	27.8	26.3
Ireland	16.6	17.4	17.4	17.9	16.5
Italy	N/A	22.8	21.4	20.4	19.5
Hungary	11.8	13.1	15.9	16.5	17.1
Germany	12.4	12.1	12.2	12.4	12.1
Poland	N/A	14.7	18.2	17.3	17.2
Portugal	N/A	N/A	N/A	12.7	13.2
Slovakia	N/A	10.2	11.7	12.4	13.2
<b>Slovenia</b>	<b>N/A</b>	<b>23.8</b>	<b>22.7</b>	<b>21.4</b>	<b>21.0</b>
Spain	17.2	15.9	10.6	10.8	10.4
Sweden	9.0	9.3	8.9	9.0	8.8
U. K.	17.7	17.6	18.2	16.4	17.6
Island	9.3	7.9	11.0	10.7	10.2
Japan	11.8	11.4	11.0	10.8	10.6
Norway	13.0	12.7	N/A	10.5	10.0
USA	14.6	13.5	15.7	N/A	15.1

Source: Education at a Glance, (OECD), Nos. 2002–2009; Teaching staff at higher-education institutions and vocational colleges, Slovenia (SORS) 2007; Teaching staff at higher-education institutions and vocational colleges, Slovenia (SORS) 2006; Teaching staff at higher-education institutions and vocational colleges, Slovenia (SORS) 2007; Rapid Reports No. 5; Teaching staff at higher-education institutions and vocational colleges (SORS) 2001; Rapid Reports No. 37 – Student enrolment in tertiary education (SORS), 2007, SI-STAT – Demography and social statistics – Education, 2009.

Note: <sup>1</sup> Data are only available for those EU countries that are members of OECD; N/A – not applicable.

Figure: Ratio of students to teaching staff in tertiary education, Slovenia and OECD countries, 2007 (academic year 2006/2007)



Source: Education at a Glance (2009); Teaching staff at higher education institutions and vocational colleges, 2007; SORS; SI-STAT data portal – Demography and social statistics – Education, 2009, calculations by IMAD.

## Public expenditure on education

*Total public expenditure on education<sup>1</sup> as a share of GDP<sup>2</sup> is relatively high.* In 2007 (latest domestic data), it accounted for 5.19% of GDP, while in 2006 (latest international data) Slovenia exceeded the EU average by 0.63 p.p. The relatively high share of GDP appropriated for education is related mainly to the high level of participation in education.<sup>3</sup> In 2000–2006, public expenditure on education in Slovenia dropped (by 0.11 p.p.), which is contrary to the EU average, which improved (EU: by 0.16 p.p.).

*The EU average is exceeded in particular by public expenditure appropriated for transfers.* In 2007, it totalled 8.0%, which is 0.5 p.p. less than in 2006. On this indicator, Slovenia exceeded the EU average in 2000–2006. The share of public expenditure appropriated for transfers grows parallel with the level of education. At the level of pre-primary and primary education, transfers are minimal. The share of transfers at the level of secondary education totalled 12.1% in 2007, while tertiary education accounted for the highest share (2007: 22.8%). Slovenia thus differs significantly from the EU average in its high share of public expenditure appropriated for transfers in tertiary education (2006: Slovenia: 23.4%; EU: 16.6%) and ranks in the upper third of the EU countries. In contrast to some EU countries, Slovenia has not introduced tuition fees for full-time tertiary students, which decreases motivation and results in lower efficiency of studies (long average duration).

*In 2007 (for which the latest data are available), public expenditure on education as a share of GDP dropped at all levels of education.* Compared to 2006, its share in GDP fell by 0.47 p.p. The largest drop was recorded in secondary education. Here, public expenditure as a share of GDP also strongly fell in the period 2000–2007, owing in particular to demographic changes (the less numerous cohort at enrolment age). To a lesser extent, public expenditure on education decreased in primary education. At primary and secondary levels, a relative decline in public expenditure was recorded by several EU countries in 2001–2006, also due to demographic changes (fewer children and thus lower enrolment).

In 2000–2007, public expenditure in GDP rose only at pre-primary level, mainly as a consequence of higher participation of children in organised forms of pre-school education. In 2001–2006, this expenditure also increased in about two thirds of EU countries. At tertiary level, the share of public expenditure for education has been decreasing since 2005 but was nevertheless above the EU average in 2006, mainly because of the high participation of young people in tertiary education in Slovenia.

<sup>1</sup> Total public expenditure on education comprises total budgetary expenditure on the formal education of young people and adults at state and municipal levels. This includes direct public expenditure on educational institutions and transfers to households (grants, subsidised meals, transport, accommodation, textbooks, etc.). Financial data for Slovenia were collected in accordance with an internationally comparable methodology using the UOE questionnaire (the common questionnaire of UNESCO, OECD and Eurostat).

<sup>2</sup> Total expenditure on education as a share of GDP is calculated based on the revised GDP released by SUOS (16 October 2009).

<sup>3</sup> See chapters 2 and 4 on participation in education.

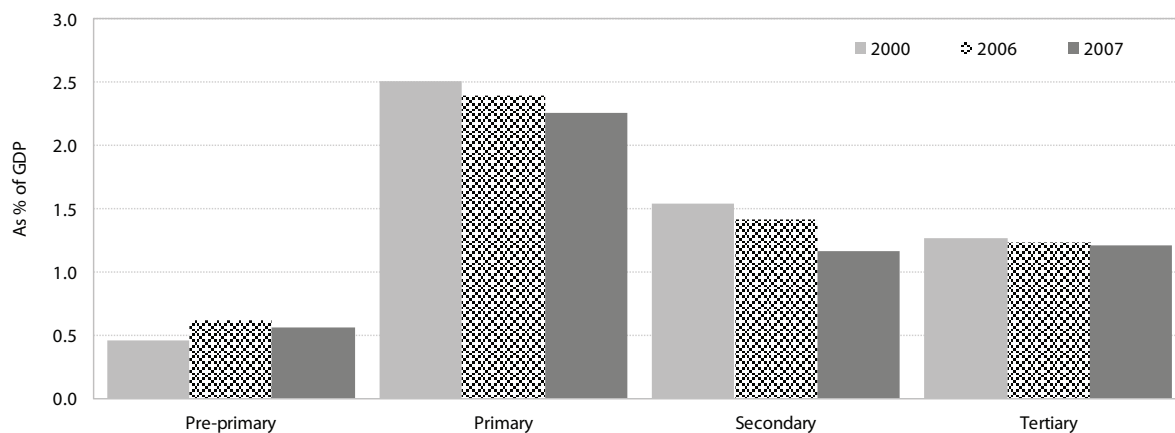
Table: Total public expenditure on education, EU-27, 1995–2006

	1995	2000	2001	2002	2003	2004	2005	2006
<b>EU-27</b>	<b>N/A</b>	<b>4.88</b>	<b>4.99</b>	<b>5.10</b>	<b>5.14</b>	<b>5.06</b>	<b>5.04</b>	<b>5.04</b>
Austria	6.04	5.74	5.79	5.72	5.57	5.52	5.46	5.44
Belgium	N/A	N/A	6.00	6.11	6.05	5.99	5.95	6.00
Bulgaria	3.39	3.97	3.78	4.03	4.23	4.51	4.51	4.24
Cyprus	4.63	5.35	5.93	6.55	7.29	6.70	6.92	7.02
Czech Rep.	N/A	3.97	4.09	4.32	4.51	4.37	4.26	4.61
Denmark	7.67	8.29	8.44	8.44	8.33	8.43	8.30	7.98
Estonia	5.88	6.10	5.28	5.48	5.31	4.94	4.92	4.80
Finland	6.85	5.89	6.04	6.21	6.42	6.42	6.32	6.14
France	6.04	6.03	5.94	5.88	5.90	5.79	5.65	5.58
Greece	2.87	3.39	3.50	3.57	3.58	3.82	4.00	N/A
Ireland	5.07	4.28	4.27	4.29	4.39	4.70	4.75	4.74
Italy	4.85	4.55	4.86	4.62	4.74	4.58	4.43	4.73
Latvia	6.19	5.64	5.64	5.71	5.32	5.07	5.06	5.07
Lithuania	5.12	5.90	5.89	5.84	5.16	5.19	4.90	4.84
Luxembourg	4.26	N/A	3.74	3.79	3.77	3.86	3.78	3.41
Hungary	5.39	4.42	5.01	5.38	5.86	5.43	5.46	5.41
Malta	N/A	4.49	4.46	4.38	4.70	4.82	6.76	N/A
Germany	4.62	4.46	4.49	4.70	4.70	4.59	4.53	4.40
Netherlands	5.06	4.96	5.06	5.15	5.42	5.46	5.48	5.46
Poland	5.10	4.89	5.42	5.41	5.35	5.41	5.47	5.25
Portugal	5.37	5.42	5.61	5.54	5.57	5.29	5.39	5.25
Romania	N/A	2.86	3.25	3.51	3.45	3.28	3.48	N/A
Slovakia	5.01	3.93	4.00	4.30	4.30	4.19	3.85	3.79
<b>Slovenia</b>	<b>5.72</b>	<b>5.78</b>	<b>5.89</b>	<b>5.78</b>	<b>5.82</b>	<b>5.76</b>	<b>5.67</b>	<b>5.67</b>
Spain	4.66	4.28	4.23	4.25	4.28	4.25	4.23	4.28
Sweden	7.22	7.21	7.12	7.43	7.30	7.18	6.97	6.85
U. K.	5.02	4.46	4.57	5.11	5.24	5.16	5.37	5.48

Source: Eurostat Portal Page – Population and Social Conditions, 2009; Expenditure on formal education, Slovenia, 2005–2007 – SORS (2009); Expenditure on formal education, 2004 – SORS (2007); Expenditure on formal education, (2006) – SORS; Statistical Yearbook 2008 – SORS (2008).

Note: Indicators for Slovenia were calculated on the basis of the latest revision of GDP (October 2009); N/A – not available.

Figure: Total public expenditure on formal education, by level of education, as a % of GDP, Slovenia, 2000–2007



Source: Eurostat Portal Page – Population and Social Conditions, 2009; Expenditure on formal education, Slovenia, 2005–2007 – SORS (2009).

Note: Indicators for Slovenia were calculated on the basis of the latest revision of GDP (October 2009).

## Expenditure on educational institutions per student

*Expenditure on educational institutions per student measured in EUR PPS<sup>1</sup> in Slovenia exceeds the EU average, and recorded further growth in 2006 (latest available data).* The level of annual expenditure per student is an important factor as well as an (indirect) indicator of the quality of education. Higher annual expenditure per student allows better conditions for the teaching process (lower ratio of students to teaching staff, better equipment of educational institutions with teaching and other devices, better possibilities for professional development of teachers, etc). In the last year for which data are available (2006), the annual expenditure on educational institutions per student at all levels of formal education totalled EUR PPS 6,323.4, with Slovenia exceeding the EU average by EUR PPS 382.5, but still lagging behind the most economically developed European countries. Compared to the year before (2005), expenditure on educational institutions per student in Slovenia rose by EUR PPS 307.6, continuing the upward trend observed over the past years, while the 2006 increase even exceeded the EU average (by EUR PPS 265.1).

*Slovenia is also high on the international scale in terms of expenditure on educational institutions as a share of GDP per capita.* Taking into account the level of economic development measured by GDP per capita, Slovenia (30.5%) ranks significantly above the EU average (25.2%) and among the leading EU countries in terms of share of expenditure on educational institutions. Compared with 2005, expenditure on educational institutions expressed in relative terms (measured by GDP per capita) recorded a slight decline (by 0.1 p.p.), which is close to the EU average. Over a longer period of time (since 2001), however, it grew more than in the EU on average.

*In 2006, expenditure per student grew in primary and secondary education, but further decreased in tertiary education, where it was already low.* Annual expenditure on educational institutions per student totalled EUR PPS 6,965.4 in primary education and EUR PPS 5,292.7 in secondary education. At both levels, particularly in secondary education, expenditure most probably grew in relation to demographic changes (a less numerous cohort and lower number of students enrolled). Expenditure on educational institutions had also been increasing over a longer period of time (2001–2006); compared with 2001, the most evident growth was observed in primary education. In tertiary education, expenditure per student in 2006 equalled EUR PPS 6,516, which was far below the European average

(2006: EUR PPS 8,601.2). Compared with the previous year and contrary to the trend in most other European countries and the EU average, this expenditure declined both in 2006 and in 2001–2006. Although Slovenia equals the EU average with an annual expenditure on educational institutions in tertiary education of 1.2% of GDP, it nevertheless lags behind the EU average in terms of expenditure measured as a share of GDP per capita (Slovenia: 31.5%; EU: 36.5%). In 2006, the annual expenditure on educational institutions per student in tertiary education as a share of GDP per capita decreased more than in the EU on average (Slovenia: by 4.3 p.p.; EU average: by 0.6 p.p.), and the same applies to 2001–2006. The reason for such a wide gap is the high participation in tertiary education in Slovenia, which strongly exceeds the EU average. The relatively low expenditure per student in Slovenia reduces the possibility of improving the ratio of students to teaching staff and the quality of the teaching process and schooling.

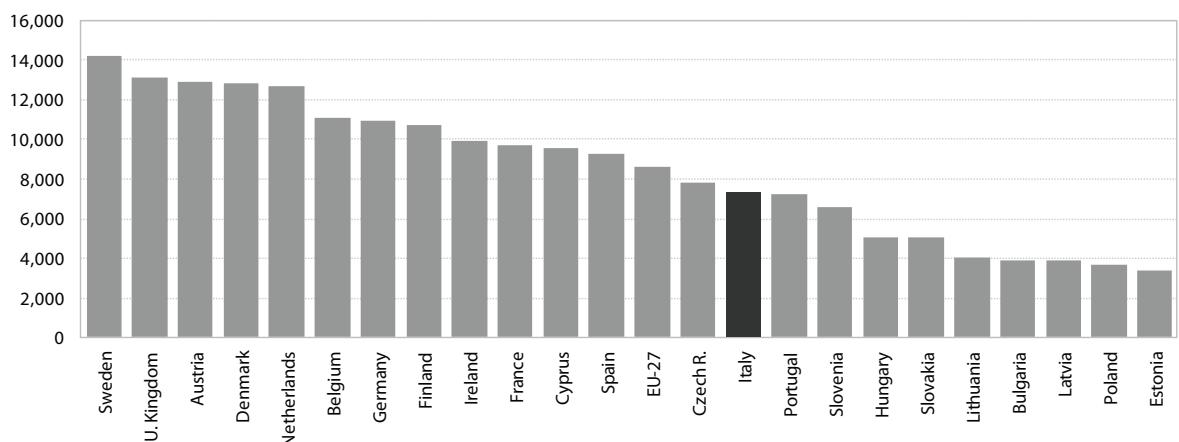
<sup>1</sup> Purchasing-power standards.

Table: Annual expenditure on educational institutions per student, in purchasing power standards (EUR PPS) and as a % of GDP per capita, 2001–2006

	In EUR PPS				Expenditure per student as a % of GDP per capita			
	2001	2004	2005	2006	2001	2004	2005	2006
<b>EU-27</b>	<b>5081.1</b>	<b>5490</b>	<b>5675.8</b>	<b>5940.9</b>	<b>24.6</b>	<b>24.7</b>	<b>25.3</b>	<b>25.2</b>
Austria	7001.9	7807.5	8092.1	8583.1	28.3	28.5	28.8	29.2
Belgium	6322	6253.8	6431.2	7012.9	25.9	23.9	23.9	25
Bulgaria	1326.2	1810.7	1952.7	2138.9	22.9	24.8	25.2	24.8
Cyprus	4953.1	5960.7	6584.2	7100.9	27.6	30.5	32.2	33.3
Czech Rep.	2786.5	3665.5	3792.3	4441.9	20.1	22.5	22.2	24.3
Denmark	7305.7	7648.9	8092.5	8329.5	28.9	28.1	29.1	28.7
Estonia	N/A	N/A	2824.9	3216.6	N/A	N/A	20.6	20.9
Finland	5285.8	6244.8	6201.9	6388.9	23.1	24.8	24.2	23.5
France	5931.3	6124.2	6295.4	6509.9	25.9	25.7	25.3	25.2
Greece	3237.7	4149.1	4484.8	N/A	18.9	20.4	21.5	N/A
Ireland	4636.5	5725.3	6025.9	6578.1	17.7	18.6	18.6	18.9
Italy	6384.6	5919.1	5906.1	6464.7	27.4	25.6	25.1	26.3
Latvia	1995.1	2403.8	2682.6	3126.1	26	24.3	24.6	25.2
Lithuania	1860.3	2356	2447.3	2761.4	22.7	21.6	20.6	21
Luxembourg	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hungary	N/A	3643.6	3801.6	4008.1	N/A	26.7	26.8	26.7
Malta	3306.7	4078	5914.1	N/A	21.5	24.4	33.6	N/A
Germany	5815.2	6187.9	6620	6461.6	25.2	24.6	25.2	23.6
Netherlands	6265.8	7019.8	7317	7477.2	23.7	25.1	24.9	24.2
Poland	2183.8	2724	3068.1	3061.7	23.2	24.8	26.6	24.8
Portugal	4037.2	4234.9	4813.8	5006.7	26.4	26.2	27.8	27.8
Romania	N/A	N/A	1437.9	N/A	N/A	N/A	18.3	N/A
Slovakia	1845.6	2595	2694.9	2940	17.8	21	19.9	19.6
<b>Slovenia</b>	<b>4647.5</b>	<b>5529.5</b>	<b>6015.8</b>	<b>6323.4</b>	<b>29.5</b>	<b>29.6</b>	<b>30.6</b>	<b>30.5</b>
Spain	4526.5	5260.2	5681.5	6141.3	23.3	24.1	24.8	25
Sweden	6095.6	7133.7	7029.6	7411	25.4	26.4	26	25.8
U. K	5152.4	6051.4	7151.3	7937.4	22.1	23.2	26.1	28.2

Source: Eurostat Portal Page – Population and Social conditions, 2010.  
Note: PPS – purchasing-power standards; N/A – not available.

Figure: Expenditure on educational institutions per student, in EUR PPS in tertiary education, 2006



Source: Eurostat Portal Page – Population and Social Conditions, 2010.

## Gross domestic expenditure on research and development

After a one-year decline, gross domestic expenditure on R&D expressed as a percentage of GDP increased in 2008. Gross domestic expenditure on R&D (GERD) as a share of GDP rose by 0.21 p.p. over the preceding year to 1.66%,<sup>1</sup> also owing to the higher number of reporting units in the Slovenian business sector in 2008.<sup>2</sup> In real terms, GERD increased by 16.6%, reaching EUR 616.9 m in 2008. Slovenia's gap behind the European average narrowed to 0.24 p.p. in 2008, the lowest value so far. Slovenia thus overtook some of the countries that ranked higher in 2007 (Luxembourg, the Netherlands and the Czech Republic), maintaining its position as the highest-ranking new Member State.

The share of the business sector in the funding of GERD increased in 2008 after a drop in the preceding year, one of the reasons being the higher number of reporting units. In 2008, the business sector's investment in R&D rose by 25.7% in real terms. The share of the business sector in funding of GERD also increased by 4.5 p.p. to 62.8%. Given the modest growth of the government sector's expenditure in funding of R&D (2.5% in real terms), its share dropped, while funding from abroad and the share of higher education changed only slightly. In the framework of measures to combat the crisis, 2009 saw a significant increase of budgetary funds appropriated for R&D (by 46% in nominal terms).<sup>3</sup> The business sector's expenditure on investment in R&D in 2008 grew and accounted for 1.04% of GDP, which is the highest value recorded since 2000. The business sector thus achieved half of the Barcelona target (2% of GDP by 2013). Slovenia's gap to the EU average narrowed as the share of the business sector in the funding of GERD in the EU stayed at a similar level to the previous year's.

<sup>1</sup> First release, final data, 6 November 2009, SORS.

<sup>2</sup> Data on GERD in 2008 covered a larger number of reporting units (in the business sector), making expenditure in GDP grow faster than it would have without increasing the number of reporting units. The sample used as a basis for SORS assessment of GERD as a share of GDP in 2008 covered 100 businesses more than in the previous year. In 2007, 289 businesses on average appropriated EUR 1.036 m, while in 2008 392 businesses on average appropriated EUR 1.016 m. The average amount by enterprise in 2008 decreased, probably as a result of the larger number of small enterprises. Improvements and better coverage of reporting units to assess R&D is in accordance with Eurostat guidelines; nevertheless, interpretation of such data (including a larger number of reporting units) requires a certain degree of caution, particularly as regards comparisons between years and countries.

<sup>3</sup> First release, 25 February 2010, SORS.

The number of taxpayers claiming tax relief in relation to investment in R&D grew in 2008. Tax relief for investment in research and development was claimed by 483 taxpayers (2007: 461), but the volume of tax relief increased only slightly (by 3.1% to EUR 62.6 m). Most relief was claimed by 32 taxpayers from the manufacture of pharmaceutical preparations (35.4%), electrical apparatus (8.5%), and motor vehicles, trailers and semi-trailers (8.3%). Regional tax relief for R&D was claimed by 195 taxpayers (2007: 164), and its volume doubled compared to the year before (EUR 13.4 m). Here, too, claims were presented by a small number of enterprises from the manufacture of pharmaceutical preparations (32.9%) and electrical apparatus (16.1%).

Most financing for research and development in 2008 was intended for technical and technological sciences, while less than a tenth was appropriated for social sciences and humanities. Technical and technological sciences, the share of which has remained almost unchanged since 2003 (2008: 45.7%), and natural sciences together receive the largest portion of funds intended for R&D.<sup>4</sup> The share of social sciences and humanities has not changed significantly since 2005 (2008: 9.2%).

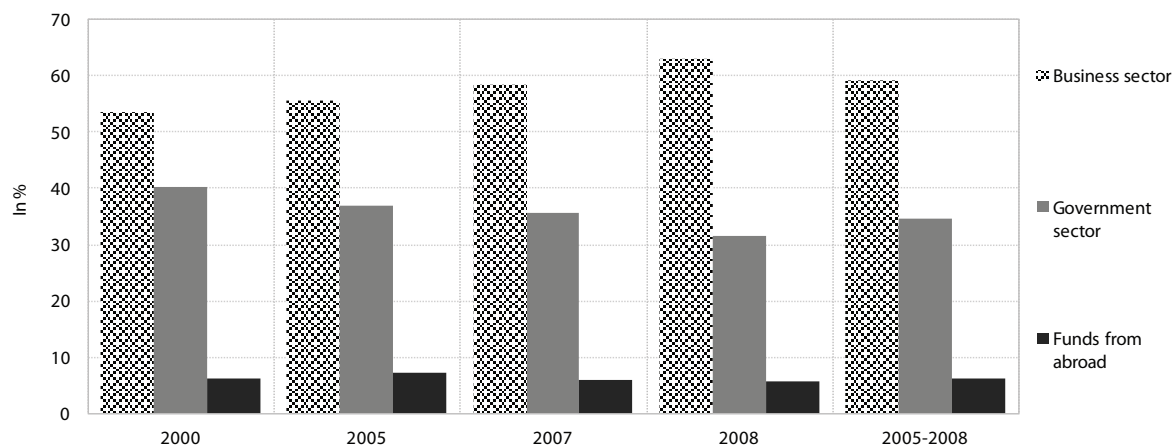
<sup>4</sup> 2008 saw a significant growth in the share of funding of R&D in natural sciences (from 17.5% in 2007 to 40.4% in 2008). This was mainly due to changes in reporting by certain units of the business sector, which in previous years classified their expenditure on R&D in medical sciences and in 2008 in natural sciences (therefore, the share of medical sciences went down from 25.4% in 2007 to 3.3% in 2008), thus increasing the share of natural sciences.

Table: Gross domestic expenditure on R&amp;D, Slovenia and EU Member States, % of GDP

	1996	2000	2005	2006	2007	2008
<b>EU-27</b>	<b>1.75</b>	<b>1.85</b>	<b>1.82</b>	<b>1.85</b>	<b>1.85</b>	<b>1.90</b>
Austria	1.60	1.94	2.45	2.47	2.54	2.67
Belgium	1.77	1.97	1.83	1.86	1.90	1.92
Bulgaria	0.52	0.52	0.49	0.48	0.48	0.49
Cyprus	N/A	0.24	0.40	0.43	0.45	0.47
Czech Rep.	0.97	1.21	1.41	1.55	1.54	1.47
Denmark	1.84	2.24	2.46	2.48	2.56	2.73
Estonia	N/A	0.60	0.93	1.14	1.11	1.29
Finland	2.52	3.35	3.48	3.45	3.47	3.72
France	2.27	2.15	2.10	2.10	2.04	2.02
Ireland	1.30	1.12	1.25	1.25	1.28	1.43
Italy	0.99	1.05	1.09	1.13	1.18	1.18
Latvia	0.42	0.44	0.56	0.70	0.59	0.61
Lithuania	0.50	0.59	0.75	0.79	0.81	0.80
Luxembourg	N/A	1.65	1.56	1.65	1.58	1.62
Hungary	0.65	0.79	0.94	1.00	0.97	1.00
Malta	N/A	N/A	0.57	0.61	0.58	0.54
Germany	2.19	2.45	2.49	2.53	2.53	2.63
Netherlands	1.98	1.82	1.79	1.78	1.71	1.63
Poland	0.65	0.64	0.57	0.56	0.57	0.61
Portugal	0.57	0.76	0.81	1.02	1.21	1.51
Romania	N/A	0.37	0.41	0.45	0.52	0.59
Slovakia	0.91	0.65	0.51	0.49	0.46	0.47
<b>Slovenia</b>	<b>1.29</b>	<b>1.39</b>	<b>1.44</b>	<b>1.56</b>	<b>1.45</b>	<b>1.66</b>
Spain	0.81	0.91	1.12	1.20	1.27	1.35
Sweden	N/A	N/A	3.60	3.74	3.61	3.75
U. K.	1.83	1.81	1.73	1.75	1.82	1.88

Source: Eurostat Portal Page – Science and Technology – Research and Development, 2010.

Note: Data for 2008 for Belgium, Bulgaria, Estonia, Ireland, France, Italy, Cyprus, Luxembourg, Malta, Netherlands, Austria, Poland, Portugal, Denmark, Sweden, United Kingdom and Germany are provisional, data for EU-27 for 2007 and 2008 is an estimate by Eurostat. Note: N/A – not available.

 Figure: Gross domestic R&D expenditure by source of financing, Slovenia, 2000–2008, %<sup>1</sup>


Source: Research and development, Slovenia, 2000–2008 (SORS), 2009.

Note: <sup>1</sup>Due to their very small shares, the higher education and private non-profit sectors are not represented in the GERD funding structure (in 2005–2008, they contributed on average 0.5% to the total GERD).



## Science and technology graduates

*The number of science and technology graduates<sup>1</sup> rose in 2008<sup>2</sup> for the second consecutive year. Compared to 2007, it rose by 7.1% and totalled 3,037. Nevertheless, on the number of science and technology graduates, Slovenia lagged behind the EU average in 2007<sup>3</sup> and even more in 2000–2007 when its growth was among the slowest in Europe (Slovenia: 8.3%, EU average: 28.8%). Over the past year, trends were more favourable in engineering, manufacturing and construction, where the number of graduates rose by 11.0%, and less so in science, mathematics and computing where their number decreased by 4.2%. Over a longer period of time (2000–2008), the total number of graduates increased by 16.0%, mainly in science, mathematics and computing.*

*As regards the number of graduates in science and technology per 1,000 population, Slovenia lags far behind the EU average, and according to the latest data, the gap has widened even further. In 2008 Slovenia had 10.4 graduates in this field per 1,000 inhabitants (aged 20–29), which is 0.6 more than in the previous year. However, in 2007, Slovenia lagged strongly behind the EU average (Slovenia: 9.8 graduates, EU: 13.4 graduates) and most economically developed EU countries, and the gap to other countries in 2000–2007 even worsened since the increase in 2000–2007 was much smaller than on average in the EU (Slovenia: 0.9; EU: 3.3).*

*The share of science and technology graduates in the total number of graduates slightly increased in the last year (2008) but remains significantly lower than in 2000. Rising for the second consecutive year, it totalled 17.6% (2007: 17.0%) but still lags behind the 2000 level (by 5.2 p.p.). Following the trends in the number of graduates, this period saw a significant decline in the share of graduates in engineering, manufacturing and construction, while the number of graduates in science, mathematics and computing grew. This trend was reversed in the last year. In the proportion of science and technology graduates, Slovenia in 2007 lagged far behind the EU average (by 5.3 p.p.). Although narrowing the gap compared with 2006, it was still much larger than in 2000.*

*The growth in the number of students enrolled in science and technology slowed down in 2008/2009. Enrolment in science and technology in 2008 increased (by 3.9%), yet much more slowly than in 2006 and 2007. 2008 saw an increase in the number of students enrolled in both sub-fields of education, mostly in engineering, manufacturing and construction. As with graduates, the trends are reversed if considered over a longer period of time (2000–2008), since the largest increase was recorded in science, mathematics and computing. In 2007, total enrolment in science and technology increased more than the EU average (Slovenia: 6.7%; EU: 2.7%), while in 2000–2007 the growth was similar to the EU average. Enrolment in science and technology also increased in 2008/2009. It totalled 25.2%, 1.2 p.p. more than in the previous year. Yet enrolment, too, lags behind the EU average. In 2007, the gap (2.6 p.p.) was the narrowest seen in the 2000–2007 period.*

<sup>1</sup> Science and technology indicators according to ISCED 97 comprise two broader fields: "science, mathematics and computing" (ISC 42, 44, 46 and 48) and "engineering, manufacturing and construction" (ISC 52, 54 and 58). Within this framework, the International Standard Classification of Education, ISCED 97, and Eurostat Fields of Education and Training Manual, 1999, were taken into consideration. The indicators cover the total number of graduates of tertiary education in the field of science and technology who completed their studies in the observed calendar year.

<sup>2</sup> Data on graduates refer to calendar years (the latest to 2008), and those on students enrolled to the 2000/2001–2008/2009.

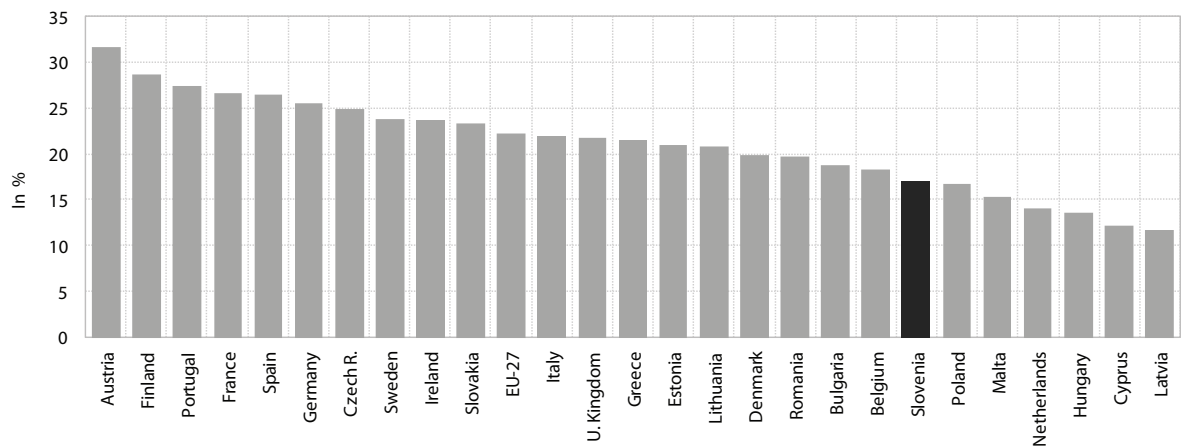
<sup>3</sup> Latest available data for EU countries.

Table: Number of science and technology graduates per 1,000 inhabitants aged 20–29, 1998–2007

	1998	2000	2005	2006	2007
<b>EU</b>	<b>8.8</b>	<b>10.1</b>	<b>13.2</b>	<b>13.0</b>	<b>13.4</b>
Austria	7.9	7.2	9.8	10.8	11.0
Belgium	N/A	9.7	10.9	10.6	14.0
Bulgaria	5.5	6.6	8.6	8.5	8.4
Cyprus	N/A	3.4	3.6	4.3	4.2
Czech Rep.	4.6	5.5	8.2	10.0	12.0
Denmark	8.1	11.7	14.7	13.8	16.4
Estonia	3.3	7.8	12.1	11.2	13.3
Finland	15.9	16.0	18.1	17.9	18.8
France	18.5	19.6	22.5	20.7	20.5
Greece	N/A	N/A	10.1	N/A	8.5
Ireland	22.9	24.2	24.5	21.4	18.7
Italy	5.1	5.7	12.4	13.0	8.2
Latvia	6.1	7.4	9.8	8.9	9.2
Lithuania	9.3	13.5	18.9	19.5	18.1
Luxembourg	1.4	1.8	N/A	N/A	N/A
Hungary	5.0	4.5	5.1	5.8	6.4
Malta	1.3	3.4	3.4	5.0	7.1
Germany	8.8	8.2	9.7	10.7	11.4
Netherlands	6.0	5.8	8.6	9.0	8.9
Poland	4.9	6.6	11.1	13.3	13.9
Portugal	5.2	6.3	12.0	12.6	18.1
Romania	4.2	4.5	10.3	10.5	11.9
Slovakia	4.3	5.3	10.2	10.3	11.9
<b>Slovenia</b>	<b>8.0</b>	<b>8.9</b>	<b>9.8</b>	<b>9.5</b>	<b>9.8</b>
Spain	8.0	9.9	11.8	11.5	11.2
Sweden	7.9	11.6	14.4	15.1	13.6
U. K.	15.5	18.5	18.4	17.9	17.5

Source: Eurostat Portal Page – Population and Social Conditions – Education and training, 2010.  
Note: N/A – not available.

Figure: Share of science and technology graduates in total number of graduates, Slovenia and EU countries, 2007, %



Source: Eurostat Portal Page – Population and Social Conditions – Education and training, 2010.

## Patents and researchers

*In terms of number of patent applications filed at the European Patent Office (EPO), Slovenia is narrowing the otherwise significant gap to the European average. Although the number of patent applications at the EPO grew compared to the previous period (2000–2004), Slovenia in 2005–2008 still filed less than half of the EU average number of patent applications per capita. According to available data, Slovenian applicants in 2008 filed 63.7 patent applications per million inhabitants, compared with 131.1 across the EU.<sup>1</sup> Slovenia ranks 14<sup>th</sup> among the EU countries and exceeds almost all new Member States (with the exception of Malta and Cyprus) and some Southern European countries (Spain, Portugal and Greece). The other new Member States have reduced the gap in this area much more slowly and are far behind the EU average. The number of patents in a single country depends on a variety of factors, but there seems to be a strong correlation between the number of patents and the business sector's expenditure on R&D.<sup>2</sup> Most patent applications filed by Slovenia at the EPO are classified according to the International Patent Classification (IPC) among: human necessities,<sup>3</sup> performing operations<sup>4</sup> and transport, and chemistry and metallurgy. The number of patent applications in these categories makes up two thirds of all patent applications (EU average: less than a half).<sup>5</sup>*

*The number of researchers<sup>6</sup> continued to rise in 2008, and their structure by field of employment improved. In 2008, Slovenia had 12.5% more researchers than the year before, with the highest rise (by 18.9%) recorded in the business sector.<sup>7</sup> The share of the latter grew for the second consecutive year and totalled 43.5% of all researchers, which is the highest value achieved in the observed period. Since there was no increase in the share of researchers in the business sector in the EU (they made up 45.9% of all researchers), Slovenia was able to narrow its gap behind EU countries. More so than elsewhere in the EU (by 0.4 p.p. to 54.1%), Slovenia increased the share of researchers among all R&D staff in the business sector (by 0.8 p.p. to 49.3%). The government sector and*

*higher education together employ more than half of Slovenian researchers (2008: 56.2%).<sup>8</sup> This share has been decreasing over the past three years (2005: 62.6%) but still remains higher than the EU average (2008: 53.0%).*

*In most EU countries, the number of researchers in the business sector positively reflects in the number of patent applications filed at the EPO. The correlation between these two indicators has been significant since 2003 and is stronger than the link between the total number of researchers and patent applications.<sup>9</sup> It also remained strong in the period between 2005 and 2008. EU Member States with more researchers in the business sector file, as a rule, more patent applications. This correlation is somewhat weaker in the new Member States,<sup>10</sup> where the institutional setting that supports patents is also weaker than in more developed countries.*

<sup>1</sup> In 2008, Slovenian applicants filed 129 patent applications at the EPO, which is 12.2% more than in 2007, when they filed 115 applications (EPO Annual Report 2008, 2009).

<sup>2</sup> Economic Mirror (IMAD), February 2009.

<sup>3</sup> Human necessities include agriculture, food and tobacco, personal and domestic articles, health, and amusement.

<sup>4</sup> Performing operations include separating, mixing, shaping, printing.

<sup>5</sup> The latest available data refer to 2005.

<sup>6</sup> Expressed as FTE – full-time equivalent.

<sup>7</sup> Similarly as in expenditure on R&D, the higher number of researchers in the business sector is partly due to larger number of reporting units. See the indicator *Gross domestic expenditure on R&D*.

<sup>8</sup> Of which 30.7% are in the government sector and 25.5% in higher education.

<sup>9</sup> The correlation was calculated on the basis of data on the number of researchers in the business sector and the number of patent applications. Both were converted to a common denominator, i.e. population in millions. In 2005, the correlation between the number of researchers in the business sector and the number of patent applications in the EU (per million population) was 0.878, while between the total number of researchers and patent applications it was 0.803. In 2008, correlation was lower for both business sector researchers (0.810) and total researchers (0.668).

<sup>10</sup> In 2005 the correlation between both indicators in new Member States was 0.613 (2008: 0.307).

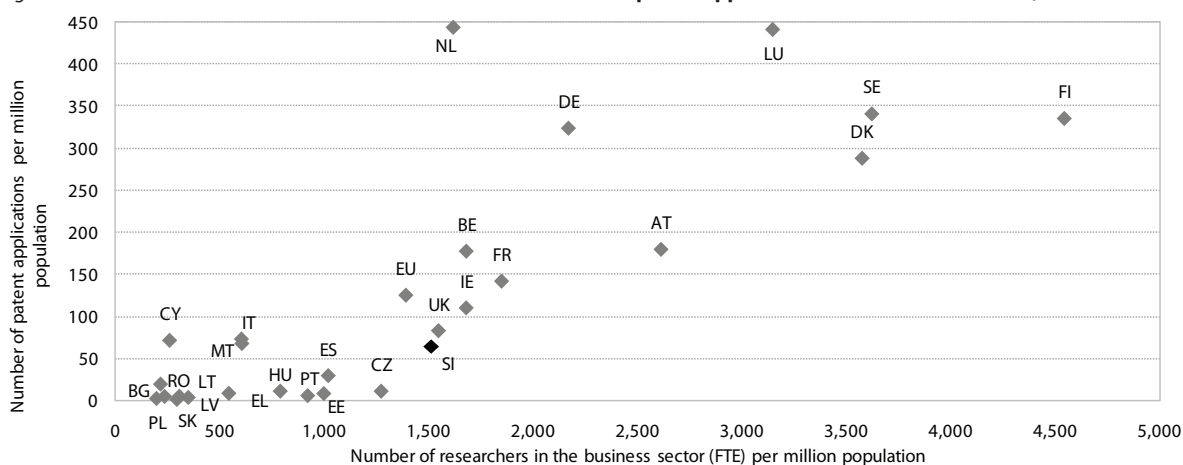
Table: Number of patent applications at EPO, per million population

	1995–1999	2000–2004	2005	2006 <sup>1</sup>	2007 <sup>2</sup>	2008 <sup>2</sup>
<b>EU</b>	<b>84.2</b>	<b>106.5</b>	<b>112.2</b>	<b>114.9</b>	<b>125.1</b>	<b>131.1</b>
Belgium	104.9	127.0	134.8	137.9	179.5	178.1
Bulgaria	0.9	2.0	3.1	3.5	2.1	2.0
Czech Rep.	4.3	8.9	10.3	10.8	9.3	10.7
Denmark	127.9	179.2	199.3	207.8	258.5	289.6
Germany	212.2	266.8	283.2	290.9	305.8	324.2
Estonia	3.9	5.9	4.7	7.1	9.7	5.2
Ireland	41.1	58.8	63.6	65.3	96.2	110.0
Greece	4.3	6.4	9.9	10.9	7.3	8.1
Spain	13.9	23.0	30.9	33.4	28.8	29.2
France	103.7	123.6	130.8	134.7	131.4	142.0
Italy	54.9	73.4	82.1	85.2	74.3	72.8
Cyprus	5.2	11.5	21.4	25.0	48.8	72.2
Latvia	1.2	3.1	8.0	9.8	8.8	19.4
Lithuania	0.5	2.2	2.6	3.2	2.7	3.3
Luxembourg	125.6	186.8	209.7	231.8	527.1	456.8
Hungary	7.1	12.2	13.2	13.7	9.6	10.7
Malta	8.3	12.2	27.9	33.8	56.4	65.8
Netherlands	151.2	220.8	207.2	205.8	427.9	444.3
Austria	111.5	158.4	178.9	185.7	166.2	179.1
Poland	0.7	2.2	3.1	3.4	2.8	4.4
Portugal	2.4	4.6	10.9	13.2	6.7	7.8
Romania	0.3	0.6	1.3	1.6	0.7	0.8
<b>Slovenia</b>	<b>13.4</b>	<b>36.5</b>	<b>52.9</b>	<b>57.6</b>	<b>57.2</b>	<b>63.7</b>
Slovakia	2.1	3.7	5.7	6.1	3.3	4.6
Finland	201.5	256.6	245.9	247.3	387.5	335.8
Sweden	218.5	236.3	258.3	269.6	299.9	341.9
U. K.	80.7	127.0	87.6	85.9	81.8	82.8

Source: Eurostat Portal Page – Science and Technology, 2009; Annual Report EPO 2008, 2009.

Note: <sup>1</sup>Data for 2006 are estimates released by Eurostat; <sup>2</sup>data for 2007 and 2008 are taken from EPO Annual Report 2008; data for EU is an estimate by IMAD based on calculations for Member States.

Figure: Number of researchers in the business sector and number of patent applications at EPO in EU countries, 2008



Source: Eurostat Portal Page – Science and Technology – Research and Development, 2010; Annual Report EPO 2008, 2009.

Note: AT – Austria, BE – Belgium, BG – Bulgaria, CY – Cyprus, CZ – Czech Republic, DE – Germany, DK – Denmark, EE – Estonia, EL – Greece, ES – Spain, EU – European Union, FI – FR – France, HU – Hungary, IT – Italy, LT – Latvia, LV – Lithuania, LU – Luxembourg, MT – Malta, NL – Netherlands, PL – Poland, PT – Portugal, RO – Romania, SE – Sweden, SI – Slovenia, SK – Slovakia, UK – United Kingdom.

## Internet use and access

*The growth in the number of Internet users accelerated slightly in 2009, and the use of Internet also saw a favourable shift in terms of structure. After a rather slow expansion of Internet use in 2007 and 2008, when also Slovenia's gap behind the EU average widened, the share of Internet users<sup>1</sup> aged 16–74 in 2009 again rose more evidently, by 6 p.p. to 62%. This narrowed the gap behind the EU where the share of Internet users in 2009 was 65%. Among the new Member States, the largest share of Internet users is recorded in Estonia where it exceeds 70%, while Slovenia is also outperformed by Slovakia and Latvia. Slovenia's progress in the past year was also structurally favourable. Major improvements were observed in the share of less educated Internet users, middle-aged population (35–54 years), and elderly population (55–74 years). Particularly in these population groups, mainly among less educated and elderly population, Slovenia has unrealised potential for increased Internet use, and the gap to the EU average further widened in 2007–2008. Thanks to the shift in 2009, the differences in this respect diminished, particularly in relation to the share of less educated Internet users. Similarly to the EU, most Internet users in Slovenia are young people (aged 16–24) whose share has been above the EU average ever since 2004 and is still increasing. The difference between the sexes in Internet use has been relatively small and in 2009 practically disappeared (men: 65%, women 64%).*

*After a year-long slowdown, 2009 saw a faster rise of the share of households with Internet access, which as in the EU has increased over recent years thanks to the expansion of broadband Internet access. In 2009, the share of households with Internet access reached 64%, which was 5 p.p. more than in the previous year. Internet access has been expanding rapidly since 2005 (2005: 48%) and was slightly above the EU average until 2007, but started to lag behind in 2008 and 2009 (by 1 p.p.). Another positive development is the expansion of broadband Internet connections, allowing more reliable and effective access and facilitating use of several new services (mainly audio and video transmission). The share of households with broadband access<sup>2</sup> reached 56% in 2009, which is about three times more than in 2005. This rapid growth of broadband connections was stimulated by the unbundling of the ISDN-ADSL loop in 2005, which increased the number of xDSL service-providers. Over the past three years (since 2007), when growth in the number of households with an xDSL connection slowed down, increasing importance has been attributed to cable access and low-cost access via UMTS. The gradual introduction of the technologically advanced optical network in the last year significantly increased the otherwise modest share of users of other broadband connections (from 2% in 2008 to 6% in 2009). Between*

2006 and 2008, Slovenia had a slightly higher share of households with broadband Internet access than the EU average, but its advantage gradually decreased and in 2009, the Slovenian share was equal to the average share in the EU. The situation is less favourable in terms of data-transmission speed, since in Slovenia the availability of broadband Internet transmission capacity above 2 Mbit/s is only half the average capacity in the EU.

*Despite relatively good access and widespread use, the Internet in Slovenia is used less for more sophisticated services. The share of the population using the Internet to buy goods and services (online shopping) is much smaller than the EU average, and the same applies to e-banking, e-mailing, and advanced forms of communication (e.g. Internet phone calls). Differences have seemed to persist through the years and have not diminished significantly. Conversely, the share of the population using the web to obtain information or download music and movies is very similar to the EU average, and much higher in relation to access to media (newspapers, TV and radio). Also quite similar is the picture in the use of e-government by individuals, where the share of population using e-government to obtain information and forms from public administration is above the European average, while the share of those who interact with the public administration exclusively in electronic form (electronic return of filled-in forms) is lower than in the EU, although with a slight trend towards narrowing this gap. Problems related to mastering the use of sophisticated e-services may be explained by data on the reasons for not using the Internet. Slovenia differs considerably from the European average particularly in the share of households that do not have Internet access due to lack of adequate knowledge or skills (2008: by 7 p.p.). A wider gap behind the EU average (10 p.p.) is observed only in the share of households that do not have Internet access because they do not need it.*

<sup>1</sup> Users who used the Internet in the past three months.

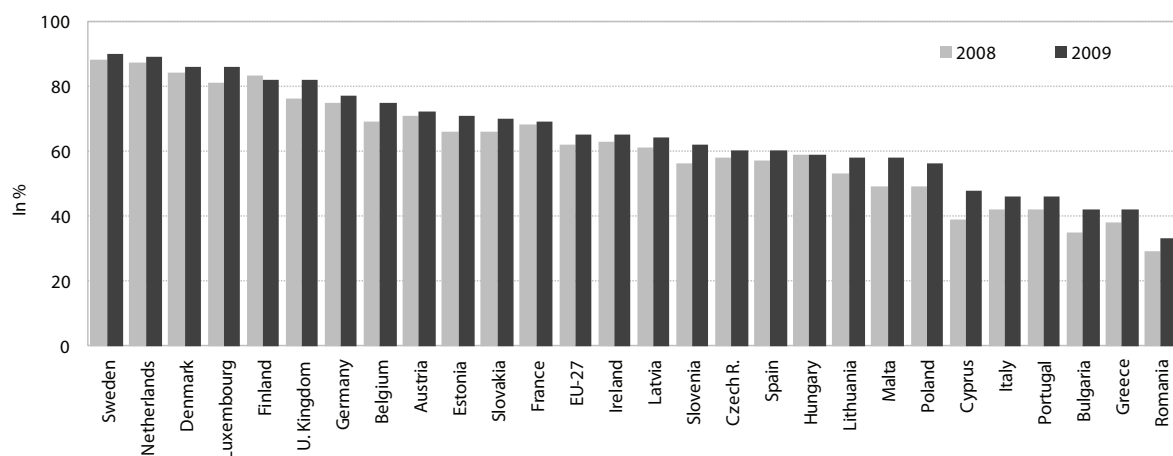
<sup>2</sup> Forms of broadband Internet access: xDSL, cable access, UMTS, other broadband access (e.g. optical network).

Table: Internet use and access, Slovenia, 2004–2009<sup>1</sup>, %

	2004	2005	2006	2007	2008	2009
Households with Internet access, %	47	48	54	58	59	64
Households with Internet access, %	10	19	34	44	50	56
Internet users <sup>2</sup> , total:						
16–74 years	37	47	51	53	56	62
By age:						
16–34 years	62	77	81	84	88	91
35–54 years	33	45	50	53	56	66
55–74 years	8 <sup>3</sup>	11 <sup>4</sup>	14	14	17	22

Source: SORS, 2010.

 Notes: <sup>1</sup>Data refer to the Q1 of the year. <sup>2</sup>The share of users who used the Internet in the past three months. <sup>3</sup>Inexact estimate. <sup>4</sup>Less exact estimate.

 Figure: Internet users<sup>1</sup> Slovenia and the EU


Source: Eurostat Portal Page – Information Society, 2010.

 Note: <sup>1</sup>Share of users who used the Internet in the past three months (data refer to Q1 of the year).



## **THE THIRD PRIORITY:**

### **An efficient and less costly state**

- General government expenditure
- General government expenditure by function (COFOG)
- Economic structure of taxes and contributions
- Subsidies
- State aid



## General government expenditure

*In 2009, general government expenditure relative to GDP stood at 49.9% which was a rise of 5.6 p.p. compared with 2008; the structure of expenditure also changed slightly.* The shares of all major expenditure categories<sup>1</sup> increased, particularly social benefits and benefits in cash and in kind (by 2.3 p.p. of GDP) as a result of the operation of automatic stabilisers, with higher expenditure on unemployment benefits and a growing number of beneficiaries, and increased compensations for employees (by 1.5 p.p. of GDP) owing to the wage reform and the higher number of employees in the public sector. The implementation of anti-crisis measures made the share of expenditure on subsidies rise by 0.6 p.p. of GDP, while expenditures on intermediate consumption and on gross fixed-capital formation grew by 0.5 p.p. of GDP each. Expenditure on interest rates, which grows due to increased state borrowing, was up by 0.3 p.p. of GDP. Other shares did not change significantly compared with the previous year.

*In the period 2000–2009, general government expenditure as a share of GDP grew by 3.2 p.p.; the increase was most pronounced in expenditure on gross fixed-capital formation (2000: 3.2%; 2009: 4.9% of GDP).* Compensations for employees rose by 1.3 p.p. (2000: 11.3%; 2009: 12.6% of GDP), recording a slight increase before 2004 and falling in the following years due to a restrictive wage policy prior to EU accession, only to rise again in 2008 and 2009 following the introduction of the wage reform and the growing employment in the public sector. A rise was also observed in expenditure on social benefits and benefits in cash and in kind (2000: 18.0%; 2009: 19.0% of GDP). After 2000, the launch of the pension reform resulted in an annual decrease in expenditure on pensions of 0.1 to 0.2 p.p. of GDP, while the share of expenditure on other transfers to individuals and households (excluding pensions) was up from 2000 to 2004, but started to decelerate after 2004, most markedly in 2007, when a new mechanism for adjusting transfers to inflation was put in place. In 2008, the share of social transfers picked up again, largely as a result of the introduction of indexation of transfers twice a year, high indexation of pensions and disbursement of the one-off pension allowance, and in 2009 due to the activity of automatic stabilisers as a response to the deteriorating situation on the labour market during the economic crisis. In 2000–2009, the proportion of subsidies relative to GDP grew by 0.3 p.p. Following the downward trend observed in 2000–2004 (by 0.3 p.p.), the share of subsidies was stable in 2004–2008, and rose in 2009 as a result of the effects of anti-crisis measures. Owing to savings in expenditure on goods and services, expenditure on intermediate

consumption decreased in 2000–2007 but rose to 2000 levels again in 2008 and 2009. Relative expenditure on capital transfers (2000: 1.6%; 2009: 1.2% of GDP) was higher mainly at the beginning of the period, when, in addition to other investment grants, certain other expenditures were also included in this category. Reprogramming of debts, lower interest rates and lower inflation all resulted in a gradual narrowing of the share of expenditure on interest rates (2000: 2.4%; 2009: 1.4% of GDP), which however started to rise again in 2009 due to increased borrowing.

*According to internationally available data, relative general government expenditure in Slovenia in 2008 grew faster than the EU average but was still much lower than the average for EU Member States.* General government expenditure<sup>2</sup> as a share of GDP in 2008<sup>3</sup> was 2.6 p.p. below the EU average (Slovenia: 44.2% of GDP; EU: 46.8% of GDP). Thirteen states recorded higher shares of expenditure as a % of GDP than Slovenia. In 2008, the share of general government expenditure grew by 1.1 p.p. on average in the EU, and in Slovenia by 1.8 p.p. All Member States increased the share of expenditure as a % of GDP, except for Bulgaria and Hungary (recording a decrease) and Germany, which maintained the same share.

<sup>1</sup> The growing shares of individual aggregates also reflect the shrinking of GDP in 2009.

<sup>2</sup> Slovenia's general government-sector expenditure according to ESA-95 includes four general government budgets (state and local budgets, and the pension and health funds), public funds (including the Pension Fund (KAD) and the Slovenian Restitution Fund (SOD), public institutes and public agencies.

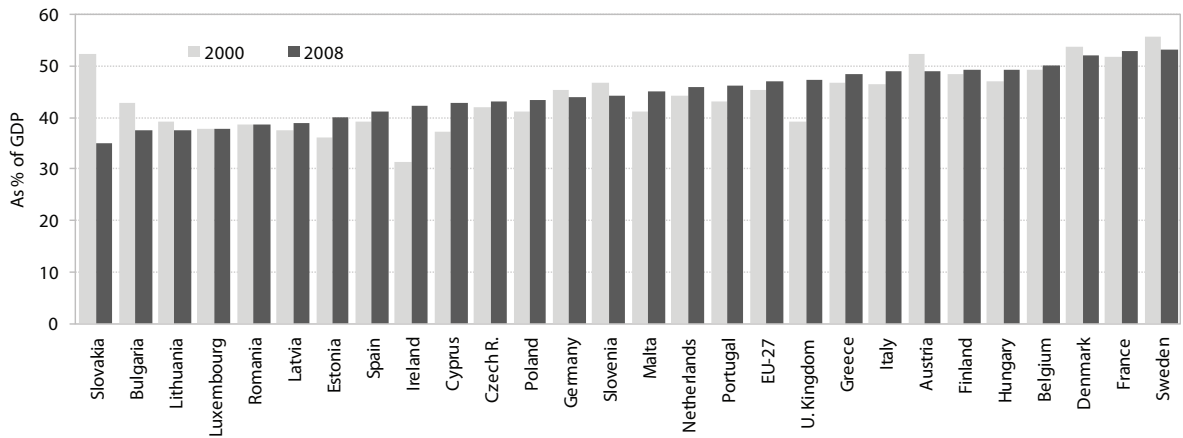
<sup>3</sup> For EU countries, latest available data is for 2008.

Table: Breakdown of general government expenditure as a % of GDP in the period 2000–2009

	2000	2005	2006	2007	2008	2009
Total general government expenditure	46.7	45.2	44.5	42.4	44.3	49.9
Intermediate consumption	6.6	6.2	6.2	5.6	6.0	6.5
Compensation of employees	11.3	11.5	11.2	10.5	11.1	12.6
Other taxes on production, expenditure	0.5	0.5	0.4	0.3	0.2	0.0
Social benefits and benefits in cash and kind	18.0	17.7	17.3	16.3	16.7	19.0
Other current transfers, expenditure	1.3	2.1	2.0	1.6	1.9	2.0
Subsidies, expenditure	1.9	1.6	1.6	1.6	1.6	2.2
Property income, payable	2.4	1.6	1.4	1.3	1.1	1.4
Capital transfers	1.6	1.0	0.8	0.9	1.2	1.2
Gross capital formation and acquisitions less disposals non-produced, non-financial assets	3.2	3.1	3.5	4.3	4.5	5.0
Total general government revenue	43.0	43.8	43.2	42.4	42.6	44.4

Source: SORS, Main Aggregates of the General Government Sector, Slovenia 2006–2009, 31 March 2010, Non-financial sector: S 13 general government, calculations by IMAD (2000 and 2005).

Figure: General government expenditure as a % of GDP in the EU Member States, in 2000 and 2008



Source: Eurostat Portal Page — Government Finance Statistics, 2010.

## General government expenditure by function (COFOG)

*General government expenditure<sup>1</sup> on economic affairs,<sup>2</sup> the first priority of Slovenia's Development Strategy (SDS), which also supports drawing EU funds to the greatest extent possible, was relatively low (2008: 4.7% of GDP), but is rising. After a dramatic fall in expenditure in the period 2000–2005, largely a consequence of the changed system for financing (the transfer of a part of motorway construction expenditure to DARS borrowing with a state guarantee), expenditure on economic affairs rose by 0.2 p.p. in the period 2005–2007 and by a further 0.6 p.p. in 2008. The increase of expenditure was mainly allocated for investment in transport infrastructure (state roads, railways). In Slovenia, this expenditure is slightly above the EU average, but there are wide disparities among Member States (Czech Republic, Hungary and Romania – more than 6%; France and United Kingdom less than 3% of GDP).*

*Expenditure on education, which supports the second development priority of SDS<sup>3</sup> and is the second lowest category of expenditure (6.2% of GDP), increased by 0.3 p.p. in 2008. In the period 2000–2005, this expenditure grew by 0.3 p.p. to reach 6.6% of GDP, but went down rapidly until 2007 (2007: 5.9% of GDP). Expenditure on employees, accounting for over 60% of all expenditure on education, is decreasing in relative terms, as is expenditure on gross fixed-capital formation, while intermediate consumption is growing rapidly. Slovenia has high expenditure on education compared with the EU average; significantly higher expenditure is recorded only in Cyprus and Denmark, which allocate over 7% of GDP for this purpose.*

*Expenditure on general public services, defence and public order and safety, which supports the third development priority of SDS, accounted for 8.1% of GDP in 2008 and was far below the EU average (9.4% of GDP). It has been slowly declining since 2000, but to a different extent in each category. Expenditure on general public services was down by 1.2 p.p. in the period 2000–2006 thanks to slower growth in wages and fell by a further 0.4 p.p. in 2007 and 2008, lagging far behind the EU average. Expenditure on defence gradually rose over 2000–2006, but dropped in 2008 and is slightly below the EU average. Expenditure on public order and safety ranged from 1.6 to 1.7% of*

GDP throughout the period and was also slightly below the EU average.

*Expenditure on health and social protection, which supports the fourth development priority of SDS, is highest (2008: 22.0% of GDP), rising by 0.6 p.p. in 2008. Expenditure on social protection was decreasing until 2007 (2000–2007: by 1.8 p.p.) but grew again in 2008 to 15.9% of GDP. Likewise, expenditure on health fell by 0.5 p.p. over the period 2000–2007 but increased by 0.2 p.p. in 2008. Expenditure on social protection and health in Slovenia is much lower than the EU average, which is 6.6% of GDP for health and 18.0% for social protection.*

*Expenditure on environmental protection, housing and community amenities, recreation, culture and religion, which covers the fifth development priority of SDS, ranged from 2.1% (2000) to 3.4% of GDP (2008). Expenditure varies according to category. Expenditure on environmental protection, housing and community amenities ranges between 1% and 1.7% of GDP and is below the EU average, while expenditure on recreation, culture and religion rose considerably in 2008 and is much higher than the EU average.*

<sup>1</sup> The analysis is made at the first COFOG classification level.

<sup>2</sup> Economic affairs also cover expenditure related to labour affairs, which falls within the fourth development priority, but the data at the first level do not yet allow separate processing.

<sup>3</sup> The second development priority is also supported by expenditure on research and development, which is recorded at the second level of COFOG, not in a separate category but rather in ten basic categories.

Table 1: General government expenditure by function in Slovenia, 2000–2008, as a % of GDP

	2000	2005	2006	2007	2008
Total general government expenditure	46.7	45.2	44.5	42.4	44.2
General public services	6.7	5.8	5.5	5.2	5.1
Defence	1.1	1.3	1.5	1.5	1.4
Public order and safety	1.7	1.7	1.7	1.6	1.6
Economic affairs	5.2	3.9	4.1	4.1	4.7
Environmental protection	0.4	0.8	0.8	0.8	0.8
Housing and community amenities	0.6	0.5	0.6	0.6	0.9
Health	6.4	6.3	6.3	5.9	6.1
Recreation, culture and religion	1.1	1.3	1.3	1.2	1.7
Education	6.3	6.6	6.4	5.9	6.2
Social protection	17.3	16.8	16.4	15.5	15.9

Source: General government expenditure by function, Slovenia, 2000 (SORS), January 2009 and 2005–2008 (SORS), December 2009.

Table 2: General government expenditure by function in the EU Member States, in 2007, as a % of GDP

General government	Total	General public services	Defence	Public order and safety	Economic affairs	Environmental protection	Housing and community amenities	Health	Recreation, culture and religion	Education	Social protection
EU-27	45.8	6.1	1.5	1.8	3.8	0.8	1.0	6.6	1.1	5.1	18.0
EU-15	46.1	6.2	1.5	1.7	3.7	0.8	1.0	6.7	1.1	5.1	18.3
Austria	49.6	6.9	0.9	1.4	4.6	0.5	0.6	7.5	1.0	5.2	19.9
Belgium	48.4	8.5	1.0	1.6	5.1	0.6	0.4	7.0	1.2	5.8	17.1
Bulgaria	41.5	8.2	1.6	3.1	5.0	1.4	1.4	3.1	0.8	3.9	13.1
Cyprus	42.9	10.2	1.8	2.1	4.3	0.3	2.5	2.9	1.3	7.4	9.9
Czech Rep.	42.6	4.4	1.2	2.1	6.9	1.0	1.1	7.1	1.3	4.7	12.9
Denmark	51.0	6.0	1.6	1.0	3.4	0.6	0.6	7.3	1.6	7.4	21.7
Estonia	34.7	3.2	1.3	2.2	4.4	0.8	0.6	4.4	2.0	6.1	9.6
Finland	47.3	6.2	1.4	1.2	4.4	0.3	0.4	6.6	1.1	5.8	19.9
France	52.3	6.9	1.8	1.3	2.8	0.9	1.9	7.2	1.5	5.9	22.2
Greece	44.1	8.1	2.3	1.3	4.4	0.5	0.4	4.9	0.4	3.0	18.7
Ireland	35.6	3.7	0.5	1.5	4.8	0.7	2.0	7.1	0.7	4.6	10.1
Italy	47.9	8.6	1.3	1.9	4.0	0.8	0.7	6.8	0.8	4.7	18.2
Latvia	35.9	4.0	1.5	2.7	5.0	1.0	1.3	4.5	1.8	5.8	8.4
Lithuania	35.0	3.9	1.9	1.7	4.4	0.9	0.3	4.6	1.0	5.2	11.0
Luxembourg	36.2	3.9	0.2	0.9	3.9	1.0	0.6	4.4	1.8	4.3	15.3
Hungary	49.9	9.4	1.3	2.0	6.6	0.7	1.0	4.9	1.5	5.3	17.4
Malta	42.2	6.3	0.7	1.5	5.9	1.5	0.7	5.8	0.6	5.4	13.8
Germany	44.1	5.5	1.0	1.6	3.5	0.6	0.8	6.2	0.7	3.9	20.3
Netherlands	45.2	7.3	1.4	1.8	4.7	0.8	0.9	5.7	1.3	5.0	16.2
Poland	43.8	5.5	1.4	1.8	4.5	0.6	1.1	4.5	1.1	5.7	15.6
Portugal	46.3	7.1	1.1	1.6	3.8	0.5	0.5	6.8	1.1	5.8	17.5
Romania	36.3	3.5	2.5	2.4	6.7	0.4	1.5	4.3	1.0	4.2	9.8
Slovakia	34.6	3.7	1.5	2.0	4.3	0.6	0.8	6.5	0.7	4.0	10.6
<b>Slovenia</b>	<b>42.4</b>	<b>5.2</b>	<b>1.5</b>	<b>1.6</b>	<b>4.1</b>	<b>0.8</b>	<b>0.6</b>	<b>5.9</b>	<b>1.2</b>	<b>5.9</b>	<b>15.5</b>
Spain	38.7	4.4	1.0	1.9	4.9	0.9	0.9	5.7	1.6	4.4	13.0
Sweden	52.5	7.5	1.6	1.3	4.7	0.4	0.7	6.8	1.1	6.9	21.6
U. K.	44.4	4.4	2.4	2.5	2.9	1.0	1.1	7.5	1.1	6.2	15.3

Source: Eurostat Portal Page – Government Finance Statistics, 2010; for Slovenia SI-STAT data portal, 2010.

## Economic structure of taxes and contributions

The overall burden of taxes and contributions measured as a share of GDP in Slovenia is slightly below the EU average. In 2008, the overall tax burden stood at 37.7% of GDP (EU average: 40.6%). Slovenia was ranked in the middle of countries in terms of tax burden, which was higher in 12 countries and lower in 13 countries, while Portugal's burden was the same as in Slovenia. With the different taxation systems in place, the difference between the highest ranking country (Denmark: 49.1% of GDP) and the country with the lowest tax burden (Romania: 28.8%) is huge (20.3 p.p. of GDP).

In 2008, the burden of taxes and contributions in Slovenia was the same as in 2000, but decreased in the European Union. From 2000 to 2005, the overall tax burden in Slovenia increased but then fell after that year. The EU on average recorded an opposite movement, with the burden falling until 2005 and rising in 2006 and 2007. In 2008, the tax burden declined both in Slovenia and on average across the EU.

In terms of tax structure, in 2007<sup>1</sup> Slovenia and the EU on average had a higher tax burden on capital and a lower burden on labour and consumption than in 2000. Thanks to tax reform, the overall burden of taxes and contributions in Slovenia was down by 0.6 p.p. of GDP in 2007 and by an additional 0.3 p.p. in 2008. Tax reform, in particular on personal income and corporate income taxes, the gradual phasing out of the payroll tax, as well as changes in excise duties, resulted in a higher share of taxes on capital and a lower share of taxes on labour and consumption.

Structural analysis of tax systems<sup>2</sup> revealed that in 2007, Slovenia deviated from the EU average in particular through a considerably higher tax burden on labour and a lower burden on capital. The share of taxes on consumption in total taxes and contributions in Slovenia was 34.8% and slightly exceeded the EU average (33.6%), whereas the share of taxes on labour was considerably above the EU average (Slovenia: 51.5%; EU: 45.2%). The share of taxes on capital was low; in 2007, it rose slightly as a consequence of rising corporate income tax and favourable capital income, but still accounted for a mere 13.9%, far below the EU average (21.3%).

Calculations and comparisons of implicit tax rates<sup>3</sup> also confirm that the tax burden on labour was above average in Slovenia in 2007. The implicit tax rate on consumption for Slovenia stood at 24.1%, whereas the EU average was 22.2%. Nine Member States reported higher rates, led by all three Nordic states. After 2003, this rate dropped in Slovenia, while the average for European countries rose. The calculated implicit tax rate on labour in Slovenia totalled 36.9% in 2007 and was higher than the EU average (34.4%) on account of relatively high social-security contributions as well as the unlimited upper limit of the insurance base for social-security contributions. Ten Member States reported higher rates than Slovenia. In 2000–2006, this rate was quite stable in Slovenia but began to fall in 2007 as a result of the tax reform. The average rate for European countries was already decreasing before 2005 and became stable after that. The implicit tax rate on capital for Slovenia is estimated at 23.1% and is below the EU-25 average (28.7%). This tax shows an upward trend both in Slovenia and in EU countries on average.

<sup>1</sup> Data for 2007 are the latest available on tax structure.

<sup>2</sup> The tax classification is based on the classification of taxes according to ESA-95 and common rules for classification. Taxes on consumption are defined as taxes on transactions between consumers and producers and as taxes on final consumption of goods. Taxes on labour are directly linked to wages and paid by employees or employers. Taxes on capital refer to taxes on capital, corporate income, income from household capital (annuities, dividends, interests, other income from property), capital gains, on property, etc.

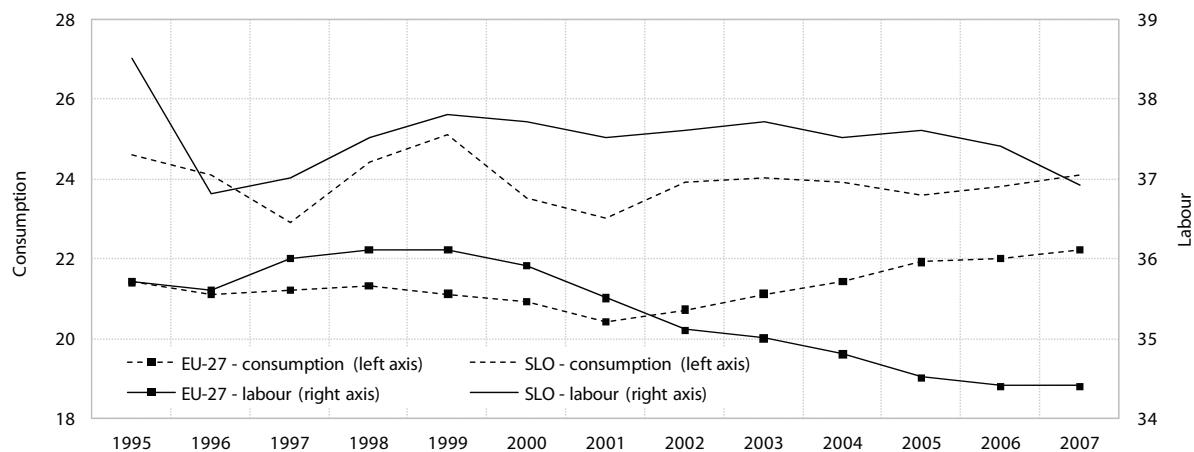
<sup>3</sup> The implicit tax rate on consumption is defined as the ratio between taxes on consumption and final household consumption in a country's territory in compliance with the national accounts methodology, while the implicit tax rate on labour is defined as the ratio between taxes on labour and the compensation of employees increased by payroll tax, in compliance with the national accounts methodology.

Table: Economic structure of taxes and social security contributions, 2000 and 2007, as a % of GDP

	Total		Taxes on consumption		Taxes on labour		Taxes on capital	
	2000	2007	2000	2007	2000	2007	2000	2007
<b>EU</b>	<b>40.6</b>	<b>39.8</b>	<b>11.4</b>	<b>11.1</b>	<b>20.3</b>	<b>19.4</b>	<b>9.0</b>	<b>9.4</b>
Austria	43.2	42.1	12.4	11.7	24.0	23.2	6.9	7.2
Belgium	45.2	44.0	11.4	11.0	24.3	22.9	9.5	10.0
Bulgaria	32.5	34.2	14.4	18.4	14.0	10.8	4.6	5.5
Cyprus	30.0	41.6	10.6	16.4	9.4	11.0	9.9	14.2
Czech Rep.	33.8	36.9	10.6	10.7	17.1	17.8	6.2	8.4
Denmark	49.4	48.7	15.7	16.2	26.6	24.8	7.2	7.8
Estonia	31.3	33.1	11.8	13.6	17.6	16.8	1.9	2.6
Finland	47.2	43.0	13.6	12.8	23.7	22.3	9.9	7.8
France	44.1	43.3	11.6	10.9	23.0	22.4	9.8	10.1
Greece	34.6	32.1	12.4	11.4	12.4	13.4	9.8	7.2
Ireland	31.6	31.2	12.1	11.2	11.5	10.7	8.0	9.4
Italy	41.8	43.3	10.9	10.2	19.9	21.2	11.0	11.8
Latvia	29.5	30.5	11.3	11.9	15.3	14.6	2.9	4.0
Lithuania	30.1	29.9	11.8	11.4	16.3	14.6	2.3	3.9
Luxembourg	39.1	36.7	10.8	10.1	15.3	15.3	13.1	11.3
Hungary	38.5	39.8	15.3	14.5	18.9	19.9	4.3	5.3
Malta	28.2	34.7	12.1	13.9	9.7	9.4	6.3	11.4
Germany	41.9	39.5	10.5	10.7	24.4	21.6	6.9	7.3
Netherlands	39.9	38.9	11.7	12.2	20.4	19.6	7.8	7.1
Poland	32.6	34.8	11.3	13.0	14.2	13.4	7.2	8.8
Portugal	34.3	36.8	12.4	13.3	14.1	15.8	7.8	7.6
Romania	30.4	29.4	11.6	11.9	13.2	12.1	5.6	5.4
Slovakia	34.1	29.4	12.2	11.3	15.0	11.6	6.9	6.5
<b>Slovenia</b>	<b>37.5</b>	<b>38.2</b>	<b>13.9</b>	<b>13.3</b>	<b>20.7</b>	<b>19.7</b>	<b>3.0</b>	<b>5.3</b>
Spain	33.9	37.1	9.9	9.5	15.9	16.9	8.7	11.2
Sweden	51.8	48.3	12.4	12.7	31.0	28.3	8.4	7.3
U. K.	36.7	36.3	11.8	10.8	14.0	14.0	10.9	11.5

Source: Taxation trends in the European Union (Eurostat, European Commission), 2009.

Figure: Implicit tax rate on consumption and labour, in %, 1995–2007



Source: Taxation trends in the European Union (Eurostat, European Commission), 2009.

## Subsidies

*In 2008, general government subsidies rose in nominal terms by 10.2% compared with the previous year, and in the period since 2005 by as much as 34.6%. Given the high economic growth in this period, their relative share of GDP has remained at the level of 1.6% of GDP since 2005, and was even 0.3 p.p. lower than in 2000. Distribution of subsidies by function shows that most subsidies are used for economic affairs (see Table 1). However, due to the faster growth of subsidies for other functions, subsidies are gradually losing their structural share (2006: 79%; 2008: 67% of total subsidies). Out of the total general government expenditure allocated for economic affairs, the share of subsidies in the period 2005–2007 ranged between 28.9% and 31.1%, accounting for only 23.4% in 2008.*

*Data on subsidies for economic affairs at the second level, published for the first time in late 2009, reveal that subsidies are mainly earmarked for agriculture and transport. In the period 2005–2007, subsidies for agriculture accounted for 30% of the total subsidies for economic affairs and dramatically rose in 2008, reaching a structural share of 46.9%. Subsidies for transport were even higher. In 2005 and 2006, these subsidies made up about a half of all subsidies for economic affairs, but were subject to a reduction in the following two years, decreasing to a good third of total subsidies for economic affairs in 2008 (34.6%). Subsidies for general economic affairs are also important, having ranged between 15.6% in 2006 and 26.9% in 2007 (2008: 16.0%). It should be underlined that subsidies for research and development are not listed under economic affairs.*

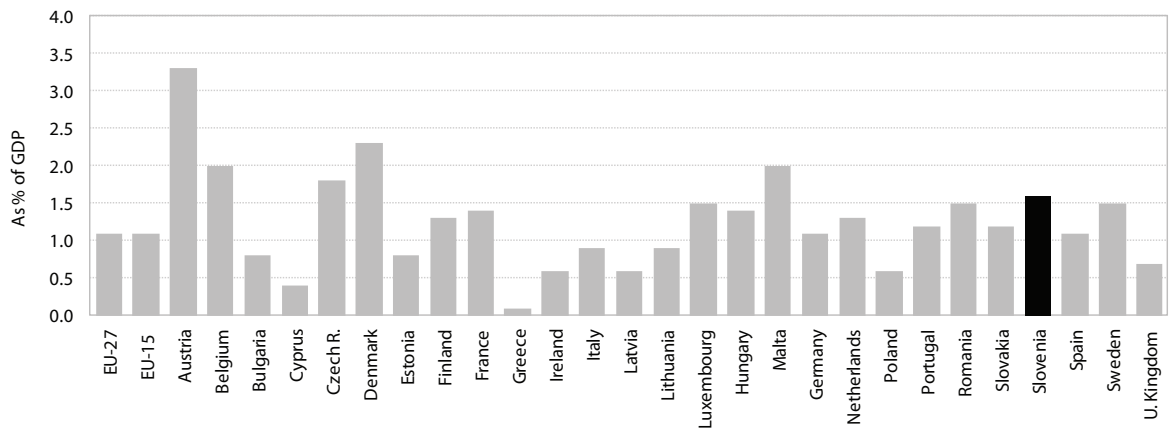
*The share of subsidies relative to GDP in Slovenia is considerably higher than the EU average, standing at 1.6% since 2005. Similar stability is also typical for EU Member States, with subsidies reaching 1.1% of GDP since 2005. In 2007, only five Member States reported higher subsidy levels than Slovenia; interestingly, subsidies were the highest in three developed members (Austria, 3.3% of GDP, Denmark, 2.3% of GDP, and Belgium 2.0% of GDP) and in two less developed members (Malta 2.0% of GDP and Czech Republic 1.8% of GDP).*

Table: Subsidies by functional classification in Slovenia in the period 2000–2008, in EUR m

	2000	2005	2006	2007	2008
TOTAL	350	452	503	550	606
1. General public services	17	7	8	15	14
2. Defence	0	2	4	8	13
3. Public order and safety	0	1	0	1	1
4. Economic affairs	285	328	397	398	407
4.1 General economic affairs	N/A	63	62	107	65
4.2 Agriculture, forestry, fisheries	N/A	101	120	118	191
4.3 Energy	N/A	0	1	1	2
4.4 Mining, manufacturing, construction	N/A	1	3	3	1
4.5 Transport	N/A	159	207	165	141
4.6 Communications	N/A	0	0	0	4
4.7 Other activities	N/A	3	4	4	4
4.8 R&D in the economy	N/A	0	0	0	0
4.9 Other economic affairs	N/A	0	0	0	0
5. Environmental protection	30	52	44	49	64
6. Housing and community amenities	5	5	6	9	10
7. Health	0	0	0	3	0
8. Recreation, culture, activities of associations	2	8	9	12	16
9. Education	1	3	5	20	35
10. Social protection	9	47	29	33	46

Source: General government expenditure by function and type of expenditure (SORS), 2010.

Figure: Subsidies paid by general government in the EU Member States, 2007, as a % of GDP



Source: Eurostat Portal Page - Government Finance Statistics, 2010.



## State aid

In 2008, state aid as a proportion of GDP increased after declining for several consecutive years. Compared with 2007, state aid increased by 0.1 p.p. or EUR 55.7 m, while compared with 2006 its share remained unchanged even if it grew by EUR 47.7 m. In 2005, state aid was above the level achieved in 2008. A comparison with 2000 is not realistic, as total state aid was taken into account in 2000, while since Slovenia's accession to the EU, almost half of state aid to agriculture, i.e. measures under the Common Agricultural Policy (CAP), has no longer been considered state aid.

Following a significant decline in 2007, horizontal types of state aid in 2008 returned to the 2006 level, yet their structure is not favourable (Eleventh Report on State Aid, 2009). The increase of horizontal aid in the structure of total state aid (2007: 39.0%; 2008: 47.7%) is in line with the goals of the Lisbon Strategy. This increase derives mainly from the introduction of a new category (natural disasters), which has previously not been specifically expressed and accounts for 2.5% of all aid, as well as from an absolute and relative rise in regional aid (by 10.3 p.p.) as a result of better use of financing provided by the European Regional Fund. At the same time, the structure of horizontal aid points to a considerable absolute and relative decrease of aid for R&D, energy saving, SMEs and training, i.e. goals that have the most favourable impact on development. These types of aid dropped by as much as 3.4 p.p. (2007: 10.87%; 2008: 7.46%). The share of aid for special sectors decreased (2007: 60.8%; 2008: 52.3%), mainly owing to reduced aid for agriculture and fisheries as well as transport. Aid for the restructuring of companies with problems increased.

*State aid (excluding railway transport)<sup>1</sup> in Slovenia did not reach the average level of state aid in the EU in 2008.* State aid (excluding railway transport) in Slovenia reached 0.7% of GDP and lagged strongly behind the EU average (2.2% of GDP). This significant increase of average EU state aid is due to a great increase in "crisis aid" in 13 Member States. Aid to mitigate the consequences of financial crisis and economic downturn (crisis aid) totalled 1.7% of EU GDP and was intended for the financial sector (State Aid Scoreboard, 2009). In Ireland, for example, crisis aid exceeded 20% of GDP. The European Commission granted crisis aid for the Slovenian financial sector in October 2008, yet no measures were implemented in that year. Excluding crisis aid and railway transport aid, state aid in the EU accounted for 0.5% of GDP and was 0.2 p.p. lower than in Slovenia (0.7% of GDP).

Table 1: Indicators of state aid in Slovenia, 2000–2008

	2000	2005	2006	2007	2008
State aid in EUR m, current prices	407.2	267.15	276.27	268.14	323.32
Share of state aid in GDP (%)	2.07	0.95	0.91	0.81	0.91
Share of state aid in government expenditure (%)	4.68	2.18	2.09	1.93	2.09
State aid per employee (EUR)	530.11	328.37	331.64	310.21	367.30
State aid per resident (in 000 SIT)	N/A	133.35	137.42	132.36	159.08

Source: for 2000: Third Survey of State Aid in Slovenia, 2001; for 2005: Tenth Survey of State Aid in Slovenia, 2008; for 2006–2008: Eleventh Survey on State Aid in Slovenia, 2009.

Notes: for tolar/EUR conversion for 2000, the average exchange rate of the Bank of Slovenia was used (1 EUR = 205.0316 tolar); N/A – not available.

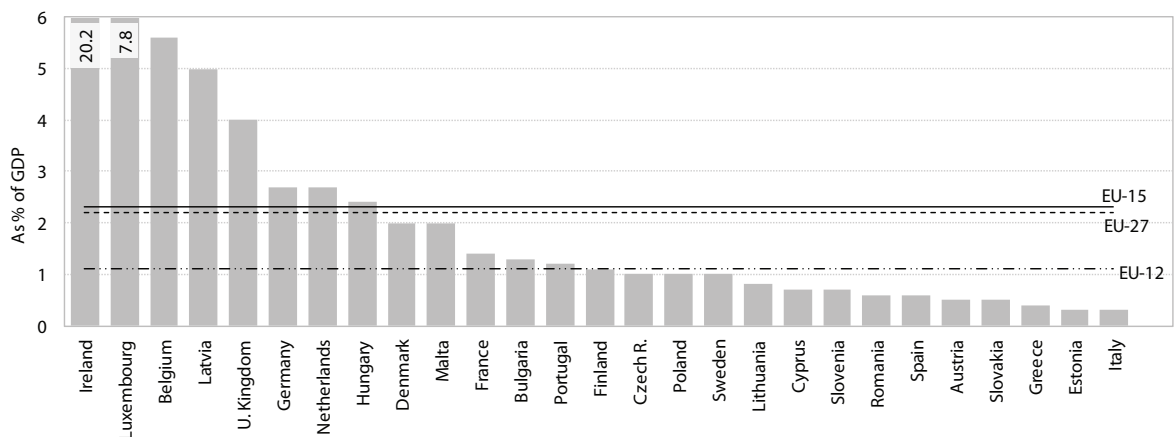
<sup>1</sup> European Commission publishes only data on state aid for Member States: (1) excluding railway transport and (2) excluding agriculture, fisheries and transport.

Table 2: State aid (excluding railway transport), as a % of GDP

	1995	2000	2005	2006	2007	2008
<b>EU-27</b>	<b>1.0</b>	<b>0.6</b>	<b>0.6</b>	<b>0.6</b>	<b>0.5</b>	<b>2.2</b>
<b>EU-15</b>	<b>1.0</b>	<b>0.6</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>2.3</b>
<b>EU-12</b>	<b>N/A</b>	<b>1.2</b>	<b>1.0</b>	<b>0.9</b>	<b>0.9</b>	<b>1.1</b>
Austria	1.1	0.7	0.5	0.7	0.4	0.5
Belgium	0.6	0.5	0.4	0.4	0.4	5.6
Bulgaria	N/A	N/A	0.1	0.1	1.4	1.3
Cyprus	N/A	2.6	1.4	0.6	0.7	0.7
Czech Rep.	N/A	2.4	0.6	0.7	0.8	1.0
Denmark	0.6	1.0	0.8	0.8	0.8	2.0
Estonia	N/A	0.1	0.3	0.3	0.2	0.3
Finland	2.8	1.4	1.3	1.3	1.2	1.1
France	0.8	0.6	0.6	0.6	0.5	1.4
Greece	1.4	0.6	0.4	0.4	0.4	0.4
Ireland	0.7	1.1	0.4	0.4	0.6	20.2
Italy	1.2	0.5	0.4	0.4	0.4	0.3
Latvia	N/A	0.6	1.1	1.3	1.0	5.0
Lithuania	N/A	0.3	0.5	0.5	0.6	0.8
Luxembourg	0.5	0.3	0.3	0.2	0.2	7.8
Hungary	N/A	1.1	2.8	2.1	1.8	2.4
Malta	N/A	3.4	3.6	2.8	2.4	2.0
Germany	1.4	0.8	0.7	0.8	0.6	2.7
Netherlands	0.4	0.5	0.4	0.4	0.4	2.7
Poland	N/A	1.0	0.8	0.8	0.6	1.0
Portugal	0.9	0.8	0.9	0.9	1.3	1.2
Romania	N/A	N/A	0.5	0.6	1.2	0.6
Slovakia	N/A	0.4	0.6	0.5	0.4	0.5
<b>Slovenia</b>	<b>N/A</b>	<b>0.9</b>	<b>0.7</b>	<b>0.7</b>	<b>0.6</b>	<b>0.7</b>
Spain	1.0	0.9	0.5	0.5	0.5	0.6
Sweden	0.4	0.4	1.0	1.0	0.9	1.0
U. K.	0.4	0.2	0.2	0.2	0.3	4.0

Source: State Aid Scoreboard, Autumn 2009, (European Commission), 2009.  
Note: N/A – not available.

Figure: State aid (excluding railway transport) in 2008, as a % of GDP



Source: State Aid Scoreboard, Autumn 2009, (European Commission), 2009.



## **THE FOURTH PRIORITY:**

### **A modern welfare state and higher employment**

- Employment rate
- Unemployment rate
- Long-term unemployment rate
- Temporary employment
- Part-time employment
- Social-protection expenditure
- Expenditure on health
- Expenditure on long-term care
- Private expenditure on education
- Human development index
- Minimum wage
- Risk of poverty and material deprivation of the population
- Healthcare resources
- Adult participation in education

## Employment rate

*The employment rate dropped in 2009 due to declining economic activity,<sup>1</sup> yet remained above the EU average. In the first three quarters of 2009, it averaged 67.5% (i.e. 1.3 p.p. below the level of 2008). Until 2003, the employment rate had hovered around 63%, which was slightly above the EU average, but in 2004 it recorded a significant jump and even exceeded the average of the old EU Member States (EU-15). It was continually increasing as long as until 2008. Due to a higher proportion of women in employment, the female employment rate exceeded that in the EU, hovering around 58% before 2003, but increasing rapidly in the 2004–2008 period, and achieving 64.5% in 2008. In the first three quarters of 2009, it reached an average of 64.0%. Over the last three years, the male employment rate also caught up with the European average. Until 2003, it fluctuated around 67%, then rose to 72.9% in the period up to 2008, averaging 71.0% in the first three quarters of 2009.*

*In 2009, the most significant decline in employment could be observed in manufacturing. In 2009, the average number of persons in formal employment<sup>2</sup> diminished by 21,086 (2.4%). The number of employed persons (those in an employment relationship) declined by 2.8%, the number of farmers also diminished (by 4.9%), while the number of other self-employed persons rose (by 5.5%). The informal employment rate also increased (mostly the number of unpaid family workers), and the drop in the number of persons in employment according to the Labour Force Survey was therefore slightly smaller (-1.5%<sup>3</sup>). In 2009, the number of people in employment decreased in most market activities. In manufacturing, where employment dropped most significantly, the number of employed persons diminished by 22,539 (10.1%). Following considerable growth in previous years, 2009 also saw a reduction in the number of foreigners working in Slovenia and in the number of work permits issued to foreigners.*

*Employment would have dropped even more had the government not adopted a number of emergency measures on the labour market. To offset high unemployment and dismissal costs for enterprises as a result of a decline in orders and lower demand, the government passed two intervention acts,<sup>4</sup> which included more than 80,000 employed persons (about 10% of the total workforce) in subsidy schemes and prevented an even faster increase in unemployment. The drop in the number of people in employment was further buffered by extensive active*

employment-policy measures. In 2009, about 13,000 unemployed persons found work within employment and self-employment schemes and public works (over a quarter of all the unemployed persons who found jobs that year or 15% of the average number of the registered unemployed in 2009). A year before, this share was approximately half of the 2009 figure.

<sup>1</sup> See chapters 1.1 and 1.2, and the relevant indicators.

<sup>2</sup> The number of employed and self-employed persons according to the statistical employment register plus SORS's monthly estimates on the number of farmers.

<sup>3</sup> IMAD calculation based on the quarterly data by SORS.

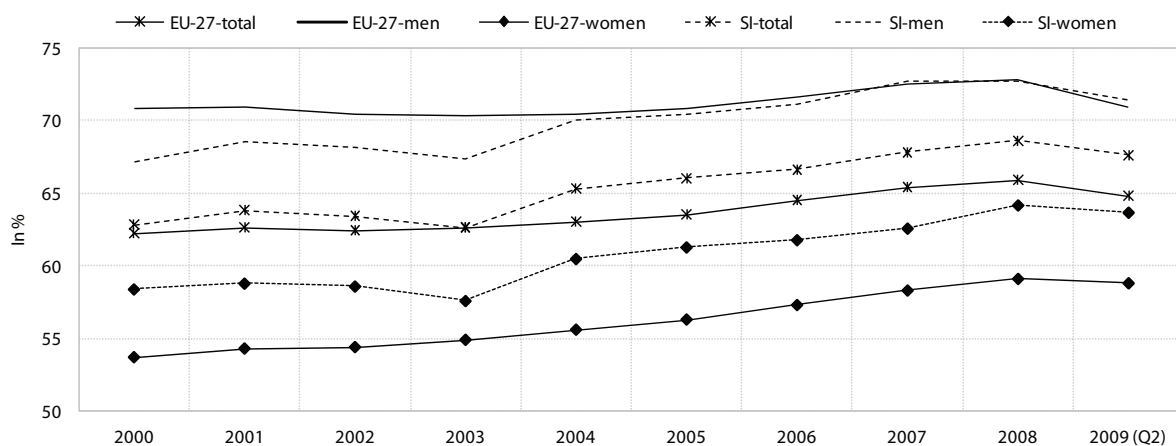
<sup>4</sup> The Partial Subsidising of Full-Time Work Act, OG of RS 5/2009, and the Partial Reimbursement of Payment Compensation Act, OG of RS 42/2009.

Table: Employment rates (15–64 age group) according to the Labour Force Survey in Slovenia and the EU in 1995–2009, in %

	1995	2000	2005	2006	2007	2008	2009 (Q2)
<b>EU</b>	<b>N/A</b>	<b>62.2</b>	<b>63.5</b>	<b>64.5</b>	<b>65.4</b>	<b>65.9</b>	<b>64.8</b>
Austria	68.8	68.5	68.6	70.2	71.4	72.1	71.7
Belgium	56.1	60.5	61.1	61.0	62.0	62.4	61.5
Bulgaria	N/A	50.4	55.8	58.6	61.7	64.0	63.3
Cyprus	N/A	65.7	68.5	69.6	71.0	70.9	70.2
Czech Rep.	N/A	65.0	64.8	65.3	66.1	66.6	65.4
Denmark	73.4	76.3	75.9	77.4	77.1	78.1	76.2
Estonia	N/A	60.4	64.4	68.1	69.4	69.8	63.8
Finland	61.6	67.2	68.4	69.3	70.3	71.1	69.8
France	59.5	62.1	63.7	63.7	64.3	64.9	64.6
Greece	54.7	56.5	60.1	61.0	61.4	61.9	61.6
Ireland	54.4	65.2	67.6	68.6	69.1	67.6	62.2
Italy	51.0	53.7	57.6	58.4	58.7	58.7	57.9
Latvia	N/A	57.5	63.3	66.3	68.3	68.6	61.4
Lithuania	N/A	59.1	62.6	63.6	64.9	64.3	60.3
Luxembourg	58.7	62.7	63.6	63.6	64.2	63.4	65.7
Hungary	N/A	56.3	56.9	57.3	57.3	56.7	55.6
Malta	N/A	54.2	53.9	53.6	54.6	55.3	54.9
Germany	64.6	65.6	66.0	67.5	69.4	70.7	70.8
Netherlands	64.7	72.9	73.2	74.3	76.0	77.2	77.0
Poland	N/A	55.0	52.8	54.5	57.0	59.2	59.3
Portugal	63.7	68.4	67.5	67.9	67.8	68.2	66.7
Romania	N/A	63.0	57.6	58.8	58.8	59.0	59.2
Slovakia	N/A	56.8	57.7	59.4	60.7	62.3	60.4
<b>Slovenia</b>	<b>N/A</b>	<b>62.8</b>	<b>66.0</b>	<b>66.6</b>	<b>67.8</b>	<b>68.6</b>	<b>67.6</b>
Spain	46.9	56.3	63.3	64.8	65.6	64.3	59.9
Sweden	70.9	73.0	72.5	73.1	74.2	74.3	72.7
U. K.	68.5	71.2	71.7	71.6	71.5	71.5	69.6

Source: Eurostat Portal Page - Population and Social Conditions – Labour Market, 2010.  
 Note: N/A – not available.

Figure: Employment rates of the population aged 15–64, by gender, EU and Slovenia, 2000–2009



Source: Eurostat Portal Page - Population and Social Conditions – Labour Market, 2010.

## Unemployment rate

*In 2009, the survey and registered unemployment rates in Slovenia increased as a result of the economic crisis, while the internationally comparable survey unemployment rate remained below the EU average.* The survey unemployment rate has been increasing since the third quarter of 2008 when it reached the lowest level since measurements began (4.1%). In the third quarter of 2009, it was 6.2% and in the fourth quarter 6.4%, while the average annual survey unemployment rate in 2009 was 5.9%,<sup>1</sup> a 2.1-p.p. increase over 2008. However, even after rising in 2009, the survey unemployment rate in the third quarter was still lower than, on average, that in the EU and in the euro area, as in most of the other EU countries unemployment rose faster than in Slovenia. The registered unemployment rate has also been increasing since September 2008 when it reached the lowest level since 1990, 6.3%. By the end of 2009 it had already reached 10.3%, totalling 9.1% in 2009 as a whole. In 1995–2000, the survey unemployment rate hovered between 7% and 8%, and the registered unemployment rate between 14% and 14.5%, while in the 2001–2008 period, both rates dropped.

*In 2009, the unemployment rates of young people and of the section of the population with lower education remained above average. The survey unemployment rate of women became lower than that of men.* In the second quarter of 2007, the survey unemployment rate of young people dropped to the lowest level (9.3%) since measurements began, but has been on an upward trend since. In 2008, it was 10.7%, on average, and in the third quarter of 2009, 13.1% (which is still considerably less than the average rates in the EU and in the euro area: 20.3 and 19.7%, respectively). In 2009, the survey unemployment rate increased for the active population at all levels of education, with the largest increase for the section of the population with a lower education, where it dropped to 5.7% in 2008 as a whole, and reached as much as 10.2% in the third quarter of 2009. The survey unemployment rate among people with a secondary education rose from an average of 4.4% in 2008 to 6.6% in the third quarter 2009, and among people with a tertiary education from 3.0% to 3.3%. The survey unemployment rate of women, which had hovered at 7% in the 2001–2006 period, dropped to 4.4% by the third quarter of 2008, when it started to increase, reaching 5.7% for 2009 as a whole. Throughout 2009, it was lower than the survey unemployment rate for men, which averaged 6.0% in 2009.

*In 2009, the number of people registered unemployed mainly rose as a result of a higher number of people who lost work.* A total of 90,528 lost work, a 70.7% increase over the year before. People who lost fixed-term employment still prevailed (49.9% of all those who lost their jobs), but, compared with the previous year, a significant increase

was recorded in the number of people who lost their job as a result of bankruptcy or for business reasons.<sup>2</sup> The number of newly registered first-time job seekers also increased (35.8%), but so did the number of unemployed who found work (a 16.5% increase) or were deleted from the unemployment registers for other reasons (a 9.5% increase). Among unemployed people who found a job, over one quarter found employment through the active employment-policy programmes (programmes of employment, self-employment and public works). In 2009, the average annual number of unemployed people thus increased by 33.7% (survey) and by 36.6% (registered), to 62 and 86.4 thousand, respectively. In the 2000–2008 period, the former dropped from 68,000 to 46,000, and the latter from 107,000 to 63,000.

<sup>1</sup> IMAD calculation based on the quarterly data released by the SORS.

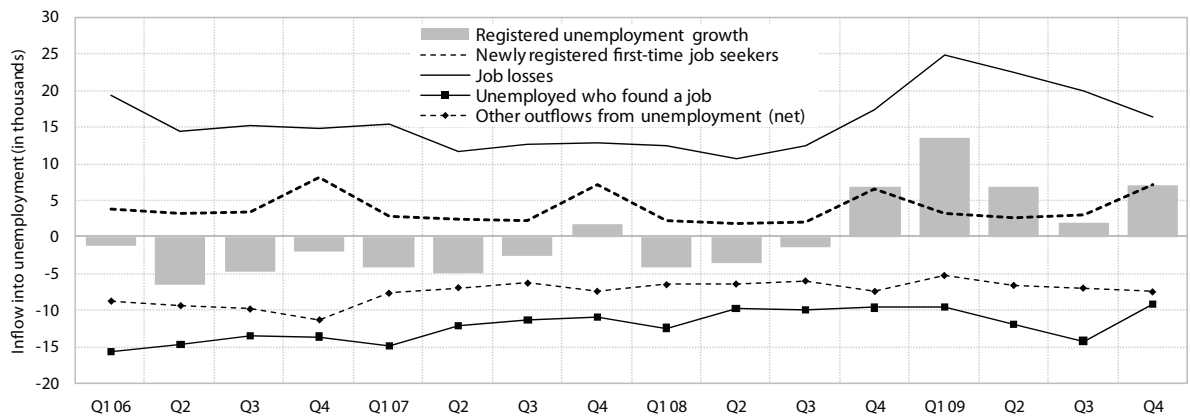
<sup>2</sup> The number of unemployed people who lost their job in 2009 would have been even higher had the government not adopted the Partial Subsidising of Full-time Work Act, OG of RS 5/2009, and the Partial Reimbursement of Payment Compensation Act, OG of RS 42/2009; see the employment rate indicator.

Table: Survey unemployment rates in Slovenia and the EU Member States in 1995–2008, in %

	1995	2000	2005	2006	2007	2008	2009 (Q2)
<b>EU</b>	<b>N/A</b>	<b>8.7</b>	<b>8.9</b>	<b>8.2</b>	<b>7.1</b>	<b>7.0</b>	<b>8.7</b>
Austria	3.9	3.6	5.2	4.8	4.4	3.8	4.6
Belgium	9.7	6.9	8.5	8.3	7.5	7.0	7.5
Bulgaria	N/A	16.4	10.1	9.0	6.9	5.6	6.3
Cyprus	N/A	4.9	5.3	4.6	4.0	3.6	5.2
Czech Rep.	N/A	8.7	7.9	7.2	5.3	4.4	6.3
Denmark	6.7	4.3	4.8	3.9	3.8	3.3	6.0
Estonia	N/A	12.8	7.9	5.9	4.7	5.5	13.5
Finland	15.4	9.8	8.4	7.7	6.9	6.4	9.6
France	11	9.0	9.3	9.2	8.4	7.8	8.8
Greece	N/A	11.2	9.9	8.9	8.3	7.7	8.9
Ireland	12.3	4.3	4.4	4.5	4.6	6.0	11.9
Italy	11.2	10.1	7.7	6.8	6.1	6.7	7.4
Latvia	N/A	13.7	8.9	6.8	6.0	7.5	16.7
Lithuania	N/A	16.4	8.3	5.6	4.3	5.8	13.6
Luxembourg	2.9	2.2	4.6	4.6	4.2	4.9	5.1
Hungary	N/A	6.4	7.2	7.5	7.4	7.8	9.6
Malta	N/A	6.7	7.2	7.1	6.4	5.9	7.0
Germany	8	7.5	10.7	9.8	8.4	7.3	7.7
Netherlands	6.6	2.8	4.7	3.9	3.2	2.8	3.3
Poland	N/A	16.1	17.8	13.9	9.6	7.1	7.9
Portugal	7.2	4.0	7.7	7.8	8.1	7.7	9.1
Romania	N/A	7.3	7.2	7.3	6.4	5.8	6.3
Slovakia	N/A	18.8	16.3	13.4	11.1	9.5	11.3
<b>Slovenia</b>	<b>N/A</b>	<b>6.7</b>	<b>6.5</b>	<b>6.0</b>	<b>4.9</b>	<b>4.4</b>	<b>5.6</b>
Spain	18.4	11.1	9.2	8.5	8.3	11.3	17.9
Sweden	8.8	5.6	7.7	7.1	6.2	6.2	9.2
U. K.	8.5	5.4	4.8	5.4	5.3	5.6	7.6

Source: Eurostat Portal Page - Population and Social Conditions – Labour Market, 2010.  
Note: N/A – not available.

Figure: Registered unemployment flows by quarter, Slovenia, 2006–2009



Source: ESS, 2010.



## Long-term unemployment rate

*In the second quarter of 2009, the long-term unemployment rate<sup>1</sup>, an indicator of social cohesion and labour-market problems, was lower than in previous years. Long-term unemployment typically diminishes an individual's chances of reemployment. Prevention of long-term unemployment is therefore one of the objectives of the active employment policy. In the second quarter of 2009, the long-term unemployment rate in Slovenia was 1.7%, which is 0.2 p.p. down from the second quarter of 2008. Only the female long-term unemployment rate dropped compared to 2008, totalling 1.7% (a 0.5 p.p drop over the second quarter of 2008), whereas the male long-term unemployment rate in the second quarter of 2009 remained at the same level as a year previously (1.6%). Even though the long-term unemployment rate was declining in Slovenia in previous years, long-term unemployment is a problem that should be dealt with within the active employment-policy programmes, particularly in this time of economic crisis and increasing unemployment.*

*In the 2000–2009 period, the male long-term unemployment rate declined most sharply. In the 2000–2009 period (data for the second quarter), the total long-term unemployment rate dropped from 4.3% to 1.7% (by 2.6 p.p.): the female long-term unemployment rate for 2009 was 2.5 p.p. and the male long-term unemployment rate 2.8 p.p. lower than in 2000. For most of the period analysed, the long-term unemployment rate for women was higher than the long-term unemployment rate for men.*

*The share of long-term unemployed people in total unemployment dropped significantly in 2009 due to a high inflow of newly registered unemployed. In the second quarter of 2009, the share of long-term unemployed people in total unemployment in Slovenia was 30.4% according to Eurostat, which is 15.3 p.p. down from the second quarter of 2008. The great decline in the share of the long-term unemployed in total unemployment is mainly due to an increase in the number of unemployed people (by 34.8% in the second quarter of 2009, compared with the same period the previous year), while the reduction in the number of the long-term unemployed was considerably smaller (9.5%). The data on registered unemployment suggest that, towards the end of the year, the share of the long-term unemployed had already started to rise, which indicates a pressing need for implementation of active employment-policy programmes to prevent the transition of the unemployed into long-term unemployment.*

*Since 2005, the long-term unemployment rate in Slovenia has been lower than the EU average. In the 2006–2009 period, the long-term unemployment rate in Slovenia was lower than the EU average. In the second quarter of 2009, Slovenia had the eighth-lowest long-term unemployment rate in the EU. The long-term unemployment rate in the EU average for that quarter was 2.8%.*

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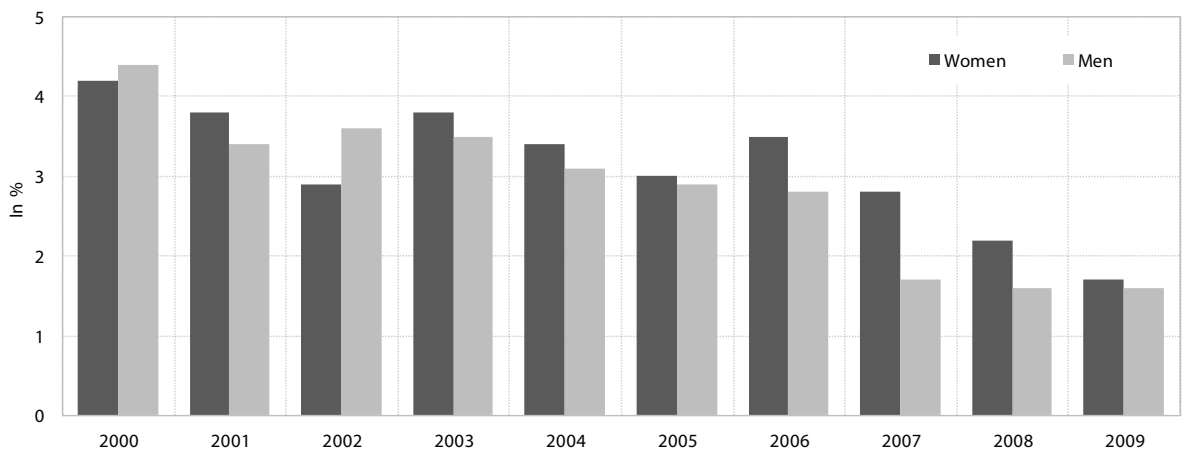
<sup>1</sup> The long-term unemployment rate is the ratio of the number of long-term unemployed people (those unemployed for over a year) to the total size of the labour force.

Table: Long-term unemployment rates in 2000–2009, <sup>1</sup> EU countries

	2000	2005	2006	2007	2008	2009
<b>EU</b>	<b>3.4</b>	<b>N/A</b>	<b>3.7</b>	<b>3.1</b>	<b>2.6</b>	<b>2.8</b>
Belgium	3.6	4.2	4.6	3.8	3.3	3.5
Bulgaria	9.6	6.0	4.8	3.9	2.9	2.8
Czech Rep.	4.3	4.1	4.0	2.9	2.2	1.8
Denmark	0.8	1.2	0.8	0.7	0.5	0.4
Germany	3.8	5.8	5.5	4.7	4.0	3.4
Estonia	6.1	4.3	2.8	2.4	1.4	3.2
Ireland	1.6	1.5	1.5	1.4	1.5	2.9
Greece	6.3	5.2	4.9	4.1	3.6	3.7
Spain	4.7	2.3	1.9	1.7	1.8	3.8
France	N/A	3.8	4.0	3.4	3.0	3.2
Italy	6.4	3.9	3.5	2.9	3.2	3.4
Cyprus	1.2	1.3	0.9	0.7	0.4	0.4
Latvia	8.1	4.3	2.6	1.7	1.7	4.0
Lithuania	8.1	4.6	2.6	1.5	0.8	2.8
Luxembourg	0.5	1.2	1.3	1.3	1.8	1.5
Hungary	3.1	3.2	3.4	3.5	3.6	3.9
Malta	4.0	3.3	2.9	2.3	2.3	3.2
Netherlands	N/A	1.9	1.8	1.3	1.0	0.8
Austria	N/A	1.2	1.3	1.2	0.8	0.9
Poland	7.3	10.5	8.1	5.1	2.5	2.3
Portugal	1.7	3.6	3.8	3.8	3.6	4.0
Romania	3.5	4.0	4.0	3.3	2.3	2.3
<b>Slovenia</b>	<b>4.3</b>	<b>3.0</b>	<b>3.1</b>	<b>2.2</b>	<b>1.9</b>	<b>1.7</b>
Slovakia	10.4	11.7	10.5	8.4	7.3	5.9
Finland	2.7	2.2	1.9	1.6	1.1	1.2
Sweden	1.4	N/A	1.1	0.9	0.7	1.0
U. K.	1.5	1.0	1.2	1.3	1.3	1.7

Source: Eurostat Portal Page – Population and Social Conditions – Labour market, 2010.  
Notes: <sup>1</sup> Data refer to the second quarter of the year, N/A – not available.

Figure: Long-term unemployment rate by gender, Slovenia, 2000–2009<sup>1</sup>



Source: Eurostat Portal Page – Population and Social Conditions – Labour market, 2010.  
Note: <sup>1</sup> Data refer to the second quarter of the year.

## Temporary employment

*Temporary employment is an important indicator of labour-market flexibility. The use of temporary forms of employment enables enterprises to adjust to changes in the structure and volume of demand. Enterprises tend to respond to the economic crisis by reducing the number of employees by non-extension of fixed-term employment contracts, so the share of temporary employment in total employment typically diminishes in such periods. Along with the economic crisis, the frequency of use of temporary employment is also related to the rigidity of dismissal regulations and the seasonal nature of production in certain industries. For employees, however, temporary employment increases the risk of poverty, which is higher for employees on fixed-term contracts than for those with permanent employment.*

*In 2009,<sup>1</sup> the share of temporary employment in total employment dropped for the second year running. Following a period of steady growth between 2000 and 2007 (in the second quarter of 2007, when it was highest, the share was 18.5%), the share of temporary employment has diminished over the past two years (to 16.4% in the second quarter of 2009). This reduction can be assigned to lower demand for labour due to declining economic activity, which resulted in fewer conclusions of fixed-term employment contracts and in a reduced volume of student work.*

*The share of women on temporary employment contracts in the total number of employed women in Slovenia is higher than the corresponding share for men, yet the difference between the two diminished considerably last year. In the second quarter of 2009, the share of women with temporary employment contracts in the total number of employed women was 1.6 p.p. lower than in the same period of 2008, whereas in the same period, the share of men on temporary employment contracts in the total number of employed men increased by 0.5 p.p. In the EU as a whole, both shares declined. In 2009, the difference between the shares of women and men on temporary employment contracts thus diminished considerably in Slovenia (from 4.3 p.p. in the second quarter of 2008 to 2.2 p.p. in the second quarter 2009), but is still above the EU average (1.7 p.p. in the second quarter 2009).*

*The prevalence of temporary employment is typically higher among the young, and the share of young people working in this type of employment decreased in 2009. In the second quarter of 2009, the share of women working on temporary employment contracts in the age group of 15–24 years was 74.2%, a 2 p.p. drop over the same period of 2008. In the same age group, however, the share of*

men on temporary employment contracts amounted to 58.6%, i.e. 1.5 p.p. less than in a year before.

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<sup>1</sup> Data refer to the second quarter of the year.

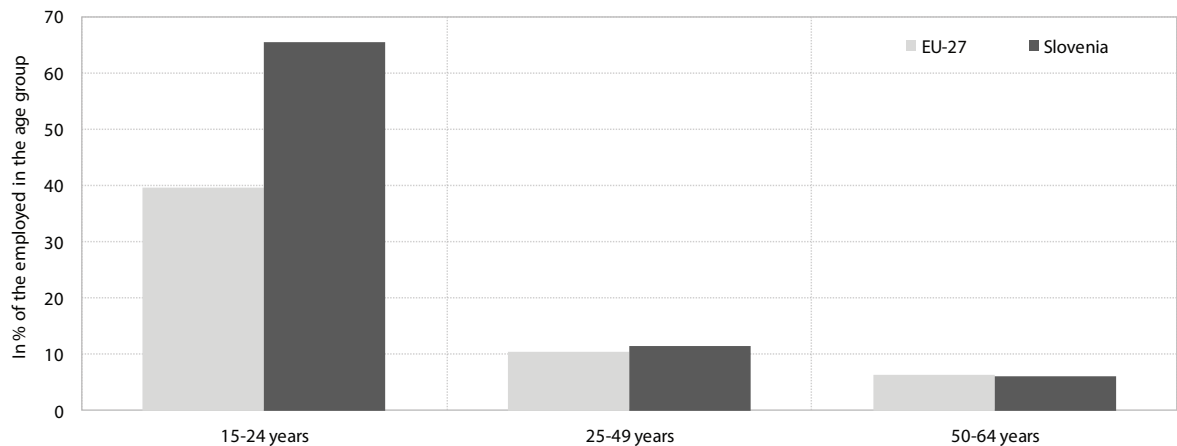
Table: Share of temporary employment in the age group 15–64, 2000–2009<sup>1</sup>

	2000	2005	2006	2007	2008	2009
<b>EU</b>	<b>14.7</b>	<b>15.0</b>	<b>15.6</b>	<b>15.3</b>	<b>15.1</b>	<b>14.3</b>
Austria	8.9	8.8	8.7	8.8	8.7	8.6
Belgium	12.9	14.4	15.0	15.3	15.1	14.3
Bulgaria	N/A	6.1	5.9	5.9	4.2	4.7
Cyprus	14.3	19.7	19.9	19.2	20.5	20.5
Czech Rep.	8.6	9.1	9.6	9.6	9.3	9.3
Denmark	11.7	11.0	11.1	10.3	9.3	10.3
Estonia	N/A	2.5	2.3	N/A	N/A	2.0
Finland	20.9	21.8	21.8	21.1	20.7	19.9
France	N/A	15.5	15.4	15.7	15.6	14.9
Greece	16.3	14.7	13.3	13.4	13.7	14.1
Ireland	6.6	2.7	4.9	10.9	9.4	9.2
Italy	12.2	14.8	15.3	16.6	16.4	15.1
Latvia	4.5	5.9	4.8	4.1	2.0	2.3
Lithuania	2.7	3.4	2.8	2.1	1.8	1.7
Luxembourg	4.4	5.8	6.6	6.8	6.8	9.2
Hungary	6.3	6.5	6.0	6.9	7.0	7.5
Malta	5.1	5.5	6.4	8.8	5.8	6.4
Germany	13.1	13.5	13.9	14.3	14.9	14.5
Netherlands	17.1	16.6	17.6	19.5	19.9	20.0
Poland	4.7	24.5	25.6	27.6	27.9	26.3
Portugal	22.2	20.4	21.5	22.7	24.9	23.1
Romania	2.9	2.1	1.8	1.6	1.2	1.0
Slovakia	4.3	4.8	5.0	5.6	4.2	3.6
<b>Slovenia</b>	<b>13.4</b>	<b>17.9</b>	<b>19.7</b>	<b>20.7</b>	<b>19.2</b>	<b>17.6</b>
Spain	34.7	35.6	37.3	33.3	31.2	27.0
Sweden	16.5	17.8	19.2	20.1	18.9	18.0
U. K.	7.6	5.8	6.2	6.4	5.9	5.9

Source: Eurostat Portal Page - Labour market, 2010.

Notes: <sup>1</sup> Data refer to the second quarter of the year. N/A – not available.

Figure: Prevalence of temporary employment by age group in Slovenia and EU, second quarter of 2009



Source: Eurostat Portal Page - Labour market, 2010.

## Part-time employment

*As in most other EU countries, the prevalence of part-time employment increased in Slovenia in 2009<sup>1</sup> due to the economic crisis (with a reduction of working hours). Applying shorter working hours is one of the ways that enterprises can adjust to decreased demand in goods markets and was supported through subsidies by a number of EU countries during the economic crisis. It showed as an increase in the share of part-time employment in total employment in the EU average, from 17.7% in the year 2008 to 18.2% in 2009. In most EU countries, the share of part-time employment in the second quarter of 2009 was higher than in the second quarter of 2008; the increase was greatest in Estonia (5 p.p.) followed by Ireland (2.4 p.p.). Slovenia is also among those countries where the share of part-time employment surged in the last year (1.6 p.p.).*

*In 2009, the highest increase in the share of part-time employment in Slovenia was recorded in the male population. In the second quarter of 2009, the share of part-time employment in total employment amounted to 9.7%, a 1.6 p.p. increase over the same period of 2008. The share of part-time employment in the total number of women employed was 11.5%, a 1.2 p.p. increase over the year before, whereas the share of men in part-time employment was 8.2%, i.e. 1.9 p.p. higher than the year before. The increase in part-time employment was largely due to the Partial Subsidising of Full-time Work Act adopted in January. According to our estimates, the higher increase in the share of part-time employment in men results from the greater prevalence of part-time employment in the manufacture of metals and metal products, and in the manufacture of furniture, both of which predominantly employ men.*

*The share of part-time employment in Slovenia still lags behind the EU average, but in 2009 the difference was slightly smaller than the year before. In the EU as a whole, the share of part-time employment increased by 0.5 p.p. between the second quarter of 2008 and the second quarter of 2009, while in Slovenia the increase was 1.6 p.p. The gap between Slovenia and the EU average thus diminished from 9.6 p.p. in 2008 to 8.5 p.p. in 2009.*

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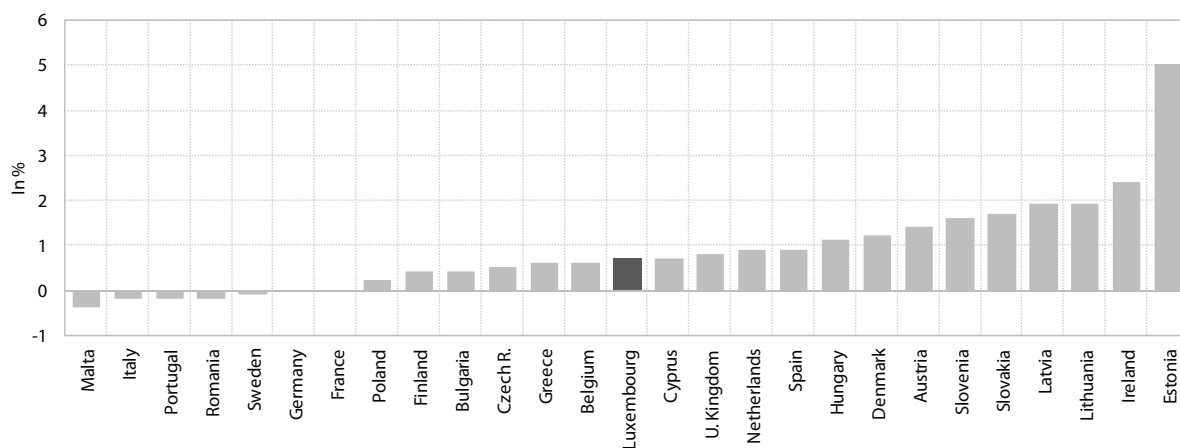
<sup>1</sup> Data refer to the second quarter of the year.

Table: Share of part-time employment in total employment (15–64 years), EU countries, 2000–2009<sup>1</sup>

	2000	2005	2006	2006	2008	2009
<b>EU</b>	<b>15.8</b>	<b>17.4</b>	<b>17.7</b>	<b>17.7</b>	<b>17.7</b>	<b>18.2</b>
Austria	16.0	20.4	21.5	22.0	22.7	24.1
Belgium	20.6	21.7	22.9	22.5	22.4	23.0
Bulgaria	N/A	2.3	1.9	1.7	1.9	2.3
Cyprus	7.6	7.5	6.7	6.1	6.6	7.3
Czech Rep.	4.8	4.3	4.4	4.4	4.3	4.8
Denmark	21.4	21.5	22.9	23.6	23.9	25.1
Estonia	6.3	6.8	7.1	7.0	5.6	10.6
Finland	11.9	13.2	13.0	13.0	12.3	12.7
France	N/A	17.1	17.2	17.2	16.9	16.9
Greece	4.4	4.6	5.6	5.5	5.2	5.8
Ireland	16.6	N/A	N/A	17.6	18.0	20.4
Italy	8.7	12.6	13.2	13.3	14.4	14.2
Latvia	10.5	8.9	6.0	6.4	5.7	7.6
Lithuania	8.9	6.3	8.6	7.9	6.3	8.2
Luxembourg	11.2	17.4	17.1	17.5	16.3	17.0
Hungary	3.4	4.1	3.9	3.8	4.1	5.2
Malta	6.1	8.8	9.6	10.7	11.4	11.0
Germany	19.1	23.6	25.4	25.6	25.5	25.5
Netherlands	41.0	45.8	45.8	46.3	46.7	47.6
Poland	9.3	9.7	9.0	8.5	7.6	7.8
Portugal	8.1	8.4	8.1	8.9	8.8	8.6
Romania	14.0	9.6	8.6	8.6	8.8	8.6
Slovakia	1.8	2.3	2.7	2.6	2.1	3.8
<b>Slovenia</b>	<b>5.3</b>	<b>7.8</b>	<b>8.4</b>	<b>8.8</b>	<b>8.1</b>	<b>9.7</b>
Spain	8.0	12.6	12.1	11.8	11.9	12.8
Sweden	21.8	24.3	24.3	24.3	26.1	26.0
U. K.	24.4	24.6	24.3	24.2	24.2	25.0

Source: Eurostat Portal Page – Population and Social Conditions – Labour market, 2010.  
 Note: <sup>1</sup> Data refer to the second quarter of the year; N/A – not available.

Figure: Increase in the share of part-time employment in the second quarter of 2009 compared to the second quarter of 2008



Source: Eurostat Portal Page – Population and Social Conditions – Labour market, 2010.

## Social-protection expenditure

*Social-protection expenditure in Slovenia increased somewhat in real terms in 2007, while it fell again as a share of GDP, mainly as a result of rapid GDP growth.* Slovenia allocated EUR 7,381 m or 21.4% of GDP to social protection in 2007, which is 1.3 p.p. less than a year before and 4.8 p.p. below the EU average. The 2007 reduction resulted from GDP growing faster than social-protection expenditure, which increased by close to 5% in nominal terms and by a solid 1% in real terms. In 2000, expenditure on social protection accounted for 24.2% of GDP in Slovenia and has been declining steadily since 2001. The decline is attributable to a mix of various factors: GDP growing faster than social-protection expenditure, changes in social-protection schemes (such as pension reform), as well as lower unemployment and an increasing level of wages, which reduced the need for social transfers. The average share of GDP of social-protection expenditure in the EU-25<sup>1</sup> had been increasing from 2000, when it totalled 26.5%, to 2003, while in 2004 it also started to decline. The difference between Slovenia and the EU-25 average increased from 2.3 p.p. to 5 p.p. in 2000–2007.

*Data on social-protection expenditure in purchasing-power standards per capita, which are a more accurate indicator of the level of development of the social-protection system, indicate that the level of expenditure remained more or less unchanged relative to the EU-25.* In terms of purchasing-power per capita (measured in PPS), Slovenia reached 70% of the average social-protection expenditure in the EU-25; this level has not changed substantially since 2000, when it was 69%.<sup>2</sup> In terms of expenditure on social protection in purchasing-power standards, Slovenia comes closest to the EU-25 in the following functions: survivors,<sup>3</sup> sickness and healthcare, and family and children. It significantly exceeds the EU-25 average in expenditure on social exclusion not elsewhere classified (which is also due to different systems of financing social-protection programmes<sup>4</sup>), while lagging notably behind the EU-25 in expenditure on housing. In the area of unemployment, Slovenia is at a level of only 30% of the EU-25 average, and this ratio is deteriorating.

As in the EU as a whole, Slovenia allocates the bulk of social-protection expenditure for old age and sickness

and health care combined. Looking at the structure of expenditure on total social protection in Slovenia, the largest shares are allocated to old age (39.3%; in the EU-27, 39.6%) and sickness and healthcare functions (32.1%; in the EU-27, 39.3%), followed by family and children (8.7%; in the EU-27: 8.0%), disability (7.8%; in the EU-27: 8.1%), survivors<sup>5</sup> (7.4%; in the EU-27: 6.6%), unemployment (2.3%; in the EU-27: 5.1%), social exclusion not elsewhere classified (2.3%; in the EU 27: 1.3%) and housing, where Slovenia stands out the most compared with the EU-27 (0.1%; in the EU27: 2.3%).

*Broken down by source of finance, social protection in Slovenia is mostly financed from contributions by the insured, while social-protection receipts in the EU mainly come from employers' contributions.* The major source of finance for social protection in Slovenia is contributions from the insured (41%), while in the EU-27 the main source is employers' contributions (38.5%) immediately followed by government taxes (38%). The differences in sources of finance for social protection reflect the differences in individual countries' social-security systems,<sup>6</sup> but Slovenia stands out significantly regarding the share of the contributions from the insured; in the EU-27 as a whole, the share of these contributions is half the size (20%).

*Social-protection expenditure is distributed efficiently in Slovenia.* The share of administration costs incurred in the implementation of social-security programmes is one of the indicators of the efficiency and performance of social expenditure. The data show that in implementing social-security programmes Slovenia is more efficient than the EU-27 countries as a whole, with administration costs accounting for 2.1% of total social-protection expenditure, whereas in the EU-27 these costs are 0.9 p.p. higher (3.0%).

<sup>1</sup> For the EU-27, data are only available from 2005 onwards.

<sup>2</sup> A similar situation is also shown by the data in the table where expenditure on social protection (in PPS) is compared to the EU-15 average.

<sup>3</sup> In 2006, changes were made to the ESSPROS methodology for survivors. Since 2006, this area has also included survivors' pensions (which had previously been included in the old-age function), hence the jump in the data.

<sup>4</sup> Within this function, Slovenia categorises data on benefits for the poor, which in other countries are probably shown under other functions, such as children and family, housing, etc.

<sup>5</sup> Mainly expenditure on survivors' and widows' pensions.

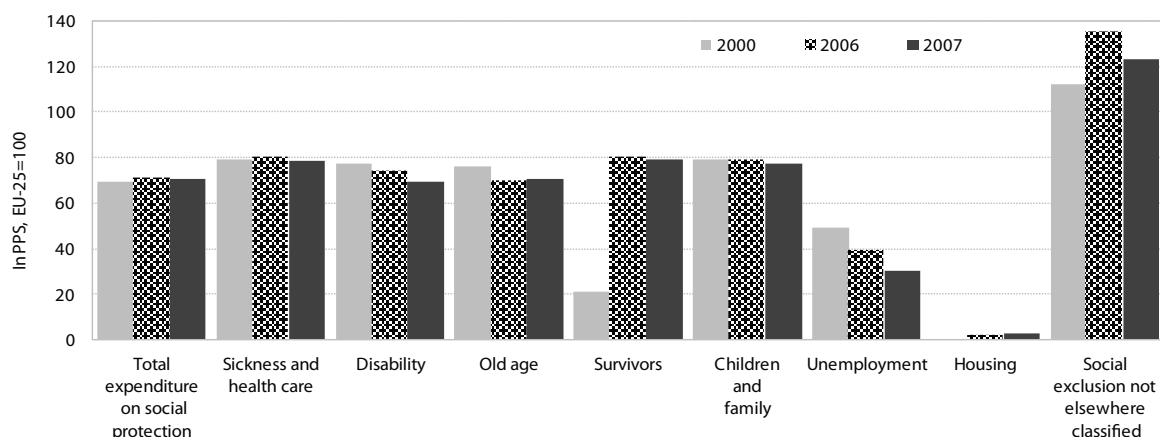
<sup>6</sup> Depending on whether individual countries follow the Bismark or Beveridge social-security system tradition.

Table: Social protection expenditure in Slovenia and in the EU, as % of GDP and in PPS per capita

	% of GDP					Per capita in PPS, EU-15=100				
	1996	2000	2005	2006	2007	1996	2000	2005	2006	2007
<b>EU-27</b>	<b>N/A</b>	<b>N/A</b>	<b>27.1(p)</b>	<b>26.9(p)</b>	<b>26.2(p)</b>					
<b>EU-15</b>	<b>27.8</b>	<b>26.8</b>	<b>27.7(p)</b>	<b>27.5(p)</b>	<b>27(p)</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
Austria	28.9	28.4	28.9	28.5	28	120	121	115	115	116
Belgium	28	26.5	29.6	30.2	29.5	108	108	113	116	116
Bulgaria	N/A	N/A	16	14.9	15.1	N/A	N/A	18	18	19
Cyprus	N/A	14.8	18.4	18.4	18.5(p)	N/A	42	53	54	56
Czech Rep.	17.6	19.5	19.2	18.7	18.6	41	43	46	47	50
Denmark	31.2	28.9	30.2	29.3	28.9	128	123	120	117	116
Estonia	N/A	13.9	12.6	12.3	12.5	N/A	20	25	26	29
Finland	31.4	25.1	26.8	26.2	25.4	103	95	98	98	98
France	30.6	29.5	31.4	30.7	30.5(p)	109	110	111	109	111
Greece	20.5	23.5	24.6	24.5	24.4	53	64	72	74	77
Ireland	17.6	13.9	18.2	18.3	18.9	59	59	83	87	94
Italy	24.3	24.7	26.4	26.6(p)	26.7(p)	90	93	88	90	91
Latvia	N/A	15.3	12.4	12.3	11(p)	N/A	18	19	21	21
Lithuania	13	15.8	13.1	13.2	14.3(p)	15	20	22	24	29
Luxembourg	21.2	19.6	21.7	20.3	19.3	146	155	177	178	177
Hungary	N/A	19.6	21.9	22.4	22.3	N/A	35	44	46	47
Malta	17.5	16.9	18.6	18.2	18.1	44	46	46	46	47
Germany	29.4	29.3	29.7	28.7	27.7(p)	116	112	111	108	106
Netherlands	29.6	26.4	27.9	28.8	28.4(p)	114	114	117	123	124
Poland	N/A	19.7	19.7	19.4	18.1	N/A	30	32	33	32
Portugal	20.2	21.7	25.3	25.4	24.8	47	55	62	63	63
Romania	N/A	13	13.2	12.5	12.8	N/A	10	15	15	18
Slovakia	19.5	19.4	16.5	16.3	16(p)	30	31	32	34	36
<b>Slovenia</b>	<b>23.5</b>	<b>24.2</b>	<b>23.0</b>	<b>22.7</b>	<b>21.4(p)</b>	<b>55</b>	<b>62</b>	<b>64</b>	<b>65</b>	<b>64</b>
Spain	21.5	20.3	20.9	20.9	21(p)	61	71	68	71	74
Sweden	33.1	30.1	31.5	30.7	29.7(p)	128	123	121	122	121
U. K.	27.4	26.4	26.3	26.1	25.3(p)	98	102	102	102	100

Source: Eurostat Portal Page – Total expenditure on social protection, Total expenditure on social protection per head of population, PPS, 2010, calculations by IMAD.  
 Notes: PPS – purchasing power standard; p – provisional data; N/A – not available. Except for 2005, 2006 and 2007, data for Slovenia exclude housing data.

Figure: Social-protection expenditure per capita in Slovenia (in PPS), EU-25=100



Source: Eurostat/ESSPROS; 2010, calculations by IMAD.  
 Note: PPS – purchasing power standards.



## Expenditure on health

*In terms of share of GDP, health expenditure in Slovenia in 2007 fell below the EU average; health expenditure per capita also shows that Slovenia lagged behind the advanced European economies.* In 2007 (the latest internationally comparable figure), health expenditure as a share of Slovenia's GDP decreased to 7.8% (8.3% in 2006), while it rose again in 2008, to 8.1%, which has been approximately the average level in the EU for several years. According to a preliminary estimate,<sup>1</sup> health expenditure in 2009 was at 8.9%. In 2009, this central indicator also increased as a result of a steep GDP decline coupled with high growth in public expenditure. Expressed in USD PPS, Slovenia allocated PPS USD 2,096 per inhabitant in 2007 (PPS USD 2,056 in 2006), which is more than all new Member States (excluding Malta), yet still below the EU average (PPS USD 2,432 in 2006).

*After several years of weak growth, health expenditure increased strongly in the 2008–2009 period, which was mainly due to wage rises in the health sector.* According to the Health Insurance Institute (HII), health expenditure increased by 6.0% in real terms in 2008, and by 6.4% in 2009, mainly as a result of wage rises for health-care workers aimed at eliminating wage disparities in the public sector (Annual Report of the Health Insurance Institute for the year 2009). According to HII data, transfers to public institutions for disbursement of wages increased by as much as 15.5% in real terms in 2008, and by 9.8% in 2009, according to the first estimate (Financial plan for 2010, February 2010).

*The share of private expenditure on health increased considerably in 2007, mainly due to strong growth in out-of-pocket health expenditure.* After a long period of weak growth in public expenditure on health, the share of total private health expenditure in Slovenia in 2007 amounted to 28.4%, which was above the EU average. According to the preliminary figures, the share of private expenditure in 2008 dropped to 27.7%, and in 2009 to 26.8% (Annual Report of the Health Insurance Institute for the year 2009). Particularly in 2007, out-of-pocket household expenditure, which already accounted for as much as 13.8% of total expenditure, increased substantially more than expenditure from voluntary health insurance (the share of expenditure from voluntary insurance amounted to 12.9%). The share of out-of-pocket household expenditure in the structure of private expenditure on health amounted to as much as 48.6% in 2007 (42.8% in 2006) and already exceeded the share of expenditure from voluntary health insurance (45.4%).<sup>2</sup> Compared with other EU countries, the share of out-of-pocket household expenditure is nevertheless

still low (in the EU and OECD average, out-of-pocket household expenditure accounts for around 75% of total private expenditure), which is due to Slovenia's system of supplementary health insurance that covers the difference to the full price for health services.

*The share of expenditure on outpatient curative care in the structure of out-of-pocket expenditure is increasing, whereas the share of expenditure on medicines diminished slightly in the 2003–2007 period.* Over half of out-of-pocket household expenditure on health services in Slovenia is allocated for outpatient curative-care services (52.5% in 2007), of which the biggest shares are devoted to specialist and other treatments (30%), and dental services (16%), followed by expenditure on medicines and medical devices, which accounted for 37.8% in 2007 (40.2% in 2003). In addition to expenditure on out-patient curative care, out-of-pocket expenditure on rehabilitative care also increased significantly in the 2003–2007 period (accounting for 4.1% in 2007) and on long-term nursing care (3.9% in 2007).

<sup>1</sup> Source: Annual Report of the HII for 2009. Ljubljana: HII, February 2009 (study materials for administrative bodies).

<sup>2</sup> In addition, expenditure by companies and expenditure by non-profit institutions account for 6% of private spending (see figure).

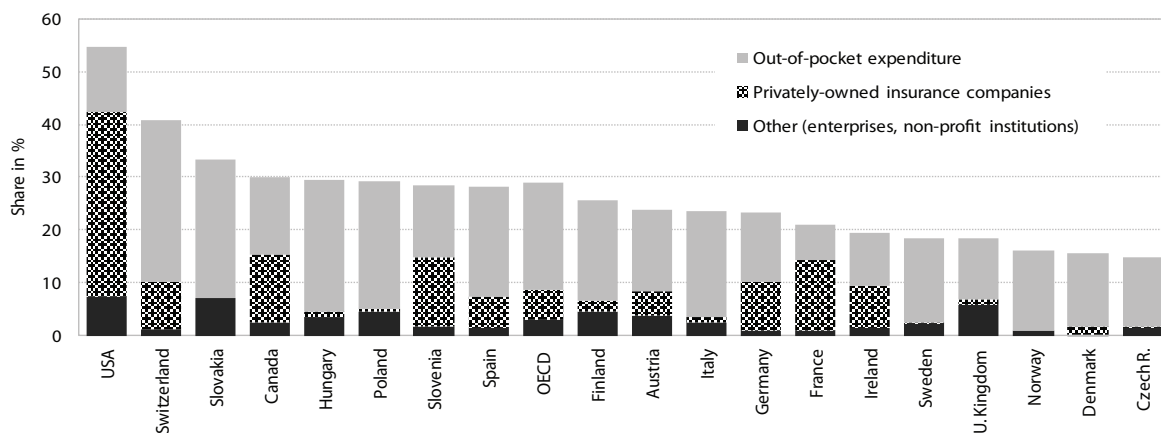
Table: Expenditure on health in EU countries, 2000 and 2007

	Total health expenditure, in % of GDP <sup>2</sup>		Public expenditure on health, in % of GDP <sup>2</sup>		Private expenditure on health as a share of total expenditure, in %		Total expenditure per capita in US dollars PPS
	2000	2007	2000	2007	2000	2007	2007
<b>EU</b>	<b>7.3</b>	<b>8.2</b>	<b>5.3</b>	<b>5.9</b>	<b>27.5</b>	<b>27.6</b>	<b>2432</b>
Austria	9.9	10.1	7.5	7.7	24.1	23.6	3606
Belgium	8.6	10.2	6.5	7.3	24	24.0	3462
Bulgaria <sup>1</sup>	6.2	7.2	3.7	4.1	40.6	43	744
Cyprus <sup>1</sup>	5.7	6.2	2.4	2.8	58.4	55.2	2754
Czech Rep.	6.5	6.8	5.9	5.8	9.7	14.8	1509
Denmark	8.3	9.8	6.8	8.2	17.6	15.5	3362
Estonia <sup>1</sup>	5.3	5.2	4.1	3.8	22.5	26.7	958
Finland	7.0	8.2	5.1	6.1	24.9	25.4	2668
France	10.1	11.0	8.0	8.7	21.7	21.0	3449
Greece	7.8	9.6	4.7	5.8	55.8	39.7	2483
Ireland	6.3	7.6	4.6	6.1	27.1	19.3	3082
Italy	8.1	8.7	5.8	6.7	27.5	23.5	2614
Latvia <sup>1</sup>	5.9	6.6	3.2	3.9	46.1	40.8	1018
Lithuania <sup>1</sup>	6.5	6.2	4.5	4.3	30.3	30.0	981
Luxembourg <sup>1</sup>	5.8	7.3	5.2	6.6	10.7	9.1	4303
Hungary	6.9	7.4	4.9	5.2	29.3	29.4	1504
Malta <sup>1</sup>	7.5	8.4	5.6	6.5	25.8	23.0	4223
Germany	10.3	10.4	8.2	8.0	20.3	23.1	3371
Netherlands <sup>1</sup>	8.0	9.8	5.0	5.0	36.9	36.9	N/A
Poland	5.5	6.4	3.9	4.6	30	30.0	910
Portugal <sup>1</sup>	8.8	9.9	6.4	7.1	27.5	29.1	2120
Romania <sup>1</sup>	5.1	4.5	3.4	3.5	32.7	23.1	472
Slovakia	5.5	7.7	4.9	5.2	10.6	33.2	1308
<b>Slovenia</b>	<b>8.3</b>	<b>7.8</b>	<b>6.1</b>	<b>5.6</b>	<b>26</b>	<b>28.4</b>	<b>2056</b>
Spain	7.2	9.1	5.2	7.4	28.4	18.3	3202
Sweden	8.2	10.8	7.0	6.4	15.1	40.7	4311
U. K.	7.2	8.4	5.8	6.9	19.1	18.3	2760

Source: OECD Health Data 2009; for Belgium: OECD Health Data 2008; for Bulgaria, Cyprus, Estonia, Latvia, Lithuania, Malta and Romania, data have been obtained from the WHOSIS database 2009; data for Slovenia are for 2007: Health expenditure (SORS) 26 Oct. 2009 and for 2000 calculation by SORS according to the OECD methodology based on data from the state and local budgets, HII, PDI and SORS; the average for EU-27 calculated by IMAD except for the averages for expenditure in USD PPS.

Notes: <sup>1</sup> 2006; <sup>2</sup> Revision of GDP of September 2009.

Figure: Share of private health expenditure in total health expenditure, by source, Slovenia and OECD countries, 2007, in %



Source: OECD Health Data 2009; SORS Health expenditure (Release: 26 October 2009).

## Expenditure on long-term care

*Long-term care is an organised form of health and social assistance provided to individuals who need help with their daily routine for a period longer than six months. This definition of long-term care<sup>1</sup> (LTC) is the basis for the single methodology used in monitoring expenditure on LTC.<sup>2</sup> Among other things, the methodology precisely defines the boundary between long-term health services and long-term social services, which is one of the most critical points regarding the international comparability of expenditure on LTC as well as total expenditure on health (the latter only includes expenditure on long-term health services).<sup>3</sup>*

*The share of total expenditure on LTC in Slovenia is at the level of the EU-25 average, lower than that in the more developed EU countries, but higher than in most of the new Member States. In 2007, total LTC expenditure as a share of GDP in Slovenia dropped slightly, to 1.02% of GDP (1.08% in 2006), with public expenditure accounting for three quarters of this (75.4%). By function, the share of expenditure on long-term health services totalled 61.5% and the share of expenditure on long-term social services 38.5%.<sup>4</sup>*

<sup>1</sup> Towards the end of 2005, the definition of LTC was proposed by three international institutions – the OECD, the Eurostat and the WHO. The same definition is provided in the draft Long-term Care and Long-term Care Insurance Act which is currently being drawn up.

<sup>2</sup> In accordance with the above methodology, SORS has been publishing data on LTC expenditure since December 2006 within the annual publication of data on health-care expenditure. Total LTC expenditure is the sum total of expenditure on long-term health care services (HC.3) and expenditure on long-term social services (HC.R.6.1).

<sup>3</sup> The demarcation refers to the type of service required by an individual. Long-term health services are required by those with a reduced degree of physical or cognitive capacity, who are consequently dependent on the assistance with basic activities of daily living (ADL), which mainly include changing clothes, washing, moving and changing body postures as well as the ability to control defecation and urination. Long-term social services include instrumental activities of daily living (IADL), i.e. other activities necessary to remain independent, such as shopping, cooking, doing the laundry, using transport, and cleaning.

<sup>4</sup> Long-term health care is mostly financed from public sources (92.4% in 2007). These are mostly the HIIS funds intended for health care services in residential homes for the elderly and specialised social institutions, extended hospitalisation, and partly the home-nursing service that provides LTC. Long-term health care also includes funds of the PDII earmarked for 'attendance allowances'. People entitled to this allowance are those unable to perform ADL. A good half of the LTC expenditure (48.3% in 2007) is financed from public sources (the national and local budgets) while the remaining half is covered by private funds (51.7%). Private funds mostly comprise extra payments for accommodation and food in residential homes for the elderly and other types of institutional care as well as household expenditure on home assistance.

*In previous years, Slovenia recorded relatively high growth in expenditure on LTC. In 2003–2007, total LTC expenditure in Slovenia increased in real terms by as much as 20.8% (i.e. by an average of 4.8% per year). Similarly high growth of total LTC expenditure in that period was recorded in Finland. Growth was higher in Spain and France, whereas Germany and Sweden, which already have better long-term care systems in place, recorded weaker growth.*

*In 2007, LTC expenditure from private sources showed a particular increase. The growth of total expenditure on LTC slowed to 2.4% in real terms in 2007. Following rapid growth in the 2004–2005 period, mainly in public expenditure on LTC, 2006 and 2007, in particular, saw stronger growth of expenditure from private sources (in 2006, this expenditure increased by 7.2% in real terms, and in 2007, by 10.1%). A strong increase was also recorded for both private expenditure on long-term health services and private expenditure on long-term social services, the latter being mostly co-payments for accommodation and food in old people's homes, which increased due to increased capacities and the possibility of choosing a higher (and more expensive) standard of care in newly built residential homes. Private expenditure on long-term social care additionally increased due to a rise in household expenditure on home assistance. For 2007, this increase can be partly attributed to changes in the system of financing for family helpers and to a considerable reduction in the related public expenditure. On the other hand, this was also reflected in extremely weak growth of public expenditure on long-term social care, which was only 0.1% in 2007. Compared with the year before, the growth of public expenditure on long-term health services became slightly stronger. By source of financing, the share of private LTC expenditure in total LTC expenditure increased in 2007 (to 24.1%), while by function, the share of expenditure on social-care services increased (to 38.5%).*

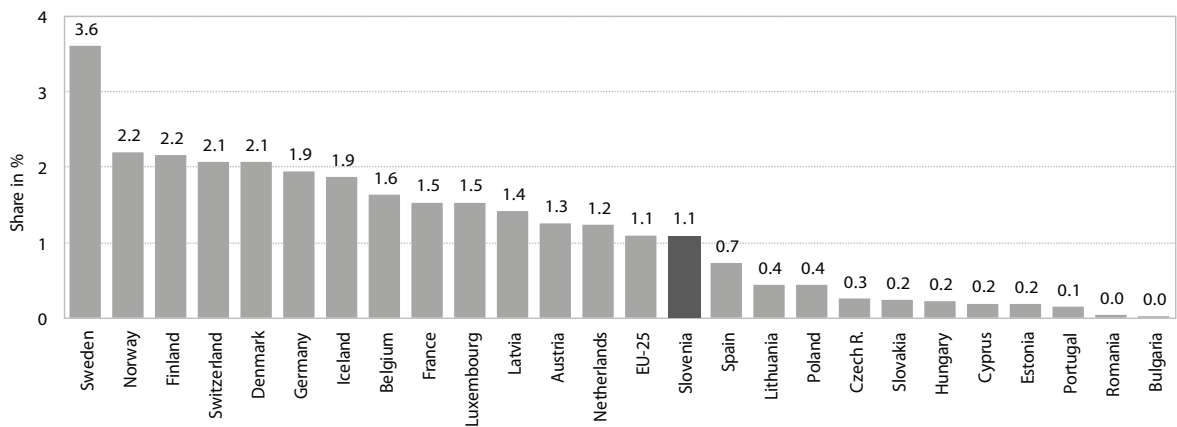
*Less than one quarter of total expenditure on LTC in Slovenia is allocated to long-term home care, yet the share is increasing. Data on LTC expenditure for Slovenia show that LTC (both health and social) is largely performed in institutions, yet the share of long-term home care expenditure is increasing – in 2007 it accounted for 23.3%, which represents a 0.7 p.p. increase over the year before.*

Table: Expenditure on long-term care by source of financing and by function, Slovenia, 2003–2007

	EUR m			Share in GDP, in %			Structure, in %			Real growth (%)		Average annual real growth, in % 03–07
	2003	2006	2007	2003	2006	2007	2003	2006	2007	07/06	07/03	
Long-term care	260	334	354	1.04	1.08	1.02	100.0	100.0	100.0	2.4	20.8	4.8
By source of financing:												
Public sources	198	258	267	0.79	0.83	0.77	76.1	77.1	75.4	0.1	19.7	4.6
Private sources	62	76	87	0.25	0.25	0.25	23.9	22.9	24.6	10.1	24.1	5.5
By function:												
Health care	157	206	218	0.62	0.66	0.63	60.3	61.7	61.5	2.1	23.4	5.4
Social care	103	128	136	0.41	0.41	0.39	39.7	38.3	38.5	2.8	16.9	4.0

Source: SORS, first published on 26 October 2009.

Figure: Total expenditure on long-term care as a share of GDP, EU-25, 2006, in %



Source: Eurostat, SORS, 2010.

## Private expenditure on education

*In 2007, the share of private expenditure on education<sup>1</sup> increased for all levels of formal education.* The share of private expenditure on education is a significant indicator of the financial accessibility of education. In 2007, this share amounted to 13.2% and was 0.18 p.p. higher than in the previous year. With a 13.0% share of private expenditure on education in 2006, the latest year for which data are available at the international level, Slovenia exceeded the EU-27 average by 0.5 p.p. On share, Slovenia was ranked among the upper third of EU-27 countries. In 2006, the share of private expenditure on education diminished, to a level similar to the value for the EU-27 average (Slovenia: by 0.3 p.p., EU-27: by 0.2 p.p.). In the 2000–2006 period, the share of private expenditure on education in Slovenia also dropped, by 1.9 p.p., a trend contrary to that for the EU-27 average, which rose by 1.0 p.p.

*The share of private expenditure on pre-school education rose in 2007 to a relatively high level.* It amounted to 16.1%, a 0.54 p.p. increase over the previous year. In 2006 (the latest internationally comparable data), the share exceeded (by 3.5 p.p.) the average for the EU-19 countries<sup>2</sup> that are also OECD members (12.0). Compared with the previous year, the decrease in the share exceeded the drop in the EU-19 average. In the 2000–2007 period, the share of private expenditure on pre-school education dropped significantly (by 10.0 p.p.).

*In 2007, the share of private expenditure on education decreased for primary schools, increased for upper secondary schools, but exceeded the EU-19 average at both levels.* In 2007, the share of private expenditure on primary education amounted to 9.9%, 0.29 p.p. lower than the year before. The share of private expenditure on secondary education, on the other hand, recorded an increase of 0.73 p.p., totalling 9.0% in 2007. The share of private expenditure in 2006 on both primary and upper-secondary education exceeded by 3.0 p.p. the average of the EU-19 countries that are also OECD members (EU-19: 6.6%). Compared with the year before, this share dropped slightly in Slovenia, while the EU-19 average increased. In the 2000–2007 period, the share of private expenditure increased by 2.8 p.p. for primary education, and diminished by 4.0 p.p. for upper secondary education. Since 2008, the share of private expenditure

on upper-secondary education has been influenced by the Subsidised Upper-Secondary School Students Meals Act (ZSDijP) adopted in 2008, introducing the right to a subsidised cooked meal for every student.

*For tertiary education, the share of private expenditure exceeds the EU-27 average, but has been decreasing over the past years.* In 2007, it amounted to 22.0% and dropped compared with the year before, thus continuing the negative trend from previous years. At 22.4% in 2006, it was 0.9 p.p. higher than the EU-27 average. Compared with the previous year, it dropped by 0.4%, contrary to the trend for the EU-27 countries, where the share increased by 1.5 p.p. The main reason for the high share of private expenditure on tertiary education in Slovenia is the tuition fees for part-time students. The reduction in the share of private expenditure on tertiary education is mainly due to the decrease in the share of students enrolled in part-time undergraduate programmes. In the EU, the share of private expenditure on tertiary education is higher in those countries that also have tuition fees for full-time university studies,<sup>3</sup> while the lowest shares were recorded in certain Northern European countries (Finland, Denmark, Sweden), where there are no tuition fees for full-time students enrolled in public universities. In the 2001–2006 period, the share of private expenditure on tertiary education dropped by 2.2 p.p. in Slovenia, while it significantly increased (6.8 p.p.) in the EU-27 as a whole.

<sup>1</sup> Share of private expenditure on educational institutions in total expenditure on educational institutions (public, private and international expenditure). Private expenditure on educational institutions includes expenditure of households and other private entities paid directly to educational institutions (expenditure on school fees, meals, open-air school, accommodation for pupils and students in residence halls etc.).

<sup>2</sup> In 2006, the share of private expenditure on pre-school education in Slovenia was 15.5% (EU-19: 12.0%).

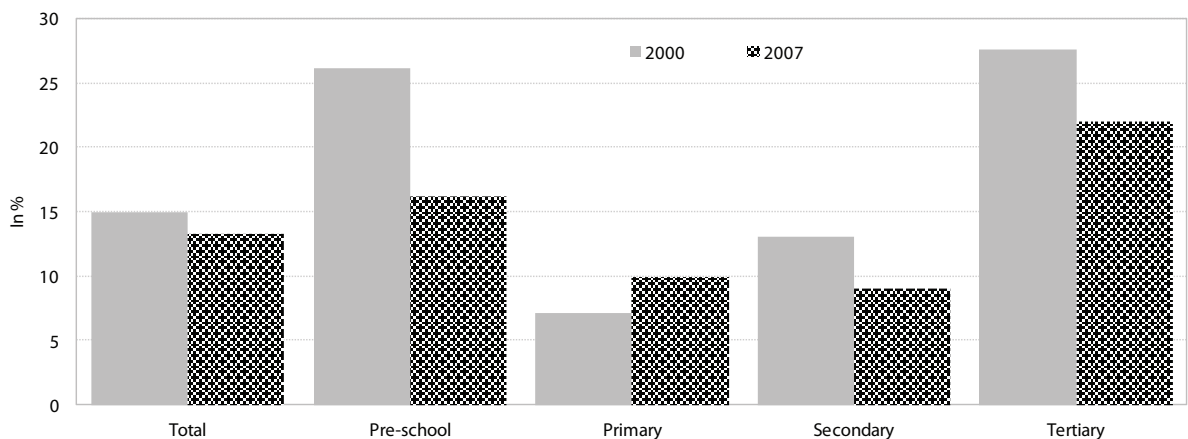
<sup>3</sup> Isced 5A, according to OECD data, Education at a Glance 2009.

Table: Share of private expenditure for all levels of formal education, EU-27, 2000–2006, in %

	1999	2000	2001	2002	2003	2004	2005	2006
<b>EU-27</b>	<b>12.2</b>	<b>11.5</b>	<b>10.9</b>	<b>11.1</b>	<b>11.4</b>	<b>11.9</b>	<b>12.7</b>	<b>12.5</b>
Austria	5.1	5.8	5.6	6.7	5.5	7.2	8.6	10.8
Belgium	5.0	7.9	7.0	5.8	5.8	5.7	5.8	5.6
Bulgaria	12.7	14.7	16.3	15.2	14.7	14.3	13.9	15.2
Cyprus	34.0	34.9	18.8	19.4	17.4	16.6	16.7	16.6
Czech Rep.	12.4	10.1	9.4	5.5	7.9	12.7	12.4	11.1
Denmark	4.0	4.0	3.9	3.9	4.5	4.4	7.7	8.1
Finland	2.2	2.0	2.2	2.2	2.1	2.1	2.2	2.5
France	8.1	8.8	8.9	9.0	9.0	9.0	9.2	9.1
Greece	6.7	6.2	5.8	4.6	5.5	4.7	6.0	N/A
Ireland	7.3	7.0	7.8	6.6	7.0	7.1	6.3	6.0
Italy	9.7	9.1	6.2	7.4	8.1	9.6	9.5	7.7
Latvia	9.8	11.1	12.7	13.5	14.5	14.8	13.8	12.0
Lithuania	N/A	N/A	N/A	N/A	8.8	9.0	9.8	9.2
Hungary	12.1	11.7	11.0	10.2	9.2	9.3	8.7	9.5
Malta	6.1	10.6	17.4	13.4	24.7	8.5	5.3	N/A
Germany	19.2	18.9	18.6	16.7	17.4	17.7	18.0	14.8
Netherlands	16.3	15.9	15.8	16.3	16.3	16.9	16.0	15.7
Poland	3.1	N/A	N/A	10.8	11.1	9.9	9.3	9.5
Portugal	1.3	1.4	1.5	1.6	1.7	2.5	7.4	8.0
Romania	9.8	8.3	6.5	4.5	N/A	N/A	N/A	N/A
Slovakia	2.2	3.6	2.9	4.7	9.8	16.0	16.1	14.8
<b>Slovenia</b>	<b>16.1</b>	<b>14.9</b>	<b>14.0</b>	<b>13.7</b>	<b>13.6</b>	<b>13.6</b>	<b>13.3</b>	<b>13.0</b>
Spain	17.7	12.6	12.2	11.6	11.4	12.9	11.4	11.1
Sweden	3.0	3.0	3.2	2.6	2.9	3.0	3.0	2.7
U. K.	16.3	14.8	15.3	15.6	16.0	16.1	19.9	24.7

Source of data: Eurostat Portal Page – Population and Social conditions, 2010; Expenditure on formal education, Slovenia, 2005–2007 – SORS (2009); Expenditure on formal education, (2006) – SORS; Expenditure on formal education, 2004 – SORS (2007); Statistical Yearbook 2008 – SORS (2008).  
 Note: No data available for Estonia and Luxembourg: N/A – not available.

Figure: Share of private expenditure on formal education by level of education, Slovenia, 2000–2007, in %



Source of data: Expenditure on formal education, Slovenia, 2005–2007 – SORS (2009); Statistical Yearbook 2008 – SORS (2008).

# Human development index

*The human development index (HDI) assesses wellbeing in three dimensions of human development: education, health and income. Despite a somewhat lower ranking in 2009,<sup>1</sup> Slovenia is in the group of countries with a high level of human development. Slovenia improved its HDI this year, and was ranked 29<sup>th</sup> (in 2008: 26<sup>th</sup> out of 179 countries). The life expectancy index increased again (from 0.878 to 0.886), as did the gross domestic product index (from 0.922 to 0.933), while the education index remained unchanged (0.969). This year, the UNDP calculated HDI for 182 countries and the top ranked countries are Norway and Australia, and among the EU countries, Ireland and the Netherlands. Eight EU-27 countries are among the countries with very high human development (HDI  $\geq$  0.955), while Slovenia is, along with the rest of the EU countries, in the group of countries with high human development (HDI  $\geq$  0.833).*

*The gender-related human development index (GDI) shows that women and men in Slovenia have almost equal access to health, income and education. The GDI measures development in the same dimension as the HDI, but is adjusted to account for inequalities between men and women. The lower the difference between the HDI and GDI, the smaller the gender gap in access to basic human resources; the higher the gender inequality in the three dimensions, the lower the GDI. Given that inequalities in access persist in most countries, the GDI is, in principle, lower than the HDI (but not necessarily the ranking). Australia tops the list, followed by Norway in second position. Among the EU countries, the top ranked countries were Sweden and France. In 2009, compared with 2008, Slovenian GDI rose from 0.920 to 0.927 and represents 99.7% of the HDI. Slovenia was placed 24<sup>th</sup>, which means that 131 out of the 155 analysed countries had a less favourable HDI to GDI ratio than Slovenia. Only the shares of estimated earned income disaggregated by gender increased in 2008–2009, while other indicators remained unchanged.*

*The gender empowerment measure (GEM) is another indicator to assess gender inequality. It ranks Slovenia considerably lower than the previous two indices, despite an improvement in the past year. The GEM<sup>2</sup> measures economic participation and decision-making (the share of women in senior and executive positions and the share of women in professional and technical positions), political*

participation (the share of women's parliamentary seats), and decision-making and power over economic resources (the estimated male-to-female earned income ratio based on data on the share of population by gender, the female and male shares of the economically active population, the ratio of female wages to male wages in the non-agricultural sector and GDP per capita in purchasing-power parities). The distribution of countries changes considerably compared with the HDI and GDI and the index value is, in principle, the lowest among the three. No country has reached the maximum value (1) so far; the highest values are in Scandinavian countries, which are generally considered the most egalitarian societies. The GEM was highest in Sweden, Norway and Finland, while in Denmark it dropped below 0.900. Slovenia's GEM (0.641, last year 0.625) is still far below the maximum score: women occupy 34% of all senior and executive positions (last year 33%). In technical and professional positions, this ratio is somewhat more favourable, with women representing more than half of the employed (56%), while the lowest share of women (10%) was recorded in decision-making positions. The share of women in the Slovenian parliament is below the global average (19%) and considerably lower than in Scandinavian countries (43%; IPU 2009 database). In terms of political representation of women, Slovenia can thus be compared with Arab countries, which, on average, have the lowest female representation in the world (9.7% in 2009). The ratio of male-to-female income did not change significantly over the two years (from 0.62 to 0.61). It was most favourable in Norway (0.77), which indicates that all countries are still far from the maximum achievable score.

<sup>1</sup> Indices are based on the data for 2007, so their values do not yet cover the period of economic crisis, which started in the second half of 2008.

<sup>2</sup> The GEM ranges between 0 and 1: 1 as a maximum achievable score indicates that women and men are equally empowered (the male and female shares in the above-mentioned spheres of public life are equal and income is evenly distributed by gender).

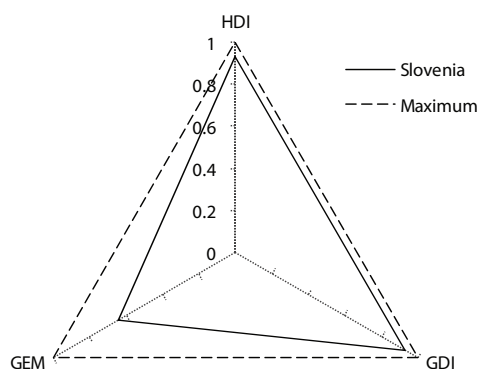
Table: Human development indicators, EU-27, 2009<sup>1</sup>

	HDI	GDI	GEM
<b>EU-27</b>	<b>0.921</b>	<b>0.915</b>	<b>0.721</b>
Austria	0.955	0.93	0.744
Belgium	0.953	0.948	0.874
Bulgaria	0.84	0.839	0.613
Cyprus	0.914	0.911	0.603
Czech Rep.	0.903	0.9	0.664
Denmark	0.955	0.947	0.896
Estonia	0.883	0.882	0.665
Finland	0.959	0.954	0.902
France	0.961	0.956	0.779
Greece	0.942	0.936	0.677
Ireland	0.965	0.948	0.722
Italy	0.951	0.945	0.741
Latvia	0.866	0.865	0.648
Lithuania	0.87	0.869	0.628
Luxembourg	0.96	0.943	
Hungary	0.879	0.879	0.59
Malta	0.902	0.895	0.531
Germany	0.947	0.939	0.852
Netherlands	0.964	0.954	0.882
Poland	0.88	0.877	0.631
Portugal	0.909	0.907	0.753
Romania	0.837	0.836	0.512
Slovakia	0.88	0.877	0.663
<b>Slovenia</b>	<b>0.929</b>	<b>0.927</b>	<b>0.641</b>
Spain	0.955	0.949	0.835
Sweden	0.963	0.956	0.909
U. K.	0.947	0.943	0.79

Source of data: UNDP, 2009.

Note: <sup>1</sup>The indices for the current year are calculated based on data of two years before. Index values in the table thus refer to 2007

Figure: HDI and GEM in EU-27, 2009



Source: UNDP, 2009.



## Minimum wage

*The minimum wage rose to EUR 597.43 in August 2009 due to a regular adjustment of 1.4% and recorded 3.7% nominal and 2.8% real growth for the year as a whole. This growth was mainly a consequence of two adjustments of the minimum wage in 2008, which contributed as much as 3.1 p.p. to the average growth in 2009, while the remaining 0.6 p.p. came from the adjustment in August 2009. The ratio of the minimum wage (EUR 592.62) to the average gross wage in the private sector (EUR 1.339) therefore increased to 44.2% in 2009 (in 2008, it amounted to 43.5%) and was higher than in 2007–2008, yet lower than in 2001–2006 when the minimum wage was not only adjusted for inflation, but also for GDP growth. International comparisons show that the ratio of the minimum wage to the average gross wage in the private sector ranges between 29% and 51%; Slovenia has always been in the upper half of countries, where this figure is above 40%. The proportion of low-wage earners ranks Slovenia below the EU average.*

*In 2000–2009, the minimum-wage policy also affected (by determining the level and method of adjustment) the levels of other wages, particularly in the private sector. Of the 19,500 minimum-wage recipients in 2009, which is 2.8% of all employees who receive wages, around 97% worked in the private sector (the employed according to the Monthly Report on Earnings and Persons in Paid Employment ZAP/M, 2.5% of all formally employed). This share of minimum-wage recipients in the private sector is partly due to business difficulties and other factors affecting wage formation in the private sector, and partly to the structure of education.<sup>1</sup> In 2000–2003, the minimum wage was adjusted by a higher percentage than the starting-level wage according to the collective agreement for the private sector and has therefore been steadily increasing in relation to the starting-level wage for the least demanding work. In 2000, it was thus 35.7% higher than the starting-level wage determined in the collective agreement for the private sector and in 2003 was already as much as 52.3%. In that period, the average gross wage in the private sector increased at a faster pace than the starting-level wages (since wage formation was impacted by corporate performance and various working conditions, such as payments for overtime work etc.), yet increased more slowly than the minimum wage. As a result, the minimum wage to average gross wage ratio increased (43.5% in 2000, and 45.9% in 2003). The movement of the minimum wage certainly helped to limit reductions of the lowest wages, which would have otherwise been more dependent on starting-level wages in the lowest wage brackets, and thus contributed to a higher level of the average wage. There was considerable pressure by employers to reduce labour costs along with the rise in the minimum wage. A concentration of low-wage earners around the*

level of the minimum wage and a consequent levelling of wages for low-wage earners were inevitable. In the next two years (2004 and 2005), the minimum wage was set at a nominal amount, while wages were adjusted by wage supplements regulated by sectoral collective agreements, which were equal for all wage brackets in individual intersectoral collective agreements. In that period, the minimum wage continued to rise at a slightly faster pace than the average gross wage in the private sector, accounting for 46.2% of the average gross wage in the private sector in 2005. With such a minimum-wage policy orientation, company performance could not be achieved solely by continually reducing labour costs. With the wage-adjustment mechanism in place in 2006, however, the minimum-wage policy moved away from these principles and the ratio of the minimum wage to the average gross wage in the private sector started to decrease. Due to pressure from trade unions, the minimum wage underwent extraordinary adjustment in 2008, yet its effect was only reflected in a higher ratio in the following year (43.5% in 2008, and 44.2% in 2009); however, it was still considerably lower than in 2005. Further pressures for a higher minimum wage will result in a higher concentration of low wages and inadequate workforce structure for the move towards high-technology production.

<sup>1</sup> In 2009, the share of low-skilled employees was about 22% in the private sector, and a mere 8% in the public sector.

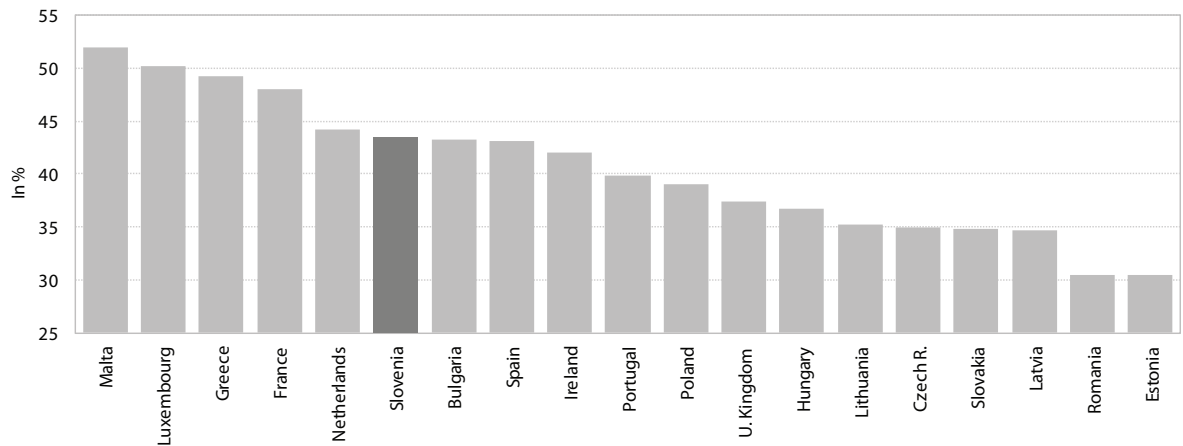
**Table: Minimum wage, average gross wage in the private sector, and the ratio of the minimum wage to the average gross wage in the private sector, Slovenia, 2000–2009**

	Minimum wage	Nominal growth of minimum wage	Real growth of minimum wage	Average gross wage in the private sector	Nominal growth of the gross wage in the private sector	Real growth of the gross wage in the private sector	Minimum wage to average wage ratio
2000	322			741			43.5
2001	366	13.5	4.7	822	10.9	2.3	44.5
2002	408	11.5	3.7	904	10.0	2.3	45.1
2003	445	9.0	3.2	969	7.1	1.4	45.9
2004	476	7.0	3.3	1.035	6.8	3.1	46.0
2005	499	4.9	2.3	1.080	5.4	2.8	46.2
2006	516	3.3	0.8	1.138	5.4	2.8	45.3
2007	529	2.5	-1.1	1.217	6.9	3.2	43.5
2008	571	8.0	2.2	1.312	7.8	2.0	43.5
2009	593	3.7	2.8	1.339	1.8	0.9	44.2

Source of data: SORS (until 2008, according to the Standard Classification of Activities – SCA 2002, and for the year 2009, according to SCA 2008), calculations by IMAD.

Note: starting with 2005, the number of wage recipients covered will be larger, as employees working for employers having one or two/ employees are also taken into account.

**Figure: Ratio of minimum gross wage to average gross wage in the private sector, EU Member States, 2008**



Source of data: Eurostat, 2010. Note: private sector excluding agriculture and fishery; no data available for other EU-27 countries.

Note: For France and Netherlands, the figure is for 2007, for Estonia and Slovakia, the figure is for 2006.

## Risk of poverty and material deprivation of the population

*In 2008, the risk of poverty slightly increased in Slovenia, yet it remained low compared with other countries, as did income inequality.* The at-risk-of-poverty rate<sup>1</sup> was 12.3% in 2008, 0.8 p.p. higher than in 2007 (11.5%). Despite a slight increase, the at-risk-of-poverty rate still shows that inequality in Slovenia is fairly low. Even compared with EU countries, Slovenia maintains a low at-risk-of-poverty rate, since lower figures were recorded in only three countries: the Czech Republic (9%), Slovakia and the Netherlands (11%), whereas Austria, Hungary and Sweden have the same rate as Slovenia. Inequality of income in Slovenia is also low according to some other indicators of inequality of income distribution. In 2008, the Gini coefficient for Slovenia was 23.4%, whereas the quintile-share ratio (quintile coefficient) was 3.4, ranking Slovenia among those countries with the lowest level of income inequality in the EU-27.<sup>2</sup>

*However, within these favourable average values, the situation of certain population groups remains very bad.* At greatest risk are those living in jobless households (39.1%), particularly those with dependent children (57%), single households (41.9%) and single-parent families (28.8%). Unemployed people and tenants also have high at-risk-of-poverty rates (37.6% and 25.2%, respectively). These socio-economic categories also tend to be at greatest risk of poverty in the EU-27, but it is worrying that the risk for certain groups (the unemployed and the population aged over 65, particularly those living in single households) has even increased. These population groups, however, would have been more vulnerable still had the government not provided a relatively efficient system of social transfers, which has helped to reduce poverty in Slovenia by nearly one half (compared with slightly more than one third in the EU).

*The material-deprivation rate<sup>3</sup> in Slovenia is relatively low, but it increased by 2.6 p.p. in 2008.* The material-deprivation

rate totalled 16.9% in Slovenia in 2008, meaning that 16.9% of people were deprived in at least three out of nine indicators of material deprivation. The material-deprivation rate of the population living below the at-risk-of-poverty threshold (considered relatively poor) was 42.7%. In the population group not considered poor (with income above the at-risk-of-poverty threshold), the material deprivation rate was also not insignificant (13.3%). The intensity of material deprivation, which means the mean number of items lacking (out of a total of nine), was identical in Slovenia in all the years analysed (2005–2008), amounting to 3.5.

*According to the general material-deprivation rate, Slovenia is ranked roughly in the middle of the EU countries.* The general material-deprivation rate in Slovenia is equal to the EU average (17%); it is also equal for the population group living above the at-risk-of-poverty threshold (13%), whereas it is slightly higher (43%) than in the EU (40%) for the population group considered relatively poor. The gaps between individual EU countries are wide. According to the general material-deprivation rate, Slovenia is ranked roughly in the middle, along with Italy, the Czech Republic and Austria. The material-deprivation data indicate considerably larger gaps between individual countries than the data on relative poverty and thus provide a more realistic picture of living conditions in the EU.

*Subjective perceptions of Survey of Living Conditions<sup>4</sup> respondents also show that the material conditions of Slovenia's population have deteriorated slightly.* More specifically, the share of people belonging to a group that had difficulty or great difficulty making ends meet has increased. Their share accounted for 27% in 2008, rising from 22% in 2007. Within this category, single-parent families (39%) and single households (36%) were worst off.

<sup>1</sup> Calculated based on disposable income, not including income in kind.

<sup>2</sup> Data for the EU-27 for 2008 show the following values: Gini coefficient: 31, quintile-share ratio: 5, at-risk-of-poverty rate: 17%.

<sup>3</sup> The material-deprivation rate shows the percentage of people who are deprived in at least three dimensions of material deprivation of a total of nine. This refers to the possession or lack of durable goods and to what is called the economic strain on households. It must be noted that this indicator measures material deprivation as a consequence of limited resources of households rather than differences in tastes, lifestyle preferences, personal choices and living conditions. The dimensions of material deprivation include the following capabilities: 1. facing unexpected expenses, 2. providing for a one-week annual holiday away from home, 3. providing a

meal with meat, chicken or fish (or vegetarian equivalent) at least every second day, 4. paying for arrears (mortgage or rent, utility bills or hire-purchase instalments), 5. keeping the home adequately warm, 6. having a washing machine, 7. having a colour TV, 8. having a telephone, 9. having a personal car.

<sup>4</sup> Source of data: SORS; EU Survey on Income and Living Conditions (EU-SILC); SI-STAT data portal.

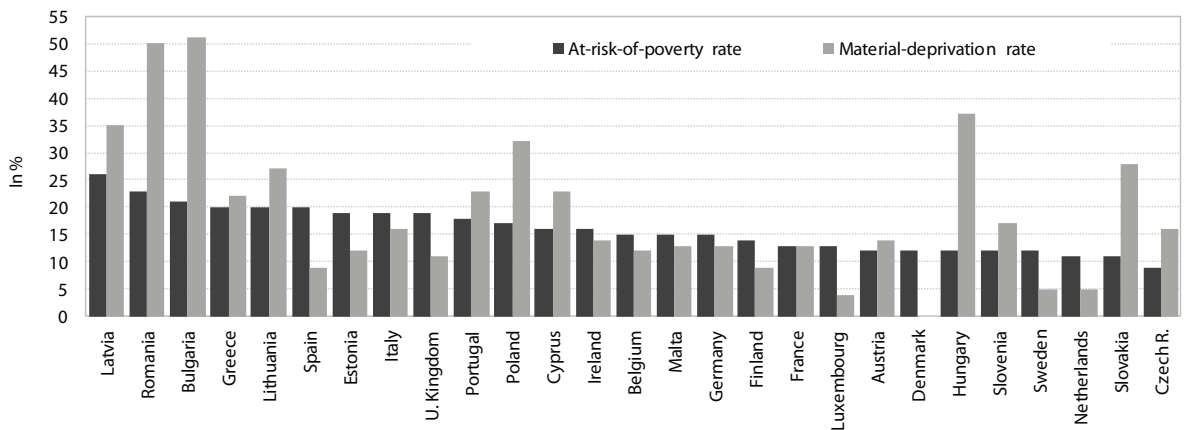
Table: Selected at-risk-of-poverty and income-inequality indicators, SLO, EU-25 (excluding income in kind), in %

Year	2000		2005		2006		2007		2008	
	SLO	EU-25	SLO	EU-25	SLO	EU-25	SLO	EU-25	SLO	EU-25
<b>At-risk-of-poverty rates:</b>										
- total population	13.0	16	12.1	16(ps)	11.7	16	11.5	16	12.3	16
- before social transfers <sup>1</sup>	37.2	23	25.8	26	24.2	26	23.1	26	23	25
- women	13.5	17	13.6	17	13	17	12.9	17	13.6	17
- men	12.5	15	10.6	15	10.3	15	10.1	15	11	15
- children (aged 0–18)	N/A	N/A	12	19	12	19	11	19	12	19
- young people (aged 18–24)	N/A	N/A	10	19	9	20	9	20	10	20
- elderly (aged 65+)*	23.4	17	20.4	19	20	19	19.4	19	21.3	19
- single-parent families***	17.5	30**	21.4	31	22.1	32	28.6	34	28.8	35
unemployed	39.5	N/A	24.9	39	33	41	35.9	42	37.6	44
- tenants	16.6	24**	25.7	23	21.9	23	25.7	25	25.2	25
Quintile-share ratio 80/20	3.1	4.5	3.4	4.9	3.4	4.8	3.3	4.8	3.4	4.8
Gini coefficient	22	29	24.1	30	23.8	30	23.3	30	23.4	30

Source of data: SI-STAT data portal, 2010; Eurostat, 2010.

Notes: <sup>1</sup> pensions included in income; \* – poverty of the elderly, regardless of what type of household they live in; (bs) – break in series; \*\* – figure for 2001, N/A – not available; \*\*\* – in terms of statistics, this indicates a single-parent household with at least one dependent child.

Figure: At-risk-of-poverty rates after social transfers in the EU-27 countries in 2008 (excluding income in kind), and material deprivation rates, in %



Source of data: Eurostat SILC: Material deprivation – Economic strain and durables dimension and at-risk-of-poverty rate after social transfers, 2009.

## Healthcare resources

*The number of physicians in Slovenia is slowly increasing, but the gap with the EU average remains unchanged.* Following slightly stronger growth in the number of practising physicians in Slovenia in 2007, the figure was again very low in 2008. In 2008, the number of practising physicians rose by a mere 40, reaching a total of 4,854, whereas their number per 100,000 people was 238.8 (compared with 237.6 in 2007). The average number of practising physicians per 100,000 people in the EU in 2007 was 322.4. In Slovenia, the number of physicians could only be increased with a rise in the number of medical graduates and an inflow of foreign physicians (Social Overview 2009). Slovenia is lagging behind primarily regarding the number of general practitioners. In 2006, Slovenia had only 48.8 general practitioners<sup>1</sup> per 100,000 people, whereas the EU-25 average was 96.7. The highest deficit is recorded for this group of physicians, with inadequate regional distribution being the main issue. With this in view, over the past few years, the Health Insurance Institute (HII) has been providing priority funding for additional teams of general practitioners, as well as children's outpatient clinics for those regions where their number is below average, allowing all the regional units of the institute to meet the minimum standards in 2008. Comparisons with EU countries also show a wide gap in specialist anaesthesiologists and gynaecologists.

*In terms of capacities, public dental care for adults is particularly problematic in Slovenia.* Following several years of growth, the number of dentists per 100,000 people dropped to 59.8 in 2008 (compared with 60.9 in 2007); the total number thus decreased by 18 to 1,216. On this indicator, Slovenia does not lag behind the EU average (59.9 per 100,000 people in 2007) and the ratio is better than in the case of physicians, partly because of the expansion of private practise in dental care. In 2008, 48.6% of dentists were private providers with a concession and 11.8% had fully private practices.<sup>2</sup> On the issue of accessibility of dental care, mention should be made of the long waiting periods in the public dental-care network, particularly for adults, and of the fact that over one fifth of the insured adult population do not have a selected dentist.<sup>3</sup>

*The number of practising nurses per capita in Slovenia exceeds the EU average, but only a quarter have completed higher education.* In 2008, there were 794 nurses and medical technicians per 100,000 people,<sup>4</sup> which placed

Slovenia in the upper half of EU rankings (EU average in 2007: 745.6). The ratio of nurses to physicians, amounting to 3.3 in 2008 in Slovenia, is also above the OECD average (2.9 in 2007). However, it should be noted that a mere quarter of the nurses in Slovenia have completed higher education, whereas in the EU countries for which data are available, the average figure is as high as 75%. The differences in the ratio of nurses to physicians among individual countries are also due to different practices in transferring duties to nurses. In principle, countries with a smaller number of physicians have a larger number of nurses with higher education who are able to assume tasks requiring a higher level of accountability. As a result of the lower educational level of nurses in Slovenia, the possibilities of transferring tasks requiring a higher level of accountability to nurses are more limited. The ratio of nurses to physicians in the OECD countries as a whole is decreasing, largely due to advances in medical technology, less invasive surgery and more effective medications. The latter allows for shorter hospital stays, a reduction in the number of hospital beds and multiple-day patient treatment, which results in the need for new physicians growing faster than the need for nurses (Health at a Glance, 2009).

*The number of pharmacists employed in pharmacies in Slovenia lags significantly behind the EU average.* In Slovenia, approximately one third of practising pharmacists are employed in the industrial sector. In 2007, only 47 pharmacists per 100,000 people were employed in pharmacies, whereas the EU average was 71.4. The lack of pharmacists in pharmacies also implies lower accessibility of medicines and pharmacy services for the population.

<sup>1</sup> Source: WHO, Health-for-all database.

<sup>2</sup> Data provided by the Medical Chamber. Including dental specialists.

<sup>3</sup> Resolution on the national plan of health care 2008–2013, January 2008.

<sup>4</sup> In 2008, Slovenia had 4,104 nurses with a higher or university education and 12,092 medical technicians (including midwives), a total of 16,196 (Statistical Office of the Public Health Institute, November 2009).

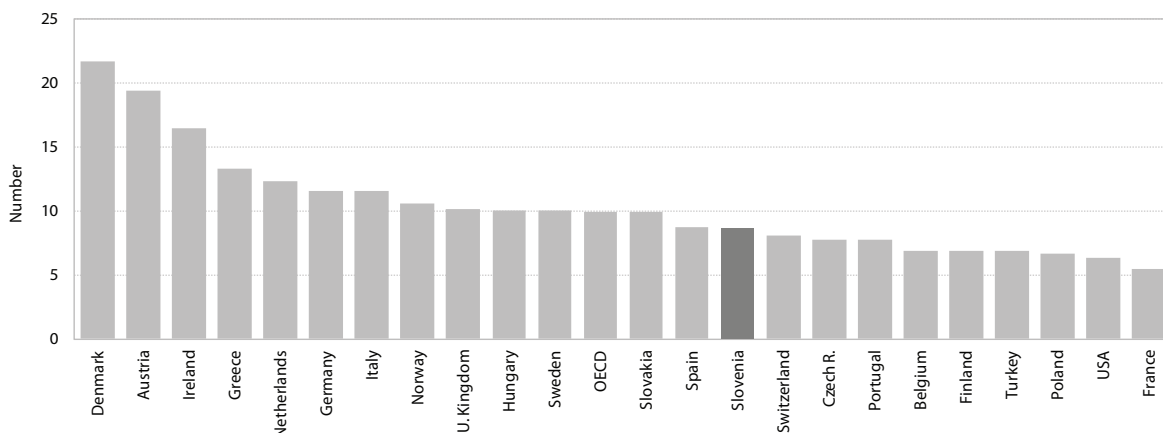
Table: Human resources in the health-care system in Slovenia<sup>1</sup> and the EU countries

	Practising physicians per 100,000 people			Practising dentists per 100,000 people		Practising nurses per 100,000 people		Practising pharmacists in health services per 100,000 people	
	2000	2006	2007	2000	2007 <sup>2</sup>	2000	2007	2000	2007
<b>EU</b>	<b>308.2</b>	<b>320.6</b>	<b>322.4</b>	<b>58.2</b>	<b>59.9</b>	<b>671.9</b>	<b>745.6</b>	<b>71.2</b>	<b>71.4</b>
Austria	315.2	365.0	374.2	44.6	53.9	715.2	735.1	56.5	63.2
Belgium	385.0	400.8	401.6	82.5	81.0	539.8	587.8	104.5	115.4
Bulgaria	337.8	365.7	364.9	83.2	84.6	386.3	422.0	N/A	N/A
Cyprus	258.0	250.4	271.5	88.7	91.6	422.46	435.97	17.2	21.3
Czech Rep.	337.1	355.7	N/A	64.9	67.4	759.7	842.70	49.3	56.04
Denmark	269.8	314.4	314.4	79.9	81.9	1233.9	1433.7	22.1	18.1
Estonia	309.7	320.9	323.4	76.2	85.0	586.0	636.0	59.6	65.1
Finland	250.1	268.7	269.5	82.0	79.0	639.2	855.3	148.0	N/A
France	332.0	339.0	337.0	68.0	67.0	674.6	780.42	102.5	113.8
Greece	433.0	535.0	N/A	113.0	127.0	310.2	326.81	N/A	N/A
Ireland	223.0	293.0	303.0	50.0	58.0	1400.5	1549.77	80.3	96.89
Italy	414.0	369.0	365.0	56.0	55.0	525.6	700.69	110.43	74.65
Latvia	288.4	293.2	287.4	52.3	67.9	458.6	536.1	N/A	64.2
Lithuania	364.0	364.6	371.1	68.7	68.9	765.9	707.1	59.6	74.0
Luxembourg	232.8	333.3	348.3	63.8	77.9	841.7	1532.0	74.0	83.7
Hungary	268.5	303.7	280.6	32.4	39.9	558.5	579.9	48.1	54.6
Malta	N/A	N/A	N/A	N/A	N/A	N/A	581.8	N/A	107.7
Germany	325.8	345.5	N/A	73.4	N/A	939.7	781.19	56.0	59.87
Netherlands	319.0	382.0	392.0	46.0	50.0	1296.82	1505.00	16.8	17.35
Poland	222.3	218.0	219.1	30.7	35.0	495.7	517.6	57.9	60.6
Portugal	263.5	N/A	N/A	37.0	N/A	353.2	481.42	78.78	97.83
Romania	192.8	215.8	222.0	35.5	54.0	N/A	639.6	31.3	51.5
Slovakia	336.0	315.9	N/A	44.4	50.3	747.68	631.60	43.6	N/A
<b>Slovenia</b>	<b>215.0</b>	<b>235.8</b>	<b>237.6</b>	<b>58.2</b>	<b>60.9</b>	<b>685.0</b>	<b>769.3</b>	<b>37.5</b>	<b>48.1</b>
Spain	316.00	363.00	365.00	44.0	55.0	642.2	743.68	81.2	91.98
Sweden	307.8	356.6	N/A	80.5	82.7	991.8	1083.4	59.9	72.74
U. K.	N/A	N/A	248.5	N/A	48.1	N/A	903.9	N/A	26.4

Source: Eurostat Portal Page, 2010; except for Finland, France, Greece, Ireland, Italy, the Netherlands and Spain, the sources are OECD Health Data 2009 and WHO HFA-DB. For the EU-27 average, the source is the World Health Organization database: HFA-DB (in 2007, data-reporting methodologies for the aforementioned categories were unified for Eurostat/WHO and OECD).

Notes: <sup>1</sup> for 2008, the indicators for Slovenia are indicated in the text, whereas the table includes the data for 2007, the latest data available for the EU countries; <sup>2</sup> 2006 for the EU-27 average, the Czech Republic, Finland, Greece, Slovakia and Sweden; N/A – not available.

Figure: Number of medical graduates per 100,000 people in Slovenia in 2008, and in OECD countries in 2007



Source of data: OECD Health Data 2009, Health Statistics Yearbook (2008–2008).

## Adult participation in education

*The level of adult participation in formal education<sup>1</sup> diminished slightly in 2007.* Participation in education improves employability and reduces the risk of unemployment. Higher levels of education also reduce the risk of poverty, which in Slovenia is highest for the low-skilled population (having completed no more than primary school). Participation in education has a beneficial effect on social welfare, social cohesion and the standard of living. In 2007, for which the latest data are available, participation of adults aged 25–64 in all levels of formal education was 4.2%, exceeding the EU average by 1.1 p.p. Compared with the year before, it dropped slightly (0.2 p.p.), whereas the EU average remained at the level of 2006. In the 2000–2007 period, adult participation in education in Slovenia increased by 1.7 p.p., while it fell slightly in the EU as a whole.

*In 2007, adult participation in upper-secondary education remained at the level of the previous year, while adult participation in tertiary education decreased slightly in 2008/2009, though it does not lag behind the EU level.* In 2007, participation in upper-secondary education stood at 0.8%, surpassing the EU average, which was 0.6%. As in the EU average, participation in upper-secondary education remained unchanged in Slovenia compared with 2006, whereas in 2000–2007 it increased, in contrast to the EU average. Participation in tertiary education decreased slightly for the third year running, amounting to 3.2% in 2008/2009. In 2007, for which the latest internationally comparable data are available, Slovenia exceeded the EU average in terms of adult participation in tertiary education (3.4%, compared with 2.4% in the EU that year). In the 2000–2007 period, adult participation in tertiary education in Slovenia increased more than in the EU as a whole (Slovenia: by 1.4 p.p., EU: by 0.5 p.p.).

*Adult participation in non-formal education diminished in 2008, but according to the latest data available for 2007, it was higher than the average for the EU countries.* In terms of employability and social inclusion, both participation in formal education and adult participation in non-formal education<sup>2</sup> are important. According to data from the Labour Force Survey, 8.6% of the population aged 25–64 participated in non-formal education in 2008, a 0.8 p.p. drop on the year before. Participation of adults in non-formal education varies substantially with regard to the attained level of formal education. The level of participation of the low skilled in education was low (1.9%), lagging considerably behind the participation

of the population with secondary (6.6%) and tertiary (18.5%) education. In 2008, participation in non-formal education diminished for all education groups, and most for the group with tertiary education. In the 2003–2008 period, adult participation in non-formal education rose by 1.1 p.p. At the international level, data on participation in non-formal education<sup>3</sup> obtained from the international Adult Education Survey<sup>4</sup> is available for 2007, when 36.2% of the population aged 25–64 participated in non-formal education, 3.5 p.p. more than in the EU as a whole.

<sup>1</sup> Includes full-time and part-time students at all levels of formal education (primary, upper-secondary and tertiary).

<sup>2</sup> Internationally available data on adult participation in non-formal education in accordance with the Labour Force Survey are not available. In 2003, the method of computing this indicator was changed; hence the 2003–2008 period is presented.

<sup>3</sup> The international Adult Education Survey is a pilot survey, with data only available for 2007.

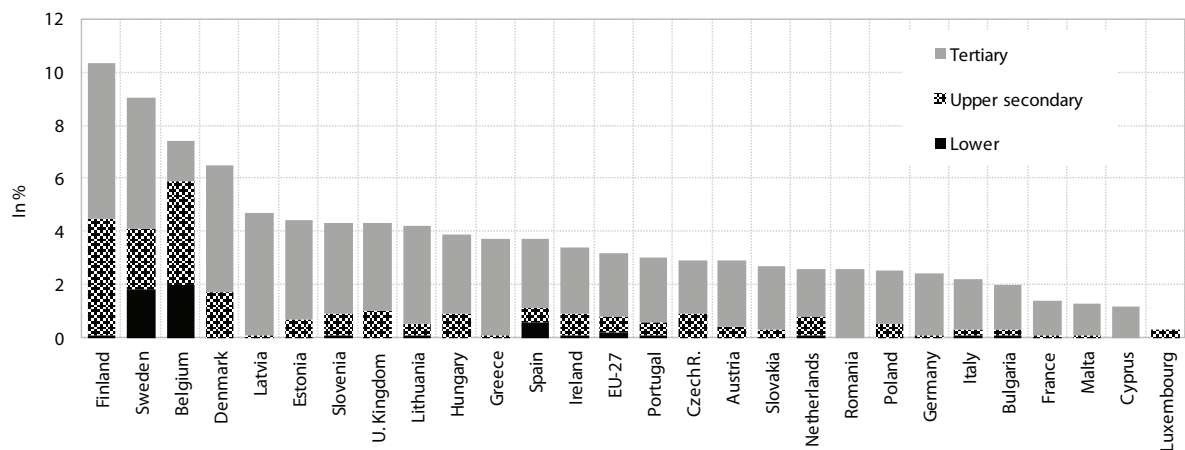
<sup>4</sup> In terms of methodological characteristics, the Adult Education Survey differs considerably from the Labour Force Survey, and consequently, data are not comparable. Respondents of the Adult Education Survey reported on educational activities performed within the last 12 months or the last calendar year. In Slovenia, respondents reported on educational activities performed in the 12 months preceding the conduct of the survey. The Labour Force Survey (LFS) measures participation of the population aged 25–64 in education within four weeks prior to the survey. The indicator is calculated on the basis of the annual average of quarterly data.

Table: Participation of population aged 25–64 in all the levels of formal education, EU-27, in %

	1998	2000	2005	2006	2007
<b>EU</b>	<b>N/A</b>	<b>3.3</b>	<b>4.2</b>	<b>3.1</b>	<b>3.1</b>
Belgium	N/A	5.1	7.4	7.5	7.5
Bulgaria	N/A	1.5	1.7	1.8	1.9
Czech Rep.	N/A	1.1	2.7	2.7	2.9
Denmark	N/A	5.0	6.7	6.6	6.6
Germany	N/A	2.4	2.3	2.4	2.3
Estonia	N/A	N/A	4.4	4.4	4.5
Ireland	N/A	2.0	2.8	3.4	3.4
Greece	N/A	0.6	3.0	3.1	3.8
Spain	N/A	2.5	3.7	3.8	3.7
France	N/A	N/A	1.5	N/A	1.5
Italy	1.7	1.9	2.2	2.2	2.2
Cyprus	N/A	0.3	1.0	1.2	1.2
Latvia	1.5	2.9	4.8	4.8	4.7
Lithuania	0.9	1.6	4.2	4.3	4.2
Luxembourg	N/A	0.3	0.4	0.6	0.3
Hungary	1.5	2.3	4.0	4.0	3.9
Malta	N/A	0.8	1.9	1.8	1.3
Netherlands	2.9	2.6	2.5	2.5	2.5
Austria	3.2	3.3	2.6	2.6	2.9
Poland	N/A	2.0	N/A	N/A	2.6
Portugal	2.8	3.3	3.3	2.9	3.0
Romania	N/A	N/A	N/A	N/A	2.6
<b>Slovenia</b>	<b>1.5</b>	<b>2.5</b>	<b>4.4</b>	<b>4.4</b>	<b>4.2</b>
Slovakia	N/A	N/A	2.1	2.4	2.7
Finland	5.6	6.9	9.4	9.8	10.2
Sweden	N/A	10.3	9.4	9.3	9.0
U. K.	7.1	11.0	13.9	4.4	4.3

Source: Eurostat Portal Page – Population and Social Conditions – Education and training, 2010.  
 Note: N/A – not available.

Figure: Participation of population aged 25–64 in individual levels of formal education, 2007, in %



Source: Eurostat Portal Page – Population and Social Conditions – Education and training, 2010.





## **THE FIFTH PRIORITY:**

### **Integration of measures to achieve sustainable development**

- Emission-intensive industries
- Energy intensity
- Renewable energy sources
- Share of road transport in total goods transport
- Implicit tax rate on energy consumption
- Agricultural intensity
- Intensity of tree felling
- Waste
- Age-dependency ratio
- Life expectancy and infant mortality
- Fertility rate
- Migration ratio
- Regional variation in GDP per capita
- Regional variation in the registered unemployment rate
- Issued building permits
- Household expenditure on culture

## Emission-intensive industries

*After several years of strong growth, the output of emission-intensive industries in Slovenia declined by 2.4% in 2008 and by as much as 18.6% in 2009.* The total output of emission-intensive industries in Slovenia, i.e. sectors with the highest emission intensity (into air, water, earth) per unit of output,<sup>1</sup> has been growing faster than the output of other manufacturing industries in the whole period since 1999. The gap was most notable in 2003, 2006 and 2007 (around 7 p.p.). It stopped widening in 2008 as the output of emission-intensive industries declined (by 2.4%), while the output of other manufacturing industries increased (by 3.8%). In 2009, these industries recorded a similar production decline as other manufacturing sectors. Amid declining production, the share of value added (VA) of emission-intensive industries in total manufacturing therefore also declined in 2008,<sup>2</sup> to 22.4%, the level recorded in 2004. This decline was largely attributable to a lower share of value added in the manufacture of metals, particularly aluminium.

The energy intensity of manufacturing continued to decline in 2008. Final energy consumption<sup>3</sup> (energy consumption in TJ) per unit of VA in manufacturing industries, the main energy-related indicator of qualitative changes, fell at an average annual rate of 1.3% in 2001–2004. In 2005, it even increased (by 1.8%). A favourable turn was seen in 2006 when the consumption of final energy per unit of value added recorded a significant decline: 4.4% in 2006, as much as 9.1% in 2007 and 8.8% in 2008. In the last year, the improvement mainly came from lower energy consumption (electricity consumption in particular) in the manufacture of metals as primary aluminium production dropped by a quarter in 2008 due to a production adjustment to the IPPC directive; instead of the former 12%, aluminium production contributed only 7.3% to Slovenia's total electricity consumption (a decline from 1.7 TWH to 1.2 TWH a year).

*A large part of the industry is included in the emission-trading system (ETS) and will accordingly face higher costs in 2012.* In the first and second phases of trading under this system (2005–2012), emission allowances were allocated free of charge; starting in 2013, they will

be sold at auction. For industry, the transition will be gradual: in 2013, industrial sectors will be eligible for free allowances in the amount of 80% of the starting point determined as the average performance of the 10% most efficient installations in individual sectors in the EU (benchmark); by 2020, the share of free allowances will be reduced to 30%, while from 2027 onward, industry will have to buy all allowances at auction. Industrial sectors that could be exposed to the risk of carbon leakage will be allocated emission allowances free of charge based on their compliance with the criterion of using the best technology available. At the end of 2009, the European Commission issued a decision determining, on the basis of criteria referred to in the climate and energy package, a list of sectors deemed to be exposed to a significant carbon-leakage risk<sup>4</sup> (more than 150 at a 4-digit level (SCA-4 level), besides certain sub-sectors at the level of products). Based on these provisions, we estimate that practically the whole Slovenian industry participating in the ETS will be eligible for free emission allowances on the basis of the benchmark. As benchmarks will not be determined before the end of 2010, the actual emissions costs for the Slovenian industry cannot yet be assessed. According to European Commission estimates, manufacturing sectors deemed to be exposed to a significant risk will be required to purchase on average approximately 60% of emission allowances in 2013, and other sectors more than 70%. The package otherwise stipulates that emissions from installations included in the emission trading scheme should drop by 21% compared with 2005 by 2020.

<sup>1</sup> According to the World Bank methodology and groups of the Standard Classification of Activities, emission-intensive industries include: the total manufacture of chemicals, chemical products and man-made fibres; the total manufacture of pulp, paper and paper products; within the manufacture of metals and metal products only the manufacture of metals; within the manufacture of other non-metal products, the manufacture of cement, lime and plaster; and the manufacture of other non-metallic mineral products.

<sup>2</sup> The most recent data on value added by manufacturing industry are available for 2008.

<sup>3</sup> Energy consumption by activity, in TJ (SORS).

<sup>4</sup> Official Journal of the European Union, 24 December 2009, C (2009) 10251.

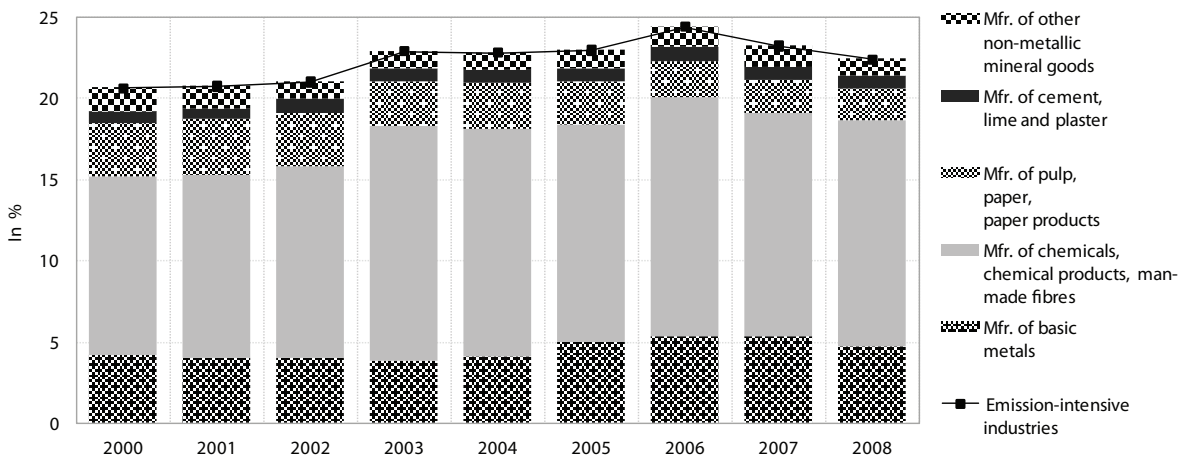
Table: Indices of growth in production volume and value added in manufacturing and emission-intensive industries

Real growth indices	2000	2005	2006	2007	2008	2009
Value added in manufacturing	109.7	104.3	107.2	107.7	100.1	83.5
Production volume in manufacturing	107.1	104.0	106.2	108.5	102.6	81.8
Production volume in emission-intensive industries	108.2	104.2	112.1	114.3	97.6	81.4
Pulp, paper and paper products	105.1	102.5	99.0	98.5	89.8	90.5
Chemicals, chemical products, man-made fibres	110.4	107.6	113.0	121.7	107.9	85.7
Other non-metal mineral products	96.4	93.1	106.2	105.8	102.5	74.3
Metals	111.9	103.2	119.6	106.7	68.6	70.1
Production volume in manufacturing excluding emission-intensive industries	106.8	103.9	104.8	107.1	103.8	81.9

Source: SI-STAT Data Portal – National accounts and Mining and manufacturing (SORS), 2010; calculations by IMAD.

Note: Until 2004, industrial-production indices were calculated from quantity data and from 2005 onwards from value data.

Figure: Share of value added of emission intensive industries in Slovenia, in % of manufacturing's total value added



Source: SI-STAT – Production and generation of primary incomes accounts 1995–2008, 2010; Statistical data from company balance sheets and profit and loss accounts (AJPES).

## Energy intensity

*Energy intensity in Slovenia is relatively high and is improving too slowly relative to other EU countries; in 2008, it even increased somewhat.* In 2008, Slovenia consumed 258.5 toe<sup>1</sup> (tonnes of oil equivalent) of primary energy to produce EUR 1 million of GDP (in constant prices and exchange rates of 2000); the EU as a whole consumed 169.4 toe in 2007 (compared with 253.3 toe consumed in Slovenia that year). Slovenia thus spent approximately 50% more energy per unit of GDP than the EU average. Even though Slovenia had still consumed over 70% and 60% more energy per unit of GDP than the EU in 1995 and 2000, respectively, it did not progress much compared with other countries of the EU, as disparities (the variability) in energy intensity across the EU also dropped in these years. Slovenia was thus ranked above all Western European countries in 1995, 2000 and 2007 in terms of energy intensity, yet below all Eastern European countries, which had even higher consumption. Slovenia has thus made no shift in its position among the European countries over the last 12 years. Its energy intensity did decline by 15.5% in the period between 2000 and 2007, but this is just about the same figure as recorded for the EU as a whole (14.1%; non-weighted growth rate average). The intensity of energy consumption in Slovenia dropped by 6.3%<sup>2</sup> in 2007, but increased again in 2008, by 2.1%.

*Slovenia's high energy intensity is partly related to a high share of energy-intensive manufacturing industries in its economy as well as the lower general level of its economic development.* The share of manufacturing industries in total value added otherwise declined by 1.3 p.p. in 2008, to 22.1% (16.8% in the EU); a higher figure was only posted in six countries of the EU. Slovenia's share of energy-intensive manufacturing industries (the paper, chemical, non-metal and metal industries) is also among the highest in the EU. These industries generated around 45% of value added created by all manufacturing industries in 2008 (38% in the EU), while the share of energy they consumed accounted for as much as 70%.<sup>3</sup> In 2007, energy consumption per capita equalled the EU average, but Slovenia was still 31% behind in terms of economic development (GDP per capita). Given the smaller GDP, energy consumption in Slovenia was much higher than in the EU.

*Energy intensity in Slovenia increased again in 2008, as a result of high growth in energy consumption in transport, while GDP growth had already weakened due to the onset of the crisis.* Slovenia's economic growth slowed throughout 2008, turning negative in the last quarter. It totalled 3.5% over the year as a whole. Primary energy consumption recorded a greater increase, 5.6%,<sup>4</sup> which means that energy intensity rose by 2.1%. According to SORS data (covering only domestic carriers), the last quarter of 2008 still enjoyed a significant increase in the volume of road freight transport (17.2% y-o-y and 18.4% annually), with the sale of diesel fuel rising by as much as 23.1% in 2008, also as a result of diesel prices being lower than in most neighbouring countries.<sup>5</sup> Road freight transport thus made the greatest contribution to further energy-intensity growth. Relatively high energy consumption thus resulted from higher consumption of oil derivatives (by 16.2% or 402 ktoe) and increases in the consumption of nuclear energy, hydroelectric energy and biomass. The consumption of nuclear energy rose by 10.1% or 150 ktoe (the year without a regular overhaul), of hydroelectric energy by 22.8% or 64 ktoe (high water levels) and of biomass by 11.1% or 52 ktoe (an increase in biomass co-incineration in thermal power plants).

*To make a breakthrough towards lower energy intensity of the economy, Slovenia will have to take more drastic steps.* Slovenia recorded faster GDP growth than the EU in 2000–2007 (by an average of 2.3 p.p. annually), but also a higher increase in energy consumption (by 1.3 p.p.). Energy intensity, however, did not only improve in countries with a greater lag, but also those such as Ireland and the United Kingdom, which are among the most successful countries on this indicator. This shows that energy intensity declines as a consequence of technological development and restructuring of the economy towards a higher contribution of value added in services, as well as policies promoting efficient energy use.

<sup>1</sup> Calculated using Eurostat data (to ensure international comparability) on energy intensity for 2007 and SORS figures on GDP growth and the increase in energy consumption in 2008. The SORS data differ somewhat from those published by Eurostat.

<sup>2</sup> Environment and energy (Eurostat), 2009; calculations by IMAD.

<sup>3</sup> SI-STA Data Portal – National accounts and Energy, 2009; calculations by IMAD.

<sup>4</sup> SORS data.

<sup>5</sup> See the indicator *Implicit tax rate on energy consumption*

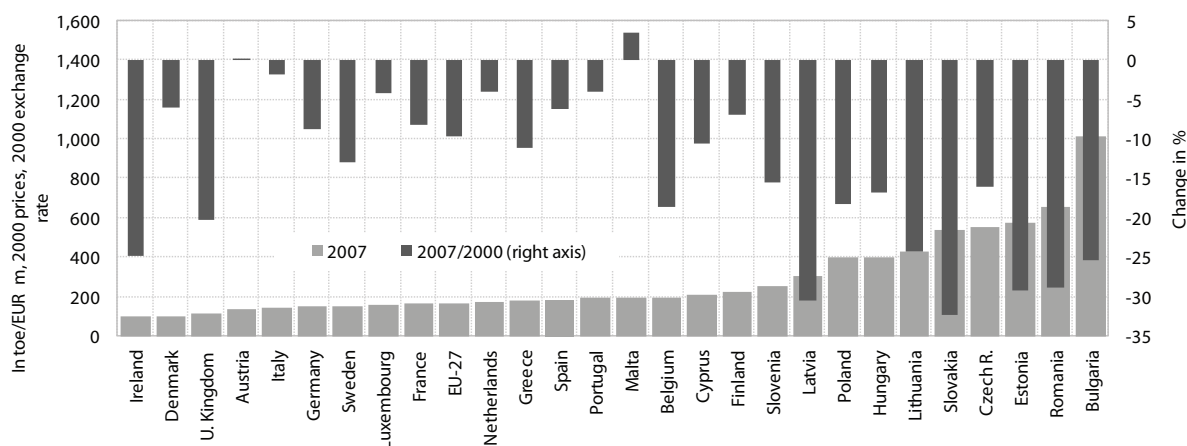
Table: Energy intensity (primary energy consumption per unit of GDP), in toe/EUR m, 2000 prices, 2000 exchange rate

	1995	2000	2005	2006	2007
<b>EU</b>	<b>208.5</b>	<b>187.4</b>	<b>181.5</b>	<b>176.1</b>	<b>169.4</b>
Austria	148.4	140.3	152.2	149.2	140.7
Belgium	249.2	244.1	224.2	215.0	198.8
Bulgaria	1631.9	1360.7	1127.2	1089.7	1016.3
Cyprus	236.4	237.1	209.0	212.1	212.2
Czech Rep.	728.3	659.1	613.3	587.7	553.2
Denmark	134.5	112.5	106.5	109.6	105.7
Estonia	1174.7	819.1	624.1	551.3	580.7
Finland	277.4	246.0	231.4	240.8	229.2
France	192.3	180.0	177.0	171.2	165.4
Greece	208.1	204.6	185.0	178.0	181.8
Ireland	165.1	137.0	110.1	106.9	103.1
Italy	149.1	145.2	150.6	147.0	142.8
Latvia	709.1	440.9	356.7	328.2	306.6
Lithuania	881.7	571.2	478.3	434.0	432.5
Luxembourg	204.6	165.3	179.8	168.8	158.5
Hungary	606.0	480.8	437.7	416.5	400.8
Malta	N/A	191.3	211.9	195.3	198.2
Germany	181.8	166.0	163.4	159.4	151.5
Netherlands	217.4	184.3	184.8	174.6	177.1
Poland	702.0	489.0	432.8	427.3	400.1
Portugal	204.5	205.1	211.7	195.7	196.9
Romania	N/A	920.3	736.1	706.2	655.6
Slovakia	951.6	796.2	680.3	619.7	538.6
<b>Slovenia</b>	<b>357.3</b>	<b>299.8</b>	<b>284.6</b>	<b>270.2</b>	<b>253.3</b>
Spain	199.7	196.2	195.4	187.3	184.2
Sweden	222.9	179.8	171.0	159.8	156.5
U. K.	162.6	144.7	128.8	123.3	115.5

Source: Eurostat Portal Page – Structural indicators, 2010.

Note: N/A – not available.

Figure: Energy intensity in EU countries in 2007 and change in energy intensity between 2000 and 2007



Source: Eurostat Portal Page – Environment and Energy, 2010; calculations by IMAD.

## Renewable energy sources

***The share of the use of renewable energy sources (RES) in Slovenia fluctuates depending on hydro-energy use; in 2008, it increased mainly due to favourable hydrological conditions.*** According to SORS data for 2008, the share of RES accounted for 11.3% of total energy consumption in Slovenia, while in the EU in 2007 this share was 7.8%, according to Eurostat. Slovenia is still in the top third of EU countries on this indicator, but in the 2000–2007 period, the share of RES in the EU increased by 2.0 p.p., while in Slovenia it dropped by 2.3 p.p. Specifically, energy consumption increased by 14.3%<sup>1</sup> in Slovenia over the last seven years, while the use of renewable sources even declined (by 6.7%). The decrease and occasional fluctuations of the use of renewable sources in Slovenia primarily reflect volatile hydro-energy production due to frequent droughts and the slow construction of new power plants. In 2008, when hydrological conditions were favourable, electricity production in hydroelectric power plants increased by nearly one quarter (23.1%). The use of biomass and waste was also higher (by 11.3%), so that the total use of RES increased by 15.8%. With total energy consumption having grown by 5.6%, the share of renewable sources increased by 1.3 p.p. in 2008.

***In Slovenia, the greatest contribution to the use of RES comes from biomass and hydro-energy, while in the EU, growth is dictated by alternative sources.*** In 2007, the structure of renewables, the use of which increased by 8.5% in the EU, was as follows: biomass and waste 69.8% (within that, the use of biofuels grew fastest, by 50.5%; a 6.7% share), hydro-energy 18.9%, wind energy 6.4% (26.7% growth), geothermal energy 4.1% and solar energy 0.9% (28.0% growth; of which growth in photovoltaic energy 51.6%). The use of hydro-energy has been stagnating in the EU in recent years, while the use of wood and wood waste (49.4% of the use of RES) also rose by a mere 3.0% in 2007. The share of biomass and waste in Slovenia stood at 59.4% in 2008 (within that, biofuel use increased by 71.0%, with a share of 2.6% in RES, and the use of biogas by 17.8%, with a share of 1.7%); the share of hydro-energy, totalling 40.6%, was relatively higher than in the EU. Other renewable sources in Slovenia have yet to be covered statistically. In the EU, a higher hydro-energy share than in Slovenia was recorded only in Slovakia and Austria. The use of individual RES varies across the EU. For instance, in 2007, Estonia recorded as much as 97.7% wood and wood waste in the structure of RES; the Netherlands 45.8% municipal solid waste, Luxembourg 30.8% biofuels, the United Kingdom 34.4% biogas, Slovakia 38.6% hydro-

energy (the highest), Ireland 36.1% wind energy, Italy 39.4% geothermal and Cyprus as much as 81.8% solar energy. In 2007, use of renewable sources grew the most in Germany, representing as much as two thirds of the RES-use increase in the entire EU.

***The increase of the share of RES in electricity consumption was, along with favourable hydrological conditions, also impacted by lower economic activity.*** In 2007, electricity from renewable sources accounted for 15.6% of electricity consumption in the EU and 22.1% in Slovenia. After this share had already been on a downward trend in Slovenia since 2000, it rose to 29.1% in 2008 due to higher water levels of rivers. 2009, however, was an extraordinary year, as electricity consumption (according to ELES data) dropped by 10.7% in Slovenia as a result of the economic crisis, while production in (large) hydroelectric power plants increased by 21.9% due to favourable hydrological conditions. We estimate that the share of RES in electricity production therefore increased to around 38% in 2009. The share of electricity from renewable sources in total electricity consumption in Slovenia should total 33.6% in 2010, a goal that will not be reached with the anticipated average production of hydroelectric power plants and with electricity consumption slightly growing again (based on these assumptions,<sup>2</sup> the share will again drop below 30%).

***The new scheme promoting production from renewable sources adopted last year is expected to significantly stimulate their use.*** From the present 7.8% (2007), the EU intends to increase the use of RES in primary energy to 12% by 2010 with a view to achieving the Kyoto objectives, and the share in final energy to 20% by 2020. According to the new directive on the use of renewable energy,<sup>3</sup> Slovenia is to increase its share of renewable sources from 16% to 25% of final energy consumption in 2020 (in 2008, this share totalled 14.3%). There is still some potential for hydro-energy and wind-energy use in Slovenia, but certain projects are still a matter of environmental dispute; these ambitious targets will, however, call for more proactive policies promoting the use of all potential renewable energy sources. A new scheme promoting electricity generation from RES and high-efficiency co-generation of electric power and heat was therefore adopted last year, which will certainly contribute to higher use of RES in Slovenia. The contribution for the implementation of this scheme in the electricity price almost doubled in 2010.

<sup>1</sup> According to Eurostat data, which differ slightly from the SORS data, according to which energy consumption increased by 13.1%.

<sup>2</sup> PThe average expected electricity generation in hydroelectric power plants according to ELES and growth in electricity consumption in line with IMAD's forecast for economic growth (Autumn Report 2009).

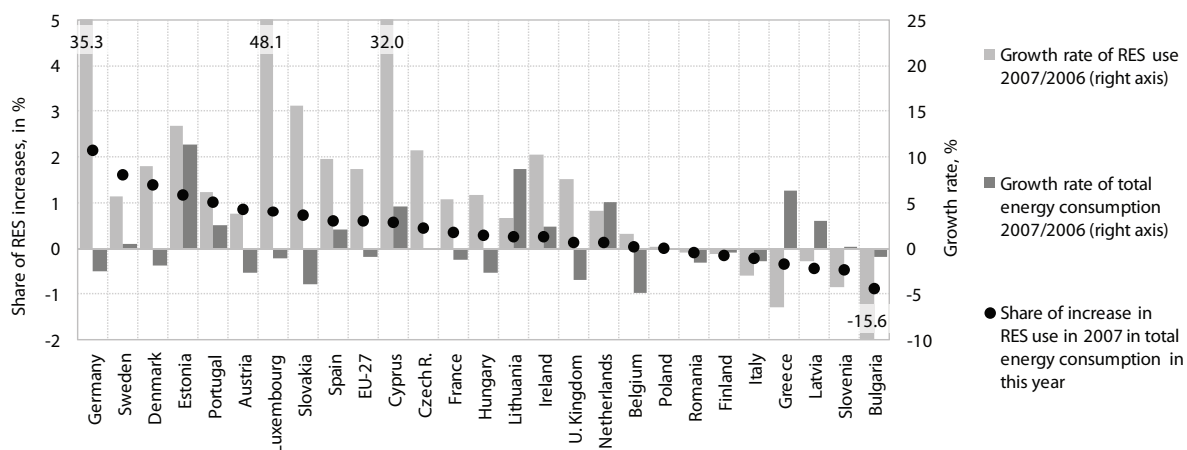
<sup>3</sup> Directive of the European Parliament and of the Council on promotion of the use of energy from renewable sources amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC.

Table: Share of renewable sources in total primary energy consumption, in %

	1995	2000	2005	2006	2007
<b>EU-27</b>	<b>5.1</b>	<b>5.8</b>	<b>6.7</b>	<b>7.1</b>	<b>7.8</b>
Austria	21.8	22.8	21.1	22.3	23.8
Belgium	1.3	1.3	2.4	2.9	3.1
Bulgaria	1.6	4.2	5.6	5.5	4.7
Cyprus	2.1	1.8	1.9	1.9	2.4
Czech Rep.	1.4	1.5	4.0	4.3	4.7
Denmark	7.6	10.9	16.4	15.6	17.3
Estonia	8.7	10.3	10.6	9.8	10.0
Finland	21.1	23.8	23.1	22.7	22.6
France	7.7	7.0	6.3	6.6	7.0
Greece	5.3	5.0	5.2	5.7	5.0
Ireland	1.4	1.6	2.4	2.7	2.9
Italy	4.8	5.2	6.5	7.0	6.9
Latvia	27.2	31.8	33.0	31.0	29.7
Lithuania	5.7	9.2	8.8	9.3	8.9
Luxembourg	1.4	1.6	1.6	1.7	2.5
Hungary	2.4	2.1	4.4	4.8	5.3
Malta	0.0	0.0	0.0	0.0	0.0
Germany	1.9	2.8	5.1	6.0	8.3
Netherlands	1.5	2.4	3.4	3.6	3.6
Poland	3.9	4.2	4.8	5.1	5.1
Portugal	16.2	15.3	13.2	17.1	17.6
Romania	5.9	10.9	12.6	11.7	11.9
Slovakia	2.8	2.8	4.3	4.6	5.5
<b>Slovenia</b>	<b>9.3</b>	<b>12.3</b>	<b>10.6</b>	<b>10.5</b>	<b>10.0</b>
Spain	5.4	5.7	6.0	6.5	7.0
Sweden	25.9	31.4	29.6	29.4	30.9
U. K.	0.9	1.1	1.7	1.9	2.1

Source: Eurostat Portal Page – Environment and Energy, 2010.  
 Note: N/A – not available.

Figure: Share of change in RES use in total primary energy consumption and growth rates of RES use and total energy in EU countries in 2007



Source: Eurostat Portal Page – Environment and Energy, 2010; calculations by IMAD.



## Share of road transport in total goods transport

*The share of road goods transport, which is growing faster in Slovenia than in the EU, increased in the crisis-stricken 2009, too, due to a larger decline in railway transport.* While in 2000 the share of road goods transport<sup>1</sup> in total goods transport (roads, railway and inland waterways, in tonne-kilometres) in Slovenia was still 3.9 p.p. lower than in the EU, it increased faster than in the EU in the following years. In 2005, the share of road goods transport had already exceeded the EU average. In 2008, road goods transport grew until the end of the year and reached an annual growth of 18.4%, while railway goods transport slightly decreased. In the first nine months of 2009, road goods transport decreased by 10.8% year-on-year, while railway goods transport decreased by 26.9%. Thus, in 2009, the share of road transport in total goods transport increased further; from 82.2% in 2008 to 84.8% in the first three quarters of 2009. In the period after 1995, most Eastern European countries saw major increases in the shares of road goods transport, even higher than that registered in Slovenia. In other EU Member States, the increases were more moderate, and in three countries the share of road goods transport even declined.

*As regards the volume of road goods transport per capita, in just a few years Slovenia moved from the EU average to second place among EU Member States.* In 2003, transport operators registered in Slovenia achieved a total of 3,528 tonne-kilometres per capita, which was around the EU-27 average (only 4.5% more), while five years later, in 2008, 8,045 tkm (112.0% more than the EU-27 average) were performed. The volume of road goods transport per capita was thus among the highest in the EU, second only to Luxembourg. This is a result of the country's favourable location at the crossing of trans-European corridors V and X, with transport increasing significantly on the two most recent enlargements of the EU. In addition, several administrative obstacles for Slovenia's transport companies with regard to transport in EU Member States were removed after Slovenia's entry into the EU (above all, problems related to the limited number of permits and the right to cabotage<sup>2</sup>). Since Slovenia is a small Central European country, the share of international goods transport is high and the share of national goods traffic low. Increasing globalisation and integration among markets in various countries and the fact that Slovenia is a small country increase the possibilities for more rapid development of road goods transport (see figure).

*In the 2003–2008 period, growth in road goods transport in Slovenia was among the highest in the EU Member States and strongly exceeded both economic growth and growth in railway goods transport.* The growth in goods transport in Slovenia was 3.6-times higher than economic growth: in the 2003–2008 period, average annual GDP growth was 5.0%, while road goods transport increased by 18.2% and railway goods transport by 3.1% per year. In the EU, the disparity between GDP growth and growth in road goods transport was small (by a quarter). Another important difference is that the annual increases in the EU in road and railway goods transport were much more balanced (2.8% and 3.2%, respectively). From the viewpoint of sustainable development, transport of goods by rail and transport of goods by waterways are more acceptable than road goods transport; it would therefore be sensible to encourage rail and waterway transport to stop the upward trend in road goods transport. This is a challenge both for Slovenia and for the EU as a whole. During the economic crisis, it was clear that the recent restoration of our largest railway operator did not yield the expected results, and by the end of 2009 its balance indicators had worsened (EUR 95 million of capital stock, EUR 350 million of debt and EUR 80 million of accumulated loss). At the same time, additional pressures were brought about by the liberalisation of the railway goods market and the resulting increased competition. In Slovenia, this indicator could be improved by further increasing transshipment through the Port of Koper, by transforming Slovenia's railway operator into a modern transport company and by modernising railway infrastructure, which will be an investment priority in this decade. Furthermore, it would also be sensible to include external transport costs in transport prices to the greatest possible extent.

<sup>1</sup> The data on road goods transport refer solely to road goods vehicles registered in Slovenia, but include transport in Slovenia and transport abroad.

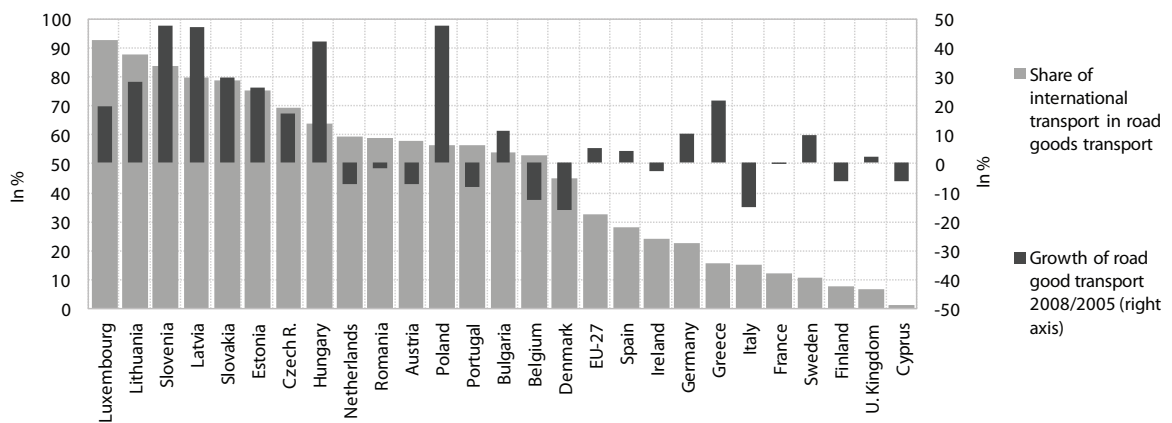
<sup>2</sup> Transport performed by Slovenian vehicles in other countries.

Table: Share of road transport in total goods transport (tkm), %

	1995	2000	2005	2006	2007	2008
<b>EU</b>	<b>N/A</b>	<b>73.7</b>	<b>76.4</b>	<b>76.2</b>	<b>76.2</b>	<b>76.4</b>
Austria	63.5	64.8	64.1	63.2	60.9	58.6
Belgium	77.4	77.4	72.4	71.1	69.7	69.1
Bulgaria	N/A	52.3	70.8	69.0	70.0	66.9
Cyprus	100.0	100.0	100.0	100.0	100.0	100.0
Czech Rep.	57.5	68.0	74.4	76.1	74.7	76.7
Denmark	91.8	92.1	92.2	91.8	92.2	91.3
Estonia	28.7	37.3	35.4	34.7	43.2	55.3
Finland	72.3	75.8	76.5	72.8	73.9	73.3
France	76.5	76.0	80.5	80.9	80.9	80.6
Greece	97.7	N/A	97.5	98.1	97.1	97.3
Ireland	90.1	96.2	98.3	98.8	99.3	99.4
Italy	88.2	89.0	90.3	88.5	87.6	88.3
Latvia	15.8	26.5	29.8	39.0	41.9	38.7
Lithuania	41.6	46.6	56.1	58.4	58.5	41.9
Luxembourg	85.9	87.8	92.3	91.5	93.8	94.2
Hungary	58.3	68.1	69.2	71.6	74.5	74.7
Malta	100.0	100.0	100.0	100.0	100.0	100.0
Germany	63.9	65.3	66.0	65.9	65.7	65.5
Netherlands	63.6	63.4	63.6	63.1	59.4	59.9
Poland	42.6	56.9	69.0	70.4	73.5	75.9
Portugal	90.3	92.5	94.6	94.9	94.7	93.9
Romania	42.0	42.9	67.3	70.5	71.3	70.2
Slovakia	63.7	53.0	70.3	68.8	71.8	73.8
<b>Slovenia</b>	<b>66.4</b>	<b>71.9</b>	<b>77.3</b>	<b>78.2</b>	<b>79.2</b>	<b>82.2</b>
Spain	90.3	92.8	95.2	95.4	95.9	95.9
Sweden	62.0	63.9	64.0	64.2	63.6	64.7
U. K.	92.3	90.0	88.2	86.2	86.6	88.5

Source: Eurostat Portal Page – Structural indicators, 2010; SI-STAT data portal, 2010.  
Note: N/A – not available.

Figure: Share of international road transport in total road goods transport<sup>1</sup> (tkm) in 2008 and the growth of road goods transport, 2005–2008



Source: Eurostat Portal Page – Transport, 2010.  
Note: <sup>1</sup> Data on road goods transport refer solely to road goods vehicles registered in Slovenia.

## Implicit tax rate on energy consumption

*The implicit tax rate on energy<sup>1</sup> declined in 2008.* Excise duties on automotive fuels, which account for almost all inflows from energy taxes in Slovenia, were at a minimum level up to December (Directive 2003/96/EC). Their average level was even slightly lower than in 2007. The implicit tax rate on energy also dropped as a result of higher energy consumption in 2008 compared with 2007 and the worsening energy intensity of the economy.<sup>2</sup> The implicit tax rate thus declined to EUR 120/toe in 2008, according to our estimate.

*We estimate that this indicator increased again in 2009,* amid lower total energy consumption (particularly as a result of lower economic activity) and a concurrent significant increase in the level of excise duties on automotive fuels. It was at EUR 0.43/l for gas oil and EUR 0.48/l for gasoline in the year as a whole, which is why fuel prices in Slovenia were 3.6% and 3.4% higher, respectively, than in Austria, and 5.4% and 5% higher, respectively, than in Hungary.

*The implicit tax rate on energy consumption (deflated) was declining in 2003–2006, but increased in 2007.* These dynamics were mainly attributable to final energy consumption in Slovenia growing much faster in that period than excise duties on automotive fuels. Revenue from excise duties thus represents almost all inflows from energy taxes in Slovenia. The average excise duty on gas oil/diesel fuel thus recorded only a modest increase in 2003–2005, while it dropped slightly again in 2007, to EUR 0.32/litre (which is still nearly the minimum level – EUR 0.3/litre). Excise duties on (unleaded) gasoline remained practically unchanged in 2003–2005, after increasing slightly in 2006 and 2007, to the average level of EUR 0.39/litre in 2007 (the minimum level being EUR 0.36/litre). Taxation (and consequently prices of automotive fuels) in Slovenia was thus lower than in the neighbouring countries, except in Italy, which additionally contributed to high growth in the sale of automotive fuels after 2005 and in the share of final energy consumed in transport. Other sectors meanwhile cut energy consumption in 2007, despite strong economic growth, and the implicit tax rate thus increased to EUR 123.8 thousand/toe in 2007.

*In the EU, much higher implicit tax rates on energy consumption are on average recorded in the old EU Member States.* The average value of this indicator for the EU totalled 134.1 in 2007 (EUR 1,000/toe). Lower tax rates than in Slovenia were recorded in all new Member States except Malta, and among the old members in Greece,

Finland, Belgium, and in 2007 also in Spain. In 2000–2007, the tax rate otherwise increased most notably in new Member States, and from the old Member States, in the Netherlands and Belgium. In 2007, the implicit tax rate on energy consumption was highest in Denmark, followed by the United Kingdom, Germany and Italy. The United Kingdom stands out from these countries with its high tax burden, which is almost entirely the result of the burden on automotive fuels, which is twice as high as the minimum rate. In Denmark and Sweden, nearly half of the inflows from energy taxation come from excise duties on electricity, which were in 2009 otherwise the highest in the Netherlands (up to EUR 108/MWh) and Denmark (between EUR 81–90/MWh). These two countries and Sweden also have much higher rates of excise duties on natural gas than other countries.

<sup>1</sup> The implicit tax rate on energy consumption shows taxation in euros (deflated; CPI 2000=100 in EUR 1,000 per unit of final energy consumption, in tonnes of oil equivalent (toe).

<sup>2</sup> See the indicator *Energy intensity*.

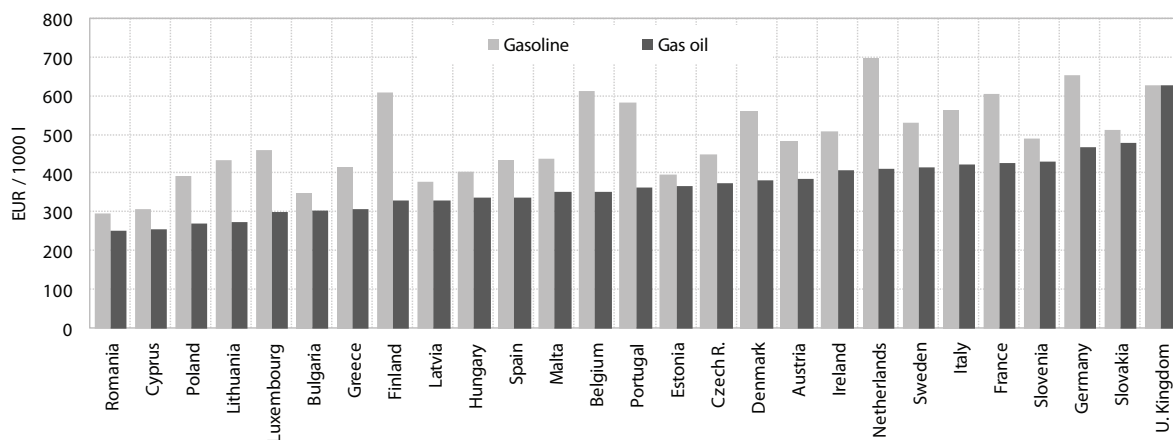
Table: Implicit tax rate on energy consumption<sup>1</sup>, in EUR/toe

	1995	2000	2005	2006	2007
Austria	128.5	141.8	149.6	141.4	150.5
Belgium	101.9	92.4	107.0	102.8	111.6
Bulgaria	N/A	36.4	52.9	53.2	65.8
Cyprus	30.4	43.1	128.2	125.5	122.6
Czech Rep.	50.0	55.2	93.5	99.5	108.5
Denmark	221.9	313.7	306.7	296.4	286.2
Estonia	9.9	32.2	65.5	68.9	70.8
Finland	103.4	108.7	111.6	105.0	104.2
France	176.4	172.9	162.8	161.9	157.9
Greece	206.1	117.3	100.2	96.0	101.6
Ireland	132.9	140.5	151.7	147.9	147.9
Italy	270.5	248.7	208.2	210.3	199.2
Latvia	13.7	48.3	55.1	52.9	49.4
Lithuania	15.4	58.0	78.2	74.4	77.4
Luxembourg	167.8	164.3	177.7	167.8	167.4
Hungary	110.8	79.7	87.3	86.1	102.8
Malta	60.7	142.2	127.1	138.3	197.5
Germany	172.4	192.7	206.5	202.0	203.7
Netherlands	122.9	154.4	181.5	193.6	178.4
Poland	35.0	58.9	84.1	87.5	101.4
Portugal	190.6	111.8	148.8	148.1	149.1
Romania	N/A	58.2	24.7	26.2	32.5
Slovakia	40.1	42.4	65.0	67.8	77.3
<b>Slovenia</b>	<b>180.3</b>	<b>118.3</b>	<b>114.5</b>	<b>113.7</b>	<b>123.8</b>
Spain	147.5	137.8	119.3	119.8	118.1
Sweden	144.7	182.0	196.9	199.6	196.5
U. K.	152.3	249.5	212.2	211.3	218.0

Source: European Commission, Directorate General Taxation and Customs Union. Tax policy. Excise duties and transport, environment and energy taxes, 2010. Eurostat Portal Page – Sustainable Development Indicators, 2010.

Note: <sup>1</sup>Revenue from energy taxation (deflated) per unit of final energy consumption, N/A - not available

Figure: Excise duties on automotive fuels as of 21 December 2009, in EUR/1000 l



Source: European Commission, Energy, Market observatory, 2010.

## Agricultural intensity

*The consumption of NPP fertilisers<sup>1</sup> decreased again in 2008; 10.4% less NPP fertilisers were used in agricultural production than in 2007 and 30.8% less than in 2000. Consumption of nitrogen decreased the most (by 15.4%), followed by phosphorus with 6.4% and potassium with 3.9%. Measured per hectare of utilised agricultural area (UAA), total consumption of NPP fertilisers amounted to 104.9 kg, which is 9.3% less than in the previous year<sup>2</sup> and the least in the whole analysed period since 1995. According to the latest comparable data for 2007, consumption of NPP fertilisers in Slovenia was higher than the EU-27 and EU-15 averages as well as in higher than the level in the three neighbouring EU Member States<sup>3</sup> (Slovenia 115.6 kg/ha, EU-27 103.9 kg/ha, EU-15 106.1 kg/ha, Italy 95.2 kg/ha, Austria 48.6 kg/ha, Hungary 93.6 kg/ha).*

*In 2008, sales of pesticides increased.* The total quantity of active ingredients of pesticides sold in Slovenia, which, however, was not only used in agriculture, decreased after 2004 but then increased by 5.4% in 2008. Only consumption of fungicides went up (by 23%), while consumption of herbicides and insecticides went down (by 11.3% and 60.4%, respectively)<sup>4</sup>. Compared with the level in 2000, pesticide sales were still lower (by 17.0%). A comparison of pesticide use among countries is inappropriate because the figures are a sum of active ingredients with very different levels of toxic intensity. Slovenia uses a significant share of older types of pesticides, which are biologically weaker and used in greater quantities but are less burdening for the environment. A rough comparison of pesticide consumption per unit of utilised agricultural area (UAA) would show fairly similar consumption to countries with a similar structure of plant production and similar conditions for agricultural production: it is lower in Austria, but higher in Hungary, and especially Italy. A pilot study on the consumption of pesticides in wheat production in 2007 showed that the use of pesticides for this crop is relatively low<sup>5</sup>.

*Average production levels per unit of area sown with the two most important crops in Slovenia again differed in*

*2008: wheat production increased while maize production decreased.* A low level of production is not optimal in exploiting land as a natural resource. On the other hand, a very high level is also not appropriate, as it brings about high pressure on the environment. After relatively bad harvests in the two preceding years, in 2008 the average yield of wheat increased by 8.8% to 4.2 t/ha, which was below the EU average (EU-27 5.7 t/ha, EU-15 6.4 t/ha; Italy 3.9 t/ha, Austria 5.7 t/ha, Hungary 5.0 t/ha). Conversely, the average yield of maize decreased by 2.9% to 7.3 t/ha, which was slightly above the EU-27 average but lower than the EU-15 average (EU-27 7.2 t/ha, EU-15 9.6 t/ha; Italy 9.8 t/ha, Austria 11.1 t/ha, Hungary 7.5 t/ha).

*The environmental burden of livestock production in Slovenia is slightly higher than the EU average, while the average milk yield per animal is lower and decreased further in 2008.* In 2007, when the last sample survey of agricultural holdings was conducted, Slovenia had on average 0.89 livestock units (LSU)<sup>6</sup> per hectare of UAA, which is slightly more than in the previous survey period. In Slovenia, this type of environmental burdening is relatively high due to a high share of hilly areas and grasslands, which are more favourable for livestock production than for other agricultural activities. In 2007, the number of animals per unit of UAA was higher than the EU-27 average, but almost equal to the EU-15 average (EU-27 0.78 LSU/ha, EU-15 0.88 LSU/ha; Italy and Austria 0.77 LSU/ha, Hungary 0.56 LSU/ha). After a relatively high increase a year before, in 2008 the average milk yield per animal decreased from 5.9 t/animal to 5.6 t/animal. This lagging behind the EU average increased further because in the EU the milk yield increased (EU-27 6.2 t/animal, EU-15 6.7 t/animal; Italy and Austria 6.1 t/animal, Hungary 6.9 t/animal).

*The growth of organic and integrated farming practically halted in 2008.* In 2008, Slovenian farms included in standards for sustainable (organic and integrated) farming cultivated almost 18% of total UAA, of which one third was cultivated using organic methods and two thirds using integrated methods. The total areas increased in 2008, too; however, growth was modest: in integrated farming by 1.3% and in organic farming, which is one of the most efficient methods of sustainable agricultural use of natural resources, by 1.8%. The share of organically farmed area in the total UAA thus rose from 5.9% to 6.1%. After large increases in organic farming early on, this dynamic draws us further away from the targets set in the Action Plan for Organic Farming (20% of UAA by 2015) and in the Rural Development Programme 2007–2013 (64,000 ha by 2013). Although the share in Slovenia in 2007 was higher than the EU-15 average, it was much lower than in two neighbouring countries (Slovenia 5.9%, EU-15 4.7%; Italy 9.0%, Austria 11.7%, Hungary 2.5%).

<sup>1</sup> NPP fertilisers are mineral fertilisers which contain the three most important plant nutrients: nitrogen, phosphorus and potassium.

<sup>2</sup> UAA decreased in 2008 from 498,466 to 492,424 hectares.

<sup>3</sup> Comparison with neighbouring countries that have similar conditions for agricultural production.

<sup>4</sup> Fungicides are chemical agents used for plant disease control; herbicides are used for weed control and insecticides for pest control.

<sup>5</sup> It is more appropriate to make a direct comparison of pesticide use for one culture at a time, as the differences between the active ingredients in individual preparations are smaller. The survey was only carried out for new Member States and candidates for accession to the EU; in Slovenia the survey was conducted by SORS.

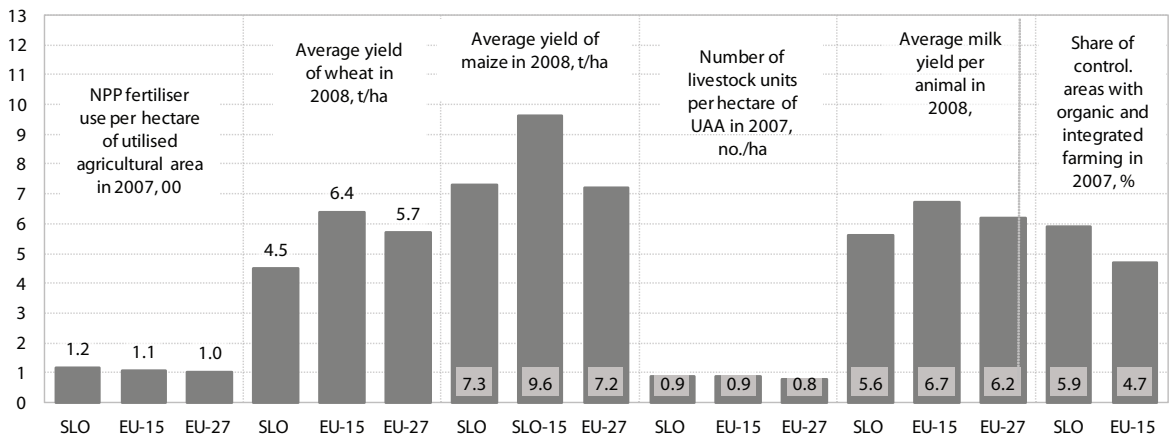
<sup>6</sup> Livestock units are a measure for determining the extent of livestock breeding. 1 LSU=500 kg of live weight of animals.

Table: Selected agricultural intensity indicators for Slovenia, 1995–2008

	unit	1995	2000	2005	2006	2007	2008
<b>NPP fertiliser use</b>							
Use per hectare of utilised agricultural area	kg/ha	134.6	146.6	115.3	119.6	115.6	104.9
<b>Pesticide sales</b>							
Pesticide sales, total, active substance	000 t	N/A	1.5	1.4	1.3	1.2	1.2
<b>Production intensity</b>							
Average yield of wheat	t/ha	4.2	4.2	4.7	4.2	4.2	4.5
Average yield of maize	t/ha	6.3	5.9	8.3	6.9	7.5	7.3
Number of livestock units per hectare of utilised agricultural area	no./ha	N/A	1.0	0.9	N/A	0.9	N/A
Average milk yield per animal	t/cow	N/A	4.5	4.9	5.4	5.9	5.6
<b>Sustainable production</b>							
Controlled areas with organic farming	000 ha	-	5.4	23.2	26.8	29.3	29.8
Number of controlled organic farms	000	-	0.6	1.7	1.9	2.0	2.1
Controlled areas with integrated farming	000 ha	-	-	44.6	49.9	56.9	57.6
Controlled organic farming	000	-	-	5.5	5.8	6.0	5.9

Source: SI-STAT data portal – Environment and natural resources – Agriculture and fisheries, 2010; calculations by IMAD.  
Note: N/A – not available.

Figure: Selected agricultural intensity indicators for Slovenia and the EU



Source: SI-STAT data portal – Environment and natural resources – Agriculture and fisheries, 2010; Eurostat Portal Page - Agriculture and Fisheries – Agriculture, 2010; Eurostat Portal Page - Agriculture and Fisheries – Food: from farm to fork, 2010; Eurostat Portal Page - Environment and Energy – Environment, 2010; Archives – Fertilizer and Pesticides (Faostat), 2010.  
Note: most recent year with available data; N/A – not available.

## Intensity of tree felling

*Forest area also expanded in 2008, but the increase was the lowest in the past decade.* Forests cover more than half of Slovenia's territory, but their area continues to expand, even though this is not planned. Remote areas less suitable for agricultural production are overgrowing faster than forests are shrinking in suburban and intensive agricultural areas. At the end of 2008, forests covered 1,185,000 hectares; this was only 0.2% more than in the previous year, which was the lowest increase in the past decade. Due to higher growth in the previous year, the area was as much as 43,000 hectares (3.8%) larger than projected in the Forestry Management Plans for 2001–2010.<sup>1</sup> As regards climate, water protection and other ecological conditions, a larger forested area is welcome, but its extensive size narrows space for economic, residential, transport and other land uses.

*Total tree removal increased in 2008; due to significant damage caused by wind, the share of removal for sanitation purposes increased.* In 2008, wood increment rose by 0.6% and growing stock by 1.3%. Tree removal increased by 5.7% to 3.4 million m<sup>3</sup> (of which 60% conifers and 40% non-conifers), which was the second highest tree-removal rate in the observed period. Tree-tending removal, which is vital for forest development and therefore most extensive, increased by 6.8% over the previous year, but its share in total tree removal was still low (around 61%, in 2000 around 71%). Sanitation removal, which is increasing in the long term due to increased attacks by insects, increased by 4.4%, mostly due to damage caused by wind in the summer months, such that it accounted for a third of total removal (in 2000 around 21%).

*The intensity of tree felling<sup>2</sup> slightly improved in 2008; however, it still lagged way behind levels targeted in forestry-management plans.* With higher growth of removal than growth of wood increment, the intensity of tree felling increased by 2 p.p. to 43.6%. In 2008, tree felling represented 70% of tree felling possible according to forestry-management plans (68% in 2007). In all analysed years, tree removal in state-owned forests was around the planned level, while in privately-owned forests, which account for almost three quarters of all forest areas in the country, it was not so, due to fragmentation of property and because it proved uneconomical.<sup>3</sup> Due to the growing annual wood increment, the quantity of wood that can be removed in the coming years will continue to increase. A simulation

of forest development performed by the Slovenian Forest Service shows that the allowed intensity of tree felling could rise to approximately 90% by 2040. Greater tree felling would be sensible, as wood is one of the few renewable natural resources in Slovenia. The intensity of tree felling in Slovenia is among the lowest in the EU and in 2005 lagged behind the EU average by as much as 17 p.p.<sup>4</sup>

*Rational forest exploitation represents a development potential.* Despite the low intensity of tree felling, according to some other indicators, exploitation of forests is improving. In the 1995–2006 period, the production of roundwood in Slovenia increased faster than in the EU and in some comparable Member States (in Slovenia by 70%, in the EU-27 by 27%, in the EU-15 by 22%, in Austria by 33%). However, the structure of production of raw-wood categories in Slovenia is not very favourable: while in the past few years in Slovenia only about two thirds of wood has been intended for industrial processing (a third has been intended for heating), in the EU-27 on average about four fifths has been intended for industrial processing (and a fifth for heating). It is essential to invest more in knowledge that would lead to greater innovation and entrepreneurship, and achieve higher value added based on wood as a raw material as well as on non-wood forest products. This would stimulate employment and regional development and at the same time contribute to more economical exploitation of domestic natural resources and more rapid achievement of environmental objectives.

<sup>1</sup> National Forest Development Programme, 1999.

<sup>2</sup> Intensity of tree felling is the ratio of annual removal levels to the annual wood increment.

<sup>3</sup> Some analyses (Krajnc, Piškur, 2006) do show that tree removal in privately owned forests is underestimated. From their analysis of measurements in permanent sampling areas, it can be inferred that the intensity of tree felling in private forests is actually higher (due to illegal tree removal).

<sup>4</sup> See Development Report 2009.

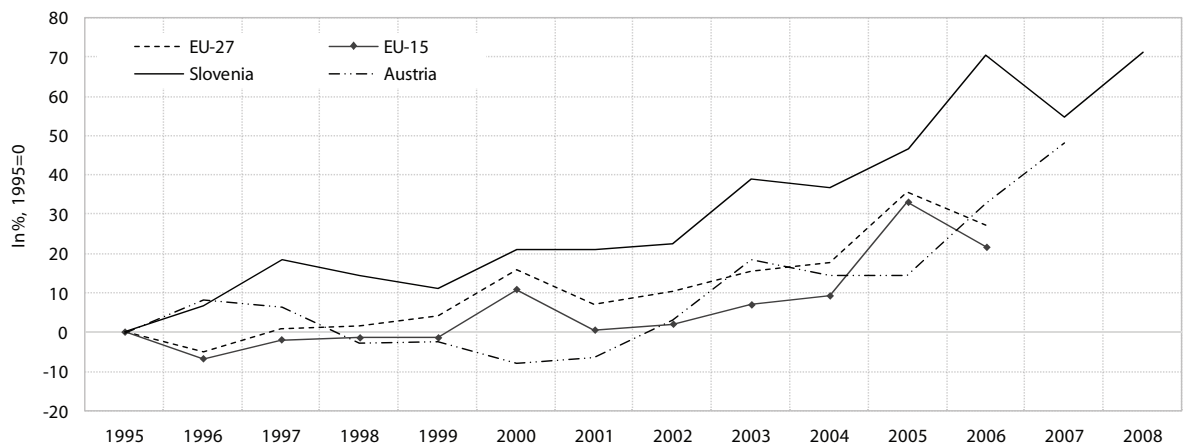
Table: Forest area, wood increment, growing stock and tree removal in Slovenia, 1995–2008

	1995	2000	2005	2006	2007	2008	GGN <sup>1</sup>
							2001–2010
Forest area, 000 ha	1,098	1,134	1,169	1,174	1,183	1,185	1,142
Forest area, 000 m <sup>3</sup>	5,995	6,872	7,569	7,652	7,822	7,869	6,923
Growing stock, 000 m <sup>3</sup>	228,493	262,795	300,795	307,689	318,107	322,195	266,704
Annual removal, 000 m <sup>3</sup>	2,092	2,609	3,253	3,718	3,242	3,427	4,930
tending	1,325	1,849	1,873	2,288	1,966	2,100	N/A
restoration	12	19	17	18	13	9	N/A
protection and sanitation	589	553	1,212	1,224	1,080	1,128	N/A
for infrastructure	15	40	48	50	48	61	N/A
clearing	35	53	65	86	87	68	N/A
no approval	113	91	35	49	38	48	N/A
other	2	3	2	1	9	12	N/A
Intensity of tree felling <sup>2</sup> , %	34.9	38.0	42.8	48.6	41.4	43.6	71.2

Source: Statistical Yearbook of the Republic of Slovenia 2009 (SORS), 2009; Report of the Slovenian Forest Service on forests in 2008, 2009.

Notes: <sup>1</sup> Forestry management plan for 2001–2010; figure on planned annual removal is from the 2008 plan; <sup>2</sup> Ratio of annual removal levels to the annual wood increment; N/A – not available.

Figure: Growth in roundwood production in Slovenia, EU and Austria, 1995–2008



Source: Eurostat Portal Page - Statistics – Agriculture and Fisheries – Forestry, 2010.



## Waste

*The share of separately collected fractions of municipal waste increased further in 2008; however, it was still very low.* In 2008, the amount of municipal waste (measured in tonnes) collected by public waste-removal services did not change, but the amount of municipal waste brought to landfill facilities by people themselves increased strongly. For the first time since 2003, municipal waste growth exceeded GDP growth. To reuse and recover this waste as much as possible, it must be collected separately at the source. The share of separately collected waste in total municipal waste collected by public waste-removal services increased in 2007 and again in 2008; to 26% (in 2007 to 24%). As regards individual fractions collected by public waste-removal services, the amount of waste from gardens and parks, along with paper and packaging waste increased most. Despite positive trends, there is still room for improvement in the area of separate waste collection since only about a third of municipal packaging waste and only a fifth of biodegradable municipal waste is collected separately.

*Landfilling is still the predominant method of municipal waste management in Slovenia.* In 2008, the share of landfilled municipal waste again slightly decreased; from 77.8% to 74.3%; however, it is still very high, since sustainable development in the area of waste management is aimed at reducing landfilling to an absolute minimum. In addition to separately collected waste representing only a quarter of collected municipal waste, the situation is even worse given that, within this separated waste, almost half of the waste from gardens and parks, and one fifth of other separately collected fractions (excluding packaging) was landfilled in 2008. Improvement continued in the field of packaging; in 2008, only 3% of packaging waste collected by public waste-removal services was still landfilled.

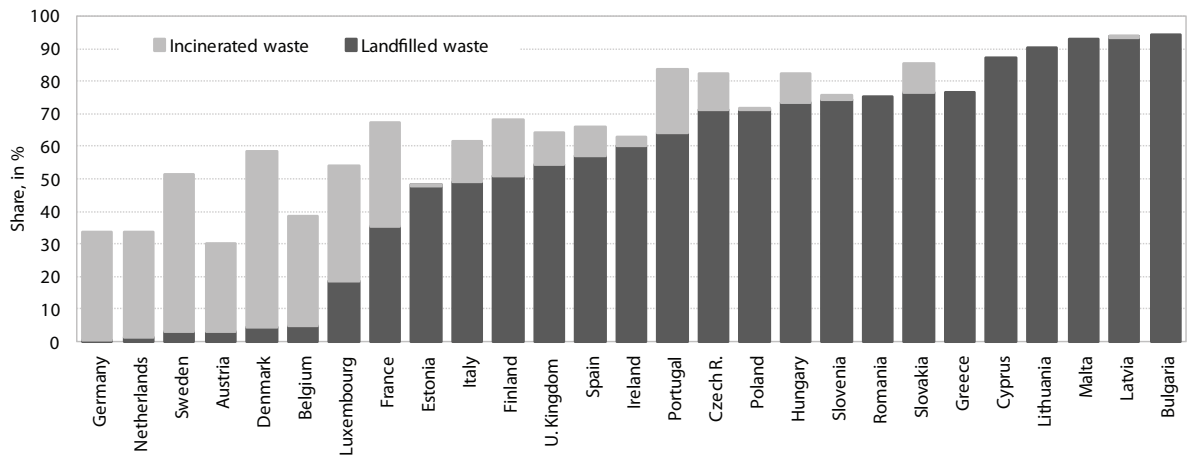
*In the EU-15, the share of landfilled waste has been declining constantly over the past few years.* Between 2000 and 2008, it dropped from 49.2% to 33.3%. In recent years, the most rapid declines have been recorded in Germany, Austria, Sweden and the Netherlands. In these countries, and in Denmark in 2008, the share of landfilled municipal waste was below 5%, while in Belgium it was just over 5%. A low share of landfilled municipal waste is achieved with incineration of municipal waste; in Denmark and Sweden, as much as half of municipal waste is incinerated, while in the EU-15 this share is 22.3% (2008 figures). In the EU-15, the exceptions are Greece, where waste is not incinerated at all, and Ireland, which started to incinerate waste only in 2008. New EU Member States practically do not incinerate waste, except the Czech Republic, Slovakia and Hungary, where around 10% of municipal waste is incinerated. In 2008, the first incinerator of mechanically and biologically pre-treated waste started to operate in Slovenia; the share of incinerated municipal waste was 1.5%.

*As regards waste from manufacturing and service activities, the share of recovered waste increased strongly in 2008.* The growth of this so-called industrial waste continued to lag behind economic growth: with lower GDP growth in 2008, the amount of industrial waste slightly reduced. A total of 77% of waste was recovered, of which most (89%) was recycled, while 23% of waste was removed (of which 99.6% was landfilled). The latter decreased by almost 30% over 2007.

*In the area of management of packaging waste, the targets for recovery and recycling were achieved in 2007.* In 2007, the share of recovered packaging waste increased to 53% and the share of recycled packaging waste to 46.9%, which means that the objective was even slightly exceeded.<sup>1</sup> As regards individual packaging materials, the targets of recycling and recovery were exceeded for paper and cardboard packaging, and for plastics and wood packaging, while the targets for glass and metal packaging were not achieved. According to the available data, in 2007 the share of packaging waste given to the common packaging waste-management system – since 2006 this has involved two packaging-waste management companies – increased further (to 90%).

<sup>1</sup> The target from the Operational Programme for Packaging and Waste Packaging Management for the 2002–2007 Period (OG RS 29/02) was 51% for recovery and 40% for recycling by 2007.

Figure: Share of incinerated (for energy production) and landfilled municipal waste, 2008, %



Source: Eurostat Portal Page – Environment – Waste – Municipal waste by type of treatment, 2010; calculations by IMAD.

## Age-dependency ratio

The age-dependency ratio increased further in Slovenia in 2009. The old-age-dependency ratio<sup>1</sup> rose by a further 0.5 of an index point in 2009, while the total age-dependency ratio increased for the fifth consecutive year.<sup>2</sup> There were thus 23.7 old persons (3.8 more than in 2000) and 20.1 children (0.3 more than in 2008 or 2.6 less than in 2000) per 100 working-age persons in Slovenia in 2009. The total age-dependency ratio was 43.8 (0.9 more than a year previously or 1.2 more than in 2000).

The total age-dependency ratio is increasing due to the decline in the share of the working-age population in the total population. The share of children in the total population is diminishing at a slower rate than the share of the elderly population is increasing. Until 2003, the share of the working-age population had been rising (from 69.2% in 1995 to 70.4%); in 2005, it began to decline, falling to 69.5% by 2009,<sup>3</sup> despite high positive net migration,<sup>4</sup> which otherwise translates into an increase in this population group. The percentage of children dropped from 18.4% to 13.8%<sup>5</sup> in the period from 1995 to 2008, while rising to 14.0%<sup>6</sup> in 2009 due to a high number of births.<sup>7</sup> The share of older people in the population increased again in 2009 (to 16.5%, 2.5 p.p. more than in 2000). In 2003, the number of people aged 65 and over was, for the first time, higher than the number of children. The ageing index, which is the ratio between these two population groups, exceeded 100. By 2009, it had risen to 118.0.

The old-age-dependency ratio in Slovenia is still lower than the EU average, but the gap is narrowing. Most of the large EU countries have higher life expectancies than Slovenia<sup>8</sup> and the ratio of old people to total population in the EU as a whole is therefore also higher. However, all countries face similar problems regarding the declining shares of children and working-age population, even if positive net migration is high. The average old-age-dependency

ratio in the EU is therefore higher than in Slovenia, but the gap is closing: in 2008, it was 25.2%, 1.9 p.p. more than in Slovenia. It was highest in Italy, Germany and Greece, which also have the highest shares of older people in the population.

<sup>1</sup> The ratio of the population aged 65 or over to the working-age population (which has an internationally comparable definition as the population aged 15–64).

<sup>2</sup> The ratio of young to working-age population.

<sup>3</sup> This decline was also partly due to the change in the statistical definition of the permanent population in 2008, which does not include people who lived in Slovenia or were absent from Slovenia for less than one year. The impact of the change is insignificant. In 2008, for which data are available by both definitions, the share of working-age population in the total population was 70.0% according to the previous, and 69.7% according to the new definition, which does not count foreigners with temporary residence as population of Slovenia.

<sup>4</sup> See the indicator *Migration coefficient*.

<sup>5</sup> According to the changed definition of the population, which does not count foreigners with temporary residence (see the previous note), to 13.9%.

<sup>6</sup> According to the changed definition of the population, which does not count foreigners with temporary residence.

<sup>7</sup> See the indicator *Fertility rate*.

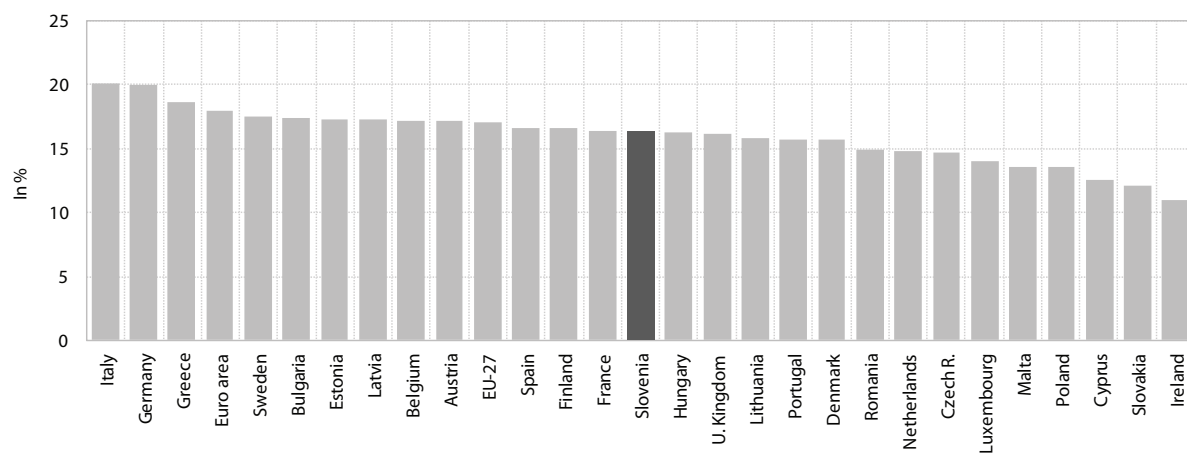
<sup>8</sup> See the indicator *Life expectancy and infant mortality*.

**Table: Old-age dependency ratio (ratio of the population aged 65 or over to the working age population) in EU Member States, %**

	1995	2000	2005	2006	2007	2008
<b>EU-27</b>	<b>21.9</b>	<b>23.2</b>	<b>24.6</b>	<b>24.9</b>	<b>25.2</b>	<b>25.2</b>
Austria	22.5	22.9	23.5	24.4	25.0	25.4
Belgium	23.8	25.5	26.3	26.2	25.9	25.8
Bulgaria	N/A	23.8	24.8	24.9	24.9	25.0
Cyprus	17.2	17.0	17.3	17.3	17.6	17.8
Czech Rep.	19.3	19.8	19.8	20.0	20.2	20.5
Denmark	22.7	22.2	22.7	22.9	23.2	23.6
Estonia	20.2	22.4	24.3	24.5	25.1	25.3
Finland	21.1	22.2	23.8	24.0	24.8	24.8
France	23.0	24.3	24.9	24.9	24.9	25.1
Greece	22.2	24.2	26.8	27.6	27.6	27.8
Ireland	17.8	16.8	16.4	16.3	15.8	15.9
Italy	24.0	26.8	29.3	29.8	30.2	30.4
Latvia	20.5	22.1	24.1	24.4	24.8	24.9
Lithuania	18.5	20.8	22.3	22.5	22.7	23.0
Luxembourg	20.6	21.4	20.9	20.8	20.7	20.6
Hungary	20.9	22.0	22.7	22.9	23.2	23.5
Malta	16.3	17.9	19.3	19.8	19.8	19.3
Germany	22.5	23.9	27.8	28.9	29.9	30.0
Netherlands	19.3	20.0	20.8	21.1	21.5	21.8
Poland	16.6	17.6	18.7	18.9	19.0	18.9
Portugal	21.9	23.7	25.2	25.4	25.6	23.4
Romania	18.0	19.7	21.1	21.2	21.3	21.3
Slovakia	16.3	16.6	16.3	16.4	16.5	16.6
<b>Slovenia</b>	<b>17.4</b>	<b>19.8</b>	<b>21.8</b>	<b>22.2</b>	<b>22.7</b>	<b>23.3</b>
Spain	22.2	24.5	24.4	24.3	24.2	24.1
Sweden	27.4	26.9	26.5	26.4	26.4	26.7
U. K.	24.5	24.3	24.3	24.2	24.1	24.3

Source: Eurostat Portal Page - Population and Social Conditions – Population, 2010.  
 Note: N/A - not available.

**Figure: Share of the population aged 65 and over in the total working age population, in EU Member States, %, 2008**



Source: Eurostat Portal Page - Population and Social Conditions – Population, 2010.

## Life expectancy and infant mortality

*Life expectancy continues to rise.* After brief stagnation in the early period of transition, life expectancy in Slovenia has been constantly increasing since 1994. In 2008, life expectancy for men was 75.4 years (0.8 years more than a year before and 3.5 years more than in 2000) and for women 82.3 years (0.5 years more than a year before and 3.2 years more than in 2000). After two years decreasing, the gender difference slightly increased again and remains rather high (7.2 years). In 2008, mortality decreased in almost all age groups; for men the greatest decrease was recorded in the 20–39 age group and for women in the 10–24 age group. Life expectancy is rising in most EU Member States. As regards male life expectancy, Slovenia continues to lag behind all old Member States and Cyprus and Malta, while on female life expectancy, Slovenia already records higher life expectancy than the Netherlands, Portugal, Greece, the United Kingdom and Denmark, as well as all new Member States except Cyprus.

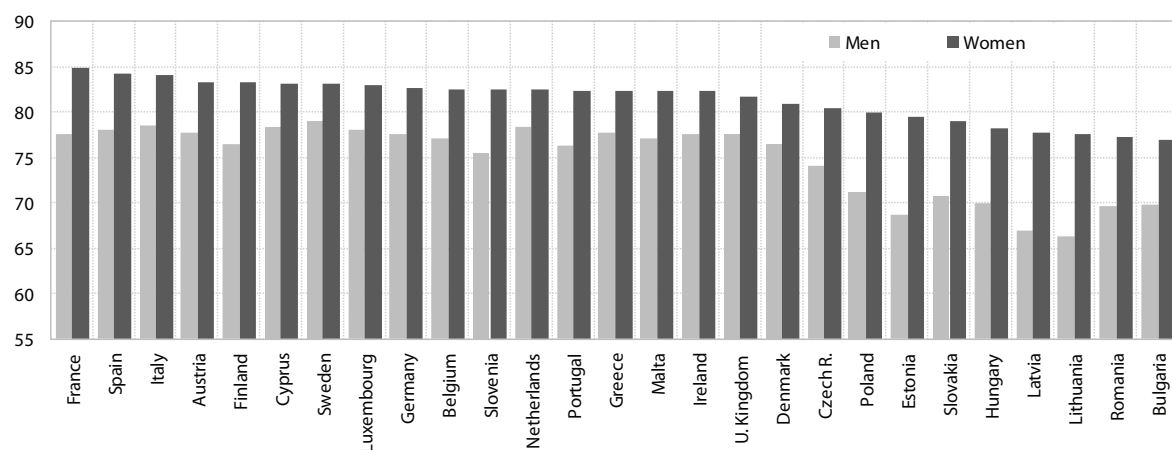
*In 2008, infant mortality in Slovenia remained at the same level as in the previous year, when it reached the lowest level ever.* Infant mortality in Slovenia has been falling for a number of years: since 1980, when it was 15.3 infants under 1 year of age per 1,000 live births, it dropped to 4.5–5.5 in the second half of the 1990s. In 2008, the infant mortality rate was 2.8 infants per 1,000 live births, which was the same as a year previously. On this indicator, Slovenia was fourth among EU Member States in 2007, behind Luxembourg, Sweden and Finland. The highest infant mortality rates in the EU were recorded by Romania, Bulgaria and Malta. Specific prevention measures in Slovenia in the field of prenatal and neonatal health care, which in developed countries help to reduce infant mortality, alongside general well being, remain at a high level in Slovenia.

Table: Infant mortality per 1000 live births in Slovenia and the EU

	1995	2000	2005	2006	2007	2008
<b>EU</b>	<b>N/A</b>	<b>5.9</b>	<b>4.9</b>	<b>4.7</b>	<b>N/A</b>	<b>N/A</b>
Austria	5.4	4.8	4.2	3.6	3.7	3.7
Belgium	6.0	4.8	3.7	4.0	4.0	3.4 *
Bulgaria	14.8	13.3	10.4	9.7	9.2	8.6
Cyprus	9.7	5.6	4.6	3.1	3.7	5.3 *
Czech Rep.	7.7	4.1	3.4	3.3	3.1	2.8
Denmark	5.1	5.3	4.4	3.8	4.0	4.0
Estonia	14.9	8.4	5.4	4.4	5.0	5.0
Finland	3.9	3.8	3.0	2.8	2.7	2.6
France	4.9	4.5	3.8	3.8	0.0	0.0
Greece	8.1	5.9	3.8	3.7	3.5	3.5 *
Ireland	6.4	6.2	4.0	3.7	3.1	0.0
Italy	6.2	4.5	3.8	4.2	3.7	3.7 *
Latvia	18.8	10.4	7.8	7.6	8.7	6.7
Lithuania	12.5	8.6	6.8	6.8	5.9	4.9
Luxembourg	5.5	5.1	2.6	2.5	1.8	1.8
Hungary	10.7	9.2	6.2	5.7	5.9	5.6 *
Malta	8.9	5.9	6.0	3.6	6.5	9.9
Germany	5.3	4.4	3.9	3.8	3.9	3.5 *
Netherlands	5.5	5.1	4.9	4.4	4.1	3.8 *
Poland	13.6	8.1	6.4	6.0	6.0	5.6
Portugal	7.5	5.5	3.5	3.3	3.4	3.3 *
Romania	21.2	18.6	15.0	13.9	12.0	11.0
Slovakia	11.0	8.6	7.2	6.6	6.1	5.9
<b>Slovenia</b>	<b>5.5</b>	<b>4.9</b>	<b>4.1</b>	<b>3.4</b>	<b>2.8</b>	<b>2.8</b>
Spain	5.5	4.4	3.8	3.8	3.7	3.5 *
Sweden	4.1	3.4	2.4	2.8	2.5	2.5
U. K.	6.2	5.6	5.1	4.9	4.8	4.7 *

Source: Eurostat Portal Page – Population and Social Conditions – Population, 2010; for Slovenia: SI-STAT data portal – Population, 2010.  
 Notes: N/A – not available; \* Eurostat estimate.

Figure: Life expectancy in Slovenia and EU Member States, 2008\*



Source: Eurostat Portal Page – Population and Social Conditions – Population, 2010.  
 Note: \*Data for Belgium, France, Sweden and the UK are for 2007, data for Italy are for 2006.

## Fertility rate

*The number of births and the total fertility rate in Slovenia increased again in 2008.* 21,213 children were born, which is 1,994 more than in the previous year. The total fertility rate, which is the ratio between the number of live births and the number of women of childbearing age, was 1.53 (0.15 higher than a year before). The number of children increased in all orders of birth up to sixth,<sup>1</sup> the most in first and second. Age-specific fertility rates increased in almost all ages of women of childbearing age, while the number of women decreased in almost all age groups of childbearing age except in the age group 30–34 where it slightly increased. As shown by available data, the growth in the number of births in Slovenia slowed in the first half of 2009. Slightly more children were born than in the same period of 2008, but fewer than in the second half of 2008. Except for 2000, the total fertility rate has been constantly falling since 1980, when it totalled 2.11 and was for the last time above the population replacement level. It reached its low in 2003 (1.20), when it started to gradually increase.

*In 2008, the fertility rate in Slovenia drew close to the EU average.* Higher fertility rates than in Slovenia were recorded in only nine EU Member States. Similar total fertility rates were recorded in Greece and the Czech Republic. The highest fertility rate in the EU (at the population replacement level) was recorded in Ireland. In 2008, fertility increased in all Member States except Luxembourg. The greatest increase was observed in Slovenia, Lithuania and Greece.

*The mean age of women at birth continues to rise.* Fertility rates of women aged up to 26 years have been falling for more than 25 years, but this decrease has been slowing (in 2008, the rate even increased, except for the age group 15–19). On the other hand, fertility rates of women aged 27 or more have been on the increase (especially in the age group 31–36) since 1990. The mean age of women at childbirth and the mean age of women at the birth of their first child thus continue to rise. By 2008, the former had increased to 30.1 years (0.2 years more than in 2007 and 1.8 years more than in 2000) and the latter to 28.4 years (0.2 more than in 2007 and 1.9 years more than in 2000). With these figures, Slovenia is nearing the level of countries with a high mean age of women at childbirth.

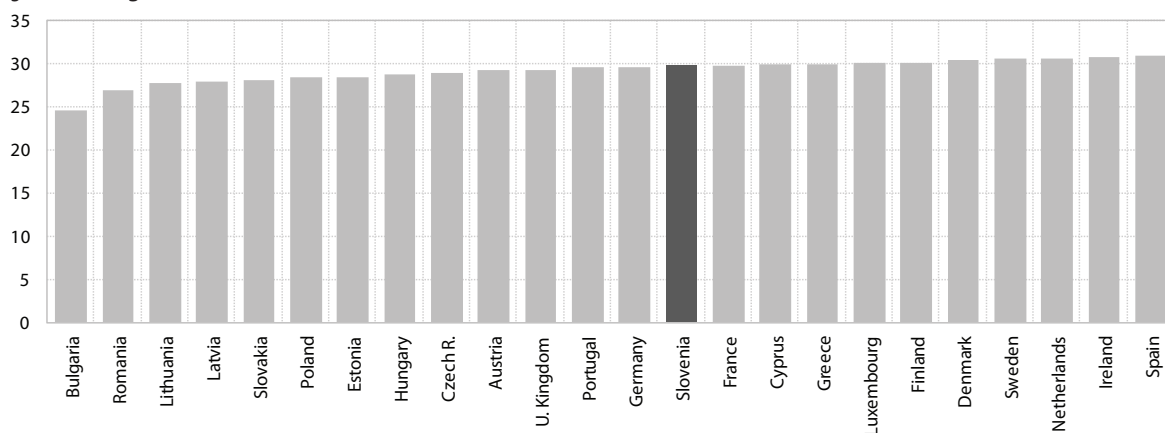
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<sup>1</sup> First, second, third ... sixth born.

**Table: Total fertility rate (ratio between the number of live births and the number of women of childbearing age in a calendar year) in EU Member States**

	1995	2000	2005	2006	2007	2008
<b>EU</b>	<b>N/A</b>	<b>N/A</b>	<b>1.51</b>	<b>1.53</b>	<b>N/A</b>	<b>N/A</b>
Austria	1.42	1.36	1.41	1.41	1.38	1.41
Belgium	1.56	N/A	1.76	N/A	N/A	N/A
Bulgaria	1.23	1.26	1.32	1.38	1.42	1.48
Cyprus	2.03	1.64	1.42	1.45	1.39	1.46
Czech Rep.	1.28	1.14	1.28	1.33	1.44	1.50
Denmark	1.80	1.77	1.80	1.85	1.84	1.89
Estonia	1.38	1.38	1.50	1.55	1.63	1.65
Finland	1.81	1.73	1.80	1.84	1.83	1.85
France	1.71	1.89	1.94	2.00	1.98	2.00
Greece	1.31	1.26	1.33	1.40	1.41	1.51
Ireland	1.84	1.89	1.87	1.93	2.01	2.10
Italy	1.19	1.26	1.32	1.35	1.37	N/A
Latvia	1.27	N/A	1.31	1.35	1.41	1.44
Lithuania	1.55	1.39	1.27	1.31	1.35	1.47
Luxembourg	1.70	1.76	1.63	1.65	1.61	1.61
Hungary	1.57	1.32	1.31	1.34	1.32	1.35
Malta	0.00	1.70	1.38	1.39	1.37	1.44
Germany	1.25	1.38	1.34	1.33	1.37	1.38
Netherlands	1.53	1.72	1.71	1.72	1.72	1.77
Poland	1.62	1.35	1.24	1.27	1.31	1.39
Portugal	1.41	1.55	1.40	1.36	1.33	1.37
Romania	1.41	1.31	1.32	1.32	1.30	1.35
Slovakia	1.52	1.30	1.25	1.24	1.25	1.32
<b>Slovenia</b>	<b>1.29</b>	<b>1.26</b>	<b>1.26</b>	<b>1.31</b>	<b>1.38</b>	<b>1.53</b>
Spain	1.17	1.23	1.35	1.38	1.40	1.46
Sweden	1.73	1.54	1.77	1.85	1.88	1.91
U. K.	1.71	1.64	1.78	1.84	N/A	N/A

Source: Eurostat Portal Page – Population and Social Conditions – Population, 2010.  
Note: N/A - not available.

**Figure: Mean age of women at childbirth in selected EU Member States, 2006**

Source: Eurostat Portal Page – Population and Social Conditions – Population, 2010.



## Migration ratio

The migration ratio<sup>1</sup> in Slovenia grew further in 2008 and was among the highest in the EU; however, in 2009 it started to decline. In 2008, the migration ratio was 9.2 per 1,000 population (according to a new definition of migration<sup>2</sup>) after it had been growing since 2005. In the 1995–2004 period, the average migration ratio was 1.2 per 1,000 population, in 2005 and 2006 it was around 3.2 per 1,000 population and in 2007 already 7.0 per 1,000 population.<sup>3</sup> In 2008, the high migration ratio in Slovenia was (together with that of Spain) the second highest in the EU behind Luxembourg. By 2008, net migration, which was around 2,400 persons on average in the 1995–2004 period, had grown to 28,331 according to the old, or 18,584 according to the new definition of migration. The number of immigrants, which was around 6,500 per year on average in the 1995–2000 period, has been constantly increasing since 2000. In 2004, it was over 10,000 persons (together with seasonal migrants), increasing to 30,693 by 2008 according to the new definition, which excludes seasonal migrants (or, according to the old definition, which includes seasonal migrants, to 43,815). With seasonal immigration, emigration from Slovenia also increased; in the 1995–2000 period, an average 4,100 people emigrated each year, while by 2008 this number had increased (according to the comparable definition) to 15,484.<sup>4</sup> Provisional data for the first two quarters of 2009 show that, in the first quarter of 2009, the net migration of Slovenia's population continued to increase, while in the second quarter it decreased to half the level from the second quarter of 2008.

*Accelerated growth of the migration ratio in the 2004–2008 period was to a large extent the result of economic growth after Slovenia joined the EU. At that time, enterprises hired an increasing number of foreign workers, especially due to a lack of certain occupational profiles, such as construction workers, so that in this period the number of foreigners employed in Slovenia doubled. This is shown by the increase in the number of work permits issued to foreign nationals; in 2008, 81,113 permits were issued, i.e. 2.04 times more than in 2004. Increased immigration in 2008 was also due to Slovenia's accession to the Schengen agreement. The year 2008 was also marked by numerous abuses, as foreigners with residence permits in the Republic of Slovenia, with which they*

can travel or live up to three months in other countries that are parties to the Schengen agreement, worked in these countries, applied for asylum or registered as job seekers. The reasons for the decrease in net migration in the second quarter of 2009 were therefore, in addition to the worsening of economic conditions, which reduced employment of foreigners,<sup>5</sup> also the tighter conditions for obtaining permits for foreign nationals living in the Republic of Slovenia that were adopted at that time by the Slovenian Government.

*Most immigrants continue to come from countries of the former Yugoslavia; their educational attainment is on average poor, but is improving. The number of immigrants exceeds the number of emigrants only for foreign nationals, while net migration of citizens of the Republic of Slovenia has been slightly negative since 2000.<sup>6</sup> Among both immigrants and emigrants, men predominate over women. As regards age, most migrants are 20 to 29 years old. In 2008, 81% of male and 61% of female immigrants were aged 20–49. The majority of immigrants come from Bosnia and Herzegovina. Immigrants from other EU Member States are few. People with a lower level of education prevail among foreigners working in Slovenia, but their share (in 2008 51.3%) is declining in favour of those with a secondary education. Less than 4% of immigrants (3.8% in 2008) have a higher education.*

<sup>1</sup> This is the ratio between net migration and average number of people in the calendar year; net migration is the difference between the number of immigrants and the number of emigrants in the calendar year.

<sup>2</sup> In 2008, SORS made a transition to a new definition of permanent migration, which excludes migrants who are present in the country or absent from it for less than a year. According to the old definition, which included seasonal migrants, the migration ratio in 2008 was higher; 13.9 per 1,000 population.

<sup>3</sup> These and all data on international migration up to 2007 are shown according to the old SORS definition of migrants.

<sup>4</sup> Excluding seasonal migration, the number of emigrants from Slovenia in 2008 was 3,375 lower.

<sup>5</sup> As shown by the Statistical Register of Population in Employment.

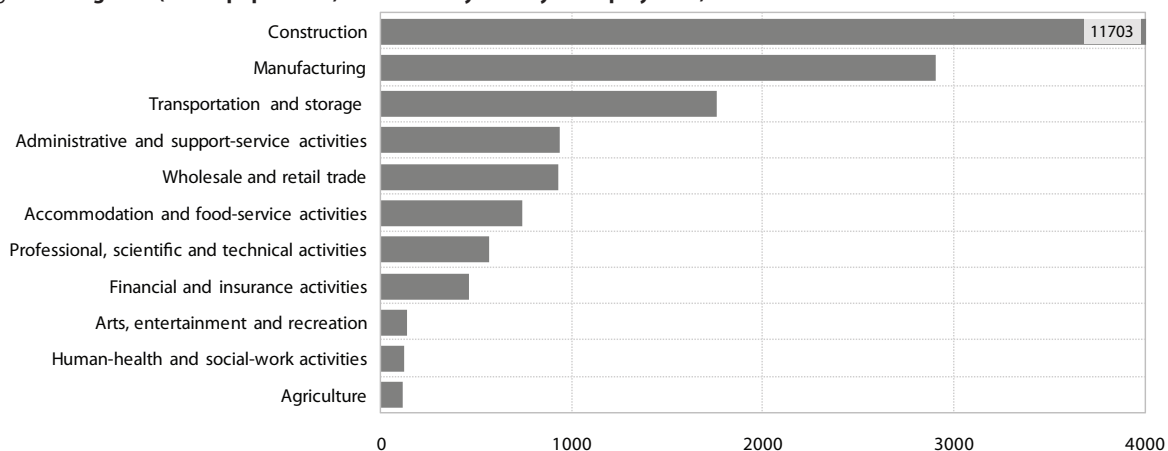
<sup>6</sup> The average migration ratio of citizens in the 2000–2008 period was -0.4 per 1,000 population.

Table: Net migration (with statistical corrections), per 1000 population

	1995	2000	2005	2006	2007	2008
<b>EU</b>	<b>1.4</b>	<b>1.5</b>	<b>3.6</b>	<b>3.3</b>	<b>3.8</b>	<b>3.0</b>
Austria	0.3	2.2	6.1	3.0	4.1	4.1
Belgium	0.2	1.4	4.7	5.1	5.9	5.6
Bulgaria	0.0	0.0	0.0	0.0	-0.2	-0.1
Cyprus	9.2	5.7	19.2	11.3	9.5	4.6
Czech Rep.	1.0	0.6	3.5	3.4	8.2	6.9
Denmark	5.5	1.9	1.2	1.9	3.7	4.6
Estonia	-10.8	0.2	0.1	0.1	0.1	0.1
Finland	0.8	0.5	1.7	2.0	2.6	2.9
France	-0.3	2.8	3.0	1.4	1.1	1.3
Greece	7.3	2.7	3.6	3.6	3.6	3.2
Ireland	1.6	8.4	16.0	15.6	10.7	0.4
Italy	0.5	0.9	5.2	6.4	8.4	7.3
Latvia	-5.5	-2.3	-0.2	-1.1	-0.3	-1.1
Lithuania	-6.5	-5.8	-2.6	-1.4	-1.5	-2.3
Luxembourg	10.6	7.9	13.2	11.4	12.6	15.9
Hungary	1.7	1.6	1.7	2.1	1.4	1.6
Malta	0.2	2.3	4.0	5.3	4.2	5.9
Germany	4.9	2.0	1.0	0.3	0.5	-0.7
Netherlands	1.0	3.6	-1.4	-1.6	-0.1	1.9
Poland	-0.5	-10.6	-0.3	-0.9	-0.5	-0.4
Portugal	2.2	4.6	3.6	2.5	1.8	0.9
Romania	-0.9	-0.2	-0.3	-0.3	0.0	0.1
Slovakia	0.5	-4.1	0.6	0.7	1.3	1.3
<b>Slovenia</b>	<b>0.4</b>	<b>1.4</b>	<b>3.2</b>	<b>3.1</b>	<b>7.1</b>	<b>9.2</b>
Spain	1.8	9.7	14.9	13.8	15.7	9.2
Sweden	1.3	2.8	3.0	5.6	5.9	6.1
U. K.	1.1	2.4	3.2	4.1	2.9	3.9

Source: Eurostat Portal Page – Population and Social Conditions – Demography, 2010.  
 Note: \*European part of France.

Figure: Immigrants (active population) in Slovenia by activity of employment, 2008



Source: SI-STAT data portal – Demography and social statistics, 2010.

## Regional variation in GDP per capita

Compared to the national average, in 2007, the Obalno-kraška region recorded the highest increase in GDP per capita (by 1.7 index points). Positive relative changes (compared to the national average) were recorded by Podravska, Notranjsko-kraška, Gorenjska, Koroška, Jugovzhodna Slovenija and Goriška regions. In all other regions, GDP per capita decreased compared with the national average, by most in Zasavska (by -1.9 index points). Compared to 2000, the lag in this region increased by 13.2 index points, which is the most among all statistical regions. In this period, the Zasavska region also lost most jobs (12%). The Osrednjeslovenska region is at the other end of the spectrum, with the highest GDP per capita in Slovenia; in 2007, it increased its advantage over the national average by as much as 5.2 index points compared with 2000. In addition to Osrednjeslovenska, only Jugovzhodna Slovenija and Podravska regions increased their advantage over the national average, while in all other regions, which account for 52% of Slovenia's population, the lag behind the average economic development increased.

In 2007, all regions except Zasavska decreased their gap to the European average. In 2007, all regions at the NUTS 3 level except Zasavska decreased their lag behind the European average compared with 2006, most notably Obalno-kraška (by 3.4 index points). The Zasavska region increased its gap by 0.5 index points. This is also the only region in Slovenia that also increased its lag behind the European average compared with 2000 (by 3.8 index points). With an increase of 18.4 index points, the Osrednjeslovenska region was the most economically dynamic region in Slovenia, and also compared with the European average. Osrednjeslovenska is thus the only NUTS 3 region in Slovenia that exceeds the EU average (according to our calculations, by 28.7% in 2007). The economically weakest Pomurska region attained around 58.4% of the EU average according to our calculations, and was thus among the 15% of least developed European regions. At the NUTS 2 level, Zahodna Slovenija exceeded the Slovenian average by slightly over one fifth and the European average by 7.8%, while Vzhodna Slovenija stood at the level of 82.4% of the Slovenian average and 73.8% of the European average. At the NUTS 3 level, only regions in Vzhodna Slovenija – Pomurska, Zasavska, Notranjsko-kraška and Spodnjeposavska – were below 75% of the EU-27 average.

The ratio between the two regions at the extreme points of GDP per capita is moderate and at the same level as in 2006. The GDP per capita of the Osrednjeslovenska region exceeded that of the economically weakest Pomurska region by a factor of 2.2 in 2007, i.e. by the same amount as in the previous year and slightly more than in 2000, when the former value was twice as high as

the latter. Ratios between the two regions with extreme values at the NUTS 3 level are moderate in Slovenia, being much higher in most EU Member States. In 2006, this ratio was highest in the United Kingdom (8.2) and the lowest in Malta (1.4) and Sweden (1.7). One reason why the Osrednjeslovenska region stands out in terms of GDP per capita is that it comprises the capital city with the highest concentration of economic activities. This is, however, also characteristic of other EU Member States, except for Germany, Greece, Spain and Italy.

*Regional disparities, measured by the indicator of regional dispersion of GDP per capita in purchasing-power standards (PPS), decreased slightly in 2007.* In terms of GDP per capita dispersion,<sup>1</sup> which is one of the methods of measuring regional disparities, disparities in Slovenia have been relatively stable since 2003 and are among the lowest in the EU (at the NUTS 3 level). According to our calculations, in 2007, GDP per capita dispersion was reduced by 0.1 p.p. to 22.3%, while compared with 2000 it was 2.8 p.p. higher.<sup>2</sup>

<sup>1</sup> The sum of absolute difference between regional and national GDP per capita weighted with the share of people and expressed as a percentage of national GDP per capita.

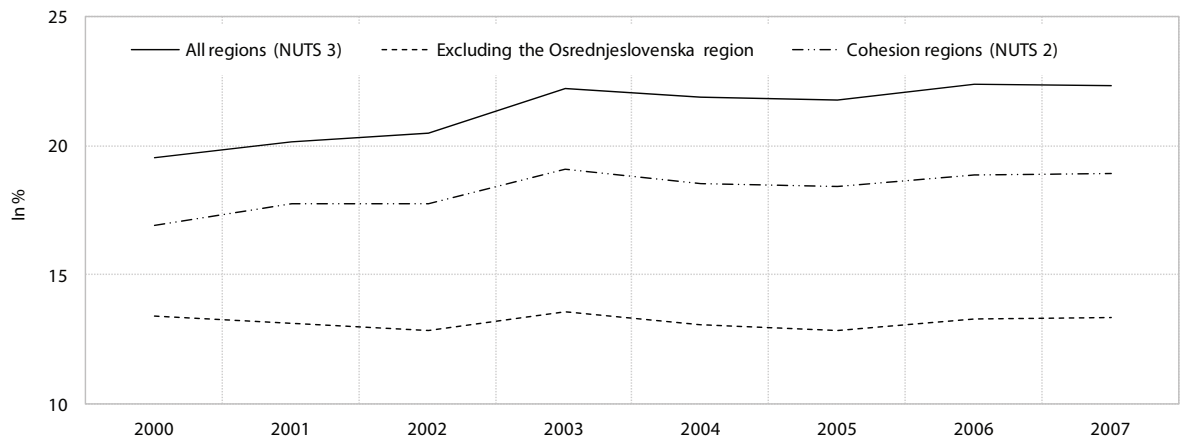
<sup>2</sup> If the economically most powerful region, Osrednjeslovenska, is excluded from the calculation, regional differences are almost 10 p.p. lower, while trends between years are similar.

Table: Gross domestic product per capita, indices, Slovenia = 100

Cohesion region / Statistical region	1995	2000	2005	2006	2007	GVA structure 2007, %
<b>Slovenija</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Zahodna Slovenija</b>	<b>118.9</b>	<b>118.5</b>	<b>120.0</b>	<b>120.4</b>	<b>120.4</b>	<b>55.7</b>
Obalno-kraška	108.5	105.4	101.8	102.3	104.0	5.5
Goriška	99.3	99.0	96.3	96.3	96.4	5.7
Gorenjska	89.2	87.6	85.3	84.3	84.7	8.4
Osrednjeslovenska	138.0	138.5	143.4	144.3	143.7	36.1
<b>Vzhodna Slovenija</b>	<b>84.2</b>	<b>84.4</b>	<b>82.9</b>	<b>82.5</b>	<b>82.4</b>	<b>44.3</b>
Notranjsko-kraška	78.7	80.5	76.0	74.8	75.4	1.9
Jugovzhodna Slovenija	88.7	91.7	92.7	92.9	93.1	6.5
Spodnjeposavska	80.9	85.0	82.5	80.8	80.2	2.8
Zasavska	84.8	79.3	69.7	68.1	66.1	1.5
Savinjska	93.0	90.6	89.6	88.9	87.9	11.3
Koroška	79.6	82.7	78.7	76.7	76.9	2.8
Podravska	81.6	83.7	83.5	84.2	85.1	13.5
Pomurska	74.9	69.6	66.8	65.7	65.2	3.9

Source: SI – STAT data portal – Economy – National accounts – Regional GDP, 2010.  
Note: GVA – gross value added.

Figure: Dispersion of regional GDP per capita in PPS at the NUTS 2 and NUTS 3 levels in Slovenia, %



Source: SORS, 2010.

## Regional variation in the registered unemployment rate

*Compared to 2008, in 2009 the registered unemployment rate increased in all regions, the most in Pomurska and Koroška and the least in Osrednjeslovenska. Unemployment grew above-average in regions with lower rates (Goriška, Gorenjska, Jugovzhodna Slovenija). In this period, the number of unemployed persons increased on average by as much as 36%, by most in Goriška (64.6%) and Gorenjska (60%), which in 2008 had the lowest registered unemployment rate, and in Koroška (49.1%) and by least in Savinjska (by 28.3%) and Pomurska (by 29.3%), which has the highest unemployment rate. From 2000 to October 2008, the registered unemployment rate in regions mostly fell, so at the end of 2009 in most of the regions (except Goriška and Koroška), the unemployment rate was lower than at the start of the decade (in 2000). In the Podravska region, it was 6.2 p.p. lower and in Goriška 1.1 p.p. higher.*

*The Pomurska region recorded the highest registered unemployment rate in 2009. Regions in the eastern half of the country – Pomurska (15.9%), Podravska (11.9%) and Zasavska (11%) – continued to record above average rates, while the position of the Koroška region deteriorated the most compared with the national average. In 2009, the lowest registered unemployment rates were recorded in Osrednjeslovenska (6.8%), Obalno-kraška (6.9%) and Gorenjska (6.9%), and in 2008 in Goriška, Gorenjska and Notranjsko-kraška.*

*Regional disparities decreased in 2009. Because the registered unemployment rate also increased in regions with below-average registered unemployment rates, in 2009 the ratio between the region with the highest registered unemployment rate and the region with the lowest registered unemployment rate decreased to 2.3 (2.9 in 2008). The registered unemployment rate dispersion<sup>1</sup> across the regions decreased by 3.9 p.p. and was 3.1 p.p. lower than in 2000.*

*With growing unemployment, the proportion of unemployed men, the proportion of unemployed people who lost temporary jobs and the proportion of permanent lay-offs increased most. As regards individual groups of unemployed persons, unemployment grew at different speeds in 2009. In all regions men were hit harder by unemployment than women, especially at the onset of the economic crisis, when sectors employing predominantly male labour force were hit first. The highest growth in male unemployment was recorded in Goriška (73.8%), Koroška (71.6%) and Gorenjska (69.1%).*

Men represent the highest share among unemployed people in the Goriška region (54.6%). Young people and those with low educational attainment are also more exposed to unemployment. The number of unemployed people from these groups also grew by most in the three mentioned regions. The highest share of young unemployed people (those under 25) was observed in Koroška (16.4% of all unemployed people), while the highest share of unemployed people with low educational attainment was recorded in Jugovzhodna Slovenija (51.9%). The inflow of other groups of unemployed people resulted in a decrease in the proportion of long-term unemployed in total unemployed people (in the Goriška region, by almost a fifth). At the same time, this is the only group of unemployed people for which the number of unemployed declined in as many as five regions in the period analysed. As regards reasons for unemployment, the number of those who lost temporary jobs is increasing – the highest increase was recorded in the Goriška region (by almost 93%), while this group of unemployed people represents the largest group in total unemployment in the Koroška region (41.8%). The share of unemployed people who are permanent lay-offs is also rising – again by most in the Goriška region (by 96.1%), while this group of unemployed people represents the highest share in total unemployment (more than a quarter) in the Notranjsko-kraška region. The number of people unemployed due to bankruptcy also increased, in the Gorenjska region by as much as 161.3% in one year, and this group of unemployed people accounts for the highest share in total unemployment in the Pomurska region (11.4%).

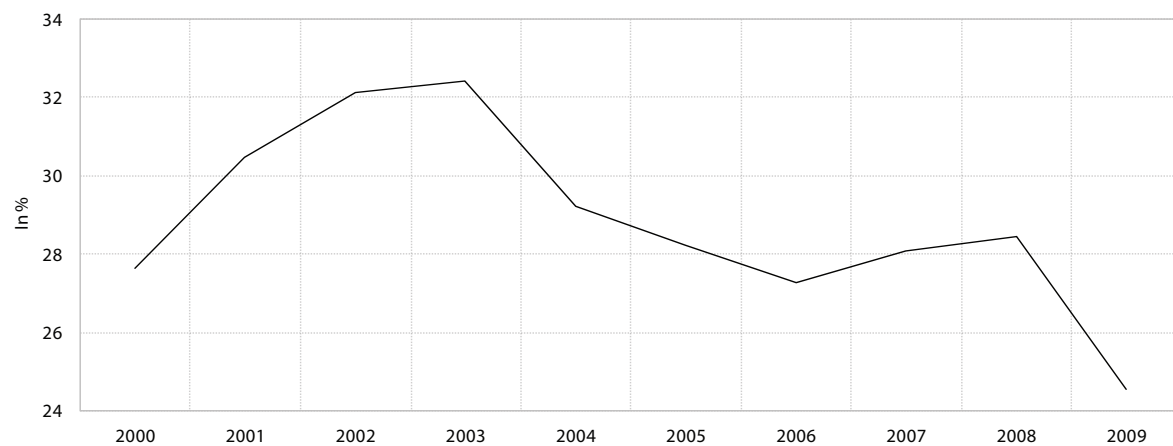
<sup>1</sup> Dispersion is calculated in the same manner as for the indicator Regional variation in GDP per capita.

Table: Registered unemployment rates by regions, %

	2000	2005	2006	2007	2008	2009
Slovenija	11.8	10.2	9.4	7.7	6.7	9.1
Osrednjeslovenska	8.8	7.6	7.2	5.9	5.0	6.8
Obalno-kraška	8.8	7.5	7.2	6.3	5.2	6.9
Gorenjska	9.7	7.3	6.4	4.9	4.4	6.9
Goriška	5.9	6.5	6.2	4.9	4.3	7.1
Savinjska	13.1	12.7	11.6	9.4	8.0	10.3
Jugovzhodna Slovenija	10.4	8.8	8.6	7.0	6.3	8.9
Pomurska	16.7	17.1	15.7	13.4	12.2	15.9
Notranjsko-kraška	10.4	7.9	7.0	5.4	4.9	7.1
Podravska	18.1	13.5	12.7	10.4	9.1	11.9
Koroška	9.9	10.6	10.1	8.1	7.3	10.9
Spodnjeposavska	13.4	11.5	10.5	8.9	7.7	10.2
Zasavska	14.9	13.8	12.0	9.7	8.2	11.0

Source: SORS, 2010.

Figure: Dispersion of registered unemployment rate at the NUTS 3 level, Slovenia, 2000–2009



Source SORS, 2010; calculations by IMAD.

## Issued building permits

*In 2009, the total floor area planned for buildings declined for the second successive year. The floor area planned for buildings (both residential and non-residential) slumped, as it did in 2008. After significant rises in 2006 and 2007, the total floor-area planned for buildings declined significantly in the following two years and was at the lowest level in 2009 for the last seven years.*

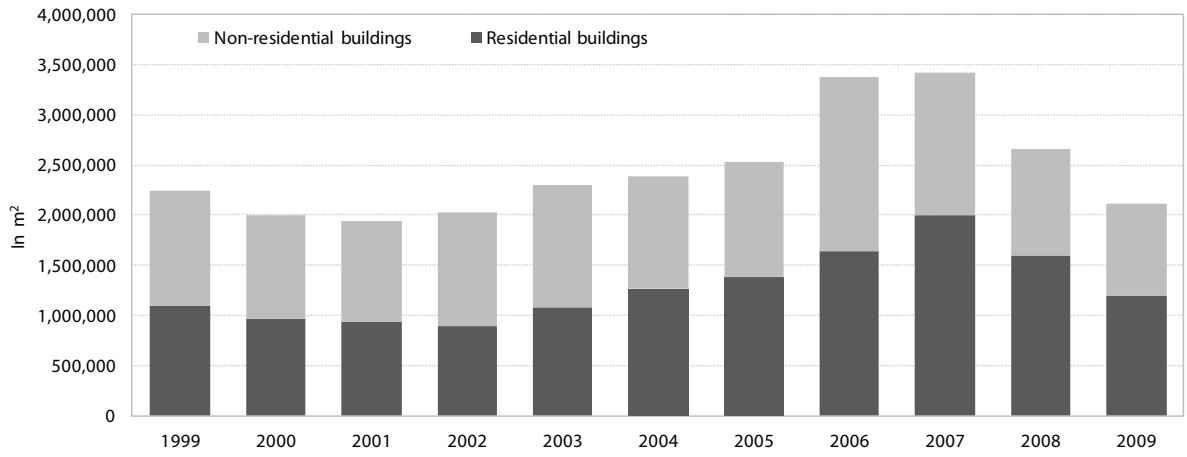
*The decline in the total floor-area planned for residential buildings was related to lower expected investment in buildings with three and more dwelling units. The floor area planned for three- and multi-dwelling buildings declined by 50.9%, for two-dwelling buildings by 22.7% (where the share is relatively small) and for one-dwelling buildings by 79.2%. This decline is attributable to the fast rate of construction in previous years and the impacts of the economic crisis.*

*The total number of planned dwellings was last year the lowest since 2002. A total of 5,940 dwellings were planned, as measured by the building permits issued last year, 29.1% less than in the previous year. The Osrednjeslovenska region, with the number of planned dwellings declining by 28.8% in 2009, still has the greatest share.*

*The total floor-area planned for non-residential construction dropped to a ten-year low. The floor area planned for non-residential buildings decreased by 14.0%, to the lowest level since 1999 (when data started to be collected). The greatest declines were recorded for buildings for other service activities (38.5%) and industrial buildings and warehouses (47.7%). Both categories recorded the lowest figures in the period when data have been available. The decline in the floor area planned for non-residential buildings is, as in residential construction, also related to the economic and financial crisis.*

*In three regions in eastern Slovenia, the total floor-area planned for buildings dropped in 2009 to the lowest level in the last ten years. Last year, the total floor-area planned for buildings reached a ten-year low in three eastern Slovenia regions: Podravska, Jugovzhodna Slovenija, and the relatively small Zasavska region. The floor area planned for buildings shrank in ten regions last year, most notably in the Obalno-kraška region (44.4%), but increased in the Spodnjeposavska (4.5%) and Pomurska regions (19.8%).*

Figure: Floor area of planned buildings, by issued building permits, Slovenia, 1999–2009



Source: SORS, 2010.



## Household expenditure on culture

*Expenditure on culture per household member increased in real terms in 2007, but its growth was below the long-term average. According to the Household Budget Survey (HBS),<sup>1</sup> expenditure on culture rose by 2.0%, which is a percentage point less than the 2001–2007 average. The share of this expenditure in the structure of consumer goods has been declining since 2001, and was in 2006 and 2007 (3.6% and 3.7%, respectively) the lowest in the 2000–2007 period (2000: 4.2%).*

*Household expenditure on books and on attending cinemas, theatres and concerts declined significantly in 2007, which means that the trend from the previous years continued. Expenditure on purchase of TV sets and video recorders increased most (in real terms<sup>2</sup> by more than 40%; because this equipment has become more affordable, expenditure on repairs has been dropping) as did expenditure on photographic and cinematographic equipment (in real terms by a fifth). Expenditure on categories that could be classified as contributing directly to the creation of cultural identity and the value system of the society decreased. Expenditure on books thus dropped for the third consecutive year, by 12.8% in real terms, compared with almost a fifth in each of the past two years. Expenditure on books accounted for 5.9% of household expenditure on culture in 2007, which was 0.8 p.p. less than in the previous year and the least in the 2000–2007 period. After a modest rise in 2006 and a 10% decrease in 2005, expenditure on museums, galleries, zoos, etc., declined by almost a quarter in 2007; its share in total expenditure on culture was 2.7% and decreased compared with 2000 (3.4%); the highest share was recorded in 2002–2004 (3.8%–4.0%).*

*According to the methodology of national accounts,<sup>3</sup> which is used for international comparisons of consumption, the*

*share of household expenditure on recreation and culture decreased more than the EU average in 2008. In 2008, the share of consumer goods expenditure for the recreation and culture group declined by 0.5 p.p., which is more than in the EU as a whole (0.2 p.p.). This share has been declining since 2006, but was still 0.5 p.p. above the EU average in 2008 (9.7%).*

<sup>1</sup> Household Budget Survey (SORS). Due to the changing size of households, all data are analysed (except data from national accounts, which cover the estimate of expenditure of all households together) with regard to household members. Households are becoming smaller, which would mean that expenditure per household is growing more slowly than expenditure per household member and expenditure per household between years could thus eventually become incomparable. For the definition of the culture subgroup, please see the note below the figure. In 2007, culture as defined here accounted for 39.4% of the Recreation and culture group, which is one of the 12 groups of consumer expenditure according to COICOP (2006: 40.1%).

<sup>2</sup> All components are deflated by appropriate deflators.

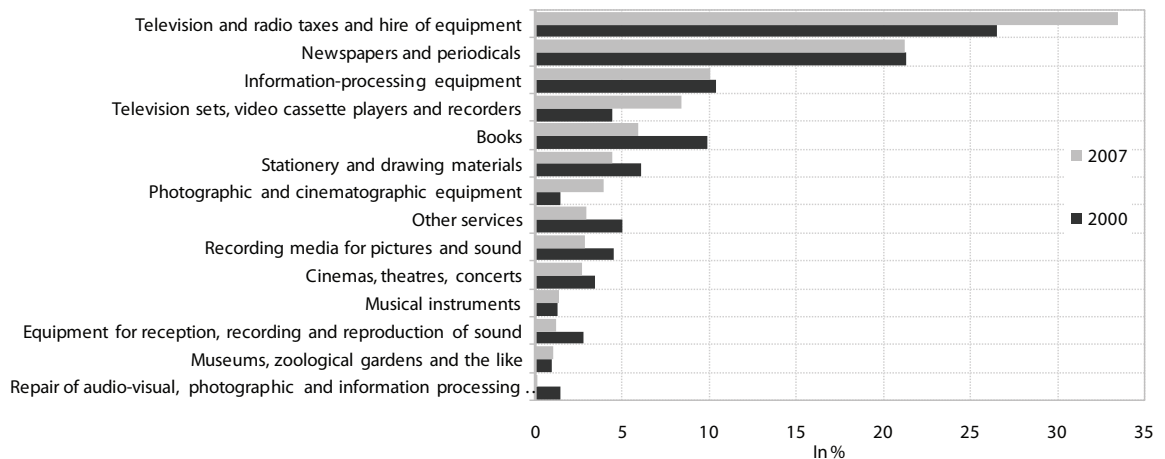
<sup>3</sup> For comparison with other countries, we used data on household consumption from national accounts, which are available at the aggregate level only and do not provide as good a basis for detailed analysis as the HBS data; therefore, we have only compared expenditure on the aggregate group of Recreation and culture.

Table: Share of expenditure on recreation and culture in total household expenditure according to national accounts, %

	1995	2000	2005	2006	2007	2008
<b>EU-27</b>	<b>9.0</b>	<b>9.6</b>	<b>9.4</b>	<b>9.3</b>	<b>9.4</b>	<b>9.2</b>
Austria	11.4	11.9	11.3	11.3	11.6	N/A
Belgium	9.1	9.5	9.5	9.4	9.6	9.4
Bulgaria	3.4	4.8	5.4	N/A	N/A	N/A
Cyprus	7.4	6.8	8.0	8.3	8.0	7.9
Czech Rep.	10.6	11.1	11.7	11.1	10.9	10.7
Denmark	10.2	11	11.5	11.6	11.5	11.1
Estonia	6.5	8.9	9.7	8.9	9.8	7.8
Finland	10.6	11.3	11.4	11.8	11.9	11.6
France	8.6	9.1	9.3	9.3	9.2	8.9
Greece	N/A	6.3	7.4	7.4	7.3	7.6
Ireland	7.7	7.3	7.4	7.2	7.3	7.0
Italy	7.1	7.3	6.9	6.9	6.9	6.8
Latvia	3.8	6.7	7.6	7.3	8.1	N/A
Lithuania	3.0	5.8	6.4	6.2	7.7	8.1
Luxembourg	8.2	7.8	8	8.1	8.3	8.1
Hungary	7.7	7.4	7.9	7.8	7.6	7.4
Malta	10.3	10.4	10.8	11.4	11.8	11.7
Germany	9.3	10.1	9.4	9.3	9.5	9.4
Netherlands	10.8	11.1	10.1	10.4	10.6	N/A
Poland	8.2	8.9	7.5	7.3	N/A	N/A
Portugal	5.8	6.7	6.9	7.0	N/A	N/A
Romania	N/A	4.6	3.9	4.7	4.9	N/A
Slovakia	7.1	8.5	8.7	8.7	9.1	9.6
<b>Slovenia</b>	<b>8.9</b>	<b>10.1</b>	<b>10.7</b>	<b>10.5</b>	<b>10.2</b>	<b>9.7</b>
Spain	8.3	9.1	9.0	8.8	8.7	8.6
Sweden	10.2	11.6	11.2	11.3	11.4	11.1
U. K.	11	11.5	11.7	11.6	11.7	11.6

Source: Eurostat Portal Page – National Accounts, 2010.  
Note: N/A - not available.

Figure: Household expenditure on culture, 2000 and 2007, %



Source: SORS – HBS, calculations by IMAD.

Notes: Culture includes the following COICOP groups: Recreation and culture: .09111 Hi-fi equipment; .09112 TV, VCR; .09121 Photographic and cinema equipment; .09130 Data processing equipment and accessories (writing machine, calculator, personal computer); .09140 Picture and sound recording media; .09150 Repair of audio-video, photo equipment, etc.; .09211 Musical instruments; .09421 Cinema, theatre, concert; .09422 Museums, galleries, zoos, etc.; .09423 Radio and TV subscription; .09424 Other services; .09510 Books; .09520 Newspapers and magazines; .09540 Stationery and drawing material.

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# **Part III**

## **Appendix**



# Calculation of a synthetic estimate of Slovenia's development according to the priorities of SDS

*The synthetic estimate of Slovenia's development based on selected indicators complements the Development Report's expert approach with a quantitative analysis. The calculation of a synthetic estimate enables an international time-series comparison of a country's development based on selected indicators without subjective evaluation. The two main difficulties of this approach relate to the selection of indicators, which is significantly limited by data availability, and even more by the fact that numerically measurable indicators cannot capture all the important dimensions and factors of development. A synthetic estimate thus arrived at should therefore only be used to complement other development estimation methods.*

*The purpose of calculating a synthetic development estimate is to quantify development according to the priorities of SDS with regard to selected indicators. Several indicators are available for each priority, with different measures that are not directly comparable. There are generally no predetermined optimum indicator values to enable evaluation of Slovenia's divergence in terms of development. Slovenia's development is therefore assessed in relative terms as compared to other countries. In practice, evaluation with regard to the deviation of a specific indicator from the average and a (weighted) aggregate of points attained by indicators are often used for this purpose.*

*A synthetic estimate of development according to individual SDS priorities and problem sets has been calculated by employing a standardised continuous scoring system.<sup>1</sup> This means that the indicator value is standardised with the average<sup>2</sup> and standard deviation and multiplied by ten. To reduce the influence of extreme values, points are limited to 3 standard deviations ( $\pm 30$ ). Zero points in a particular indicator mean that its value equals the EU average, and 10 points that it exceeds the average by one standard deviation. To ensure that SDS policy areas are evenly covered, in adding the points some indicators were first merged by averaging the point values for*

individual indicators. Using selected indicators, the synthetic development estimate was calculated at two levels: first, at the level of specific problem sets within each priority, and second, at the level of development priorities. The synthetic estimate of development within a particular priority is the sum of points of all development indicators of that priority. Our estimate covers the period 2004–2008<sup>3</sup> and is presented in comparison with other European Union Member States. The selection of indicators (see Table 1), which at the same time defines development by particular priorities and problem sets, complies with the required model criteria regarding data completeness for the analysed period and the countries compared. Hence, Bulgaria, Cyprus, Malta and Romania were excluded from the analysis due to incomplete data, while Luxembourg was excluded due to its specificity. For some indicators, data for the last year were unavailable, and therefore the values of the previous year were used.

*The calculated synthetic estimate of development has a number of constraints which must be taken into account in its interpretation. Advantages of the methodology used to calculate the synthetic estimate of development mainly lie in the reduction of subjective evaluation. Its chief disadvantage, however, is on the side of data: although trying to select maximally suitable indicators for each priority,<sup>4</sup> we are limited by data (un)availability, as some SDS areas are not covered by adequate internationally comparable indicators; furthermore, the development estimate is influenced by the selection of indicators and countries compared. Hence, the calculated estimate does not necessarily fully reflect development in a particular priority or its problem set. Caution should also be exercised in interpreting the results due to the varied number of indicators for individual priorities, and in some cases also due to their quality and explanatory value. We should also bear in mind that because of the nature of the method applied, the development estimate may also vary due to changes in the other countries observed and not just because of better or poorer results for Slovenia. Since the definition of development, which may differ according to country, is determined by the selection of indicators which partly depends on data availability, the rankings of other countries must be seen exclusively from the perspective of Slovenia's own development goals. The use of the synthetic development estimate is thus only appropriate taking into account all the above constraints, i.e. only as a complement to the expert approach assessing Slovenia's realisation of SDS goals.*

<sup>1</sup> In terms of an equation:  $((\text{indicator value} - \text{EU average}) / \text{standard deviation}) * 10$ . This is a slightly adapted version of the methodology developed by the Lisbon Methodology Working Group (LIME) operating within the Economic Policy Committee (EPC).

<sup>2</sup> Unweighted average of indicator values for selected countries.

<sup>3</sup> Because for a number of indicators data for 2009 are not available for all EU countries.

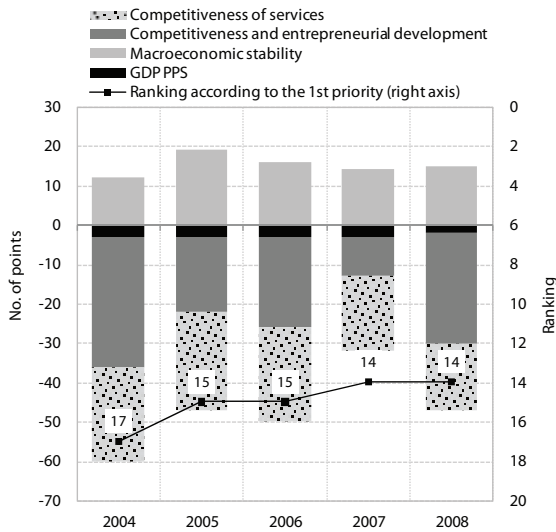
<sup>4</sup> To cover as broad a dimension of development as possible, we also used some indicators that may not necessarily show a priority's development, but come closest to this from among the available sets of data.

Table: Synthetic estimate of development by priorities and problem sets within each priority, and the number of points assigned to individual indicators, Slovenia, 2004–2008

Indicator	2004	2005	2006	2007	2008	
<b>1<sup>st</sup> priority</b>						
<b>BDP pps</b>						
1	GDP per capita in PPS	-3	-3	-3	-3	-2
<b>Macroeconomic stability</b>						
2	Real GDP growth	2	2	3	8	10
3	Inflation	-5	0	2	-2	-1
4	General government balance	0	1	-1	1	1
5	General government debt	8	7	6	5	6
6	Balance of payments	-1	1	1	-1	-3
7	Cyclically adjusted general government balance	1	2	-1	-2	-3
8	Gross external debt	7	6	6	5	5
<b>Competitiveness and entrepreneurial development</b>						
9	Labour productivity	-4	-4	-4	-4	-4
10	Market share	5	10	8	12	0
11	Unit labour costs	-6	4	3	8	0
12	Share of high-tech products in total goods exports	-5	-6	-6	-5	-4
13	Exports and imports as a share of GDP	5	6	6	8	7
14a	Inward foreign direct investment	-8	-8	-9	-9	-6
14b	Outward foreign direct investment	-7	-7	-8	-7	-6
15a	Market shares in network industries – mobile telephony	-30	-30	-30	-30*	-30*
15b	Market shares in network industries – electricity	-11	-12	-13	-11	-11*
<b>Competitiveness of services</b>						
16	Non-financial market services as a share of GDP	-10	-10	-10	-8	-7
17a	Total assets of banks	-8	-8	-7	-8	-8
17b	Insurance premiums	-2	-3	-3	-3	-3
17c	Market capitalisation	-8	-10	-7	-2	-2*
18	Share of other services in exports of goods and services	-8	-8	-8	-7	-6
<b>2<sup>nd</sup> priority</b>						
<b>Education and training</b>						
19	Share of population with a tertiary education	-5	-5	-4	-2	-5
20	Total public expenditure on education	4	4	4	4*	4*
21	Expenditure on educational institutions per student	-5	-1	-6	-6*	-6*
<b>Research and Development, innovation and use of ICT</b>						
22	Gross domestic expenditure on R&D	-1	-1	0	-2	0
23	Science and technology graduates	-6	-6	-7	-8	-8*
24	Number of patent applications (EPO)	-4	-4	-4	-4	-4
25	Internet use	-2	-3	-4	-6	-4
<b>3<sup>rd</sup> priority</b>						
<b>General government sector expenditure</b>						
26a	General government sector expenditure according to economic classification – general government	-1	-1	0	2	2
26b	General govern. expenditure according to economic classification – capital transfers and investment	4	0	1	6	8
<b>Taxes and contributions</b>						
27a	Economic structure of taxes and contributions – total burden of taxes and contributions	-1	-1	0	1	1
27b	Economic structure of taxes and contributions – tax burden on labour	-5	-5	-4	-3	-3*
<b>Aid and subsidies</b>						
28a	State aid – total	-4	0	0	2	4
28b	State aid for horizontal objectives as a % of GDP	-4	2	2	0	0
29	General government subsidies	-5	-5	-5	-5	-5*
<b>4<sup>th</sup> priority</b>						
<b>Labour market</b>						
30	Employment rate	2	2	1	2	2
31	Unemployment rate	7	6	5	8	10
32	Long-term unemployment rate	3	3	1	3	3
33a	Part-time employment	-6	-7	-6	-6	-6
33b	Temporary employment	8	6	7	7	6
33c	Share of self-employed people	-7	-7	-6	-5	-6
<b>Social protection</b>						
34	Social protection expenditure	0	-1	-1	-3	-3*
35	Public and private expenditure on health	0	0	-1	-4	-2*
<b>Living conditions</b>						
36	Number of doctors and nurses	-15	-14	-14	-14	-14*
37	Participation in education	-1	0	1	0	0*
38	Population in jobless households	8	10	6	9	9
<b>5<sup>th</sup> priority</b>						
<b>Environmental criteria</b>						
39	Share of road transport in total goods transport	-1	-2	-2	-3	-3*
40	Energy intensity	1	0	0	0	0*
41	Renewable energy sources	2	1	0	-1	-1*
42	Share of municipal waste that is not landfilled	-7	-9	-10	-9	-8
43	Implicit tax rate on energy consumption	-3	-4	-4	-2	-2
44a	Agricultural intensity – average yield of wheat	4	2	3	4	5
44b	Agricultural intensity – number of livestock units per ha	0	1	1*	1	1*
44c	Agricultural intensity – average milk yield per animal	7	10	6	3	6
44d	Agricultural intensity – share of controlled areas with organic farming	0	-1	2*	1	2*
44e	Agricultural intensity – NPP fertiliser use	0	-1	-2	1	2*
<b>Sustained population growth</b>						
45	Migration coefficient	-5	0	0	8	19
46	Fertility rate	-9	-10	-9	-7	-3
47	Old-age dependency ratio	5	4	4	3	2
48aa	Life expectancy – men	-1	0	0	0	1
48ab	Life expectancy – women	0	0	3	3	4
48b	Infant mortality	7	4	7	10	16
<b>Culture</b>						
49	Household expenditure on culture	8	8	7	5	4

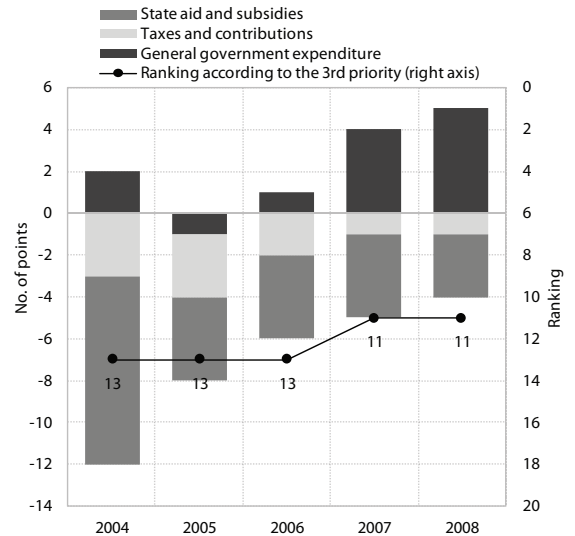
Source: calculations by IMAD. Note: Values marked with an asterisk are calculations according to IMAD estimates based on data from previous years.

**Figure 1: Synthetic estimate of Slovenia's development in the 1st priority (A competitive economy and faster economic growth) and its main components, and Slovenia's ranking among 22 EU Member States in terms of development according to this priority, 2004–2008**



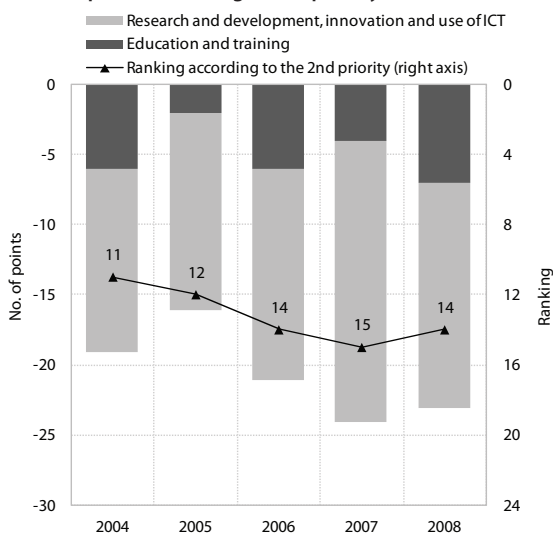
Source: calculations by IMAD.  
Notes: The columns show the points (development estimate) attained according to individual components, where a positive value represents above-average development relative to the EU countries included in the analysis. Zero points for a component would therefore mean that in terms of development in this component Slovenia is equal to the average of countries included in the analysis and a negative value that Slovenia lags behind the average in a certain year.

**Figure 3: Synthetic estimate of Slovenia's development in the 3rd priority (An efficient and more economical state) and its main components, and Slovenia's ranking among 22 EU Member States in terms of development according to this priority, 2004–2008**



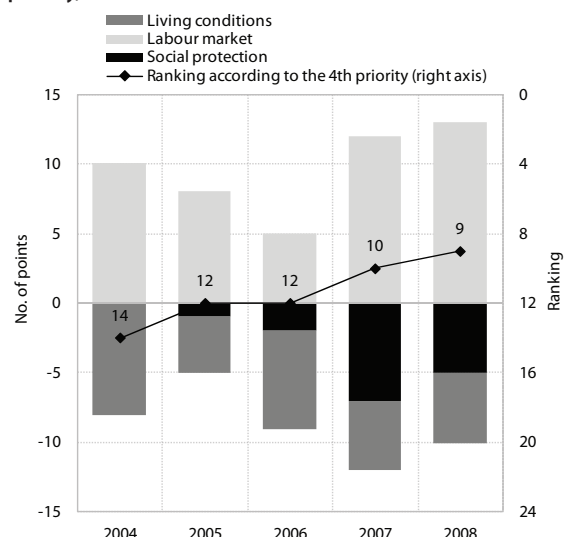
Source: Calculations by IMAD.  
Notes: See Figure 1.

**Figure 2: Synthetic estimate of Slovenia's development in the 2nd priority (Efficient use of knowledge for economic development and high-quality jobs) and its main components, and Slovenia's ranking among 22 EU Member States in terms of development according to this priority, 2004–2008**



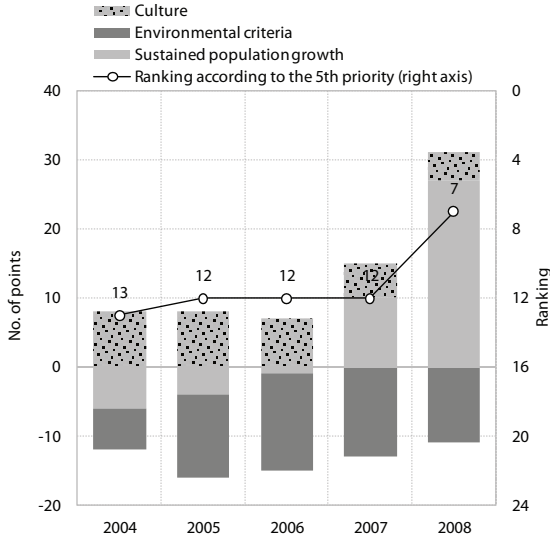
Source: Calculations by IMAD.  
Notes: See Figure 1.

**Figure 4: Synthetic estimate of Slovenia's development in the 4th priority (A modern welfare state and higher employment) and its main components, and Slovenia's ranking among 22 EU Member States in terms of development according to this priority, 2004–2008**



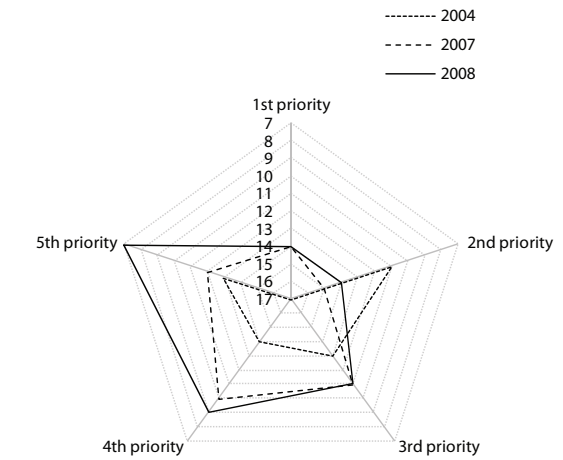
Source: Calculations by IMAD.  
Notes: See Figure 1.

Figure 5: Synthetic estimate of Slovenia's development in the 5th priority (Integration of measures to achieve sustainable development) and its main components, and Slovenia's ranking among 22 EU Member States in terms of development according to this priority, 2004–2008



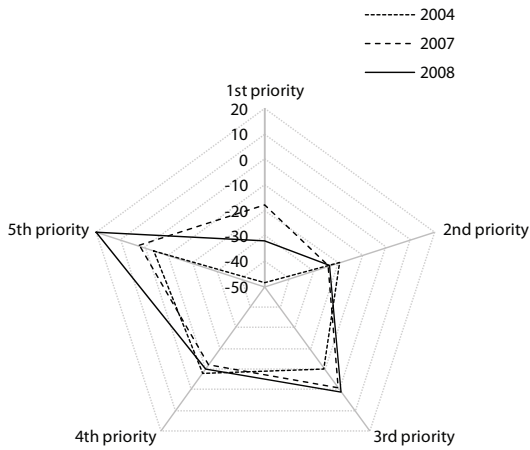
Source: Calculations by IMAD.  
Notes: See Figure 1.

Figure 7: Slovenia's ranking among 22 EU Member States according to the five priorities of Slovenia's Development Strategy, 2004, 2007, 2008



Source: Calculations by IMAD.

Figure 6: Synthetic development estimate according to SDS priorities, 2004, 2007, 2008



Source: Calculations by IMAD.

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