

# development report 2011



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## Introductory remarks

***The Development Report is a document that monitors the realisation of Slovenia's Development Strategy (SDS), which was adopted by the Slovenian Government in June 2005.*** SDS sets out the vision and objectives of Slovenia's development until 2013, classifying them into five development priorities with action plans. This year's report presents an overview and an assessment of the implementation of the strategy from its adoption up to 2010, except in cases where the latest data are only available for earlier years (2009 and, occasionally, 2008). Given that this is an annual report, emphasis has been placed on changes that occurred in the last year for which data are available. The Slovenian Government took note of the Development Report 2011 at its 133<sup>rd</sup> regular session of 5 May 2011 and accepted it as an analytical 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 across the five development priorities**; Part II documents progress by means of **development indicators**.* The findings in the report are mostly based on results obtained through a 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 a comprehensive assessment of progress in individual areas given the time and geographical limitations in the availability of the data necessary for calculation.

***In a period of significant fluctuations of economic activity, some development indicators should be interpreted cautiously, as their values are affected by qualitative changes as well as changes in gross domestic product.*** These are indicators that are expressed in terms of GDP (as a share of GDP) for the purposes of benchmarking between countries and over time. However, during periods of significant annual fluctuations of GDP, these indicators do not necessarily reflect qualitative changes, but merely a different basis of comparison. It is essential to consider this factor in analysing changes in their value and in comparisons with other countries. In this year's report, therefore, changes in absolute values of these indicators for the year are also highlighted.

*The report is based on official statistical **data of domestic and foreign institutions available at the end of March 2011.*** In the analysis, Slovenia is mostly compared with the 27 EU Member States and only as a matter of exception with the EU-25 average, whenever data for the newest EU Member States – Bulgaria and Romania – are 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, while the EU-12 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 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 life and welfare; (iii) the intergenerational and sustainable development goal – to apply the principles of sustainability across all areas of development, including sustained population growth; and (iv) Slovenia's development goal in the international environment – to become an internationally distinctive and renowned country.

<sup>1</sup> At the time of the adoption of SDS (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 thus refers to 2013.

*In the period of economic crisis Slovenia's per capita GDP (in purchasing-power parity) fell further below the European average, a departure from the implementation of **the principal economic goal of SDS**. According to the latest Eurostat data, in 2009 Slovenia's per capita GDP at purchasing-power parity stood at 88% of the EU average, down 3 p.p. over the year before and only marginally above the level achieved when SDS was adopted in 2005 (87%). We estimate that the gap will have widened in 2010 (for which Eurostat data are not yet available), as the recovery was weaker than in the EU. Decomposition of per capita GDP (to productivity and employment rate) indicates that Slovenia is lagging behind the EU in productivity, with the gap widening in the 2005–2009 period. However, the employment rate has exceeded the EU average since 2007.*

*The economic slowdown in the last two years is largely a result of the fact that the increase in economic activity in the run-up to the crisis was insufficiently based on structural changes and improvements in competitiveness. Rapid economic growth in 2006–2008 was achieved in a period of brisk international economic growth and easy access to financing on international markets, and it was additionally buoyed by high public investment in infrastructure. Meanwhile, shifts in the economic and corporate structure towards high-technology industries and intensive use of knowledge were modest. The weak changes in the structure of the economy and its competitiveness were precipitated by an insufficient focus on technological restructuring, innovation and raising value added. Since the beginning of the implementation of SDS, industrial policy has focused on preserving existing companies whose growth prospects are questionable, rather than strengthening competitiveness and developing entrepreneurship. Effectiveness and integration of policies facilitating the transition to a knowledge-based society, a key SDS guideline in the field of economic development, has also been insufficient. Over the past few years, the volume of investment in R&D has otherwise increased, and the general effectiveness of the innovation system improved. However, there is still a gap between investment and results in the field of research and innovation activities, which also depends on the structure of the economy. Moreover, Slovenia has relatively inefficient tertiary education, which is also insufficiently attuned to demand for graduates in the labour market. Despite efforts to reduce administrative obstacles to the development of entrepreneurship, complex bureaucratic procedures still hamper company creation, business and investments. The relatively rigid labour market legislation is also an obstacle to faster discontinuation of non-performing segments of companies. The high tax burden on labour is an important drag on faster entrepreneurial development, in particular that geared towards creating higher value added per employee, and on the hiring of highly qualified staff. This, coupled with high labour costs associated with the rigidity of labour legislation, is an obstacle not only to faster entrepreneurial development, but also to inflow of foreign direct investment, which, by transferring know-how and technology, can play an important role in raising productivity. An efficient privatisation of the economy has also not been completed, which has hampered the competitiveness of the Slovenian economy by undermining the efficiency of corporate governance. While having a positive role in encouraging the development of companies with good prospects, the banking system has also held back restructuring and development to a certain extent: in the period of high economic activity, it acted very pro-cyclically, supporting the allocation of financing even to less productive investments.*

*Its competitiveness having deteriorated, the Slovenian economy has been forced to cope with the crisis against the backdrop of limited sources of financing and a severe deterioration of public finances, which has additionally narrowed the prospects for faster recovery. Given the relatively rapid growth in labour costs in 2008 and 2010, and a severe decline in productivity in 2009, the cost competitiveness of the Slovenian economy deteriorated*

significantly compared with the EU average in the last three-year period (2008–2010). This has led to a strong drop in the relative profitability of the Slovenian economy, which had been the highest in the euro area, and consequently narrowed the prospects of recovery with internal resources much more than in other countries. Moreover, faced with high indebtedness, inefficient domestic financial markets and poor access to international markets, companies are having trouble securing financing. Companies are also coping with a high payment default risk and, in recent times, increased inflationary pressure stemming from increased prices of raw materials and energy on world markets. In the period of economic crisis, Slovenia's position on the international goods market also deteriorated, as it slipped from the group of countries with above-average growth to the group of countries with above-average drop in market share. The economic crisis also upset some macroeconomic balances, especially in public finances, where major shifts towards fiscal consolidation have yet to be seen. Restrictions on general government spending were based principally on emergency restraint of growth in wages and social transfers, and cuts in capital and capital transfers, and these have been additional factors holding back already weak domestic demand. Insufficient action to consolidate public finances has adversely affected the perception of Slovenia in international financial markets, which could further restrict access to financing for the general government and, by extension, the private sector, and increase debt-servicing costs. With rising age-related expenditure, it could also reduce future potential for growth.

*There was little progress in 2009 and 2010 on achieving the **social goal of SDS** – sustainable improvement of well-being and quality of life.* The economic crisis and consequent deterioration of the labour market reduced employment and increased unemployment in both years, which was coupled with accelerated retirement due to demographic trends and the expected pension reform. The number of wage earners dropped and the number of those whose income was replaced by social transfers rose. In 2009, disposable income dropped in real terms for the first time since 1996, when it was first measured, and the share of social transfers increased significantly. Household expenditure also dropped in 2009. Disposable income inched up in 2010 according to our estimates, while growth in household expenditure was subdued. As the ranks of recipients of social transfers swelled, the share of expenditure on social protection relative to GDP increased substantially, according to our estimates. While the standard of living deteriorated, available indicators for 2009 show that wage and income inequality did not increase, and nor did the risk of poverty. The former is largely a consequence of structural changes in employment (removal of low-wage jobs with low educational requirements), whereas the still low at-risk-of-poverty rate may be attributed to the effect of social transfers (which reduce the risk of poverty by more than half in Slovenia). The deterioration of the labour market was mitigated by government measures to preserve jobs and a significant increase in the scope of the active employment policy. The substantial rise in the minimum wage in 2010 improved the position of earners of the lowest wages and increased average pay. However, since this was one of the factors that also had an adverse impact on competitiveness and unemployment by increasing labour costs, we estimate that its overall effect on the welfare of the population was not as positive.

*In the area of social protection, several key systemic changes were enacted in 2010 after years of preparation, while some are still in the preparatory phase.* Parliament passed new pension legislation designed to keep spending on pensions as a share of GDP largely unchanged over the next 15 years. Legislation on cash benefits for people in financial distress was also changed to make aid to the poor more efficient. New legislation on the labour market raised unemployment benefits and made it easier for young people to qualify for benefits. However, other legislation on social protection which would address the financing of health care and long-term care in accordance with demands for better accessibility and an appropriate ratio between an acceptable share of public expenditure and the scope of the service is still being drafted. Immediate implementation of systemic changes is urgent, as the difficulties that public funds were faced with in covering expenditure were aggravated in 2009 and 2010 by a lack of systemic changes, and thus had to be addressed with non-systemic (emergency) measures, which will only postpone problems.

*Pressure on the environment abated as the economic crisis escalated, which is a step towards the **sustainable and intergenerational goal of SDS**. However, this does not constitute a permanent reduction of pressure on the environment, which remains a challenge, in particular in the light of efforts to achieve EU environmental goals up to 2020. Greenhouse-gas emissions, having been increasing until 2008, dropped substantially in 2009 bringing Slovenia closer to the Kyoto target (for 2012). However, the emission intensity of the economy (emissions per unit of GDP) did not drop, even though this is necessary in the long term to reduce emissions. Against the backdrop of the economic crisis and the slowdown of international trade flows, lower energy use in transport, the sector which accounted for the biggest share of emissions increases during the economic upswing, contributed most to the fall in overall emissions. We estimate that the significant rise in excise duties in 2009 also contributed to a decline in sales of energy products and lower energy consumption in transport, but the impact of this factor was smaller than the effect of the economic crisis. It was largely due to lower energy consumption in transport that the energy intensity of the economy dropped in 2009, but it remained at the relatively high level recorded in 2007, and above the EU average. With high levels of hydroelectric power production (due to favourable hydrological conditions) and low overall energy consumption, use of renewables rose substantially in 2009, but this continues to depend largely on hydroelectric power production; we estimate that in 2010 the share of renewables once more fell (as energy consumption rose due to stronger economic activity). Slovenia did achieve the renewables target of the National Energy Programme in 2010, but significant progress is required in the next decade to achieve the targets in the EU strategic guidelines, in particular in the use of other renewable sources that are still relatively underused. There were improvements in waste treatment in 2009, on industrial as well as household waste, but Slovenia still lags far behind the EU average on treatment of household waste.*

*Meeting Slovenia's **development goal in the international environment** – to become an internationally distinctive and established country – is mainly associated with Slovenia's integration in major international organisations over the last few years. Because of the lack of appropriate internationally comparable indicators, the implementation of this objective cannot be measured in the same way as the other three objectives, but we estimate that Slovenia's international recognition has increased with its integration and active involvement in international organisations. In 2004, Slovenia had become a member of the EU and NATO, and three years after its accession to the EU, it joined the Economic and Monetary Union (EMU). Since July 2010, it has also been a member of the Organisation for Economic Co-operation and Development (OECD), which unites the most economically developed countries in the world. Slovenia's recognition and reputation in the world was also significantly affected by its active involvement in international organisations.*

*In the period of crisis, the Slovenian Government adopted measures to mitigate the impact of the downturn, to exit the crisis and to improve the competitiveness of the economy, which have been only partially executed (in part due to the relatively short period of implementation), and it launched preparations for a new development strategy up to 2020. Having adopted measures to cushion the crisis in 2009 (in particular in the labour market), at the beginning of 2010 the government put in place a set of measures aimed at boosting economic activity and gradually tackling macroeconomic imbalances. The labour-market measures were mostly implemented, but consolidation of public finances, which has been slower than expected, remains the biggest problem in terms of exiting the crisis. At the beginning of 2011 the government responded to the slow economic recovery and the decline in competitiveness with the adoption of measures to improve competitiveness. It also adopted Slovenia's commitments for improvement of competitiveness as part of the Pact for the Euro. The measures adopted in the midst of the crisis mostly address areas defined in Slovenia's Development Strategy, which sets out key development goals up to 2013. The government has also launched preparations for a new development strategy, which will address the altered circumstances in Slovenian society and the international environment and lay out the key policy goals and guidelines up to 2020.*

***Slovenia's key challenge in the coming years*** will be to achieve sustainable economic growth with a view to increasing the well-being of the population. To achieve sustainable economic progress and create jobs, addressing the situation in the financial sector and balancing the public finances must be coupled with a redoubling of efforts to improve competitiveness. In view of the shortcomings of economic development in the past, policy measures must focus on increasing the value added of products and services, improving productivity and raising the proportion of activities with higher value added per employee. To achieve that, it is vital to strengthen innovation, improve the efficiency of knowledge transfer and education, improve the educational attainment and skills of the working-age population, provide an efficient regulatory environment for business, reduce administrative obstacles, improve labour-market flexibility and boost the efficiency of competition protection, in particular in regulated sectors, such as network industries. Competitiveness is also being hindered by reduced levels of trust in the rule of law. The efficiency of the judicial system and of the legal framework will have to be improved to increase business efficiency and make corporate governance more efficient. In an economic crisis, with the collapse of the less competitive parts of the economy and the resulting surge in unemployment, the state must provide conditions to create new jobs, and facilitate the transition from unemployment to employment by supporting reallocation of labour within a flexicurity system (an effective system of life-long learning and active employment-policy programmes). It makes sense to promote particularly employment in sectors in which demand is increasing (e.g. ageing-related services, green jobs), while new models of cooperation between the private and the public sectors are also required. High employment, which provides economic independence and social inclusion, is a key element of well-being. Another key area in terms of securing prosperity is the systems of social protection: pension legislation has already been changed, but legislation on health care and long-term care is yet to be adapted to comply with the demand for greater accessibility of service without jeopardising the stability of the public finances. Another major challenge that Slovenia must face effectively in the coming years is achievement of key strategic goals with minimum pressure on the environment. To halt the exertion of ever greater pressure on the environment with economic development, efforts must be targeted towards reducing the energy intensity of the economy, in particular by reducing emissions from transport, improving energy efficiency and increasing the use of renewables.

# **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 is one of the five development priorities of SDS, and 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: increasing the adaptability of fiscal and income policies, ensuring the long-term sustainability of public finances, and maintaining 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 development of SMEs, promoting and developing an innovative environment and a culture of innovation, and supporting internationalisation and competition in the network-industries market. The third objective, *increasing the competitiveness of services*, prioritises boosting the factors of effectiveness in services and simplifying the administrative framework for their provision. Special emphasis is placed on those services most closely linked to business operations (business, financial, distributive and infrastructural services) because these 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.

During the economic crisis, Slovenia's **per capita GDP fell significantly compared with the EU average**. According to the latest Eurostat data, in 2009 Slovenia's per capita GDP at purchasing-power parity stood at 88% of the EU average, down 3 p.p. over the year before and only marginally above the level when SDS was adopted in 2005 (87%). We estimate that the gap will have widened in 2010 (for which Eurostat data are not yet available), as the recovery was weaker than in the EU. The widening of the gap in the last two years is largely a consequence of the fact that the acceleration of economic activity in the years preceding the crisis (2006–2008), achieved in a good international economic environment, easy access to financing on international markets and high public investment in infrastructure, was insufficiently based on structural changes and improvements in qualitative factors of competitiveness. Thus, in the good years, changes in the economic and corporate structure towards high-technology industries and intensive use of knowledge were modest. In the period of crisis,

Slovenia thus faces a relatively severe deterioration in competitiveness and consequently a slow recovery after a savage initial contraction. Given the structural weaknesses, the economic crisis also disrupted certain macroeconomic balances, especially in public finances. Inflation pressure has also been increasing again. Moreover, faced with high indebtedness, inefficient domestic financial markets and poor access to international financial markets, companies are having trouble securing financing. Increasing payment default risk is also a cause for concern.

*A return to the path of **converging with the EU level of economic development** requires action to address problems in the financial sector and consolidation of public finances, but, in particular, focusing all efforts on improving competitiveness.* In view of the shortcomings of economic development in the past, policy measures must target productivity and increasing the share of activities with higher value added per employee. To achieve this, it is vital to strengthen innovation, improve the efficiency and effectiveness of the transfer of knowledge, improve educational attainment and skills of the working-age population, provide an efficient regulatory environment for business, reduce administrative barriers, improve labour-market flexibility and boost the efficiency of competition protection, in particular in regulated sectors such as network industries. Competitiveness is also hampered by the slow resolution of commercial disputes in courts. In future, the efficiency of the judicial system and of the legal framework will need to be improved to increase business efficiency and make corporate governance more efficient.

## 1.1. Macroeconomic stability

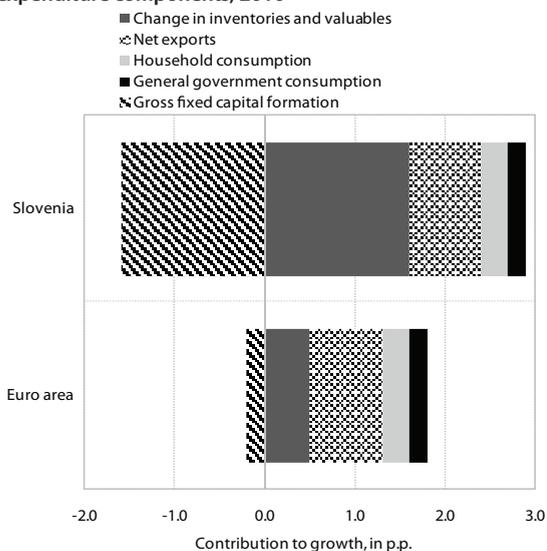
*Driven by stronger foreign demand and with a relative high contribution of inventory changes, **GDP rose by 1.2% in 2010**.* Positive signals of an upswing of economic activity started to appear in the second half of 2009, when foreign demand picked up, and strengthened through 2010. Export growth was underpinned by high-technology products. The recovery was driven by growth of the main trading partners in the EU, but these impulses subsided in the second half of the year when growth in these countries slowed as the growth in world trade decelerated, temporary incentives tailed off and austerity measures began to curb general government deficits. Growth of exports to non-EU countries was slower as exports to the markets of the former Yugoslavia continued to drop in real terms. The regional structure of Slovenian exports, with the markets of the former Yugoslavia accounting for a high share of non-EU exports, was, in addition to the unfavourable technological structure of Slovenian exports, a factor behind the slower growth in exports compared with some other EU countries. The recovery was held back in particular by domestic factors. Domestic consumption exceeded the 2009 level by only 0.4%, with construction investment in particular well behind the

level of 2009. Construction, which had grown at above-average rates in the past, saw another severe contraction (dropping to the level of 2005) having already fallen in 2009. In addition to a decline in orders for all types of construction (residential construction contracted most since the start of the crisis), the situation in construction was additionally aggravated by high indebtedness and problems in the banking sector, which escalated last year.<sup>2</sup> According to our estimate, these problems were exerting an increasing drag on the financing of investments in equipment and machinery through the year, although these investments rose 6.8% over the previous year. Following above-average growth in construction in the previous years, which saw it rise to 7.3% of GDP by 2008 (EU: 5.8%), Slovenia experienced one of the most severe contractions in construction in the EU in 2009 and 2010, which was a key factor behind the greater decline in investment compared with the EU and, by extension, the gap in economic recovery. In the euro area, economic growth averaged 1.7% last year (EU: 1.8%). The EU grew at a faster pace than Slovenia due to a faster recovery in exports and a smaller decline in investments, as well as growth in household expenditure. Household consumption did inch up in Slovenia (0.5%) according to revised data, but the current balance of payments for 2009 (for household travels) does not yet represent a real basis for the calculation, as the figures are not yet final. Therefore we estimate that the positive rates of household consumption in 2010 do not mirror an actual strengthening of Slovenian household consumption.<sup>3</sup> General government expenditure growth, which was higher than in the EU in 2008 and 2009, dropped to a

similar level to that in the EU (to 0.8%) due to austerity measures. Change in inventories, on the other hand, made a high contribution to GDP growth (1.6 p.p.) as inventories surged following a steep decline in 2009. This contribution from changes in inventories was much bigger than at the EU level.

At 1.9%, **consumer price growth** in 2010 was at a similar level to that in the preceding two years and roughly on a par with the figure for the euro area as a whole. Price growth was subdued across the majority of the index groups, reflecting the overall economic situation. The only outliers were prices of products that depend on increasing global prices of energy and non-energy commodities, and prices of goods that were subjected to tax increases, which had a similar impact on inflation to that in 2009. Whereas higher prices of energy commodities relatively quickly spilled over to retail prices, in part due to the way that retail prices are administered, the even faster growth in global prices of non-energy commodities and food had not spilled over to the same extent by the end of last year. A bigger spillover to retail prices of food began to occur at the beginning of 2011 and had already been indicated by stronger growth of industrial producer prices<sup>4</sup> and import prices, the increase in producer prices in the EU having already been higher than in Slovenia at the end of the year. Prices directly administered by the government grew at a subdued pace (0.8%). For the second year in a row, there was growing pressure from increases in the prices of municipal services after responsibility for consent for price rises was devolved to the local level, which is why the government froze these prices at the end of August. A comparison based on the harmonised index of consumer prices shows that inflation in Slovenia and the euro area was 2.2% last year. In Slovenia, as in the euro area, price growth was driven mainly by energy products and taxes; however, the contribution of these factors was higher in Slovenia. The contribution of energy prices (in particular natural gas and district heating) to inflation was higher, as these prices grew marginally faster than in the euro area and their share in the household expenditure structure remains higher. For the second year in a row, excise and other duties also rose faster, contributing 0.6–0.7 p.p. to inflation in Slovenia, compared with approximately 0.3 p.p. in the euro area. Services prices, where the gap to the euro-area average is widest even though they had been growing at a faster rate in recent years, stagnated last year, rising by 0.1%, compared with 1.3% in the euro area as a result of the drop in the price of school meals due to the introduction of subsidies. This factor excluded, services prices would have grown at a similar rate as in the euro area and total consumer-price growth would have been among the highest in the euro area once more.

Figure 1: GDP growth in Slovenia and the euro area by expenditure components, 2010



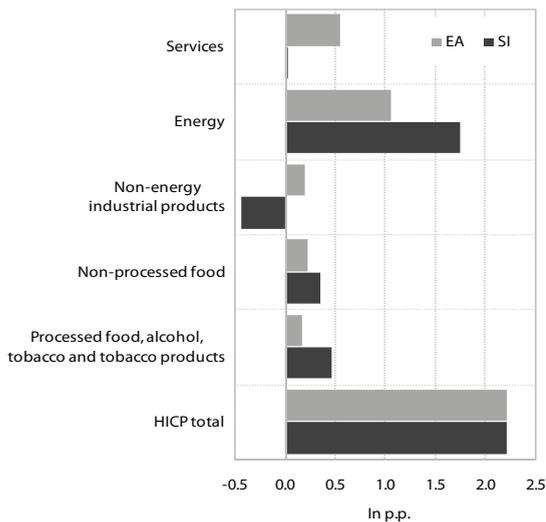
Source: SORS, Ameco.

<sup>2</sup> See also chapter 1.3.2. Financial services.

<sup>3</sup> This is also indicated by labour-market data on employment and wages, revenue in retail and wholesale trade, and other household consumption indicators for last year.

<sup>4</sup> The growth in industrial producer prices was driven by metal products; the manufacture of chemicals and pharmaceutical preparations also recorded relatively high growth rates, with prices of food products also increasing.

Figure 2: Contribution of goods and services groups to inflation in Slovenia and the euro area, 2010



Source: Eurostat portal page – Harmonised indices of consumer prices, 2011.

In the 2008–2010 period, **wage growth** was largely determined by the economic crisis and the implementation of wage reform in the public sector. In the second half of 2008, the strengthening of private-sector wage growth seen in previous years was interrupted by the economic crisis, and the attendant deterioration of the business environment and fall in orders. The private sector first reacted by reducing overtime work and shortening working hours, which continued into 2009. Growth in nominal gross wages in the private sector came to an abrupt slowdown in 2009 (from 7.8% to 1.8%); however, since layoffs disproportionately affected those in the lowest income brackets, it was still higher than it would have been had the structure of employment remained unchanged (0.9%). In 2010, gross wages in the private sector strengthened once more (5.2%). Growth was particularly underpinned by the increase in the minimum wage (about 3.0 p.p.), along with the effect of changes in the structure of employment (about 0.5 p.p.), still present last year. In terms of adjustment to economic circumstances, only the levels of Christmas bonuses and 13<sup>th</sup> month payments were unexpected in both years, as they were only marginally lower than in 2008. Their size and the share of employees that received these payments were, as always, highest in financial and insurance activities and in industries with a high share of state ownership: electricity and gas supply, water supply and mining. For 2011 and 2012, the government adopted recommendations that performance-related bonuses should not be paid in public undertakings and in those in majority ownership of the state.<sup>5</sup> The public sector

<sup>5</sup> On 22 July 2010, the government adopted Recommendations on limits for wages and other personal income of employees in public corporations and companies performing general public services. The recommendations are applicable to public undertakings and companies in majority ownership of the state or local communities, their subsidiaries and any further subsidiaries thereof. The recommendations determine

did not undertake any adjustment in 2008; compared with the year before, wages grew robustly, outpacing wage growth in the private sector. The onset of the crisis coincided with the beginning of the implementation of the wage reform that had been planned for several years and was intended to iron out wage disparities among occupational groups in the public sector. This resulted in relatively strong growth in public-sector wages just after private-sector wages started to ease. The first two quarters of funds to eliminate wage disparities were thus paid in August 2008<sup>6</sup> and January 2009, which contributed to high wage growth in 2008 (9.7%), while wage growth in 2009 was already somewhat lower (6.5%) as a result of measures taken during 2009, which stemmed wage growth to a certain extent in 2009, bringing it to a complete halt in 2010 (0.0%).<sup>7</sup> Last year's stagnation of wages, which is expected to continue into 2011 according to the agreements reached, will thus have a short-term stabilising impact on public finances. In the long term, however, the agreements did not limit labour cost growth in the public sector: taking into account the possible growth in employment in these activities, they merely postponed it to the coming years, when a considerable rise in public-sector labour costs may be expected once more. Public-sector wage increases will thus continue to fluctuate greatly between

<sup>5</sup> that extraordinary performance-related payments (Christmas bonuses, 13th month payments) should not be paid in 2011 and 2012, with the savings allocated for development, and that the annual holiday allowance be capped at the level of the minimum wage. The government called upon management and supervisory boards to act in line with these recommendations.

<sup>6</sup> The first quarter was paid in arrears for the period from May 2008.

<sup>7</sup> In 2009 and 2010 the government and its social partners signed three agreements, realised with annexes to the Collective Agreement for the Public Sector and the adoption of several acts: the Agreement on Measures Regarding Public-Sector Salaries due to the Changed Macroeconomic Situation in the 2009–2010 period (24 February 2009), the Agreement on Measures Regarding Public-Sector Salaries for the period December 2009–November 2011 (28 October 2009) and the Agreement on Measures Regarding Public-Sector Salaries and Other Compensation for 2011 and 2012 (OG RS no. 89/10); the Act of Intervention Steps because of the Economic Crisis (OG RS no. 98/09), Act on Provisional Reduction of Officials' Salary (OG RS no. 20/09, 13/10), Act of Intervention Steps because of the Economic Crisis (OG RS no. 94/10); Annex No. 1 to the Collective Agreement for the Public Sector (OG RS no. 23/09), Annex No. 2 to the Collective Agreement for the Public Sector (OG RS no. 91/09), and Annex No. 4 to the Collective Agreement for the Public Sector (OG RS no. 89/10). These formed the basis for deferral of the disbursement of the remaining third and fourth quarters of funds for the elimination of wage disparities (until the point at which economic growth exceeds 2.5%); workplace promotions to higher wage classes were frozen for a year; the mechanism of wage adjustment for inflation was tightened; the amount of the annual holiday allowance was retained at the 2008 level; the disbursement of regular performance-related payments was temporarily held; payments for increased workload were limited. Had these agreements not been reached, growth in public sector wages in 2009 and 2010 would have been similar to that in 2008.

years. With labour costs expected to increase further in the public sector upon final implementation of the new wage system, the government should adopt more efficient measures to limit growth in employment or reduce employment in the public sector and to adjust public-sector wages to changes in labour productivity.

Figure 3: Nominal growth in gross wages per employee and labour productivity



Source: Si-Stat data portal – Demography and social statistics – Labour market, 2011.

Following a severe deterioration of the **public finances** in 2009, largely due to the impact of the economic crisis, and in part to structural factors, there was no significant improvement in 2010. The general government deficit remained at a high level (5.5% of GDP), only 0.5 p.p. lower than that in 2009, when the deficit surged (by 4.2 p.p. over 2008), indicating no notable shift in consolidation of the public finances.<sup>8</sup> Revenue inched up, with its growth and structure mainly following the macroeconomic environment; in the categories of excise duties and corporate income tax, its inflows were also affected by fiscal-policy measures, along with the tax reform in the pre-crisis period. Expenditure also rose marginally in nominal terms, but not as much as revenue. Expenditure categories associated with the rise of debt and deterioration of the labour market (the growing number of unemployed and socially vulnerable persons) recorded the fastest growth rates. Contrary to the measures envisaged in the Stability Programme – Update 2009 and the Exit Strategy, compensation of employees did not decline last year, whereas expenditure on capital and capital transfers did.<sup>9</sup> Given the only partial implementation of measures to curb expenditure growth, this change in structure highlights

<sup>8</sup> The supplementary budget for 2010, adopted in June 2010, merely adjusted expenditure to the projected lower revenue and did not contribute to the consolidation of public finances last year.

<sup>9</sup> See chapter 3.1 Quality of public finances

the fact that the modest rise in expenditure in 2010 was partially driven by the crowding out of relatively flexible expenditure types by growing interest payments, which is not in line with the developmental role of public finances. Amid these movements in the public finances, in 2010 the general government deficit was slightly below the level envisaged in the Stability Programme, but, given the Ministry of Finance forecast in the official release of data as part of the excessive deficit procedure, the deficit this year will already be 1.3 p.p. of GDP higher than foreseen in the Stability Programme – 2009 Update. According to our estimates, the deviation of nominal amounts is greater in revenues, particularly inflows of EU funds, which shows that absorption capacity has not yet increased as planned, despite the improvement. Public spending should be more controlled in the years to come as a result of the fiscal rule,<sup>10</sup> which anticipates modest growth in public spending. A more development-oriented structure of expenditure will be facilitated through effective development planning, which is also foreseen by the Decree on the Documents of Development Planning Bases and Procedures for the Preparation of the Central Government Budget. This would establish a closer link between development priorities and related programmes and enable the ongoing exclusion of inefficient (and the reform of insufficiently efficient) development programmes. The slower-than-expected consolidation in this year and the next has probably contributed to slightly higher cost of borrowing in early 2011, and also affected the downgrade of future prospects in Slovenia's credit rating from "stable" to "negative" (Standard & Poor's, December 2010). Consolidation of the public finances should therefore be a priority if Slovenia is to create a stable macroeconomic framework and prevent a worsening of its perception by financial markets. Deficit-busting measures must be implemented and executed immediately, especially structural measures that will reduce the deficit in a sustainable way. Sustainable consolidation also crucially depends on the immediate implementation of pension reform considering the pressure on ageing-related expenditure exerted by demographic trends. Consolidation is also needed in view of the extensive scope of state guarantees, which represent a contingent liability and a risk that debt will surge.

*In the last two years, **general government debt** as a share of GDP rose by just over 15 p.p. and **publicly guaranteed debt** by 9 p.p.* Having soared in 2009 on the back of a surging deficit and front-loaded borrowing for the financing of the 2010 deficit, debt growth slowed down in 2010, but it nevertheless stood at 38.0% of GDP at the end of the year, up 16.1 p.p. from 2008. Although Slovenia still ranks among countries with a relatively low public debt as a share of GDP, it has been nearing the

<sup>10</sup> Based on the Decree on the Documents of Development Planning Bases and Procedures for the Preparation of the Central Government Budget (OG RS, No. 54/2010).

EU average in terms of relative increase in debt in the past two years. Borrowing conditions (yield on 10-year bonds) in the first half of 2010 were more favourable than in 2009, but worse than in the period preceding the crisis. The spread on German reference bonds began to widen in the second half of 2010 as the euro-area debt crisis escalated, but it was still substantially narrower than on the bonds of high-risk members of the euro area. Following a significant increase in 2009,<sup>11</sup> the growth of publicly guaranteed debt continued last year, albeit at a more moderate pace; at the end of the year it totalled EUR 7.7 bn or 21.5% of GDP. Even though state guarantees do not directly increase general government debt until they are called up, their scope and the estimate of the probability of them being called up can affect how a country is perceived by financial markets, and make borrowing more expensive by widening spreads. It is therefore all the more important to preserve the country's credit rating at the current level by honouring commitments made regarding consolidating public finances and introducing systemic changes vital to the long-term sustainability of public finances. The quality and transparency of public finances statistics will also need to improve with the adaptation of statistics to international methodologies.

*The substantial drop in the **current-account deficit** since the onset of the crisis has been driven mainly by economic activity, but in the last two years absorption of EU funds also improved significantly.* The current-account deficit dropped further (to 1.1% of GDP) in 2010 following a steep decrease in 2009 (from 6.7% to 1.5% of GDP). The decline in 2009 was based largely on a lower goods deficit, which expanded marginally in 2010 as the terms of trade deteriorated. Last year's decrease in the current-account deficit was a consequence of a continued narrowing of the deficit in investment income. In 2009, the investment income deficit decreased due to a strong decline in net payment of interest on external debt, following the deleveraging of commercial banks and a drop in interest rates; last year, the drop was a consequence of lower net outflows from the equity capital of foreign direct investments as Slovenian companies abroad are estimated<sup>12</sup> to have recorded lower outflows from reinvested earnings than in 2009. Net interest payments were also lower in the year as a whole, but they rose in the second half of the year and began to exceed the levels of 2009. The decline in net interest payments by commercial banks thus eased

off and the net interest payments on treasury bonds and bills rose due to the maturity dynamics. In the last two years, the drawing of funds from the EU budget improved markedly, which turned the current transfer deficit to a surplus for the first time in five years in 2010. Better drawing of cohesion funds was the biggest factor behind the improvement in the net position with respect to the EU budget (to EUR 155.6 m) in 2009; in 2010, the net position improved further (EUR 326.4 m) largely due to increased drawing from the Regional Development Fund for the Strengthening of Regional Development Potentials of Infrastructure, and funds for development of human resources from the European Social Fund. The surplus in services trade continued to narrow last year as the deficit in the trade of licences, patents and copyright expanded further.

*Following brisk growth in 2007 and 2008, the increase in **gross external debt** slowed in the last two years, while the debt structure shows that public and publicly guaranteed debt as a share of overall debt has been increasing.* Slovenia's gross external debt reached EUR 40.9 bn at the end of 2010, up EUR 0.6 bn over December 2009. Debt growth eased off further compared with 2009, when debt rose by EUR 1 bn after rising very rapidly in 2007 and 2008 (by EUR 10 bn and EUR 4.5 bn respectively). In the period of fast growth, the increase had been mainly due to borrowing by commercial banks, which, however, deleveraged substantially in the last two years due to loan maturity dynamics and problems with access to new sources of financing. Much as in 2009, borrowing by the state to cover the rising public deficit and pay off debt<sup>13</sup> accounted for the bulk of the increase in gross external debt in 2010. Slovenia has a steady pace of debt maturity without larger concentrations in any particular year, which means that refinancing risk is equally distributed. Last year, debt guaranteed by the state continued to rise. In 2009, publicly guaranteed debt was driven mainly by guarantees for the issue of two bonds by commercial banks; last year's increase in publicly guaranteed debt largely originated from borrowing by legal and natural persons granted guarantees under acts on guarantee schemes. Borrowing with state guarantees gave banks access to financing on international markets, which had been very limited after the onset of the crisis. Rapid growth in public and publicly guaranteed debt in the last two years, coupled with deleveraging of the private sector, increased its share in overall debt last year to the highest level so far (40.3%). Total gross external debt relative to GDP, however, remained well below the euro-area average. At the end of 2010, it stood at 113.4% of GDP, whereas in the euro area it was already at 205.3% of GDP in 2009. Nevertheless, this comparison alone is not sufficient to assess potential debt-servicing risks: external debt needs to be evaluated in the broader context of a country's macroeconomic environment and factors such as potential growth, debt structure, interest on loans,

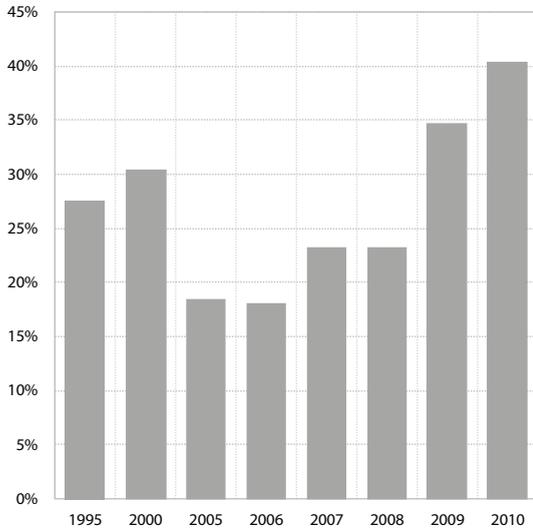
<sup>11</sup> Largely on account of guarantees in the amount of EUR 2 bn that the state granted to domestic banks for borrowing (see also Development Report 2010, 2010).

<sup>12</sup> Current balance of payments data on reinvested earnings are estimated by the Bank of Slovenia based on multi-year averages; the actual data will be included in the balance of payments when companies' annual balance sheets for last year are available. We estimate that the actual data for 2010 will not show such a high net outflow of capital from reinvested earnings as in 2009 (EUR 335 m), when it was a consequence of disinvestment by Slovenian companies abroad.

<sup>13</sup> See also the paragraph on general government debt in this chapter.

concentration of payments by years etc. Indeed, against the backdrop of the overall economic environment, the situation in some heavily indebted sectors (e.g. construction, retail and wholesale trade) tightened in the past year and is already affecting companies' debt-servicing ability. Since banks are heavily exposed to these sectors, the situation is having a negative impact on the crediting of the entire economy.

Figure 4: Public and publicly guaranteed debt as a share of total gross external debt, Slovenia



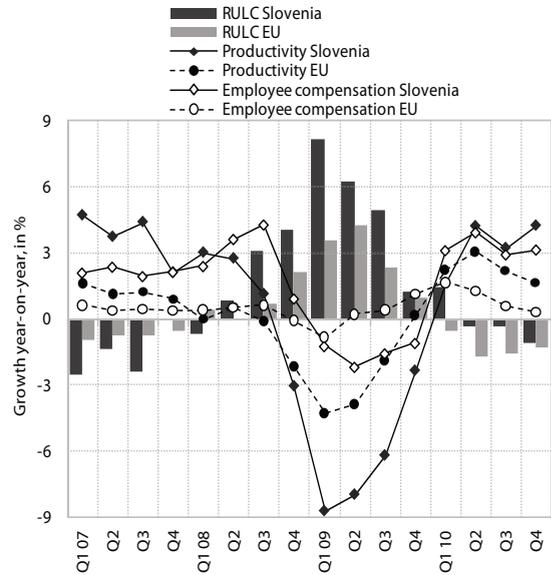
Source: Bulletin of the Bank of Slovenia, 2011.

## 1.2. Increasing competitiveness and promoting entrepreneurial activity

The **cost competitiveness** of the Slovenian economy deteriorated rapidly in 2008 and 2009, while the improvement in 2010 was more subdued than in much of the EU. The stable improvement in cost competitiveness in the first years of SDS implementation had already started to deteriorate before the onset of the economic crisis, when growth in unit labour costs outpaced that in the EU in 2008 due to relatively high wage growth (in the private and public sectors). Cost competitiveness continued to decline in 2009. Economic activity contracted at twice the rate of the EU average, resulting in a sharp drop in productivity, which led to a growth in unit labour costs that significantly exceeded the EU average once more. In 2010, unit labour costs dropped on the back of renewed productivity growth, but the decrease was among the lowest in the EU as labour costs outpaced the EU average due to the rise in the minimum wage. Last year, the improvement in productivity was bigger than in the EU, but this was largely due to the low basis of comparison in the preceding year. To a larger extent than in the EU, productivity gains in Slovenia were underpinned by lower employment, whereas economic

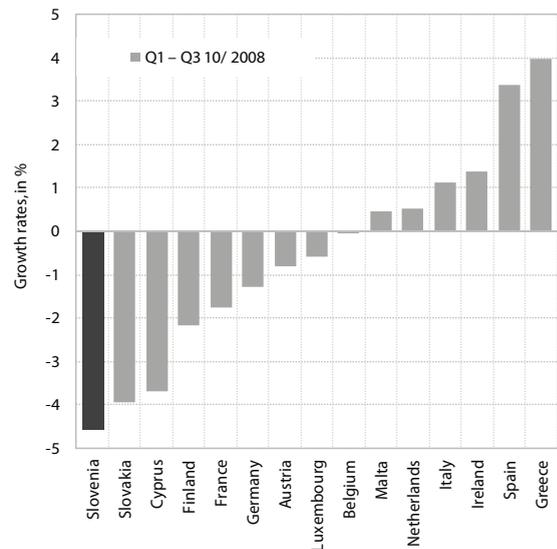
growth was weaker than in the EU. The decline in cost competitiveness in the period of crisis had an adverse impact on the profitability of the economy, which fell at the fastest rate among the euro-area countries (see Figure 6). As a result, the prospects of Slovenian companies to recover using their own resources declined more than in other euro-area countries.

Figure 5: Real unit labour costs and components, Slovenia and EU average, year-on-year



Source: SI-STAT – Economy, 2011; Eurostat portal page – Economy and Finance, 2011.

Figure 6: Relative profitability\* (compared with trading partners), Slovenia, euro-area members



Source: ECB Portal Page, 2011; IMAD calculations.

Note: \* Relative profitability is calculated as the ratio between the relative GDP deflator and relative unit labour costs.

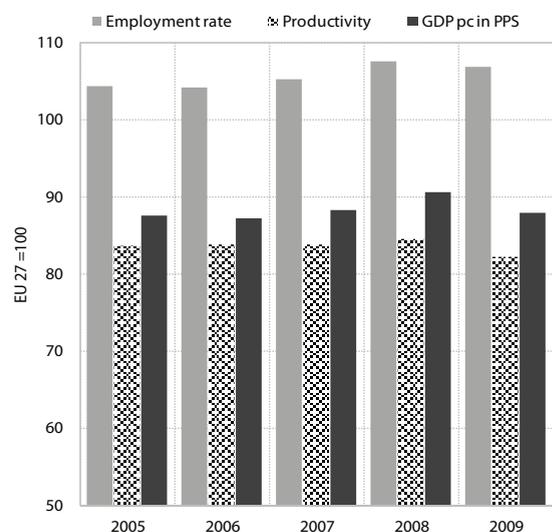
During the crisis, Slovenia slid from the group of countries with above-average growth in market share to the group with above-average decline in **export competitiveness**. In the period 2000–2007, Slovenia was in the group of EU

countries with relatively rapid growth of global market share, although the pace was slower than in the majority of other new Member States. With the escalation of the economic crisis, however, Slovenia's global market share began to drop. Initially, in the period 2008–2009, the loss of foreign markets was relatively moderate: in 2009, a large increase in exports of road vehicles to the EU (in particular to France and Germany), buoyed by car purchase subsidies in some Member States, largely offset the decline in market shares of electrical machinery, apparatus and appliances and machinery specialised for particular industries in the machinery and equipment product group, which is relatively important in terms of volume for Slovenian exports. Moreover, Slovenia's market share in the equally important group of chemical products continued to expand, even as the market share of medicinal and pharmaceutical products shrank. Despite a small drop in market share in 2008 and 2009, Slovenia's position in the EU deteriorated, as it was among those Member States with above-average contractions of market share.<sup>14</sup> In 2010, as car-purchase subsidies in the EU were phased out, the market share of road vehicles dropped, as did the market shares of other products that are important for Slovenian exports (in particular medicinal and pharmaceutical products, electrical machinery, apparatus and appliances).<sup>15</sup> The deterioration of Slovenia's position on the global market in 2010 was thus more pronounced than in previous years, but it was on a par with the average decline in EU Member States' market shares. In 2010, as throughout the crisis, the decline in Slovenia's market share was bigger on non-EU markets, as the economies of the former Yugoslavia, which account for a significant proportion of Slovenian exports, were yet to begin their recovery.

*Improving competitiveness hinges on restructuring the economy towards creating higher value added per employee (productivity), an area in which progress has been insufficient since the start of implementation of SDS.* Decomposition of per capita GDP (to productivity and employment rate) indicates that Slovenia lags behind the EU average because of lower productivity (82.4% of the EU average in 2009), the area in which progress was slowest between 2005 (the beginning of implementation of SDS) and the onset of the crisis (2008). Employment, meanwhile, increased at a rate significantly higher than in the EU; by 2009, Slovenia had already exceeded the EU average by almost 7%.<sup>16</sup> The sluggish improvement in competitiveness in recent years was the consequence of insufficient changes in the structure of the economy towards enhancing high-tech and knowledge-based industries, and an insufficient overall increase in productivity across all industries. In the period 2005–

2008, when economic growth was brisk, construction and certain service industries accounted for the bulk of productivity gains due to changes in the structure of the economy (intersectoral effect). In this period, the contribution of structural changes to productivity growth was also relatively small in manufacturing, where the largest contribution to the structural component of productivity growth came from growth in the technologically less demanding manufacture of basic metals and fabricated metal products, as this activity gained by far the greatest importance in the structure of manufacturing (see Table 1). The shares of other technologically less demanding activities decreased marginally, except for food and textile industries, which recorded bigger drops. Among technologically more demanding activities, only two medium-tech industries saw increases in the structure of total manufacturing value added (manufacture of machinery and manufacture of transport equipment), while the shares of the chemical and electrical industries, which include the majority of high-tech manufacturing, remained flat. Despite having improved in good economic times, the potential for intrasectoral productivity growth of manufacturing industries remains high, in particular in high-tech industries. In 2009, two of the three manufacturing industries with the biggest productivity gap to the EU were high-tech industries (electrical and machinery industries), and both are among the industries that have made the smallest gains in bridging the gap to the EU average since 2005.<sup>17</sup>

Figure 7: Breakdown of per capita GDP at purchasing-power standards, Slovenia, EU27=100



Source: Eurostat Portal Page – National Accounts (2011); IMAD calculations.

<sup>14</sup> Over a third of EU countries increased their market shares in the period 2008–2009, including the majority of the new Member States.

<sup>15</sup> Provisional data according to the SICT are for the first nine months of 2010 and only available for the EU market.

<sup>16</sup> Employment relative to the entire population (all age groups).

<sup>17</sup> In 2008 industries with the biggest productivity gap to the EU included the medium-tech manufacture of vehicles and boats, which made significant headway in 2009, buoyed by car-purchase subsidies in some EU Member States.

**Table 1: Breakdown of productivity growth in manufacturing and contribution of individual industries to components of productivity growth in manufacturing, Slovenia**

|   | 2005-2008                        |                                   |                   | 2008-2009                        |                                   |                   |
|---|----------------------------------|-----------------------------------|-------------------|----------------------------------|-----------------------------------|-------------------|
|   | Intersectoral component* in p.p. | Intrasectoral component** in p.p. | Productivity in % | Intersectoral component* in p.p. | Intrasectoral component** in p.p. | Productivity in % |
| <b>Manufacturing</b>  | <b>0.54</b>                      | <b>5.32</b>                       | <b>5.86</b>       | <b>1.00</b>                      | <b>-9.10</b>                      | <b>-8.10</b>      |
| <b>Contribution of individual industries to components of productivity growth in manufacturing, in p.p.</b> |                                  |                                   |                   |                                  |                                   |                   |
| DA Manufacture of food  | -0.34                            | 0.35                              | 0.01              | 0.33                             | -0.05                             | 0.28              |
| DB Manufacture of textiles  | -0.43                            | 0.49                              | 0.06              | -0.40                            | -0.44                             | -0.83             |
| DC Manufacture of leather   | -0.09                            | 0.00                              | -0.09             | -0.11                            | 0.09                              | -0.03             |
| DD Manufacture of wood  | -0.03                            | 0.28                              | 0.25              | -0.10                            | -0.50                             | -0.60             |
| DE Manufacture of paper   | -0.09                            | 0.36                              | 0.26              | 0.37                             | -0.08                             | 0.30              |
| DF Manufacture of coke  | 0.00                             | 0.00                              | 0.00              | 0.00                             | 0.00                              | 0.00              |
| DG Manufacture of chemicals   | 0.02                             | 0.95                              | 0.97              | 0.85                             | -0.85                             | -0.01             |
| DH Manufacture of rubber  | 0.14                             | 0.11                              | 0.25              | 0.18                             | -0.80                             | -0.62             |
| DI Manufacture of non-metal mineral products  | -0.02                            | 0.23                              | 0.22              | -0.07                            | -0.98                             | -1.05             |
| DJ Manufacture of basic metals  | 0.82                             | 0.52                              | 1.34              | 0.07                             | -1.47                             | -1.40             |
| DK Manufacture of machinery   | 0.35                             | 0.52                              | 0.87              | 0.03                             | -1.46                             | -1.43             |
| DL Manufacture of electrical equip.   | -0.05                            | 1.05                              | 1.01              | 0.02                             | -1.63                             | -1.61             |
| DM Manufacture of transport equip.  | 0.32                             | 0.26                              | 0.58              | -0.15                            | 0.09                              | -0.06             |
| DN Manufacturing n.e.c.   | -0.04                            | 0.18                              | 0.14              | -0.02                            | -1.00                             | -1.03             |

Source: SI-STAT – Economy - National Accounts (2011); IMAD calculations.

Notes: \*Increase of productivity due to reallocation of production resources from low-productivity to high-productivity industries and to industries with high productivity growth.

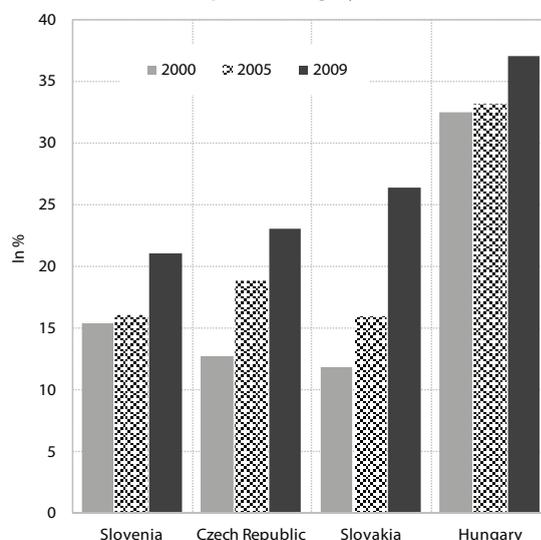
\*\*Increase in productivity that would have been achieved if the employment structure had remained at the reference-year level. Productivity measured with value added per employee at constant prices.

**The structure of goods exports in terms of technological intensity** was improving only moderately until 2008, whereas the more intensive changes during the crisis are mostly a result of passive restructuring. The economic crisis and attendant decline in less-competitive parts of the economy resulted in changes in the structure of the economy and goods exports in 2009 (passive restructuring), but this was insufficient for a significant improvement in competitiveness. Given the modest structural changes in previous years, Slovenia's structural gap to the EU average in terms of technological intensity of exports remained high.<sup>18</sup> Compared with the average of the 12 new Member States, which are increasingly important competitors on the European market, the gap was actually widening until 2009. Slovakia and the Czech Republic<sup>19</sup> in particular saw significant changes in the structure of goods exports (see Figure 8) and rapid productivity growth, with manufacturing industries in both countries converging with the EU average faster than that of Slovenia. Moreover, in the past decade Slovenia also lagged behind these countries in terms of productivity growth in the most technologically intensive industries (OECD Economic Surveys, Slovenia, 2011).

<sup>18</sup> See indicator Structure of merchandise exports according to factor intensity.

<sup>19</sup> In Hungary, the share of high-tech product in good exports had already been very high (in excess of 30%) at the beginning of the previous decade (Slovenia in 2009: 21.1%, Czech Republic: 23.1%; Slovakia: 26.4%) and fluctuated between 30% and 37% in the period 2000–2009, je nihal med 30 % in 37 %).

**Figure 8: Share of high-tech products\* in goods exports of Slovenia, the Czech Republic, Hungary and Slovakia**



Source: Handbook of Statistics 2007–2008 (United Nations), 2007; United Nations Commodity Trade Statistics Database, 2010; own calculations.

Note: \* According to United Nations methodology (Trade and Development Report, 2002).

The significant decline in the **level of internationalisation** of the Slovenian economy in the first year of the crisis (2009) was followed in 2010 by a gradual increase in the openness of the economy to external trade and an upswing in the traditionally low level of inward foreign direct investment (FDI). The increase in external trade as a share of GDP in 2010, albeit to a level still below that before the crisis, was a consequence of a recovery in foreign demand, whereas domestic demand continued to contract. Openness to external trade increased at a rate just slightly above the average in the EU, where the relative volume of trade (exports and imports) had contracted at a much slower pace than in Slovenia in 2009. Compared with small Member States, Slovenia's external trade as a share of GDP increased at a more moderate pace despite a bigger decline in the previous year. In 2009, the economic crisis had a strong adverse impact on inward and outward FDI stock, as inward FDI flows were negative for the first time in Slovenia's history and outward FDI flows dropped to only 13% of the level recorded in 2008. Given the severe drop in GDP, the relative decrease in internationalisation measured by FDI was relatively small, but this did not change the fact that the relative importance of FDI is significantly lower than in the vast majority of EU Member States. FDI flows and changes in FDI stock in 2010, in particular positive inward FDI flows indicate a gradual recovery and a renewed increase in FDI. In 2010, FDI inflows were largely the result of a process that marked a complete reversal from 2009, as they were based on increased crediting of Slovenian subsidiaries by foreign parent companies and higher reinvestment of profits. This indicates that the confidence of foreign parent companies in Slovenian subsidiaries is gradually recovering. A survey of foreign subsidiaries in Slovenia shows a similar picture: a full 79% of respondents forecast an improvement in sales in 2011 and 67% also forecast bigger payrolls (IER-JAPTI, 2010). Despite the positive

signals, however, FDI stock in Slovenia is too low to have a significant contribution to restructuring and improving the competitiveness of the Slovenian economy.

The **creation of new companies**, which accelerated in the period of economic growth, was far less intensive during the crisis as business opportunities dried up. Following a period of growth in 2005–2008, early-stage entrepreneurial activity,<sup>20</sup> which measures the share of the population entering entrepreneurial activity, dropped to roughly the level of 2006 in 2009 and 2010. In both years, the share of nascent entrepreneurs, those setting up a business or owning a business for less than three months, declined most sharply. The decline in the share of nascent entrepreneurs is associated with the economic crisis: data show a considerable fall in opportunity-driven early-stage entrepreneurial activity, which had been the main factor of the increase in early-stage entrepreneurial activity during the period of economic growth. Since 2008, the share of new businesses (between 3 and 42 months) has meanwhile remained at a level significantly above the average of the previous three-year period (2005–2007). The higher share of new entrepreneurs is encouraging, since it means that after a period in which a higher number of nascent businesses were established at the peak of the economic cycle, in recent years the share of those persisting on the market for over three months has also increased. Before the economic crisis, early-stage entrepreneurial activity in Slovenia exceeded the average in the EU countries for which data are available. The drop in the last two years brought it down to the average of these countries. However, in the last year, opportunity-driven entrepreneurial activity accelerated in the majority of EU countries, while in Slovenia only necessity-driven entrepreneurial activity inched up; to a certain extent, this can be attributed to the subsidising of self-employment in the period of the crisis.<sup>21</sup>

Table 2: Slovenia's ranking on World Bank Ease of Doing Business index

|                                   | Rank 2010                 | Rank 2011 | Change 2010/2011 | Rank 2010          | Rank 2011 | Change 2010/2011 |
|-----------------------------------|---------------------------|-----------|------------------|--------------------|-----------|------------------|
|                                   | Among all (183) countries |           |                  | Among EU countries |           |                  |
| Ease of doing business            | 43                        | 42        | +1               | 18                 | 17        | +1               |
| Starting a business               | 25                        | 28        | -3               | 5                  | 6         | -1               |
| Dealing with construction permits | 63                        | 63        | 0                | 16                 | 16        | 0                |
| Registering property              | 109                       | 97        | +12              | 23                 | 22        | +1               |
| Getting credit                    | 109                       | 116       | -7               | 25                 | 25        | 0                |
| Protecting investors              | 20                        | 20        | 0                | 4                  | 4         | 0                |
| Paying taxes                      | 81                        | 80        | +1               | 18                 | 17        | +1               |
| Trading across borders            | 86                        | 56        | +30              | 24                 | 20        | +4               |
| Enforcing contracts               | 60                        | 60        | 0                | 19                 | 19        | 0                |
| Closing a business                | 40                        | 38        | +2               | 16                 | 16        | 0                |

Source: Doing Business, World Bank, 2010

Note: The ranking includes 183 countries. Due to a change in methodology this year's rank can only be compared to last year's. The survey includes 26 EU Member States (all except Malta).

<sup>20</sup> Data are taken from the Global Entrepreneurship Monitor (GEM) survey. For detailed explanations, see indicator Entrepreneurial activity.

<sup>21</sup> See indicator Entrepreneurial activity.

Slovenia urgently needs to restructure its economy and improve competitiveness. It is therefore paramount to promote the creation of new businesses, especially technological and non-technological businesses based on innovative ideas. In addition to creating an environment conducive to the development of innovation, it is necessary to improve the regulatory environment for business. According to a survey of the business climate in Slovenia (Intrastat, 2011), in addition to factors associated with the economic crisis (payment default risk and declining sales), problems originating from tax policy and bureaucracy have for years been key obstacles to doing business. The many obstacles to doing business are also highlighted by international competitiveness indicators (WEF, IMD), which along with complex bureaucratic procedures and taxation single out the rigidity of the labour market and poor access to financing. According to the World Bank survey on the ease of doing business, Slovenia has made headway in recent years on ease of establishing businesses, but too little has been done to support the functioning of established businesses. The introduction of the e-VEM one-stop shop for all companies in 2008 significantly reduced administrative barriers, and made it easier and quicker to set up a business (the time it takes to set up a business was reduced to only 3 days, with only two procedures required), but prospective entrepreneurs still face significant administrative barriers and lengthy procedures for acquiring additional permits and licences to carry out individual regulated activities.<sup>22</sup> Other improvements include shorter and easier procedures for acquiring building permits and registration of real estate, mostly as a result of the launch of a real-estate register in 2008 and accelerated computerisation of the land registry. However, Slovenia's ranking remains low, with the survey (much like the WEF survey) establishing that inefficient state bureaucracy represents an important obstacle to doing business. Doing business now requires fewer procedures than a few years previously, which has also reduced direct costs. Easing the administrative burden on businesses and simplifying the business environment also depend on the implementation of the programme of measures aimed at reducing the

administrative burden,<sup>23</sup> but the long procedures required to obtain documentation and permits remain a problem. Last year, the main obstacle to doing business was limited access to financing, as the crisis severely restricted the availability and increased the cost of operating assets (loans and debt financing).

### 1.3. Increasing the competitiveness of services

*Restructuring of the economy towards expansion of services with high value added has been too slow to meet the SDS objective; however, as the economic crisis disproportionately affected non-service sectors, services as a share of the overall economy swelled.* The relative scope of services (G–P) remained practically unchanged in the period 2005–2008 (around 63% of value added), but in 2009 it grew to 66.5% as construction and manufacturing experienced a severe contraction. Although this is close to the SDS target for 2013 (67%), the big increase is to a certain extent transitory, as non-services are expected to rebound at a relatively brisk pace when the economy recovers. Slovenia's gap to the EU average in terms of the share of services in the structure of value added was still almost 8 p.p. in 2009; what is more, throughout the period of implementation of SDS, structural differences relative to the EU remained virtually unchanged. What mostly sets Slovenia apart from the EU average is the significantly lower share of market services, in particular knowledge-based services (business, telecommunications, finance) and a higher share of traditional services (retail and wholesale trade, hotels and restaurants, transport). Slovenia also has a marginally lower share of public services, where it diverges from the EU average particularly due to poor development of the provision of certain services (in particular in health and social work) outside the government sector.<sup>24</sup>

Table 3: 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 | 2006 | 2007 | 2008 | 2009 |
|--|------|------|------|------|------|------|
| Services (G–P)                                 | -8.6 | -8.4 | -8.2 | -8.7 | -8.4 | -7.6 |
| Market services (G–K)                          | -6.7 | -6.0 | -5.5 | -5.0 | -4.7 | -4.9 |
| Trade, hotels and restaurants, transport (G–I) | -1.1 | 0.2  | 0.3  | 1.1  | 1.3  | 1.0  |
| Financial and business services (J–K)          | -5.6 | -6.2 | -5.8 | -6.1 | -6.0 | -5.9 |
| Non-financial market services (G–K excl. J)    | -6.5 | -4.7 | -4.9 | -4.1 | -3.8 | -4.2 |
| Public services (L–P)                          | -1.9 | -2.4 | -2.7 | -3.7 | -3.7 | -2.7 |

Source: Eurostat portal page – Economy and Finance – National Accounts by 6 branches. 2011.  
Note: \*Minus means that the share in Slovenia is below the EU average

<sup>22</sup> These administrative barriers should be considerably reduced by the establishment of a Slovenian Business Portal website as a single point of entry to increase transparency and uniformity of procedures through electronic support.

<sup>23</sup> For more on this, see Chapter 3.2 Institutional competitiveness.

<sup>24</sup> For more on development and accessibility of public services, see Chapter 4 A modern welfare state.

### 1.3.1. Non-financial market services

In 2009 the gap to the EU average in terms of the scope of **non-financial market services** widened as traditional services contracted significantly; from a development perspective, increasing the scope and efficiency of knowledge-based services remains a key challenge. The share of non-financial market services<sup>25</sup> in the value added of the economy had been approaching the EU average in the years preceding the crisis, but in 2009 it remained level over the year before (40.2%). During the crisis, the relative share of traditional services (retail and wholesale trade, transport, hotels and restaurants) shrank. The outliers compared to the EU average were the severe drop in value added in transport, which in Slovenia is strongly dependent on international trade, and the construction sector, which contracted at a faster rate than in the EU. Available data show that the transport sector recovered substantially in 2010 as international trade rebounded, while its share in the structure of the economy, as well as the share of all traditional services, remained above the EU average despite the drop in 2009. Business services, which are classified as knowledge-based services (with the exception of real-estate activities) account for the bulk of the gap to the EU. The share of business services in the value added of the economy has grown by about one p.p. over the period of SDS implementation (since 2005) but it is still roughly two percentage points below the SDS target (12% in 2013). In this period, Slovenia also narrowed the gap to the EU average as regards the share of all knowledge-based services in the economy (business and telecommunications services), from 1.4 p.p. in 2005 to 0.9 p.p. in 2008.<sup>26</sup> Changes in the structure of non-financial market services were well targeted, but too slow to achieve the SDS objectives. Even more problematic is the fact that headway in improving the efficiency of knowledge-based services has been insufficient to bridge the relatively big labour-productivity gap compared with the EU average.

Following the time lag with which the crisis in global markets affected international services trade, the **competitiveness of Slovenian services on EU markets** took a severe blow in 2009. Services exports of all EU Member States dropped in 2009. In that year, total services imports to the EU dropped by about 8%, but Slovenian services exports to EU markets dropped even more, by 14%. These figures indicate a deterioration of competitiveness, which was also reflected in a 7% reduction in Slovenia's market share in 2009. The trend in 2009 was very similar for the five biggest EU markets for Slovenia's services exports (Italy, Austria, Germany, the United Kingdom and Hungary);<sup>27</sup> Slovenian exporters

suffered the biggest drop in market share in Germany, but their market share in the United Kingdom rose. The biggest decline was registered in other services, a group that includes mostly knowledge-based services, which saw a 12% drop in market share in the EU.<sup>28</sup> Within this group, the market share of construction services dropped most (by 22%). Unfavourable conditions on EU markets affected exporters of other services more than exporters of transport or travel services, with transport having already felt the consequences of the crisis to a much larger extent in 2008. Exporters of travel services even increased their market share in the EU in 2009; not, however, because of higher exports, but because their exports to EU markets dropped less than overall imports of travel services dropped in these countries.

**Innovation in services**, one of the key factors of competitiveness, continues to lag behind the most successful countries; the low level of innovation by smaller businesses is particularly problematic. The introduction of technological innovation in services increased only marginally in the period 2006–2008 compared with 2004–2006. Equally important for manufacturing and services companies are non-technological innovations<sup>29</sup> and their combination with technological innovations, improving exploitation of the market potential of products and services. Looking at the broader definition of innovation, which includes technological and/or non-technological innovations, the share of services companies active in innovation stood at 46.1% in the period 2006–2008. The gap to the EU average is narrow (2.4 p.p.), but it is significant compared to the most innovative countries<sup>30</sup> (26.5 p.p. behind Germany and 17.8 p.p. behind Portugal). The same applies to knowledge-based services, which in general belong to services with above-average innovation activity. The low innovation activity of small services companies remains the biggest problem, in particular in terms of non-technological innovation. Although this is a consequence of multiple factors, for example that small businesses are often started out of necessity and do not have significant desire to grow, the fact is that policy measures to support innovation in services, where the share of small businesses is particularly high, have been inappropriate. Insufficient innovation activity of services companies is a major factor limiting their expansion to foreign markets.

<sup>27</sup> Hungary supplanted France in the group of the biggest EU markets for Slovenian services exporters. Outside the EU, the most important markets are Croatia and Switzerland.

<sup>28</sup> In 2008, these services saw the fastest growth of market share in the EU (by 15.4%).

<sup>29</sup> These include innovations in organisation (e.g. new business models, organisation of the value added chain, quality management; new methods of organisation of customer and supplier relations such as partnerships and outsourcing; and new methods of work and decision-making such as team work, systems for education and training of employees) and/or marketing (e.g. design novelties, new media and new promotional techniques).

<sup>30</sup> See indicator Innovation active enterprises.

<sup>25</sup> The activities wholesale and retail trade, repair of motor vehicles (G); hotels and restaurants (H); transport, storage and communication (I); and real estate, renting and business activities (K).

<sup>26</sup> The latest available international data for the knowledge-based services group (business and telecommunication services) are for 2008.

A **lack of competition in services** has been evident in certain network industries and wholesale and retail sectors for years, but there have been some signs of improvement in recent years. In 2009, when some parts of the economy contracted at an accelerated pace, the number of highly concentrated<sup>31</sup> industries and their share of total revenue increased, probably due to the fact that in the early stages of the crisis, larger companies were able to adapt more easily to the tougher economic

environment with cost-cutting than smaller companies, affirming their market position. Highly concentrated industries that stand out in international comparisons in terms of mark-ups include certain network industries (post and telecommunications), as well as retail and wholesale trade sectors (retail trade in non-specialised, predominantly grocery stores, some segments of wholesale trade). Detailed analysis of individual telecommunications markets in most cases shows

#### Box 1: Competition in selected network industries

Within network industries, competition in the electronic-communications market continues to increase and has already reached the EU average in certain segments; in electricity supply, positive trends are indicated in particular by increasing number of switches of provider. In **electronic communications**, the market share of the biggest provider decreased most in fixed telephony in recent years, where VoIP<sup>1</sup> telephony has been rapidly undercutting traditional telephony (APEK data show that the incumbent operator had a market share of only 60%) and allowing new operators to enter the market<sup>2</sup>. In fixed telephony and broadband Internet access, market concentration is already comparable to the EU average but still far behind the three countries with the lowest concentration. In mobile telephony, meanwhile, the market share of the biggest provider is still noticeably above the EU average (see table). Mobile telephony penetration rates are also below the EU average (Slovenia: 102.2%, EU: 121.9% in July 2009) Mobile telephony prices<sup>3</sup> were 2.9% above the EU average for the low usage basket of services, and 4.1% and 15.3% below the EU average for the medium usage and high usage basket of services respectively, whereas in fixed<sup>4</sup> telephony they were 22.7% and 26.9% lower for residential and business users respectively. The ownership structure in this area underwent little change, as the state's ownership share in the biggest provider of telecommunications services remains high. Similarly, the majority of the **electricity-supply** business remains state-owned. The structure of the electricity-supply market has been changing more slowly, but there have nevertheless been positive signals. According to the Energy Agency, the market share of the biggest electricity producer was 68.4% in 2009 compared with an EU average of approximately 60%. In the retail market, there were 17 suppliers in 2009, while the HHI index was 1,685<sup>5</sup> indicating medium concentration. However for the retail market for consumption from the distribution network, which includes households, the index was 1,933, which shows that market concentration was higher. The relatively strong oligopoly of suppliers in this market is evident in particular in prices for industrial consumers, which exceeded the EU average by 0.9% in the first half of 2010, while prices for households were 13.6% below the EU average. However, data on the number of changes of provider show that competition in the electricity market is improving: in 2009, there were 12,749<sup>6</sup> changes, nearly 2.5 times the level in the previous year.

Table: **Market shares<sup>1</sup> of the biggest electronic communications providers, in %**

|                                     | Slovenia |         |                   |         | EU            |               | EU-3 <sup>3</sup> |
|-------------------------------------|----------|---------|-------------------|---------|---------------|---------------|-------------------|
|                                     | Q4 2007  | Q4 2008 | Q4 2009           | Q4 2010 |               |               |                   |
| Fixed telephony                     | 92.6     | 85.7    | 82.8 <sup>2</sup> | 76.9    | 90.5 jul 2006 | 75.9 jul 2009 | 63.2 jul 2009     |
| VoIP – Voice over Internet Protocol | 48.1     | 47.7    | 48.0 <sup>2</sup> | 42.7    |               |               |                   |
| Mobile telephony                    | 65.6     | 58.9    | 56.3              | 54.7    | 39.4 2006     | 37.9 2009     | 29.9 2009         |
| IPTV – Internet television          | 61.4     | 62.0    | 61.3              | 60.2    |               |               |                   |
| Broadband Internet access           | 50.2     | 49.1    | 45.9              | 43.1    | 46.8 jan 2007 | 45.0 jan 2010 | 29.0 jan 2010     |
| xDSL – Internet via phone line      | 69.4     | 67.9    | 65.8              | 64.1    |               |               |                   |

Source: APEK, quarterly reports, various issues, 2007–2010, Progress Report on the Single European Electronic Communications Market 2009 (15th Report), 2010.

Note: <sup>1</sup>By number of lines; in mobile telephony by number of active users. <sup>2</sup>Increase in market share is an artefact of changes in data collection; concentration actually continued to drop. <sup>3</sup>Average of three EU countries with lowest concentration in individual market.

<sup>1</sup> Voice over Internet Protocol.

<sup>2</sup> The number of providers had already risen to 10 by the end of 2010.

<sup>3</sup> EC, Report on Telecoms Price Developments 1998–2009, 2010. OECD baskets of mobile telephony services include domestic calls (partially to other mobile and fixed networks), SMS, MMS and voicemail (does not include international calls) in the cheapest package.

<sup>4</sup> EC, Progress Report on the Single European Electronic Communications Market 2009 (15th Report), 2010. OECD baskets of fixed telephone services include subscription, domestic and international calls, and calls to mobile networks in the cheapest package.

<sup>5</sup> The market share of the biggest provider was 29.2%.

<sup>6</sup> Of which 8,722 were households, where the increase was particularly high. There are just over 900,000 customers in the retail market for consumption from the distribution network, which means that 1.4% switched providers.

<sup>31</sup> Measured with the Hirschman-Herfindahl index (HHI) of market concentration, where index values above 1,800 indicate high concentration.

a gradual drop in the market share of the dominant operator and a convergence with average values in the EU (see Box 1). Since 2006, competition has also been improving in a significant portion of the retail sale of food (non-specialised, predominantly grocery stores), where concentration surged in the first half of the past decade as smaller grocery stores folded and big hypermarkets expanded; in recent years (2007–2009), concentration has dropped with the arrival of new foreign retail chains, but it remains high.<sup>32</sup> In postal services, where Slovenia has only one provider, competition is expected to improve in the coming years following the full liberalisation of the postal-services market in 2011. In individual wholesale trade segments, where wholesale trade in fuels and wholesale trade in tobacco products stand out in international comparisons of mark-ups, concentration has increased substantially in recent years.

*Throughout the period of SDS implementation, the main weakness of market services in Slovenia has been low productivity, which is especially glaring in knowledge-based services, a segment that has an instrumental direct and indirect impact on efficiency of the business and public sectors.* In its communication on industrial policy, the European Commission has been highlighting the importance of knowledge-based services for strengthening the competitiveness of manufacturing (COM(2010)614). Although knowledge-based services introduce technological innovation based on cutting-edge technologies, they rely on non-technological innovation and adaptations to customer demands. These include the introduction of new organisational approaches and business models, marketing, design and branding, which increase the value added, and quality and productivity of services, and strengthen the competitiveness of the entire economy.<sup>33</sup> Progress has been made in this field in recent years, but was achieved from a low baseline. Without additional efforts by the business sector, including greater cooperation between companies, and support mechanisms provided by the state, it will be difficult to expand in foreign markets. Moreover, innovation policy instruments have insufficiently considered the importance and specificity of non-technological innovation, resulting in a lack of support for faster introduction of such innovations, in particular for smaller companies. What is required foremost for innovation is highly qualified staff, specialist know-how by external providers and permanent investment in human-resources development in a variety of fields. To encourage innovation and hence improve competitiveness, it is necessary to continue strengthening competition, in particular in regulated industries.

<sup>32</sup> The HHI for this industry dropped from 3,387 in 2006 to 2,694 in 2009.

<sup>33</sup> Services and innovation in services play a key role in the implementation of the EU2020 strategy and need to be considered in the framing of industrial and innovation policy (Expert Panel on Service Innovation Report, 2011).

### 1.3.2. Financial services

*Measured by indicators of the development of the financial sector, Slovenia slipped considerably in 2010, with the gap to the most developed countries widening, according to our estimate.* It was not until 2010 that banks experienced the main force of the consequences of the financial crisis, which had started in mid-2007. Banks' total assets as a share of GDP, having grown since 1996, decreased for the first time since comparable data<sup>34</sup> became available. The tightening in the banking sector had the most severe impact on businesses with higher than average dependence on bank lending. *Market capitalisation of stocks as a share of GDP also fell dropping by just under two thirds from its 2007 peak.* The turnover ratio of shares, which had already been among the lowest in the EU, nearly halved in 2010, indicating the poor performance of the Slovenian capital market. Insurance premiums as a share of GDP rose in 2009, the latest year for which data are available, but this is largely an artefact of the severe contraction of GDP since premium growth was at the lowest level in the last ten years. The gap to developed countries narrowed marginally, but it widened in life insurance, a key indicator of the level of development of the insurance industry. In this field, Slovenia is lagging behind even some new EU Member States.

*Bank lending, the most important source of financing for Slovenian companies, has been very limited during the crisis.* After banks obtained the necessary liquidity for repaying maturing foreign loans from the government and the ECB in 2009, the treasury started to gradually withdraw bank deposits in 2010. Their new outflow in 2010 was EUR 853.5 m. Banks also reduced their liabilities to the Eurosystem, finding other sources to meet their liabilities. Deposits with the ECB as well as foreign banks dropped. While the ECB is still offering unlimited short-term financing at fixed interest, last year it started to abandon several measures adopted when the crisis on international financial markets was escalating at the end of 2008. Thus, 12-month long-term refinancing operations are no longer available, reducing the availability of longer-term financing. In 2010, the principal sources of long-term financing were restructuring of the maturity of household deposits,<sup>35</sup> issue of state-guaranteed bonds<sup>36</sup> and, to a lesser extent, higher long-term government deposits.

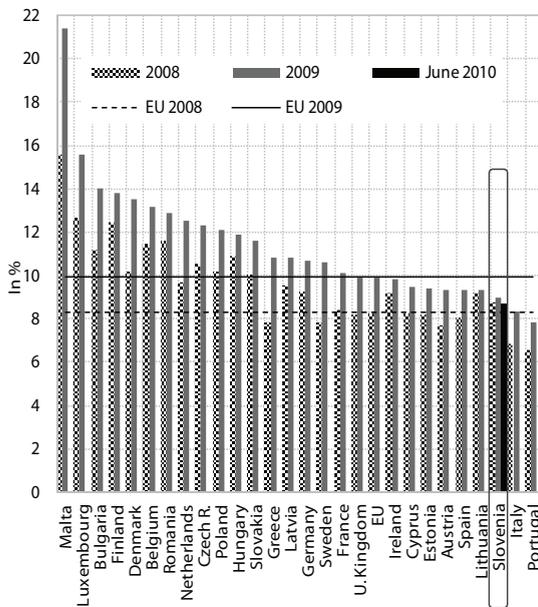
<sup>34</sup> From 1994.

<sup>35</sup> The share of long-term household deposits rose by nearly 8 p.p. to 28.0% in 2010, which we estimate to be the consequence of modest availability of foreign sources: banks were forced to focus on households and attract them to long-term savings with above-average interest rates. The inflow of these long-term sources slowed down abruptly towards the end of the year.

<sup>36</sup> SID Bank bonds worth EUR 750 m account for the bulk of the total.

Pressure on **bank liquidity** will remain significant; given limited domestic financing, banks will continue to rely on international financial markets, where the situation is still uncertain. In 2010, net payment of foreign credit and deposits was much lower than in 2009,<sup>37</sup> but it remains relatively high. At the end of the year, liabilities to foreign banks totalled EUR 15 bn, with roughly half of the total falling due in two years.<sup>38</sup> Securing longer-term financing on international financial markets crucially depends on banks' financial stability, as measured with the core capital ratio. Slovenia places among countries whose banking systems have core equity capital relative to risk-weighted assets at the lower end of the scale. The consolidated indicator was below the EU average in 2009 and had dropped further until the end of June 2010, whereupon it inched up according to the ECB indicator for large banking groups. Considering the rapid deterioration in banks' assets, we may expect that the capital adequacy of the Slovenian banking system will continue to worsen. The top three banks in the country saw their credit rating downgraded at the end of 2010, which will make it more difficult for banks to obtain much-needed financing and drive up the cost of borrowing; this could spill over to produce higher active interest rates and a significant contraction in bank investment volume.

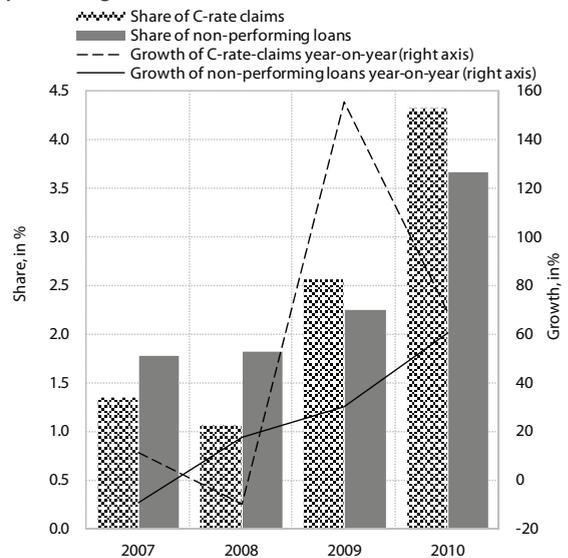
Figure 9: Tier 1 core capital ratio in EU Member States



Source: EU Banking Sector Stability, 2010; Slovenian Banking Sector Stability, 2010.

The financial crisis affected the liquidity of the Slovenian banking system relatively quickly, but the impact on the quality of portfolio investment was delayed. The share of non-performing claims started rising in 2009 and only accelerated in 2010. The deterioration of the quality of banks' assets was exacerbated by the high exposure of the banking system to companies involved in buyouts and takeovers and companies dependent on the construction sector. Construction is the biggest outlier, non-performing claims to the sector having surged by 530% in the last two years as opposed to a 115% rise in overall non-performing claims. Non-performing claims in sectors that were involved in buyout and takeover activities and in construction<sup>39</sup> totalled EUR 786.3 m at the end of 2010, accounting for over 40% of all non-performing claims. Non-performing claims to foreigners and households also started rising at a faster pace in 2010, which in our estimation may already have been a consequence of the unfavourable situation on the labour market. However, the share of non-performing claims to households did not increase drastically since the total volume of claims is high. In the last year, risks also surged in the retail and wholesale trade, which accounts for just under a tenth of all bank claims.<sup>40</sup> As the quality of assets deteriorated at an accelerated pace in 2010, banks set aside EUR 798.0 m for provisions and impairments, almost 60% more than in 2009. Non-performing claims rose to 3.7% of all the banking system's classified claims, roughly double the figure before the outbreak of the crisis. Although a significant portion of C-rated loans turned to non-performing loans

Figure 10: Growth rates and share (of total assets) of non-performing loans and C-rated loans



Source: Bank of Slovenia, IMAD calculations.

<sup>37</sup> Net payment of foreign loans and deposits totalled EUR 1.5 bn, less than half as much as in 2009.

<sup>38</sup> Estimate based on the data for October published in the Stability of the Slovenian Banking System (December 2010).

<sup>39</sup> These industries include: production of foods, beverages and tobacco products, construction, financial and insurance services, real-estate activities, and scientific and technical services.

<sup>40</sup> The volume of loans with a C rating increased to 2.4 times its previous level in this industry.

in 2010, their share continued to grow, indicating either an accelerated downgrading of loan ratings or stronger crediting of riskier customers since the state guarantee scheme also provided guarantees for customers with the lowest, C rating. We therefore expect that the quality of bank assets will continue to deteriorate.

development projects on competitive terms. This would make a significant contribution to accelerating the economic recovery.

*Limited sources of financing, and a rapid deterioration in the quality of assets with an attendant increase in impairments, have kept **banks' lending activity** at a low level despite measures adopted by the state, and this is holding back the economic recovery.* During the crisis, banks on the one hand increased lending to the less risky segments such as households and the general government, but on the other hand also expanded the crediting of over-indebted<sup>41</sup> sectors that are struggling to pay liabilities, and thus mitigated their liquidity problems in the short term. With growing exposure to over-indebted sectors during the crisis, banks reined in the increase in non-performing claims in the short term, but at the same time held back the recovery. Net borrowing of households and the general government accounted for practically the entire net borrowing of non-banking sectors, whereas borrowing by businesses was modest as companies deleveraged with domestic banks. Small and medium-sized enterprises were affected most: interest rates in Slovenia are among the highest in the euro area and SMEs have very limited options for non-bank financing. At the same time, they are also highly exposed to payment indiscipline. Companies and NFIs net repaid domestic bank loans in the amount of EUR 125.2 m, compared with net borrowing of EUR 23.6 m in 2009. We estimate that without the guarantee scheme, the crediting of companies and NFIs would have been even more modest. Based on guarantees, in 2010 companies and NFIs had net lending of just over EUR 250 m; in 2009 and 2010, when the guarantee scheme was in force, only approximately 40% of all guarantees were used. This data leads to the conclusion that the guarantees were largely used for refinancing of existing loans, with only a minor portion allocated for the financing of new projects. After the adoption in 2010 of the act on guarantees for investments, EUR 50 m in guarantees were offered at one auction but no credit was approved on this basis in 2010.<sup>42</sup> In addition to the lower quality of demand for credit by businesses, a reason cited by banks, we estimate that this was also a consequence of the reduced willingness of banks to finance businesses. The latest available data show an increase in lending to businesses in early 2011. Banks are still grappling with limited access to financing, additionally aggravated by their low capital adequacy ratios. To provide better support for the economy, it is therefore necessary to improve the stability and capitalisation of the banking system so it may provide adequate financing for

<sup>41</sup> Construction, in particular.

<sup>42</sup> Ministry of Finance data show that two loans totalling EUR 2.1 m were approved in January 2011 based on this guarantee scheme, but data are not yet final as the call for applications will be completed only at the end of July 2011.

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

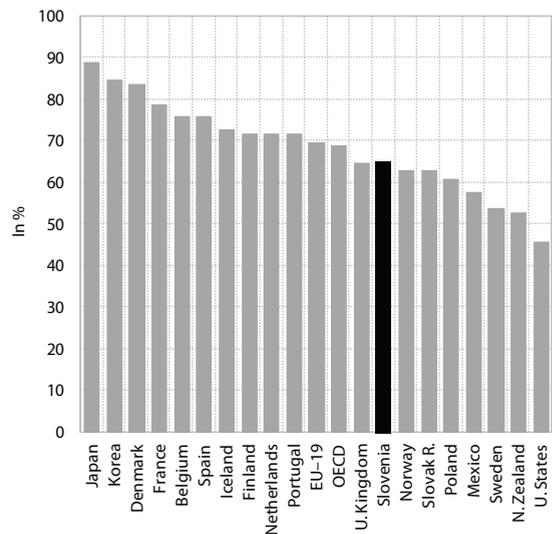
**SDS guidelines:** SDS priorities aimed at efficient creation, two-way flow and application of knowledge for economic development and high-quality jobs are: improving the quality of tertiary education, promoting lifelong learning, and increasing the effectiveness and level of investment in research 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 opportunities 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 with 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. In 2010, the average years of schooling of the adult population was 11.9, which is 0.7 p.p. more than in 2000. Both indicators point to a gradual improvement of human capital in Slovenia in 2000–2010, although these levels are still significantly behind those in the most developed countries. As regards investment in human capital, Slovenia's main shortcomings include low efficiency and quality of schooling, and a mismatch between the supply and demand for specific skills.

Over the period of implementation of Slovenia's Development Strategy, **the level of education improved but the gap behind the most developed countries did not narrow significantly**. In 2010,<sup>43</sup> the share of adult population (aged 25–64) with a tertiary education rose to 23.7% (EU: 25.7%). Over the period of SDS implementation, this share grew slightly faster than the EU average, but Slovenia was nevertheless unable to significantly reduce the gap to the most successful countries on this indicator. This was mainly due to the low efficiency of schooling indicated by the number of students compared with the number of graduates per 1,000 inhabitants aged 20–29: in fact, in terms of the number of students enrolled in tertiary education per 1,000 inhabitants aged 20–29, Slovenia exceeds the EU-27 average, while lagging behind in the number of graduates of the same age group. The relatively modest progress is also the result of poor adult participation in tertiary education, which is considerably less than the rate of participation of young people. The share of population with a tertiary education in the 30–34 age group, which, according to the Europe 2020 strategy should increase to 40% by 2020, accounted for 34% in the second quarter of 2010 (EU: 33.4%). The average duration of university undergraduate studies in 2009 was 6.3 years, slightly decreasing compared with the level a year previously because of a higher share of graduates following Bologna-system programmes of study. It should be underlined, however, that in 2006/2007 (the year for which the latest international data are available) the average duration was much longer than in other countries. Slovenia also lagged behind the average of the 19 EU countries that are members of the OECD,

Figure 11: Completion rates in tertiary education<sup>1</sup>, OECD, 2008, in %



Source: Education at a Glance 2010 (OECD), 2010.

Note: <sup>1</sup>The tertiary education completion rate is the ratio (expressed in %) between the number of graduates from the selected tertiary education programme and the number of new entrants "n" years ago.

<sup>43</sup> Data refer to the second quarter of the year.

as well as behind the overall OECD average as regards completion rates in tertiary education in 2008 (latest data) (see Figure 11); compared with 2005, the gap did not narrow significantly.<sup>44</sup>

**Participation of young people in education is high, while adult participation is considerably lower.** Participation of the population aged 15–19 in upper-secondary education is high, and well above the EU average. The upper-secondary education completion rate in Slovenia exceeds the average of the 19 EU countries that are members of the OECD, although it has slightly decreased over the last two years. This resulted in a minor increase in the share of early school leavers,<sup>45</sup> which, however, remains low and well below the Europe 2020 strategy target (10% of early school leavers, on average, in the EU in 2020). Under the Europe 2020 strategy, Slovenia set itself the goal of keeping this relatively low share rather unchanged (5.1%). Participation of young people at enrolment age in tertiary education is growing and in the academic year 2009/2010 slightly exceeded the SDS target (55%). Also high is participation of the population aged 20–24, which was the highest among the EU countries in 2008 and grew faster than in other countries throughout the period 2000–2008.<sup>46</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 (rather than to the intention of finishing studies) and related to the delayed entry of young people on the labour market.

**Adult participation at all levels of formal education<sup>47</sup> decreased in 2008 (latest data) for the second consecutive year.** That year saw reduced participation in upper-secondary and tertiary education, while participation in primary education stayed at the previous year's level. Adult participation in education tends to grow proportionally to the level of education; thus, the participation rate is lowest in primary education and highest in tertiary education. As regards the share of adult participation in tertiary education, Slovenia does not depart from the average as much as in youth participation, which is probably related to the costs of tuition fees paid by adults enrolling in part-time study programmes as well as to problems in balancing study, work and family obligations. Participation of adults can be significantly encouraged through state incentives. Adult enrolment in secondary schools has recorded a downward trend since 2003/2004; as regards the structure of students by source of financing, the largest decrease is observed among those who pay for their studies themselves, and their share is growing rapidly.

<sup>44</sup> Data are available for 2005 and 2008.

<sup>45</sup> Percentage of the population aged 18–24 with at most lower secondary education not in further education or training.

<sup>46</sup> In 2008, participation equalled 47.7% (EU-27: 28.7%) and compared with 2000 grew by 15.5 p.p. (EU-27: by 4.9 p.p.).

<sup>47</sup> Primary, upper secondary and tertiary education.

In the period 2007/2008–2009/2010, an open invitation to co-finance tuition fees was extended to reduce the education deficit,<sup>48</sup> but the number of persons who actually obtained co-financing was less than expected.<sup>49</sup> A reason for this modest interest in the programme could be the manner in which education was financed, i.e. by refunding already-paid tuition fees, which might have represented an obstacle to less educated persons with lower incomes.

**Adult participation in lifelong learning increased over the period of SDS implementation.** Participation of adults (aged 25–64) in lifelong learning in the second quarter of 2010 was 18.2% (0.4 p.p. more than in 2005) and significantly exceeded the EU average (9.7). A departure from otherwise favourable trends is shown by participation of the elderly, which in Slovenia is decreasing faster than on average in the EU. The share of the elderly (age group 55–64) in education was 7.9% in the second quarter of 2010 and lags behind the rate in the Netherlands (9.6%), where overall adult participation is comparable to Slovenia (18%). Such a rapid decline of participation with age could point to the problem of accessibility for older age groups. Higher participation of the elderly could contribute to greater employability of this age group and longer work activity. According to the data for 2009 (the most recent available), participation by achieved level of education in Slovenia is above the EU average as regards the population with a tertiary or upper-secondary education, and below the average among those with a low level of education.<sup>50</sup> Compared with other EU countries, Slovenia records the largest difference between the share of those with a tertiary education and the share of those with a low level of education taking part in education.

*According to available partial criteria of quality of education, there has been no improvement over the period of SDS implementation.* Wössmann, L. and Schütz, G. (2006) stress the importance of investment in lower levels of education, since this improves the quality of the learning process and learning outcomes at all levels of education. The results of the 2009 international education study

<sup>48</sup> The purpose of the open invitation was to encourage – by co-financing tuition fees – at least 5,000 adults to complete formal education programmes up to the upper secondary level of education.

<sup>49</sup> The programme was intended for 5,000 persons, yet only 1,410 persons eventually obtained financing and joined the programme.

<sup>50</sup> In Slovenia, the level of participation of the population with tertiary education in 2009 was 25.8% (8.6 p.p. above the EU average), of those with upper secondary education 13.4% (5.1 p.p. above the EU average), and of those with a low level of education 3.2%, lagging behind the EU average by 0.8 p.p.

<sup>51</sup> PISA is the OECD programme for international student assessment of reading, mathematical and scientific literacy. It is carried out every three years and involves 15-year-old pupils and students regardless of the school attended. Its purpose is to gather data on the competences the students need in their future private and professional life, and which are important for

PISA<sup>51</sup> (involving 15-year-olds) reveal that in scientific and mathematical literacy Slovenia scored higher than the EU and OECD average, with below-average results achieved in reading literacy. Compared with the results of the 2006 study, the achievements of Slovenian students declined in all three tests, although the decline in mathematical literacy was not statistically characteristic. The quality of education also depends on the ratio of students to teaching staff, with a lower ratio normally increasing the likelihood of high-quality education. In the period of implementation of SDS, this ratio has slightly improved (2008: 20.5), although Slovenia still lags considerably behind the OECD average. The ratio in Slovenia is affected by the fact that young people not only enrol in education to acquire knowledge but also to take advantage of the benefits of being a student.

**The degree of satisfaction with higher-education graduates' skills to the requirements of the business sector in Slovenia is low and the structure of enrolment does not meet the needs of the labour market.** In addition to the field of study, the level of suitability of graduates' skills (assessed in the Eurobarometer survey<sup>52</sup>) is also important in terms of employability and labour-market needs. According to this survey, the share of companies in Slovenia that disagree or strongly disagree with the statement that graduates recruited in the last three to five years had the required skills is one of the highest in Europe (see figure 12). The rather low quality of graduates' skills is largely related to the relatively modest representation of active learning forms during their studies<sup>53</sup> (as shown by the Hegesco survey<sup>54</sup>) and the above-mentioned unfavourable ratio of students to teaching staff. The structure of enrolment in tertiary education by field of study is gradually changing, yet the changes are too slow in terms of demand for graduates on the labour market and the number of graduates in science and technology is still too low given the needs.<sup>55</sup> This structural problem mainly derives from the lack of systematic monitoring and anticipation of needs, and this should be rectified as soon as possible.

both the individual and society as a whole. The study does not focus on the outcomes of school curricula. Data for Slovenia are available for 2006 and 2009.

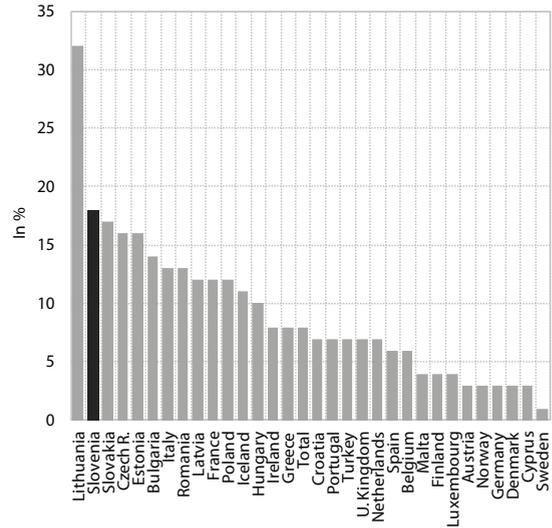
<sup>52</sup> The Eurobarometer Employers' perception of graduate employability (2010) regarding companies' views on graduates' skills. The survey was carried out in EU countries and included companies with at least 50 employees in the business sector.

<sup>53</sup> According to the 2008 Hegesco project (Higher education as a generator of strategic competences), 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 was below the EU average.

<sup>54</sup> The Hegesco project was carried out in Slovenia in 2008 and involved 2,950 graduates five years from graduation.

<sup>55</sup> Although the number of graduates in science and technology rose by 23.6% over the period 2000–2009, with regard to their share per 1,000 inhabitants aged 20–29 (10.4), Slovenia still lagged significantly behind the best and the EU average in 2008.

Figure 12: Share of employers considering graduates' skills unsuitable\*



Source: Eurobarometer Employers' perception of graduate employability, 2010.

Note: \*Share of employers disagreeing or strongly disagreeing with the statement that graduates have the required skills to work in their companies.

**Public expenditure on education as a share in GDP<sup>56</sup> in Slovenia is relatively high, although below the EU average in terms of expenditure per participant.** In 2008, public expenditure on education accounted for 5.19% of GDP, which was more or less the same as in 2007 (5.16% of GDP). In 2000–2007, it exceeded the EU average. The relatively high public expenditure on education compared with GDP is related to the high level of participation of young people in education, which is among the highest in the EU. In 2000–2008, public expenditure on education as a share in GDP fell at all levels of education, with the exception of the pre-school level, which was due to the increased participation of children in pre-school education (see Chapter 4). The annual expenditure on educational institutions per participant, expressed in PPS, grew in 2001–2007 by 30% (to 6,055.4 PPS in 2007), but still lags behind the EU average; expenditure per student in tertiary education is particularly low. The share of private expenditure in total expenditure on education decreased over the period of SDS implementation, due to the lower share of part-time students and increased enrolment in second-level Bologna programmes, which are free of charge for full-time students.

<sup>56</sup> Total public expenditure on education includes all budgetary expenditure on formal-level education for young people and adults at the level of the state and municipalities, i.e. public expenditure on educational institutions and household transfers (scholarships, subsidies for meals, travel, accommodation, textbooks, etc.). Financial data for Slovenia are gathered in accordance with an internationally comparable methodology using the UOE questionnaire (the common questionnaire of Unesco, OECD and Eurostat).

**The draft Resolution on National Higher Education Programme 2011–2020<sup>57</sup>** focuses on certain problems already highlighted in previous Development Reports. The resolution thus envisages an increase of public expenditure on tertiary education as a share of GDP and per participant, and the establishment of a system of financing higher-education institutes that takes into account the elements of quality. Moreover, it anticipates the drawing up of a national framework of qualifications with regard to the needs of society, the long-term prospects of Slovenia's development, and the employment possibilities of graduates in determining the number of enrolment places for individual higher-education programmes. To improve the efficiency of studies, the resolution envisages a limit to the duration of tuition-free studies and to the benefits of being a student. It also predicts a significant growth of youth participation in tertiary education. Since participation in education is already among the highest in the EU, while expenditure per participant is relatively low, we estimate that this could lead to problems in implementing and achieving the goal of improving the quality of education.

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

In the crisis year, 2009, Slovenia increased its **investment in research and development (R&D)**. In 2009, government measures to improve competitiveness contributed to a considerable increase of total expenditure on R&D (by 5.5% in real terms) which accounted for 1.86% of GDP, reducing the lag behind the EU average level. It should be underlined that in the same year the level of GDP in Slovenia declined more significantly than in the EU. In relative terms, however, the volume of expenditure on R&D still trails Slovenia's target under the Europe 2020 strategy, which is to increase investment in R&D by 2020 to 3% of GDP. In 2009, government-sector expenditure on R&D accounted for 0.67% of GDP, and this is targeted to increase to 1% by 2012 and further to 1.2% of GDP by 2020 in line with the objectives of the Research and Innovation Strategy of Slovenia (RISS, 2011). A significant increase of funds from abroad was also seen in 2009,<sup>58</sup> while the business sector reduced investment in R&D in both nominal and real terms. This reduced its share in total expenditure on R&D, which had been showing

a constant upward trend since 2005.<sup>59</sup> Although the response of the business sector to the crisis was to a certain extent expected, it nevertheless points to a lack of strategic response to unfavourable circumstances, and to an absence of continuous strengthening of development potentials in times of crisis. This is further confirmed by a considerably lower exploitation of both general and regional tax relief for R&D investment. The use of both types of tax relief remains concentrated in a small number of enterprises. The significant increase in general tax relief that became applicable in 2010 should additionally encourage the business sector to invest in R&D also in times of crisis. Irrespective of the lower business-sector investment in 2009, the number of researchers in this sector grew, in parallel with their share in the total number of researchers (to 44%). Thus, Slovenia significantly narrowed its gap behind the EU average and continues to improve the absorption capacity of its business sector to create and transmit new knowledge. The success of this process and the increase of innovation activity in the business sector largely rely on the availability of qualified staff (not only researchers with a PhD degree) who has knowledge and competences in various fields that are important for innovation within the entire value chain. A combination of adequate knowledge and skills is also relevant for innovation in the public sector and to solve outstanding social problems, such as the ageing of the population, health, and environmental issues. Human capital is the basis of innovation; unfortunately, Slovenia has a shortage of various job profiles, which is most evident in science and technology.

Despite progress, the inflow of **science and technology graduates** is unfavourable, with the exception of PhD holders. The number of graduates in science and technology is gradually increasing but nevertheless (in terms of graduates per number of inhabitants aged 20–29) lags behind the EU average, and the situation is similar with respect to their share in the total number of tertiary graduates<sup>60</sup> where the gap behind the EU average in 2008 (latest available data) narrowed. This confirms that the insufficient pool of adequately qualified human resources in science and technology is indeed an outstanding issue. Although changes in the educational structure of tertiary graduates require a longer period of time, it is evident that the response to negative trends in this field was late. In addition, more rapid progress is hindered by the low efficiency of studies, which applies to tertiary education in general.<sup>61</sup> The shares of science and technology graduates in the total number of graduates show significant differences as regards the level of study programme, which derive from the structure of students enrolled in these fields of study (see Figure 13). While the share of graduates from professional study programmes,

<sup>57</sup> The draft Resolution was adopted by the government on 10 March 2011 together with the draft Resolution on the Research and Innovation Strategy of Slovenia 2011–2020.

<sup>58</sup> In the period 2008–2009, structural funds made an important contribution to increasing the resources for R&D promotion measures, the effects of which are yet to be seen. It should be mentioned that all available resources were distributed, which means that the programmes were very well designed.

<sup>59</sup> See Indicator Gross domestic expenditure on research and development.

<sup>60</sup> The share of graduates of science and technology in the total number of graduates in 2009 was much lower than in 2000.

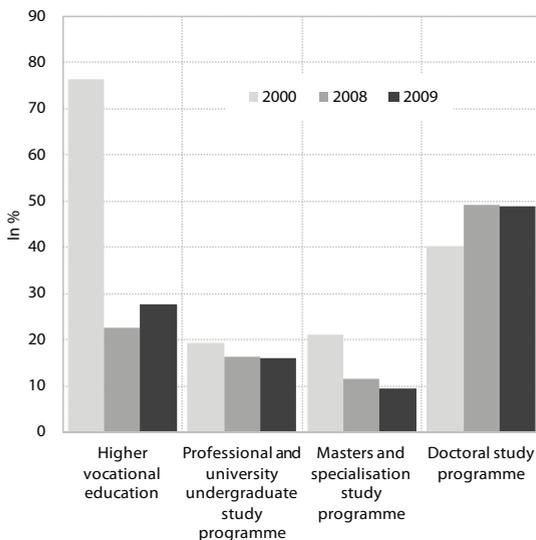
<sup>61</sup> See Chapter 2.1. Education and training.

university undergraduate study programmes and master's study programmes is decreasing, the share of students completing higher vocational programmes and doctoral study programmes is growing. The latter accounted for 48.7% of all graduates of doctoral study in 2009, which points to a positive impact of incentives for enrolment to doctoral studies in these fields. The measure intended to co-finance young researchers stipulates a high share (62%) of young researchers in science, mathematics and technology studies.<sup>62</sup> Analyses reveal positive effects of the Young Researchers from the Economy Programme in terms of transfer of knowledge from higher-education institutes to the business sector, indicated by the fact that most companies and young researchers appreciate the benefits of the programme.<sup>63</sup> The quality and applicability of scientific and R&D work, and the transfer of knowledge between the scientific and research spheres and users improved. A considerable improvement was also recorded in cooperation between research institutions and the business sector. After the completion of their training, most young researchers remained employed in the company that trained them. A problem, however, arises in relation to PhD holders who are not employed in companies and do not obtain

employment in the academic or research sphere.<sup>64</sup> The situation is different in higher-education undergraduate studies where, in the absence of adequate incentives for studying science and technology, the share of students in these fields is rather low, although increasing. The results of the PISA survey for 2009 (of 15-year-olds) reveal that Slovenia now achieves comparatively good results in science. It should, however, encourage young people more systematically to enrol in science and technology study programmes.

In 2006–2008, the **innovation activity of enterprises in the field of technological innovations slightly decreased**. In 2006–2008, the share of enterprises that introduced technological innovations in products, services and processes was 34.4%, recording a downward trend compared with the previous period<sup>65</sup> (2004–2006). Although certain EU countries saw the share of innovation-active companies fall even more radically, Slovenia is among the half of the Member States that during the crisis reduced innovation activity measured by technological innovations. Given the fact that innovation occurs throughout the entire value chain and not merely in R&D, a broader definition of the innovation activity of enterprises was acknowledged, comprising both technological and non-technological (organisation, marketing) innovations.<sup>66</sup> This definition of innovation served as the basis for the innovation survey for 2006–2008. Data reveal that during that period, half of Slovenian enterprises (50.3%) were innovation active, which placed Slovenia below the Czech Republic and Estonia, as well as below almost all old Member States. Slovenia's relative gap behind the most successful countries in terms of innovation is slightly broader in service activities than in manufacturing. The new definition of innovation activity is justified by the results of the survey showing that in almost all EU Member States the share of enterprises that introduce either only technological or only non-technological innovations is considerably lower than the share of the enterprises introducing both types of innovation.<sup>67</sup> This applies to manufacturing and services, and reflects the inadequacy of the previous instruments for promotion of innovation activity. Since they concentrate on encouraging technological innovations, it is also necessary to design mechanisms and incentives focusing on the various aspects of non-technological innovation and on the specific features of innovation in service activities and functions.

Figure 13: Shares of graduates in science and technology in total number of graduates, by type of educational programme, Slovenia, in %



Source: SURS; calculations by IMAD.

Note: The large share of graduates in science and technology in short-cycle higher education in 2000 results from the fact that in other fields of study these programmes strengthened only after 2000.

<sup>62</sup> Open call for mentors of new young researchers for 2011 – call in 2010, 2010. The share increased compared with that in the previous year.

<sup>63</sup> Bučar et al. (2010). Učinkovitost Ministrstva za visoko šolstvo, znanost in tehnologijo za spodbujanje inovacij in tehnološkega razvoja v slovenskih podjetjih v letih 2005–2007, Ciljni raziskovalni program (Effectiveness of the Ministry of Higher Education, Science and Technology measures for promotion of innovation and technological development in Slovenian enterprises in 2005–2007, Target Research Programme).

*To improve the total innovation activity of Slovenia, it is necessary to enhance **non-technological aspects of innovation**.* Investment in R&D has a limited influence on innovation activity in most service-providing companies,

<sup>64</sup> In 2010, a third of all unemployed people holding a PhD came from science studies and 27% from technology studies (Kozmus and Vrečko 2010).

<sup>65</sup> Data on innovation activity are available for three-year periods.

<sup>66</sup> Oslo Manual, 2005.

<sup>67</sup> See Indicator Innovation activity of enterprises.

whereas a much greater impact in introducing new services is made by employees' knowledge and skills in organisation, intellectual property and marketing, as well as by taking account of user needs. Therefore, expenditure on non-technological aspects of innovation is urgently required to increase the total innovation activity of Slovenia. The past five years, however, have seen a drastic reduction of non-R&D expenditure on innovation.<sup>68</sup> These shortcomings were partly addressed by the 2010 broadening of criteria to obtain innovation vouchers designed for companies that use the services of external advisers in preparing and implementing development-oriented projects. To be eligible for vouchers, the use of external services by companies needs to result in an application for a Community design or trade mark and not only in the application for a patent. Yet many innovations in service functions are not reflected in intellectual-property rights but rather represent an organisational innovation allowing companies to achieve greater efficiency and quality of service for users. In introducing organisational innovations and business models, a special role is played by consultancy companies, the services of which are not included among justified costs of innovation vouchers. A small share of innovation-active small enterprises is another problem for the innovation activity of the business sector and is partly related to the fact that small entrepreneurs find the "motive of survival" more important than taking advantage of new business opportunities. Consequently, their risk-averse behaviour represents a challenge for the design of appropriate incentive measures. For small enterprises, obtaining funds to finance innovation activity has been made even more difficult by the crisis. Likewise, the poor supply of venture capital and long-running processes for the state's entry on the venture capital market have hitherto not encouraged innovation activity in small enterprises in more risky sectors.<sup>69</sup> The contract on state investment in private venture-capital companies signed in late 2010 provides for a total of EUR 42 million in 2011 (of which EUR 34 million of state funds) intended to facilitate access to financing for entrepreneurs.<sup>70</sup>

*An increasingly important element for the overall innovation of the state is **innovation in public administration and public sector**. These innovations improve the quality of service for the business sector and citizens, and thus strengthen the efficiency of private and public sectors. The Innobarometer 2010 survey is a first systematic approach to analysing innovation in public administration in European countries. The results obtained from the*

questionnaire<sup>71</sup> addressed to public-administration units at various levels (local, regional, national) indicate that in the EU two thirds of institutions have introduced new or significantly improved services in the last three years. Slovenia's share is 76%, which, however, must be interpreted with some caution since the results among the countries are not fully comparable.<sup>72</sup> Nevertheless, a systematic encouragement and monitoring of innovation in public administration and in the entire public sector is absolutely necessary for more efficient solutions. Analysis should also take into account the fact that new forms of cooperation between public and private sectors arise, such as public-private innovation networks, which take advantage of the complementary assets of the actors in both sectors. At the same time, it is necessary to develop mechanisms promoting not only supply of but also demand for innovative products, services, business models and processes. With public procurement, the public sector can significantly increase demand, thus encouraging companies towards faster introduction of innovative products, services and processes, as well as to solving problems concerning environmental protection, energy efficiency, the ageing population, health, etc.

*Slovenia is moving forward in **intellectual property** although the gap behind the EU average is narrowing faster in Community trade-marks and designs than in patents.<sup>73</sup> Achievements in the field of intellectual property are an important indicator of the transfer of knowledge to innovative products and services. With 58.6 patent applications per million population (provisional data) filed by Slovenian applicants at the European Patent Office (EPO) in 2009, Slovenia ranks 14<sup>th</sup> among the Member States (EU average: 123.6). Data provided by the Slovenian Intellectual Property Office (SIPO) on national patent applications show accelerated annual growth over the past years (2008–2010: 19.2%), but it is yet to be seen how many of those applications will eventually result in a patent application at the EPO. Progress is more evident in Community trade marks, where in 2010 Slovenia filed 111 applications for trade marks per million population at the Office of Harmonisation for the Internal Market (OHIM) (EU average: 140). Slovenian applicants also registered 65 Community designs but this figure nevertheless lags behind the EU average (116 per million population).*

*Slovenia is one of the three European countries that in the past five years recorded the most significant improvement of **innovation performance**, a synthetic indicator of the efficiency of the innovation system. According to the Innovation Union Scoreboard (IUS) 2010<sup>74</sup> Slovenia ranked among the innovation followers for the second*

<sup>68</sup> In 2004–2009, such expenditure, measured as a share of company's turnover, decreased by 8.4% (Innovation Union Scoreboard 2010, 2011).

<sup>69</sup> Slovenia, like most new EU Member States, lacks a culture of using venture capital as a mechanism to encourage entrepreneurial activity.

<sup>70</sup> In 2010, the state earmarked EUR 20.6 million for this purpose through the Slovenian Enterprise Fund.

<sup>71</sup> The main question to public-administration institutions was whether or not they had introduced new or significantly improved services in the past three years (Innobarometer 2010, 2011).

<sup>72</sup> Owing to different sample sizes.

<sup>73</sup> See Indicator Intellectual property.

consecutive year-lagging only slightly behind the EU average. In the past five years, Slovenia recorded the fastest growth of innovation performance after Portugal and Malta. Compared with the EU average, Slovenia's main advantage is in international co-publications<sup>75</sup> where progress in the last five years was 100% above the EU average. This is to a certain extent due to the fact that scientific publications abroad are the main criterion for promotion to academic or scientific titles. Nevertheless, this is not a sufficient incentive for researchers to enhance collaboration with the business sector and the subjects considered in publications are not necessarily relevant for Slovenian enterprises. As a consequence thereof, the transfer of knowledge is hindered and this slows down the creation of patents and other forms of intellectual property. In fact, the IUS 2010 results reveal that Slovenia lags behind the EU average most significantly in intellectual property. In addition, the GDP share of income from the sale of patents and licences abroad is insignificant.<sup>76</sup> The OECD also points to the problem of a low share of high-tech exports and the low number of fast-growing innovative enterprises as a result of insufficient transfer of knowledge and R&D into the business sector. To reduce this gap and enable more effective consideration of the needs of the business sector in research planning, the OECD proposes research vouchers that enterprises would use to purchase research services (OECD, Economic Survey Slovenia 2011). On the other hand, mention should also be made of the success of centres of excellence, which in the first two years of operation filed 48 patent applications. The centres of excellence, supported with public funds since 2005, encourage the concentration of the research potential on key priority areas as their selection is based on both scientific excellence and business interest (Bučar et al., 2010).

*Slovenia is not increasing investment in modern information communication technologies (ICT), while the use of the Internet is close to the EU average.* Investments in ICT and their efficient use are of utmost importance for the competitiveness of the business sector and enable better access to e-services for the citizens. In 2006–2009, expenditure on ICT equipment and services did not increase significantly, accounting for

5% of GDP. This applies to both expenditure on IT and on communication equipment and services, with the latter accounting for two thirds of total expenditure on ICT. The gap behind the average share of GDP spent on ICT by EU countries (5.5%) is not narrowing. The new EU Member States all have a much higher level of expenditure than the average, particularly Estonia. In 2010<sup>77</sup> the Internet was regularly (at least once a week) used by 65% of the population aged 16–74, the same level as in the EU as a whole. Despite some progress over the past two years, Slovenia still lags significantly behind the EU average (by over 10 p.p.) as regards older Internet users (55–74 years). The gap behind the EU averaged narrowed more significantly in the share of Internet users with a low or medium level of education. Slovenia is above the EU average in other population groups (youth, middle-aged, highly educated).<sup>78</sup> The use of advanced technologies and efficient broadband access, including fast mobile access to the Internet are important in terms of ICT development effects.<sup>79</sup> Such technologies encourage open innovations and have a positive impact on the transformation of business processes and public services, on the creation and expansion of knowledge, on how employees cooperate in the business environment and on how citizens communicate with each other and with institutions. Slovenia is close to the EU average as regards the share of the population with broadband access (22.7% in 2010), while the share of users of e-services is equal to or above the average for the EU. However, Slovenia lags behind in the use of advanced services, such as e-banking, e-shopping and e-interaction with public administration. This gap is rather surprising since data on e-skills for Slovenia indicate relatively favourable results and Slovenians do not significantly differ from European users as regards their opinion on security risks associated with the use of e-services. A more modest use of advanced services is probably due to the risk-averse attitude of Slovenian Internet users, and partly to the lack of easy-to-use e-services for the average user.

*In the future, Slovenia could improve its innovation efficiency by increasing investment in R&D in the higher-education sector.* A comparison among the countries by types of innovation system and sectors conducting R&D shows that in innovation-efficient countries<sup>80</sup> R&D is focused on the business sector and the share of higher education in public expenditure on R&D performance is above 60%, with the exception of Germany (see Figure 14). Slovenia ranks among the group of countries with a predominant share of the business sector in R&D while

<sup>74</sup> The Innovation Union Scoreboard 2010 differs slightly from the 2009 edition (formerly: European Innovation Scoreboard) and comprises 24 indicators of innovation performance related to human resources, the research system, financing, firm activities, intellectual property, innovation and economic effects. The indicators are available for various years between 2007 and 2009, which must be taken into account when interpreting the results as they do not show the outcome of the latest measures or the impact of the economic crisis on the innovation capacity of individual countries.

<sup>75</sup> The number of international scientific publications submitted by Slovenian authors in cooperation with at least one non-EU author, measured per million population.

<sup>76</sup> 2008: 0.07% of GDP.

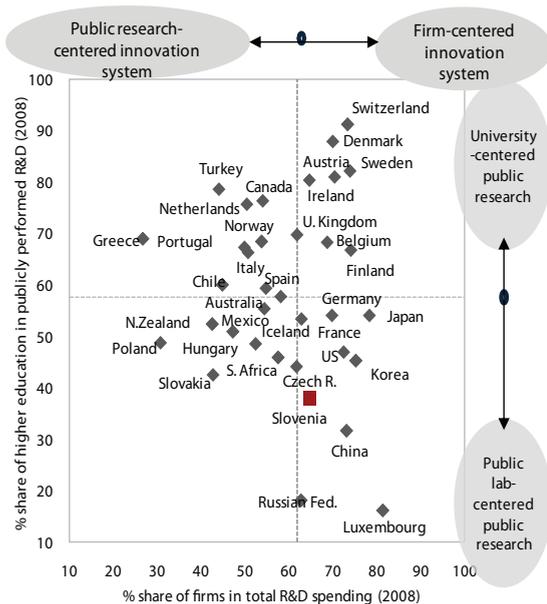
<sup>77</sup> First quarter of 2010.

<sup>78</sup> See Indicator Internet use and access.

<sup>79</sup> Web 2.0 technologies such as cloud computing, mash-ups, social networks and other applications.

<sup>80</sup> Measured by the Innovation Union Scoreboard 2010, in which the best results were achieved by Switzerland, Sweden, Denmark, Finland, Germany, the UK, Belgium and Austria. All these countries, except Germany, are in the upper-right quadrant.

Figure 14: Archetypes of innovation systems in OECD countries, 2008



Source: OECD Science, Technology and Industry Outlook 2010, 2010.

the share of higher education in public expenditure on R&D performance in 2008 was 38%. In 2009, the share rose to 41% but still remains the lowest in the EU (with the exception of Luxembourg). Although the type of innovation system of a given country is determined by the institutional set-up of R&D in the past, overall trends point towards a greater role of the business sector in R&D performance and undertaking research in the higher-education sector. In Slovenia, the low share of higher education in public expenditure on R&D performance is a result of the significant weight of institutions in public financing and systematically neglected research at the universities, where it is considered a “supplementary” activity.

The solutions proposed in the draft **Research and Innovation Strategy of Slovenia 2011–2020 (RISS)**<sup>81</sup> address certain problems highlighted in the present chapter, as well as in Development Reports from previous years. They refer to the efficiency of the innovation policy that is to be achieved by establishing a single system based on horizontal and cross-sector coordination among all players and by restructuring public agencies; by better management and transfer of R&D outcomes and technologies into the business sector; by modifying habilitation criteria to take into account the results of the transfer of knowledge into the business sector (e.g. patents); by better adjusting educational programmes to the needs of the business sector; by expanding justified expenditure for tax relief for R&D investment also to investment in the development of human resources and lifelong learning; by adjusting incentives to promote

innovation, so that they will be better used by companies (particularly service providers) to encourage both technological and non-technological innovation; by improving accessibility to capital and financial resources for innovative companies; by a gradual restructuring of the public-research sector toward greater involvement of higher education in research; and by greater orientation of institutes toward cooperation with the business sector.

<sup>81</sup> Draft of 14 January 2011.

## 3. An efficient and less costly state

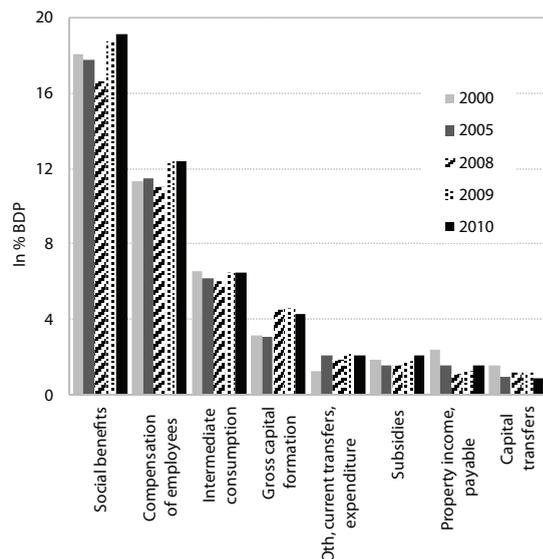
**SDS guidelines** for the third priority cover three areas. First, structural reform of public finance comprising a reduction of general government expenditure as a share of GDP by at least two percentage points, restructuring expenditure in line with the priorities of the strategy and absorption of 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 increase recorded in 2009, **general government expenditure relative to GDP** in 2010 stayed at the previous year's level. In 2009, general government expenditure as a share of GDP rose by 4.9 p.p. (2008: 44.1% of GDP) owing to its nominal growth (EUR 883 m) as well as to a reduction of GDP. In 2010, a nominal increase of expenditure of EUR 432 m and 1.2% growth of GDP kept general government expenditure at the previous year's level (49% of GDP). Increased spending in 2009 and 2010 was mainly a result of the operation of automatic stabilisers and counter-cyclical policy measures intended to mitigate the consequences of the economic crisis, as well as of measures taken by the government in the first half of 2008 that added pressure on expenditure growth. Social benefits in cash and kind, as well as subsidies, capital transfers and gross capital formation increased general government expenditure by 2.6 p.p. in 2009 and by 0.1 p.p. of GDP in 2010. Expenditure on social benefits in cash and kind rose by 2.1 p.p. in 2009 and by a further 0.4 p.p. in 2010 due to the operation of automatic stabilisers with increased expenditure on unemployment benefits and a growing number of beneficiaries in both years, and also due to the one-off allowance for socially deprived persons paid out in 2009. In 2010, expenditure growth was restricted by an intervention law that reduced adjustment to inflation. The increase in the share of expenditure on subsidies in 2009 (by 0.2% of GDP in 2009) following the adoption of special measures to mitigate the consequences of the economic crisis, which mainly focused on subsidies (job preservation, promotion of R&D, mitigating the problems of SMEs), continued in 2010, and the share of

subsidies in GDP grew by another 0.3 p.p. In 2010, the volume of capital transfers and gross capital formation declined by 0.6 p.p. in relative terms from the high level of 2009 (5.8% of GDP), to the 2007 level (5.2% of GDP). Slovenia's expenditure on social transfers in 2010 was lower and expenditure on subsidies, capital transfers and gross capital formation was higher than the respective EU average levels. The GDP share of this last group of expenditure was also well above the EU average during the period of economic growth (2006–2008). Among other expenditure, a considerable increase was recorded in 2009 by compensations for employees (1.4 p.p.) following the introduction of the 2008 wage reform and growing employment. This expenditure would have been even higher had the government not simultaneously adopted measures to restrict employment, remuneration of work performance, promotion and adjustment to inflation, and postponed the elimination of a quarter of wage disparities. These measures continued in 2010, halting the share of expenditure on employees at the 2009 level (12.4% of GDP). The previous year's level (6.5% of GDP) was also maintained in expenditure on intermediate consumption due to restricted spending in 2010. The heavy deficit and, consequently, increased general government debt caused a 0.3 p.p. rise of interest expenditure. Following the Stability Programme, 2009 Update (2010), general government expenditure in 2010 (at 0.3 p.p. higher GDP growth) exceeded the anticipated GDP share by 0.1 p.p. The two main expenditure groups (social benefits and compensation of employees) achieved the planned level of growth while the increasing expenditure on intermediate consumption (up by 0.2 p.p.), and on current and capital transfers (up by 0.4 p.p.) ousted in particular gross capital formation, which was down by 0.3 p.p. of GDP. Interests decreased by 0.2 p.p. of GDP.

Figure 15: General government expenditure by economic classification, % of GDP



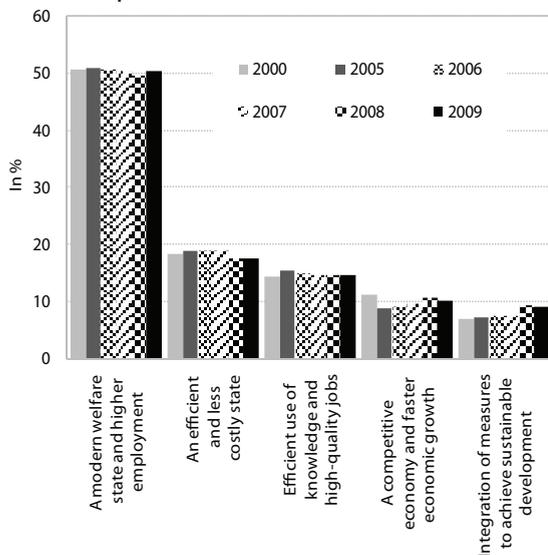
Source: SORS, Main aggregates of the general government, Slovenia 2007–2010, 31 March 2011, Non-financial accounts: S 13 General government, calculations by IMAD (2000 and 2005).

In terms of development, the changes in the structure of **general government expenditure by function (COFOG)** in 2009 were less favourable than in 2005–2008. As regards SDS development priorities, the share of expenditure on economic affairs supporting the development priority “A competitive economy and faster economic growth” fell by 0.6 p.p. in 2009 after growing steadily in 2005–2008, but still accounted for over 10% of total expenditure. The share of expenditure supporting the development priority “Efficient use of knowledge for economic development and high-quality jobs” (education and R&D in various areas) had recorded a downward trend since 2005 but in 2009 remained at the previous year’s level and was 1 p.p. lower than in 2005. A more significant decrease was observed in the share of expenditure on R&D. To eliminate the consequences of the economic crisis that affected the business sector, the government approved anti-crisis measures, providing additional support to the activities falling under the above two development priorities (promoting economic competitiveness, maintaining jobs, strengthening R&D), yet these measures were financially too weak to change the structure of expenditure more radically. The share of expenditure for the development priority “An efficient and less costly state” (general public services, defence, public order and safety) was decreasing rapidly since 2007. In 2009 it held at the 2008 level and was 1.4 p.p. lower than in 2007. The share of expenditure supporting the priority “A modern welfare state and higher employment” (health and social protection) rose in 2009

by 0.9 p.p. as a result of growing expenditure on social protection owing to automatic stabilisers and special measures to mitigate the social consequences of the crisis for the poorest segment of the population. Following a considerable decrease in 2005–2008, such expenditure in 2009 returned to the 2006 level. After 2005 (particularly in 2007 and 2008), significant growth was recorded in expenditure on “Integration of measures to achieve sustainable development” (environmental protection, housing and community amenities, recreation, culture and religion). The share of this expenditure declined slightly in 2009 but still remained relatively high. Half of the increase in this group was contributed by expenditure on culture resulting from increased investment in cultural and sports and recreational facilities, and to a lesser extent by compensation of employees, particularly in culture. In terms of economic competitiveness, the development-orientation of expenditure in Slovenia in 2009 – compared with the structure of expenditure in other EU countries (in 2008) – was rather favourable, since the expenditure on general public services and social protection was still relatively low.

*Expenditure and other instruments strongly support **fixed capital formation**, which in 2009 stayed at the relatively high level recorded in 2008 despite a slight decrease in absolute terms, but fell once more in 2010. In nominal terms, in 2009 gross capital formation slightly decreased (by EUR 41 m) although its share in GDP (4.6%) was the highest since 2000 owing to a decline in GDP. In total expenditure, gross capital formation lost 0.7 p.p. (2009: 9.4%). In 2010, it fell in nominal terms by EUR 61 m but remains at the relative level of 2007 (4.3% of GDP), which is one of the highest shares recorded among the Member States. It represents 8.8% of total expenditure, which is, however, much less than the level in 2007 (10.1%). Until 2005, gross capital formation on average ranked just above 3% of GDP annually but it then began to rise quite rapidly. By 2006, about a quarter of all gross capital formation was directed into economic affairs, and slightly less than a third in the past three years. Most investment in economic affairs was intended for transport (2009: 1.21% of GDP) where expenditure in 2007–2009 increased considerably both in real and relative terms. Gross capital formation was also relatively high in public administration and education, as well as in environmental protection, recreation, culture and religion in 2009. At the EU level, gross capital formation is increasing, yet its relative volume is much smaller (2008: 2.7% of GDP) than in Slovenia. Heavy investment in 2008 (above 4% of GDP) was recorded by seven new Member States (including Slovenia) and Ireland. Increased gross capital formation after 2007 is also a consequence of Slovenia joining the EU Financial Perspective 2007–2013, allowing it to draw considerably more financing from EU structural funds than before. The state also supported investment activity by *state guarantees*. An explicit increase in such financing has been evident since 2004, and has become even more accentuated since 2006, when Slovenia accelerated the construction of*

Figure 16: General government expenditure by SDS priorities, % of total expenditure

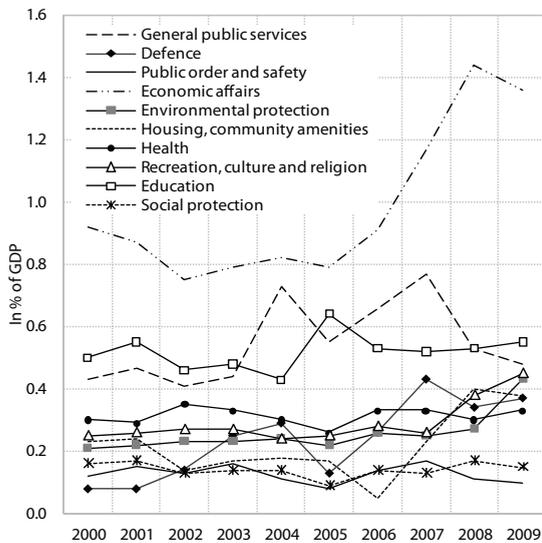


Source: General government expenditure according to COFOG, Slovenia, 2009 (SORS); calculations by IMAD.

Note: A competitive economy and faster economic growth – expenditure on economic affairs; Efficient use of knowledge for economic development and high-quality jobs – expenditure on education and expenditure on R&D found at other levels in all ten classes (in all other classes such expenditure was deducted); An efficient and less costly state – expenditure on general public services, defence, public order and safety; A modern welfare state and higher employment – expenditure on health and social protection; Integration of measures to achieve sustainable development – expenditure on environmental protection, housing and community amenities, recreation, culture and religion.

motorways and when financing by general government expenditure decreased and turned into borrowing with state guarantees. At the end of 2009, the balance of guarantees (excluding guarantees issued to mitigate the consequences of the financial crisis) accounted for 14.2% of GDP, and two thirds were intended for transport (Report on Debt Management in Slovenia 2009, 2010, pp. 54–57). Given the current level of development, Slovenia should promote capital formation with general government expenditure more than the developed EU and OECD members, while the selection of projects should comply with the development priorities of the state.

Figure 17: General government expenditure on gross capital formation, % of GDP



Source: General government expenditure by function, Slovenia, 2009 (SORS); calculations by IMAD.

In the area of industrial policy, the relatively high share of **general government subsidies** remained roughly the same over the period 2005–2008 (1.6% of GDP) but recorded nominal and real increases in 2009 and 2010 (2009: 1.8%; 2010: 2.1% of GDP) as well as minor structural shifts triggered by the economic crisis. Despite warnings issued every year as to their inadequate structure, which – in the period of eliminating the consequences of the crisis – strongly affects their growth, the relatively high subsidies (which are also among the highest in the EU) have not shifted in the direction of development efficiency. In 2009, they were up by EUR 56 m in nominal terms and by 0.1 p.p. in the structure of total expenditure, reaching 3.7%; in 2010, their growth was even more explicit (EUR 98 m or 0.5 p.p. in total expenditure), but in accordance with the Stability Programme, 2009 edition (2010). A particularly pressing problem is that in 2009<sup>82</sup> about two thirds of all subsidies were allocated to agriculture and transport. Subsidies to agriculture are higher only in Finland while

in subsidies to transport Slovenia is led by a number of countries but still ranks among the upper third of the most subsidised EU Member States. Given the generous subsidies to agriculture and transport, subsidies for other purposes were rather limited (2008: 36.2%; 2009: 49.8% of the total subsidies); even worse is the picture in subsidies allocated to economic affairs (2008: 13.4%; 2009: 23.5% of the total subsidies). In 2009, a slightly higher figure was recorded only in subsidies to general economic and commercial affairs and to employment, introduced to mitigate the economic crisis and aimed at preserving jobs. This allocation did not support SDS targets in the sense of promoting faster restructuring of the Slovenian economy and increasing value added per employee, which makes the economic efficiency of these subsidies rather questionable.

The extent of industrial measures having the nature of **state aid** increased considerably in 2009 as a result of measures to mitigate the consequences of the economic crisis. Compared with 2008, state aid nominally increased by EUR 280.7 m and by 0.86 p.p. of GDP, which shrank significantly in 2009 (Twelfth Report on State Aid, 2011). According to the European Commission, state aid in Slovenia – railway transport excluded – totalled 1.5% of GDP<sup>83</sup> and was considerably below the EU average (3.6% of GDP). The evident growth of aid in the EU average derives from special aid intended to tackle the financial and economic crisis in nine Member States, accounting for 3% of EU GDP and intended for the financial sector (Report from the Commission, State Aid Scoreboard, 2010). The European Commission granted crisis aid for the Slovenian financial sector in October 2008, yet measures were only implemented in 2009 when, according to the Commission, only an amount of state aid equal to 0.01% of GDP was used.<sup>84</sup> Unlike other countries, Slovenia in 2009 was not protecting its financial sector with necessary capital increases, which is reflected in the reduced credit potential of the banks. On the contrary, it tried to withstand the economic crisis with a special category of horizontal aid known as “aid to remedy serious disturbances in the economy” (accounting for 0.6% of GDP) and by heavily increasing state aid to R&D and employment. The absolute volume of regional aid also increased slightly. Among other categories of horizontal aid, reduced structure and volume was recorded in aid to SME and training, since in 2009 several “*de minimis*” measures were implemented that do not classify as state aid. Aid to agriculture and other special sectors increased by 0.05 p.p. of GDP. In 2009, aid allocated according to the “*de minimis*” rule already accounted for 0.24% of GDP, and had thus doubled compared with 2008 (Twelfth Report on State Aid, 2011).

<sup>83</sup> The estimates of the European Commission (1.5% of GDP railway transport excluded) differ from those made by the Ministry of Finance (1.62% of the total state aid).

<sup>84</sup> State aid takes into account the element of aid that represents an actual benefit for the beneficiary. In guarantees, the actual state aid is thus only a tenth of the transferred value.

<sup>82</sup> The latest available data for analysis of subsidies by functions refer to 2009.

**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 2009 was 38.0% of GDP and was 0.3 p.p. higher than in 2000. The tax burden grew in 2000–2005 but fell in 2005–2008 following the implementation of tax-system reforms, mostly in 2007 (by 0.6 p.p.) and 2008 (by 0.4 p.p.). In 2009, the relative burden of taxes and contributions rose by 0.4 p.p. of GDP, despite the decrease of taxes and contributions triggered by the implemented tax reforms and reduced economic activity. 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. Compared with 2000, the 2009 share of taxes on capital was higher while the shares of taxes on consumption and labour were lower. Compared with 2008, the share of taxes on consumption was higher (by 1.7 p.p.) and the shares of taxes on capital and labour were lower (by 1.6 p.p. and 0.2 p.p., respectively).

Despite these changes, an international comparison of tax systems<sup>85</sup> reveals that, in 2008, Slovenia still had much higher taxes on labour and lower taxes on capital than the EU average. Although the 2007 and 2008 tax reforms changed the structure of taxes by increasing the share of taxes on capital and reducing the share of taxes on consumption and labour, the tax structure in 2008 was still unfavourable. Slovenia departs from the EU average with much higher taxes on labour resulting from the high social-security contributions of employees (Slovenia: 51.7%; EU: 46.7%), and lower taxes on capital (Slovenia: 12.7%; EU: 20.4%). Social-security contributions measured as a share of GDP amounted to 15% of GDP in Slovenia in 2009 (EU-17: 13.1% of GDP), placing Slovenia fifth among the EU countries on this indicator. Slovenia deviates from other EU countries particularly in the share of social-security contributions by employees, which is, at 7.8% of GDP (EU-27: 3.9% of GDP), the highest in the EU. The above-average tax burden on labour and consumption is also revealed by the implicit tax rate.<sup>86</sup> The unfavourable tax structure, mainly in taxes on property that are well below the OECD average, was also underlined by the OECD (OECD Economic Surveys – Slovenia; 2011, p. 33).

In the past two years, the economic crisis slowed down the **developmental restructuring of general government expenditure** toward pursuing SDS priorities with concurrent reduction of its share in GDP. In 2010, general government expenditure in nominal terms was EUR 1,193 m higher than in 2008. More than half of this increase was due to social benefits (705 m; 59.1%), followed by compensation of employees (344 m; 28.8%) and interests (162 m; 13.6%). Subsidies rose by EUR 162 m, while capital transfers and gross capital formation fell by EUR 238 m. The growing expenditure on social benefits largely resulted from a higher number of beneficiaries, and their amount was below the EU average. Higher expenditure on employees was based on a higher number of employees in the public sector and partial implementation of the 2008 wage reform, which was already heavily restricted in both years. Expenditure on capital transfers and capital formation is high despite a slight decline in 2010, contrary to recommendations for combating the economic crisis. It should be underlined that the high level of government investment should only be maintained with adequately effective programmes. Since revenue was EUR 121 m lower in the same period, the deficit in 2010 was EUR 1,314 m higher than in 2008.

*The Stability Programme, 2009 Update (2010) envisages a gradual reduction of the general government revenue and deficit relative to GDP.* This objective calls for a selective reduction of all types of expenditure, with the criteria of developmental orientation being taken into account. A linear reduction of expenditure e.g. on employees and intermediate consumption would not be efficient since general government also includes activities that have a significant impact on development (e.g. education, health). There is also no real reason to expect the state to increase capital formation and subsidise the promotion of economic competitiveness since not all expenditure on subsidies, capital transfers and capital formation is development-oriented. The aim of changes to the way of budget planning and the effective conduct of development policies of the government is to increase development orientation of general government expenditure in line with the adopted development priorities.

## 3.2. Institutional competitiveness

*The withdrawal of the state from direct and indirect ownership in companies and financial institutions came to a halt in 2010, with some movements in the opposite direction.* First and foremost, the government lacks a strategy and a sound policy as to its ownership in companies and financial institutions and has therefore maintained and even increased (e.g. NLB) its ownership role in the economy. Second, there is an institutional gap created by the decision to establish the Capital Assets Management Agency of Slovenia, which has not yet begun to operate effectively. Third, the consequences of the financial and economic crisis reduce the interest of

<sup>85</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>86</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.

portfolio and strategic investors in acquiring ownership shares in companies. And fourth, compulsory settlements and bankruptcies of companies actually forced state-owned banks (mainly NLB) to exchange loans for ownership shares in these companies, which means that in 2010 the ownership share of the state in the economy further increased. The above-average share of the state in the companies is also revealed by the OECD indicator “public ownership” (including the scope of the public-enterprise sector, state involvement in the infrastructure sector, and direct control over “business enterprises”). This indicator ranges between 0 for the minimum level and 6 for the maximum level of public ownership in companies. In 2008, Slovenia scored 3.86, while the OECD average was 2.93 (Wölfl et al., 2010).

*With the adoption of the Act on Corporate Governance of State Capital Investments (2010), the **management of state capital investments** fell under the responsibility of the Capital Assets Management Agency of Slovenia.* This formally suspended any activity related to the sale of ownership shares in state-owned companies. The agency manages equity in direct ownership of the Republic of Slovenia, the strategic investments by the Pension Fund Management (KAD) and the Slovenian Restitution Fund (SOD), and the ownership share of the Pension and Disability Insurance Institute in the Triglav Insurance Company. The ownership shares of KAD and SOD managed by the agency are investments defined as strategic investments with a total book value of over EUR 40 m. The agency will manage these investments in accordance with the Capital Investment Management Strategy, which it should have drawn up based on sector-specific policies by the end of 2010. The new deadline for designing sector-specific policies is 30 April, and for drawing up the Strategy is 30 June 2011 (Act Amending the Act on Corporate Governance of State Capital Investments, 2011). The deteriorating public-finance position and persisting consequences of the crisis will eventually lead to a gradual decline of state ownership in companies. This applies particularly in situations when, following bankruptcies and compositions, the equities of numerous companies passed into ownership of the banks, mainly NLB and NKBM. The banks will be forced to, and will indeed wish to, sell such shares promptly – forced because those shares represent a burden and reduce the banks’ capital adequacy, and partly because they do not have the capacity to manage a company, since this is not their primary role. Prior to transferring the management of ownership shares in major companies to the agency, KAD and SOD were – in addition to the state – the key managers and sellers of equity in the companies. This role has now been taken over by the banks, mainly NLB and NKBM.

*In **public administration**, Slovenia continued to carry out activities related to better regulation and to implement the programme to eliminate administrative barriers and reduce administrative burden and costs.* Activities aimed

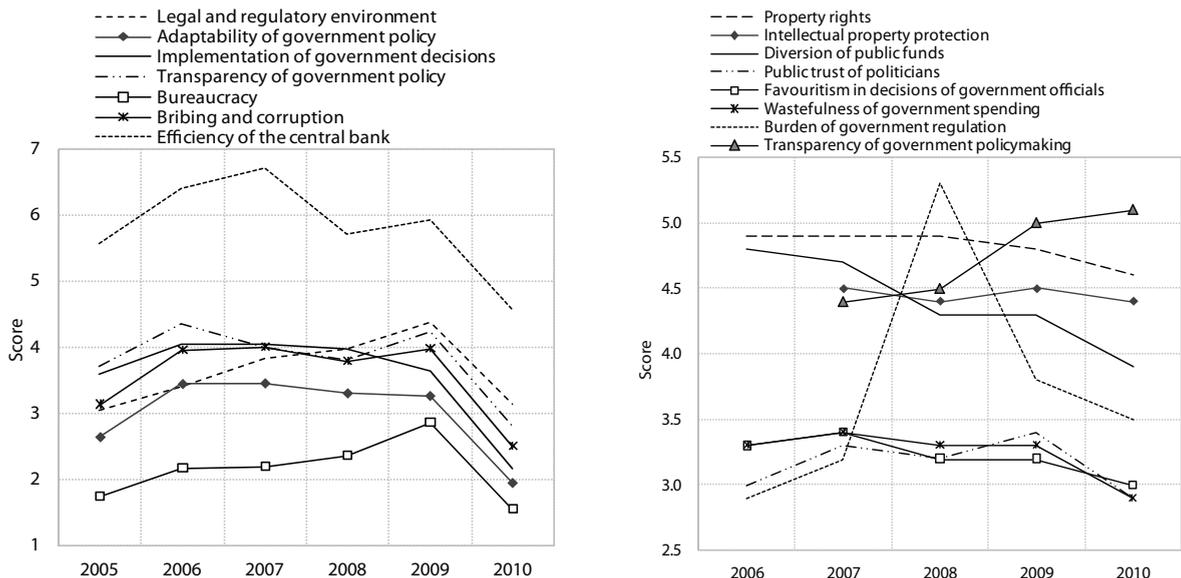
at promoting better regulation include: (i) adoption of the Resolution on Legislative Regulation, providing for mandatory public participation in drafting regulations and assessing the impacts of regulation on the economy, the environment, and social affairs; consequently, the Rules of Procedure of the government were amended; (ii) adoption of the Handbook for Regulatory and Policy Impact Assessment; and (iii) training of civil servants responsible for drafting regulations (First part of the Fifth Report on Better Regulation and Elimination of Administrative Barriers for 2010, 2011). As regards the elimination of administrative barriers, only part of the planned measures has been implemented since the programme is being carried out in stages. Under the first part of the programme, envisaging a 25% reduction of administrative burden and costs by 2012, 3,480 regulations were examined and EUR 1,493 m of administrative burden assessed during stage two. In 2011, priority will be given to measures to improve the competitiveness of Slovenian economy.<sup>87</sup> Under the second part of the programme, which comprises 41 specific measures, 16 measures were implemented by the end of 2010, 4 were also carried out, while the rest is pending final confirmation and approval. Five measures were found unfeasible and proposed for deletion (Report on the Implementation of Tasks and Achievement of the Objectives of the Programme for the Reduction of Administrative Burden by 25% by 2012, 2011). However, despite the activities carried out, Slovenia did not improve its modest international ranking as regards ease of doing business.<sup>88</sup>

*International competitiveness indicators show that in the past year Slovenia strongly deteriorated in **institutional competitiveness**.* According to IMD and WEF, government efficiency positively affected economic competitiveness throughout the previous period. Yet the progress achieved was more or less undone in the past year as both surveys revealed lower values in 2010 than in 2005. A key reason for that is dissatisfaction with the work of the institutions, reflected in lower public trust in politics, in the work of the Government, and partly also in the work of the central bank. Lower values and rankings are evident in most EU Member States. Compared with other EU countries, Slovenia in general saw its values and rankings deteriorate,<sup>89</sup> which also points to a relatively greater dissatisfaction of the business sector with the

<sup>87</sup> The document entitled »Konkurenčnost slovenskega gospodarstva: pregled stanja in ukrepi za izboljšanje« (Competitiveness of the Slovenian economy: state of affairs and measures for improvement) was adopted by the government at its 120th regular session of 17 February 2011.

<sup>88</sup> In terms of ease of doing business (Doing Business, World Bank, 2010), Slovenia rose by one position and was ranked 42nd among 183 economies (17th among EU countries), mainly as a result of a change in methodology. The survey in fact excluded the labour market, in which Slovenia ranks rather low.

Figure 18: State efficiency according to IMD (left) and WEF (right), score



Source: IMD World Competitiveness Yearbook, various issues, and The Global Competitiveness report, WEF, various issues. Higher scores are better, and maximum score in IMD (left) is 10, and in WEF (right) 7.

government response to the crisis than in the EU as a whole. An often quoted restricting factor is wasteful government and consequently the deterioration in the public finances and a lack of capacity to efficiently implement governmental decisions. The worsening in government efficiency in 2009 is also highlighted in the World Bank's Doing Business survey, although the results are better than those seen before 2008. In business operations, inefficient legislation is reflected mainly in a lack of efficiency, in an absence of accountability in corporate boards and in poor protection of minority shareholders, with several indicators also pointing to a lack of ethical values and business culture (IMD, 2010; WEF 2010/2011). A deterioration in the international ranking in the area of bribing and corruption was also one reason why Slovenia adopted a new Integrity and Prevention of Corruption Act in 2010 (OG of RS, No. 45/10), to govern issues that had remained unregulated (e.g. lobbying), or insufficiently regulated under previous acts (such as the tightening of requirements for public officials on strict adherence to the principles of integrity and preventing corruption in making decisions).

**Public trust in institutions** such as government, parliament and political parties is decreasing. According to the Eurobarometer survey for 2004–2010, public trust

in these institutions began to slightly decrease in early 2007, rose somewhat during the parliamentary elections in the autumn of 2008 but later fell again. At the last survey in June 2010, trust in institutions in Slovenia was considerably lower than the average level in EU Member States.

**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. The extensive list of major national investment projects to be implemented in public-private partnership is not being realised, since the state finances investment itself with budgetary funds or by granting guarantees for loans taken by investors that in most cases are also state-owned. Given the high number of municipalities, their financial power to participate in municipal and regional project is limited and small projects do not produce the economic effects expected by the private sector. Problems also arise in granting concessions for the provision of services. Local communities, in particular, often confer special or exclusive rights to private persons for long periods without economic reasons since private entrepreneurs do not invest in the construction or upgrading of infrastructure from which communities would benefit during the contractual relation. This means that they have unjustifiably conferred monopoly rights (Report on concluded forms of public-private partnership in Slovenia in 2009, 2011).

<sup>89</sup> Among 24 EU countries assessed in the IMD survey, Slovenia in 2010 fell by six positions in government efficiency (to 23rd) and by seven in institutional competitiveness (to 21st). In 2005, Slovenia ranked 20th in both categories. In the 2010 WEF survey, Slovenia's ranking under the first pillar (institutions) remained unchanged among the EU-27 (16th). Slovenia ranked 16th in 2005, but values decreased considerably over the period 2005–2010.

### 3.3. Efficiency of the judiciary

Slovenia's competitiveness is hindered by lower **trust in the rule of law**, which has been decreasing among the population as well as in the business sector. In November 2009 (latest assessment), citizens' trust in the legal system was 19%, which was the lowest value achieved in the period 2004–2009; the most significant drop was recorded between June (30%) and November 2009. In 2004–2009, with an average trust level of 30%, Slovenia ranked 22<sup>nd</sup> among EU countries (Eurobarometer). International competitiveness surveys (e.g. the World Bank's Doing Business survey) carried out among enterprises point to long-running court proceedings. The WEF assessment shows that the efficiency of the Slovenian judiciary in 2010 deteriorated compared with other EU countries, and judicial independence decreased. Particularly evident is the worsening of the indicators »Efficiency of legal framework in settling disputes« and »Efficiency of legal framework in challenging regulations«.

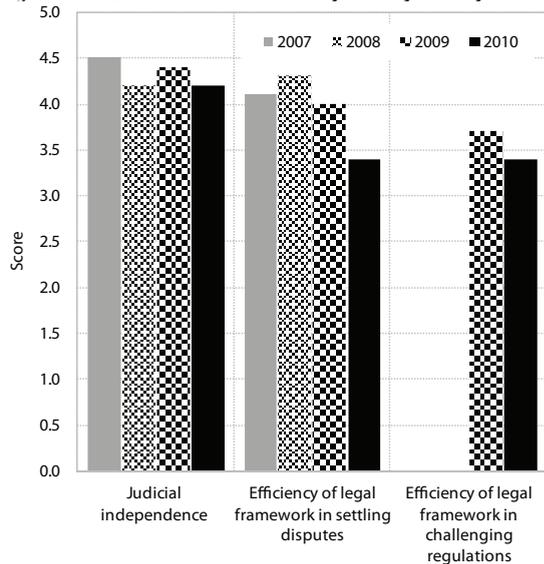
The **reduction of court backlogs** (excluding misdemeanour cases) also continued in 2010, although its volume in cases of major importance remained unchanged. Compared with the previous year, the number of pending cases in all courts together dropped by 5.3% in 2010, but rose in higher courts (by 13.7%) and district courts (by 7.8%). On 31 December 2010, pending cases accounted for 31% of the entire caseload<sup>90</sup> (Court Statistics for 2010). In cases of major importance, accounting for 20.8% of the caseload, the number of pending cases in all courts remained almost unchanged (up by only 0.6%). An increase was again evident in higher and district courts, while in all other courts the number dropped. These results were again achieved amid a high increase of caseload, although the number of incoming cases decreased by 6.0% compared with 2009 and rose by 0.4% in cases of major importance. The number of judges decreased by 4.8%.

**Court backlog (excluding misdemeanour cases) as defined by Article 50 of the Court Rules** rose compared with 2009 by 4% and in cases of major importance by as much as 34%, which partly points to a prolonged duration of court proceedings, and is mainly a consequence of reduced deadlines for solving cases. In fact, on 1 January 2010, deadlines half as long began to apply for the definition of court backlog according to the Court Rules.<sup>91</sup> Court statistics provide data on court backlog by type of case conducted according to the deadlines specified by Article 50 of the Court Rules. An increase of the court

backlog has been recorded in higher and district courts, as well as in labour and social courts; as regards cases of major importance, an increase is evident in higher courts (34.7%), district courts (68.3%) and local courts (22.9%), as well as in labour and social courts (23.9%)<sup>92</sup>, which is a consequence of the reduced deadlines for court backlog pursuant to Article 50 of the Court Rules.

Since economic matters in courts are solved too slowly and without the required efficiency, special **measures to improve the efficiency of courts** have been adopted. The programme "Competitiveness of the Slovenian economy: state of affairs and measures for improvement" introduced measures to reorganise the judiciary in the field of specialisation in the prosecution of economic crime and amendments of institutional regulations (legislation) to accelerate solution of proceedings related to economic matters, mainly those in the area of bankruptcies and compulsory compositions, and the solution of cases concerning economic and organised crime.

Figure 19: WEF indicators of efficiency of the judiciary



Source: The Global Competitiveness Report, WEF, various issues.  
Note: Higher score is better; the maximum score is 7.

<sup>90</sup> Caseload includes pending cases as of 1 January 2010 and incoming cases.

<sup>91</sup> Shorter deadlines to define a court backlog in the Court Rules began to apply in investigations and criminal matters at first instance, in contentious and non-contentious matters and economic disputes, proceedings before a juvenile senate (from 9 to 6 months), administrative disputes, and cases at labour and social courts.

<sup>92</sup> Source: Analysis of quarterly reports on the implementation of operational programmes of work of the courts in 2006–2010, 4/2010, Office for the Development of Judicial Administration, Supreme Court of the Republic of Slovenia, pp. 7–8.

Table 4: WEF indicators of efficiency of the judiciary\*

| Indicators   | 2006  |         | 2007  |         |       |         | 2008  |         |       |         | 2009  |         |       |         | 2010  |         |     |   |
|--|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-----|---|
|  | Rank* | Score** |     |   |
| Judicial independence                                    | 44    | 4.5     | 47    | -       | 4.5   | o       | 60    | -       | 4.2   | -       | 51    | +       | 4.4   | +       | 56    | -       | 4.2 | - |
| Efficiency of legal framework in settling disputes       |       |         | 49    |         | 4.1   |         | 53    | -       | 4.3   | +       | 50    | +       | 4.0   | -       | 81    | -       | 3.4 | - |
| Efficiency of legal framework in challenging regulations |       |         |       |         |       |         |       |         |       |         | 60    |         | 3.7   |         | 79    | -       | 3.4 | - |

Source: The Global Competitiveness Report, WEF, various issues.

Note: \* Rank means the rank of Slovenia among 139 countries in 2010, 133 in 2009, 134 in 2008, 131 in 2007 and 125 in 2006. \*\* Score is the value of the indicator. Higher score is better; the maximum score is 7. + means improvement over the preceding year, - means deterioration, o means no change.

The legend of indicators represents ranking between two extremes: (i) to what extent is the judiciary independent from politics, citizens and enterprises? (ii) how efficient is the legal framework for private companies in settling disputes? (iii) how efficient is the legal framework for private companies in challenging the legality of work of the government and/or regulations?

## 4. Modern welfare state and higher employment

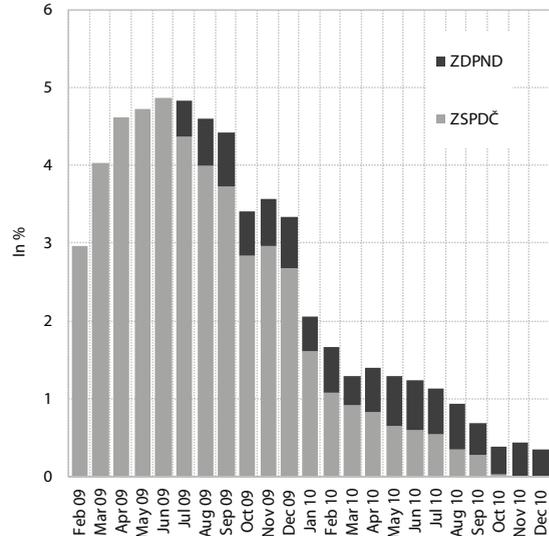
**SDS guidelines:** Maintaining and improving the achieved level of social security and quality of living and health is an important social value endorsed by SDS. The transition from a welfare state to a welfare society requires a more efficient welfare state, greater responsibility of citizens themselves, 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

The *situation on the labour market deteriorated in 2010 against the background of the economic crisis*. The registered unemployment was up 13.8% in December 2010 from the year before, and as much as 85.5% higher than in September 2008, when it was the lowest since 2000. The number of persons in employment continued to decline; after dropping by 2.4% on average in 2009, it was down by a further 2.7% on average in 2010. From the beginning of the crisis, it decreased altogether by 80,000 persons, i.e. by 7.7%. The average rate of registered unemployment thus stood at 10.7% in 2010 (by 1.6 p. p. above that in 2009), and reached 11.8% in December 2010, up 5.5 p. p. from September 2008, when it was lowest. In 2009 and 2010, the situation on the labour market deteriorated most for young people (holding the highest proportion in the flexible forms of employment) and the low-skilled. The employment rate of the 15–64 age group (calculated using quarterly rates) dropped to 66.2% in 2010, thus further distancing from the Development Strategy (SDS) goal of 70%. The employment rate of the 20–64 age group, for which Slovenia set a goal of 75% by 2020 (under the EU 2020 Strategy), was 70.3% (calculated using quarterly rates) in 2010, down by 2.7 p. p. from 2008.

In 2009 and 2010, two **intervention acts aimed at preserving jobs** eased the situation on the labour market. In 2009, two acts were passed to alleviate the consequences of the economic crisis: the Subsidising of Full-Time Work Act (in January) and the Partial Reimbursement of Payment Compensation Act (in June). Both Acts (i.e. subsidy schemes) contributed to slower growth in unemployment and a slower drop in employment. The number of persons included in the job-preserving scheme was lower in 2010 than in 2009. In 2010, both schemes included around 9,000 persons in employment on average per month (1.1% of total persons in employment), which was almost three-quarters less than in 2009 (4.1% of persons in employment).

Figure 20: Share of employed people for whom subsidies were paid out in total number in employment



Source: ESS; SORS, calculations IMAD.

Notes: ZDPND – Partial Reimbursement of Payment Compensation Act, ZSPDČ – Subsidising of Full-Time Work Act.

In 2010, the proportion of **part-time and temporary employment** rose again, in particular among young people. After the share of temporary employment in total employment had dropped in 2009, mostly because of the cuts in employment caused by non-extension of fixed-term contracts, the proportion of temporary employment rose once more in 2010. A rise in fixed-term employment has resulted from rigid labour legislation and the only fragile recovery of labour demand. Moreover, Slovenia features a high level of age fragmentation of the labour market,<sup>93</sup> but to date no measures have been taken to efficiently address this problem. The age segmentation in Slovenia was thus still higher than in most other EU countries in the second quarter of 2010. Young people are the group most affected by part-time and fixed-term employment in Slovenia (in particular women in the 15–24 age group), which is a consequence of student work, in particular.<sup>94</sup>

<sup>93</sup> The scope of age segmentation is measured as a ratio of the share of fixed-term employments in the 14–24 age group to the share of fixed-term employments in the 15–64 age group.

*There were some positive moves towards greater **flexicurity** of the labour market in 2010.* With the employment-protection index<sup>95</sup> at 2.6, Slovenia is ranked among countries with rigid employment legislation<sup>96</sup> (OECD, 2009). The social partners have discussed more flexible forms of employment, but since no agreement has been reached on amendments to the Employment Relationships Act, discussions will continue in 2011. However, some elements of flexicurity have improved: an increase in the participation of adults in life-long learning to 18.2% (the second quarter of 2010) was a positive development, which could also be related to greater participation of the unemployed in education and training programmes under the active employment policy (AEP). The role of AEP as an important element of flexicurity has also strengthened. The number of persons taking part in AEP programmes increased by 41% in 2010, while the share of participants in these programmes among the unemployed rose to 55.9% (by 9.8 p. p.), which points to the need for re-evaluation of individual measures. In addition, the number of people included in education and training programmes, which rose by 73%, is also important for flexicurity. However, the share of unemployed people above 50 taking part in these programmes in 2010 remained low. The Labour Market Regulation Act, which entered into force at the beginning of 2011, eased the access of the young to unemployment benefits and also increased the level of these benefits. Moreover, the Financial Social Assistance Act, which will enter into force in mid-2011, is also expected to contribute to better income security of the unemployed.

## 4.2. Modernisation of the social-protection systems

*According to the latest SORS data, expenditure for **social protection**<sup>97</sup> increased in nominal terms by a solid 8% in 2008 compared with 2007, while in real terms they were up by less than 3%. In the period 1996–2008, social-protection expenditures rose on average 3% per year in real terms. Old-age and health-care expenditures together represented 72% of total expenditures. Expressed as a share of GDP, social-protection expenditures have steadily declined since 2000, only to pick up slightly in 2008 (by 0.2 p. p. to 21.6% of GDP). In the two years that followed (2009–2010), which, due to the economic crisis, first recorded a drop and then a modest growth*

<sup>94</sup> If student work is excluded from the fixed-term employment and from employment of this age group, the share of fixed-term employment of the young is much lower, i.e. 42% in 2009 (EU average being 40.2%).

<sup>95</sup> The values of the employment protection index developed by the OECD range from 0–6, with higher values indicating more rigid legislation.

<sup>96</sup> Higher values of the index were recorded by Portugal, France, Greece, Spain, Mexico, Luxembourg and Turkey.

<sup>97</sup> According to ESSPROS methodology.

in GDP, social-protection expenditures continued to rise (mostly because of a rise in the number of beneficiaries, as indexation of social transfers was cut by half in 2010). Therefore, the share of social-protection expenditures as a % of GDP is estimated to have risen further in these two years. The possibilities for financing these expenditures will be strongly limited in the prevailing conditions of sluggish economic recovery, high unemployment and the necessary public-finance consolidation, but the need for these expenditures will rise further as a result of the ageing population. Should the social-protection system remain unchanged, these expenditures are also likely to rise further, which will, in turn, add upward pressure on compulsory contributions. In 2009 and 2010, the problems of covering these expenditures from public funds were further aggravated as the system remained unchanged. In 2010, the statutory level of indexation of pensions and cash benefits from public sources was cut by half, and even lower indexation was set for 2011, but these intervention measures could only serve as a temporary solution.

*In 2010, some substantial systemic **changes** were adopted but not yet implemented, which should enable the long-term fiscal and social sustainability of some **social-protection systems** and more efficient management of public sources.* The changes relate to means-tested cash benefits from public sources and pension benefits. The drafting of other social-protection legislation which will regulate financing of health and long-term care is still underway. Its aim is to meet the demands for greater accessibility and establish a proper ratio between still sustainable levels of public expenditures and quality and quantity of services provided to the population.

*New legislation has been adopted to increase the efficiency of social policy by better **regulating the population's benefits from public sources** (it will start to be implemented in the course of 2011). A new Act on the Exercise of Rights from Public Funds was adopted, with the aim of introducing a simpler (one-stop shop concept) and more targeted (based on incomes and property) social-transfer system. Uniform rules and procedures were introduced for the allocation of these benefits, as well as rules to avoid potential accumulation or exclusion of benefits. Moreover, uniform rules for the yearly adjustment to economic and financial trends were also put in place. Although these measures are meant to rationalise the number of beneficiaries, no significant reduction can be expected in the short term. The number of beneficiaries could even further increase because of labour-market conditions, and partly also because of some favourable provisions included in two other acts: the Labour Market Regulation Act slightly improved the position of beneficiaries of unemployment benefits, and the Financial Social Assistance Act improved the situation of financial social-assistance beneficiaries; in addition, a stimulation payment will be introduced to stimulate work activity.*

After several years of decline in **pension expenditures** relative to GDP, the trend reversed in 2008,<sup>98</sup> as the results of the 2000 pension reform, although still positive, failed to ensure sustainability of the public finances in the long term. The share of expenditures on pensions started to rise in 2008, when the indexation rules changed and the number of pensioners rose more than the number of active insured persons; according to the Pension and Disability Insurance Institute (PDII), the share increased most in 2009, not only because of a rise in pension expenditures but also a strong contraction in GDP. With the intervention act, the rise was smaller in 2010, but the growth in pension expenditures still exceeded the only modest growth in GDP. Although the intervention act is still in place in 2011, increased pension and disability insurance expenditures will need to be covered by budget transfers this year also, as labour-market trends show a further decrease in the number of wage beneficiaries and a rise in the number of pensioners. The average age of newly retired persons was 60 years and 2 months in 2010 and it has no longer been rising so quickly,<sup>99</sup> while the average pension receipt span has been rising faster than the retirement age<sup>100</sup>. The existing pension legislation offers certain incentives for longer activity<sup>101</sup>, which are further increased in the new proposed act. The share of people included in the supplementary pension insurance schemes, the level of premiums and the achieved yield are still too low to ensure the social sustainability of the pension system. In 2010, around 61%<sup>102</sup> of persons insured under the compulsory pension and disability insurance scheme<sup>103</sup> were included in voluntary supplementary pension insurance, of which 95% were under the collective insurance schemes and only 5% on the basis of individual insurance schemes. Premiums, which have always been low,<sup>104</sup> dropped further in 2009 and 2010. The first supplementary pensions will be disbursed in 2011. To

discourage insured persons from one-off withdrawal of the saved funds, the income-tax base has been halved for those who decide for disbursement in monthly rents, while it has remained unchanged for those who decide for a one-off withdrawal.

**The changes to the pension system** introduced by the new pension and disability insurance act reduce the total public-finance burden. The key changes introduced by the act passed at the end of 2010 are: an increase in the minimum conditions for acquisition of a right to an old-age pension (retirement age and qualifying period), extending of the income reference period for assessment of pensions, and a change in the indexation formula. The overall impact of the adopted parameters on the future level of public expenditures on pensions (taking into account the foreseen trends in the growth of productivity and number of pensioners) is weaker than the impact of the original government proposal (see Table 1). Changes in the retirement age and a parallel rise in the pension qualifying period – these two conditions still distinguish between men and women – are aimed at postponing retirement and consequently extending the average period of activity. Retirement at the lowest possible pension qualifying period of 20 years at the age of 65 is now equal for men and women. The new mixed wage/price indexation in the proportion of 70% wage growth and 30% of consumer price growth (taking into account the real growth in wages), reduces the future value of pensions relative to wages (replacement rate). Abandoning of the horizontal levelling of old and new pensions and pensioners narrows the difference between old and new pensions. The reference period for assessing the pension base is extended; partly, the impact of this change is diminished by the reintroduction of a higher accrual rate per year (from 1.5 to 2.0). The changes to these parameters also affect the redistribution of the pension base in terms of its level. For an increasing number of new pensioners, the pension base and also the paid-out pension will be closer to the statutorily set minimum value of pensions.<sup>105</sup> As a result of the proposed indexation of pensions, paid-out pensions that were assessed at a somewhat higher level would be levelled off. This is why the second-phase changes to pension legislation would need to be undertaken as soon as possible. They would establish a system in which the share and the amount of budgetary transfers for covering pension insurance obligations would be set in advance (and would not serve only to cover the gap between other revenues and expenditures). The part of expenditure that would assure – together with budgetary transfers – the payment of pensions at the statutory level would need to be covered from pension and disability insurance contributions (compulsory social contributions).

<sup>98</sup> In the period 2000–2007, their share in GDP declined from 11.08% to 9.70%, in 2008 it rose to 9.87% and in 2009 to 10.91%; in 2010, these expenditures were estimated to account for 11.19% of GDP (according to PDII).

<sup>99</sup> From 2000 to 2009, the average age of beneficiaries that have had their right to an old-age pension acknowledged for the first time according to general rules increased by 2 years and 4 months (by 2 years and 7 months for women and by 1 year and 7 months for men). In 2010, it decreased by 2 months for men, reaching the 2007 level, while it rose by 4 months for women.

<sup>100</sup> From 2000 to 2010, it increased by 3 years (by 4 years and 7 months for women and 1 year and 11 months for men).

<sup>101</sup> According to the existing legislation, deferring retirement by 1 year after completed retirement age raises the assessed pension by 5.5%, and by 5 years – 17.4%. For more on this, see 2008 Economic Issues (IMAD), 2008.

<sup>102</sup> According to the data of the MLFSA for September 2010, the share of those included was 60.89%, up by a solid p.p. from December 2009.

<sup>103</sup> According to the projections of development of the supplementary insurance by 2060, the inclusion is expected to increase to slightly above 70%.

<sup>104</sup> According to the data of the MLFSA for September 2010, they ranged on average from 30 to 40 EUR per month per insured person.

<sup>105</sup> In 2009, the minimum pension base was a basis for pension assessment for 7% of men and 25% of women. In 2030, it is estimated that 11% of men and 35% of women will receive such pensions (estimate by IER, November 2010).

Table 5: Fiscal impact of various pension and disability insurance systems, as % of GDP

|  | 2009 | 2011 | 2013 | 2015 | 2017 | 2019 | 2021 | 2025 | 2030 | 2040 | 2050 | 2060 |
|--|------|------|------|------|------|------|------|------|------|------|------|------|
| ZPIZ-1 – legislation in place                        | 11.2 | 11.2 | 11.4 | 11.6 | 11.7 | 11.9 | 12.1 | 13.0 | 14.4 | 17.5 | 19.7 | 20.2 |
| ZPIZ-2 – original government proposal                | 11.2 | 11.1 | 11.0 | 10.7 | 10.4 | 10.2 | 10.1 | 10.6 | 11.8 | 14.6 | 16.6 | 17.0 |
| ZPIZ-2 – legislation adopted but not yet implemented | 11.2 | 11.1 | 11.2 | 10.9 | 10.7 | 10.6 | 10.6 | 11.3 | 12.7 | 15.6 | 17.7 | 18.2 |

Source: Additional assessments of effects of proposed pension legislation, Mitja Čok, Jože Sambt, Boris Majcen IER, November 2010.

Note: Data for 2009 represent the share of pensions in GDP (11.2%) for all pensions: social-insurance pensions (old-age, disability, survivor's and widow(er)'s pensions), farmer's pensions, military pensions, pensions in former Yugoslavia states, pensions abroad, annual grant of pensioners, other pensions and state pensions. This data differs slightly from the PDII data (10.91% of GDP for 2009), which includes the pensions as recorded in PDII statistical reports.

In the last two years, the sustainability of **public financing of the health sector** was maintained by streamlining operations, limiting development investment and transferring a part of expenditure to private sources. In the last two years, public health care in Slovenia was faced with a slow growth in revenues from compulsory health insurance (CHI) contributions, and problems related to a high level of increase in wages in the health sector resulting from the elimination of wage disparities in the public sector. Back in 2009, some measures were already taken to streamline operations of the public health services and thus ensure the financial sustainability of the CHI system; among other measures, most investments in programme expansion and development were stopped. In 2010, additional measures were taken,<sup>106</sup> which further streamlined operations, changed organisation of work, reduced the prices of some health services etc.<sup>107</sup> Despite these money-saving measures, the Health Insurance Institute of Slovenia (HII) recorded a deficit for the second year in a row in 2010, estimated at EUR 35.8 million. As the deficit was still covered by the surplus from the pre-crisis years, HII has so far not needed to raise any credits despite the unchanged contribution rates. According to the 2011 financial plan, the scope of the health service programme will remain at the 2010 level despite increasing need, but further measures will be needed to assure the financial sustainability of the system.

According to the HII estimates, **total health expenditures** accounted for 8.9% of GDP in 2010. In 2008, health expenditures represented 8.3% of GDP according to final data, which was the same as the EU average. In 2009, according to preliminary data from HII and SORS, their proportion to GDP rose to 9.2%, only to slide back again to 8.9% of GDP in 2010. This high rise in relative expenditures in 2009 resulted from a contraction in GDP as well as high growth in public and private expenditures on health. A slowdown in wages and austerity measures, however, led to a real drop in total health expenditures by 2.4% in 2010, as estimates show. According to the figures by HII, public expenditures on health thus dropped in real terms by 3.4%<sup>108</sup> in 2010 (amounting

to EUR 2,292.9 million or 6.4% of GDP).<sup>109</sup> Amid efforts to rationalise public spending, private expenditures on health continued to rise in 2009 and 2010, representing 28.8% of total health expenditures in 2010 (in 2009, 28.0%). The increase was mainly due to the reduction in the coverage of certain health services from compulsory health insurance and the transfer of a part of the cost to the supplementary health insurance. Consequently, the supplementary health insurance premiums rose in 2011. The proportion of private expenditure in Slovenia in 2008 (the latest available international data) was well above the EU average (26.5%). Moreover, the share of private expenditure for financing the compulsory public health service programmes (from supplementary health insurance) is approximately the same as the share of private payments for above-standard health services and services that people seek outside the public services.

Due to rapidly increasing health-care demand associated with demographic changes as well as an urgent need to introduce new medical technologies and medications, prompt systemic changes are required to ensure **sustainable compulsory health insurance financing**, as well as further efforts for promotion of health and reducing health inequalities. In the coming years, public sources will still be scarce and any further transfer of financing to private sources will be limited. At the same time, health-care needs will increase because of population ageing, changing forms of diseases and an urgent need for development and medical progress. Only scarce funds will thus call for the greatest possible rationalisation. For this reason, two basic acts will need to be amended as soon as possible to assure further streamlining of health services, optimisation of processes, upgrading of the models of financing health-care providers, expansion of contribution bases and changing the "basket" of rights. Only in this manner could the funds be assured necessary for the preservation of the achieved level of accessibility and quality of health services. In addition, people need to be encouraged to take greater care of their own health and thus prevent chronic non-contagious diseases. But

budget expenditures for investment, which were almost halved in real terms.

<sup>109</sup> In 2010, programmes only expanded in the financing of new capacities of social-care institutions and stationary health resort medical treatment programmes, non-acute hospital treatment, breastfeeding mother programme and transplantations, and slightly also in out-patient and pharmacies activities, whilst in all other programmes, the realisation remained at the 2009 level.

<sup>106</sup> Measures taken by HII, General Agreement and Annex 1.

<sup>107</sup> Annex 2 to the 2010 General Agreement (adopted on 2 December 2010).

<sup>108</sup> The HII expenditures on health decreased in real terms by 2.3% (total HII expenditures (including the sick-leave compensation) were down by 1.4%); 2010 also saw a slump in the central

rationalisation cannot only be achieved by health-care measures. Integration of all the policies and stakeholders which may influence the social-economic determinants of health and thereby direct and indirect costs<sup>110</sup> related to inequalities in health remains the key challenge.

According to the latest data, mostly **expenditure on long-term care** from public sources increased in 2008. Expenditure on long-term care relative to GDP in Slovenia is at the EU average level (1.1%), whereas Slovenia lags behind the EU average in terms of expenditure on long-term care per capita (255 EUR PPS; EU-20: 386 EUR PPS). In the period 2003–2008, total expenditure on long-term care rose in real terms by almost 30% (on average 5.3% in real terms per year), almost equally for both public and private expenditure (their ratio being 76:24). In 2008, real growth in these expenditures picked up to 7.2%, mainly thanks to significantly increased capacities of old people's homes and thereby higher number of users of this service, and partly also because of a rise in wages stemming from levelling of wage disparities in the public sector. Nevertheless, a large part of the needs still fail to be met, and they are expected to further increase in the coming years. The extent of services provided in old people's homes is much larger than home-care services, which contributes to further expansion of the former and holds back the development of the latter. Home-care services also lag behind because of inadequate financing system. Also in the area of long-term care, the preparation of systemic changes has been underway for a long time; they should assure stable financing (through a new form of compulsory social insurance) and accelerate the use and further development of home care, also by including the services of informal providers and other forms of care for the old.

In 2008, expenditure on **pre-school education** relative to GDP remained approximately the same as the year before. Public and private expenditure on pre-school education accounted for 0.63% of GDP in 2008<sup>111</sup> (in 2007, 0.60% of GDP). Only public expenditures rose slightly, from 0.46% to 0.49% of GDP. In 2007 (the last available international data), the share of public expenditures in GDP in Slovenia was still below the EU average (0.50%). The proportion of private expenditure in total expenditure remains high, although it slightly shrank in 2008. In 2007, this proportion was higher than on average in 19 OECD members for which data are available. In addition to a favourable ratio of children to teaching staff, a high percentage of children included in day care contribute to a rather high expenditure per participant in the pre-school care in Slovenia. It was high above the average of the 19 OECD countries in 2007. The expenditure on pre-school care relative to GDP is estimated to have

further increased in 2009 and 2010, in particular taking into account contracted economic activity during the crisis on the one hand and a rise in wages (levelling of wage disparities in the public sector in 2009) and in the number of children included in pre-school care on the other.

*Changes in the social protection systems and the foreseen public sector reform would need to assure complementarity between public and private sources in the provision of non-economic services of general interest and promote development of necessary services also outside the public sector.* The development of services of long-term care, health care, pre-school care, education and other non-economic services of general interest<sup>112</sup> is important not only for improving population's access to these services,<sup>113</sup> but also as an opportunity for creation of new jobs. Employment in public services has been low compared to other EU countries. In 2009, public services (activities L–N), which by definition include also private providers,<sup>114</sup> employed on average 8,287 persons per 100,000 population, which was only 81% of the EU average (10,223 employed per 100,000 population). The widest lag is recorded in health and social work (N), where Slovenia only achieves 63.6% of the EU average (underdevelopment of long-term care). Despite a relatively low share of employment in public services, Slovenia is ranked around the average of the OECD countries in terms of the share of employment in the general government sector<sup>115</sup> (Slovenia in 2009: 14.9% of persons in employment; OECD in 2008: 15%). Lower employment in public services is a consequence of poor inclusion of private sector in these activities, as the growth in employment in activities L–N in the past was almost exclusively fuelled by growth in employment in the institutions under the government or municipality

<sup>112</sup> The term »non-economic services of general interest« applies in the EU legislation to the activities, which under the Standard Classification of Activities (SCA 2002) largely belong to the groups L–N, and according to the National Accounts statistics to the public services group, although it is somewhat wider. The current draft act in Slovenia proposes the following term for these services: »activities of general interest in the area of non-economic sector«.

<sup>113</sup> See chapter 4.3.2. Access to non-economic services of general interest and housing.

<sup>114</sup> Public services (L–N) under the Standard Classification of Activities (SCA 2002) include public administration (L), education (M) and health and social work (N). Providers included in these activities are: all public institutions and public institutes under the control of the government or municipalities as well as all providers with concession and private providers.

<sup>115</sup> Only the institutions established by the government or municipality and majority financed from public finance sources. In Slovenia, these are: direct and indirect beneficiaries of the government or municipal budgets (according to the Register of Budget Users), except those which gain more than 50% of total revenues from private or other non-budgetary sources (some public agencies, old people's homes, kindergartens, pharmacies, people's universities, health-care centres, public institutes engaged in economic activity, agriculture).

<sup>110</sup> Direct costs are related to recovering of health, whereas indirect costs mean lower labour productivity, less flexible labour market, lower tax revenues, higher social transfers, higher rates of criminal activity, etc. (Inequalities in Health, 2010).

<sup>111</sup> IMAD calculation based on SORS data.

control and majority financed from public sources.<sup>116</sup> In the period 2000–2009, employment in public services grew on average 1.9% per year, which was only slightly above that in the general government sector (1.7%).<sup>117</sup> However, some of these services could be to a larger extent provided by private providers (in addition to public providers), if proper regulation and control were in place. This would not entail any cuts in public financing of public services, but would by a different regulation of service provision outside the public sector contribute to a wider supply, development of new types of services, and would also reduce the scope of grey economy currently present in some of these activities.

The values of *work-incentive indicators*<sup>118</sup> are less favourable in Slovenia than in the EU and did not change essentially in 2009. Tax wedge on labour costs was by 0.6 p. p. lower in 2009 than the year before, which resulted from the ultimate abolition of the payroll tax as of 1 January 2009. The unemployment trap and both low-wage traps remained at approximately the same level as the year before. The tax wedge on labour costs was 39.7%<sup>119</sup> in 2009, meaning that this percentage of labour costs is intended for taxes and social contributions, and

<sup>116</sup> There are several reasons behind the growth in employment in public services. In education, there has been a rise in the inclusion of children in kindergartens, development of adult education and life-long learning and diversification of supply of higher education programmes. In health care, it was a result of population ageing, rapid development of medical technologies and greater awareness of population. In social care, demographic changes are leading to a rapid development of long-term care.

<sup>117</sup> The government sector also comprises the entire section L – Public administration, defence and compulsory social security, more than one third of which is represented by the civil part of state administration (ministries, bodies affiliated to ministries, government services and administrative units, excluding Police, Slovenian Armed Forces and Prison Administration of the Republic of Slovenia), where employment has been falling gradually ever since 2006, reaching a 1% annual decline in 2006–2009, according to Ministry of Public Administration data.

<sup>118</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).

<sup>119</sup> Valid for the wage used in the calculation in line with the above described methodology.

60.3% for the net wage. This ratio was very similar in the EU in 2008 (the latest available data). The unemployment trap (83.4%) stayed unchanged from the year before, meaning that upon transition to employment, an unemployed person increased his/her net earnings by 16.6% of gross earnings. The low-wage trap for a single person slightly decreased, whereas it slightly increased for a four-member household. Transition to a better paid job is more favourable for a single person than for a four-member household. Both, the unemployment trap and the low-wage trap are higher in Slovenia than in the EU.

Table 6: **Work-incentive indicators, Slovenia, EU-27, 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       |
| 2001 | 44.0                      | 40.5 | 82.6              | 74.01   | 39.1                       | 48.15 | 99.4   | 54.94    |
| 2005 | 41.6                      | 40.4 | 82.6              | 75.52   | 50.8                       | 47.00 | 76.4   | 61.38    |
| 2006 | 41.2                      | 41.1 | 82.2              | 76.12   | 51.6                       | 49.27 | 72.6   | 63.91    |
| 2007 | 40.9                      | 40.9 | 80.7              | 74.90   | 51.0                       | 49.68 | 67.4   | 63.08    |
| 2008 | 40.3                      | 39.9 | 83.4              | 73.21** | 53.1                       | 48.38 | 68.0   | 58.37*** |
| 2009 | 39.7                      |      | 83.4              |         | 52.7                       |       | 68.4   |          |

Source: SORS, Work-incentive indicators, Slovenia, 2008 – preliminary data, 28 May 2009, first release.

Note: No data available for 2000, except for tax wedge on labour costs (in Slovenia 41.0%, in EU-27 also 41.0%). \*\* Data for new Member States. \*\*\* Data for the euro area (EU-16).

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

Although the living conditions deteriorated during the economic crisis, the composite **prosperity and quality of life indicators** (satisfaction and human development index) still show a relatively favourable picture for 2010. Slovenia ranks relatively well in terms of life satisfaction, as shown by the Eurobarometer data of June 2010; with 85% of satisfied people (very satisfied and satisfied together), Slovenia was ranked 10<sup>th</sup> out of EU-27 countries. However, the percentage of people satisfied with life in 2010 was below the seven-year average<sup>120</sup> (88%) and lower than in 2004 (90%), since when the data have been available. Although still relatively high, this has been the lowest share of satisfied people since 2004; a similar level was only recorded in October 2008. In terms of Human Development Index (HDI), the central composite indicator of prosperity, Slovenia is ranked 29<sup>th</sup> out of 169 countries, thus still belonging to the group of countries with very high levels of human development. The HDI incorporates three factors of human prosperity: health,

<sup>120</sup> The seven-year average was calculated on the basis of 12 measurements over the last 7 years (since October 2004, the year of Slovenia's accession to the EU).

education and income. Its value for 2010 was 0.828, with gradually rising values of all included indicators. The health indicator recorded the highest values (according to UNDP data, life expectancy at birth was 78.8 years in 2010), whilst the income indicator's values were the lowest. The Inequality-Adjusted Human Development index shows that inequalities in the distribution of basic elements of prosperity among the population exist in Slovenia, but are the lowest among the analysed 169 countries.

### 4.3.1. Incomes and expenditures of population

In 2009, **household disposable income** was for the first time (in the period for which data are available) lower than in the previous year. In real terms, it was down 1.1%. This was mainly due to 1.4% lower compensation of employees, and gross operating surplus and mixed income, which recorded the greatest decline (in real terms by 5.9%) among major categories of disposable income. The proportion of compensation of employees in disposable income slightly narrowed, after having been on the rise since 2005. On the contrary, after the economic upturn had ended (during which social transfers were less important), social benefits rose again in real terms by 5.8% in 2009, with their share (social transfers together with pensions) widening from 25.5% to 27.2% of disposable income, the highest level since 1995. The disposable income per capita shrunk by 2.2% and accounted for 72.1% of the income per capita in the EU<sup>121</sup> (in 2008, 71.4%). In 2010, the household disposable income increased in real terms by a solid 1%, according to IMAD estimates.

The **net wage bill** – the major source of population's disposable income<sup>122</sup> dropped in real terms in 2009 and 2010, mostly because of a slump in the number of wage recipients. The net wage per employee increased by 3.4% in nominal terms in 2009, but the number of wage recipients dropped by 2.8%; the net wage bill therefore rose by a mere 0.5% in nominal terms, while it was down by 0.4% in real terms. In 2010, the net wage per employee increased by 3.9% in nominal terms (2.1% in real terms), but the number of wage recipients continued to decline (2.6%). The net wage bill thus increased by 1.2% in nominal terms, but shrunk by 0.6% in real terms. The gross wage per employee was also up in nominal terms in 2010, by 3.9% (in real terms by 2.1%), mostly thanks

to wage growth in the private sector (by 5.2%), where around 3 p. p. of growth resulted from the increase in the minimum wage and half of the percentage point from changes in employment structure.

By the adoption of a new Minimum Wage Act, **the minimum wage** rose considerably in 2010. In nominal terms, it surged by 14.6% and in real terms, by 12.6%. The Minimum Wage Act<sup>123</sup> determined the new level of minimum wage at the estimated value of minimum costs of living of an adult person by March 2010.<sup>124</sup> Although the act provides for an option of a gradual transition to the new level of minimum wage, almost 60% of minimum wage recipients had already got the full amount at the beginning of the year, and around 70% by the end of the year.<sup>125</sup> The minimum wage thus averaged EUR 697 at the end of 2010 and came very close to the final level of EUR 734, which should be fully in place as of 1 January 2012. In 2009, the minimum wage to average gross wage ratio in the private sector already increased slightly (by 0.7 p. p.), after a period of decline. In 2010, it rose by a further 4 p. p., to 48.2%, which placed Slovenia at the top end of the EU countries. The number of minimum wage recipients and their share in the total number of employed persons more than doubled in 2010 (6.2% compared with 2009 (3%).<sup>126</sup> Slovenia is placed in the upper end of the EU countries also in terms of the share of minimum wage recipients.<sup>127</sup> In the period 2000–2010, the minimum wage increased faster in real terms (3.4% per year, on average) than the average gross wage per employee in the private sector (2.4%).

**The income inequality** was reduced in the period of economic crisis, but largely because of changes in employment structure. In the period 2000–2007, the differences between the average gross wages across the activities in the private sector were widening (to 2.46 in 2007<sup>128</sup>), but started to decrease at the beginning of the crisis (in 2008, the highest/lowest average wage ratio was 2.38, in 2009, 2.32 and in 2010, 2.25). Throughout this period, the highest average gross wage was recorded in financial intermediation activities and the lowest in other miscellaneous activities. A large part of the decrease in the highest/lowest wage ratio could be attributed to the loss of low-skilled jobs. The wage gap

<sup>123</sup> Minimum Wage Act, OG RS 13/2010.

<sup>124</sup> Estimate of the value of minimum costs by the Institute of Economic Research.

<sup>125</sup> In December, 70% of minimum wage recipients in the private sector belonged to the highest group (from EUR 686 to 734).

<sup>126</sup> Based on the monthly records by AJPES.

<sup>127</sup> According to 2007 data, higher shares were recorded by France (12.9%), Bulgaria (12.4%), Luxembourg (11%) and Latvia (9.2%).

<sup>128</sup> Calculations for the period before 2007 are based on the SCA classification 2002; they show that the difference between the activity with the highest and the activity with the lowest average wage rose from 1.85 in 2000 to 2.12 in 2007. In 2006, when the latest international data are available, this ratio was among lowest in the EU.

<sup>121</sup> This is a calculation of data at current prices, as data by purchasing power standard are not available for disposable income. This data can thus not be compared with the data on achieving the European consumption level (by PPS).

<sup>122</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 components are: social transfers (about 25%), and net operating surplus and net mixed income of individual private entrepreneurs and farmers (about 25%).

between men and women also narrowed strongly in 2009 (a 4% gap) almost exclusively in the private sector, mainly as a consequence of changes in the structure of employment. After a period (2003–2006) of steady ratio (a 7% wage gap between men and women), in 2007 and 2008 the gap widened particularly in manufacturing, trade and hotels and restaurants. In 2009, the level of women's wages improved in most private sector activities. In manufacturing, construction and trade, which account for almost half of total employment in the private sector, the decline in the number of low-skilled workers in 2009 was more pronounced in women than in men. The education structure of women in these activities, which has always been better than the education structure of men, therefore improved further, in particular in construction and transport. In the public sector, the wage gap between men and women has been narrowing constantly, and this trend also continued in the period 2007–2009, except in public administration, where the gap widened in the past two years.

**Pensions** slightly increased in nominal terms, but decreased in real terms in 2010. The average net old-age pension with supplementary allowance increased in nominal terms by 0.9%, but in real terms it was down by 0.9% in 2010. The other two types of pensions (invalidity and survivor's together with widow(er)'s) rose slightly less in nominal terms (by 0.1 or 0.5 p. p., respectively) and dropped slightly more in real terms. In the period 2000–2010, all three types of pensions were rising on average by around 1% in real terms per year (old-age – 0.9%, invalidity – 0.8% and survivor's or widow(er)'s – 0.4%). As they grew at a slower rate than net wages, the replacement rate (pensions/net wages ratio) for all three types of pensions also decreased.<sup>129</sup> The number of pension beneficiaries (old-age, invalidity and survivor's together with widow(er)'s) increased by 2.6% in 2010, which was more than the year before (2%). This was mainly due to a rise in the number of old-age pensioners, which was up by 4.1% in 2010, and by above 3% each year since 2007.

*Deteriorated situation on the labour market led to a further rise in the number of **social transfer beneficiaries** and in the necessary expenditures for transfers in 2009 and 2010.* The expenditures for transfers to individuals and households (excl. pensions) increased by 11.7% in 2009 and by 4.9% in nominal terms in 2010. To a large extent, this resulted from higher unemployment. The average monthly number of beneficiaries of unemployment benefits, which started to rise towards the end of 2008, jumped by 93% in 2009 and by further 11% in 2010 (together by 114% in the two years), whereas the number of beneficiaries of financial social assistance rose by 16% in 2009 and by further 15% in 2010 (together by around a third compared to 2008).

<sup>129</sup> From 75.3% in 2000 to 64.7% in 2010 for old-age pensions, from 61.1% to 51.8% for invalidity pensions and from 53% to 44.5% for survivor's and widow(er) pensions.

*In the conditions of economic crisis and unfavourable situation on the labour market, **household consumption** decreased for the first time in 2009.* According to the National Accounts methodology, consumption was lower in real terms by 0.8%<sup>130</sup> in 2009. In nominal terms, household consumption decreased more (-0.8%) than disposable income (-0.2%), meaning that consumers had a more cautious approach to spending. The consumption of durable goods, which account for one-tenth of consumption on domestic market,<sup>131</sup> slumped by 13.8% in real terms. In general, households mostly cut back on those expenditures which they find easy to give up, such as furnishings and household equipment, cars, holidays, eating out in restaurants. According to IMAD estimates, similar developments were also present in 2010, although consumption picked up in real terms by half of a %.<sup>132</sup>

**Consumption disparities by quintiles** slightly increased in the period 2000–2008. 2008 is the last year for which detailed consumption data by quintiles are available (according to the Household Budget Survey). As these data cover the period 2007–2009 and the economic crisis only started at the end of 2008, they still apply to the period of economic upturn and do not yet reveal any crisis in consumption. According to these data, the allocated assets of an average household together with its own production amounted to EUR 21,268 in 2008, meaning that they rose 4.3% in real terms – the highest rise in the entire period 2001–2008. The upper-end fifth of the households (the highest consumption) spent 4.4-times more (EUR 37,296) than the lower-end fifth (the lowest consumption) (EUR 8,486). In 2008, the difference between the fifth and the first quintile was approximately the same as on average in 2005–2008 and higher by a half of a percentage point than in 2000. In the period 2000–2008, the difference between these two quintiles increased the most in the expenditures on dwelling or house and other expenditure, and was also slightly higher in the consumption expenditures (see Table 7).

<sup>130</sup> Deflated by private consumption deflator, disposable income deflated by CPI.

<sup>131</sup> Consumption in terms of durability of goods can only be measured for domestic market (consumption of residents and foreigners), whereas consumption as a GDP component is a national concept of consumption (consumption of residents at home and abroad).

<sup>132</sup> As the current balance of payments data for 2009 are not yet a suitable basis for calculation of changes in 2010, we estimate that the positive rates of growth in private consumption in 2010 do not necessarily mean that households' purchasing power or consumption actually strengthened. This is further indicated by the difference between disposable income and consumption growth, with consumption rising faster (in nominal terms by 3.4%) than disposable income (3.0%), which is not very probable in the times of a crisis.

**Table 7: Household expenditures, the difference between the fifth to the first consumption quintile by groups of allocated assets**

|   | 2000 | 2005 | 2006 | 2007 | 2008 |
|---|------|------|------|------|------|
| Total allocated assets  | 3.9  | 4.2  | 4.4  | 4.2  | 4.4  |
| Consumption expenditure   | 3.6  | 3.9  | 4.0  | 3.8  | 3.9  |
| Food and non-alcoholic beverages  | 2.4  | 2.3  | 2.4  | 2.2  | 2.2  |
| Alcoholic beverages and tobacco   | 2.7  | 2.1  | 2.1  | 1.7  | 1.8  |
| Clothing and footwear   | 6.0  | 7.3  | 7.9  | 8.0  | 7.7  |
| Housing, water, electricity, gas and other fuels                          | 1.9  | 1.9  | 1.8  | 1.7  | 1.8  |
| Furnishings, household equipment and routine maintenance of the household | 3.3  | 4.6  | 4.6  | 4.1  | 4.3  |
| Health  | 2.4  | 3.9  | 3.4  | 2.5  | 2.4  |
| Transport   | 9.4  | 7.8  | 9.2  | 9.1  | 10.8 |
| Communications  | 3.1  | 3.0  | 3.0  | 2.9  | 3.0  |
| Recreation and culture  | 4.5  | 5.5  | 5.4  | 6.0  | 6.0  |
| Education   | 10.6 | 20.2 | 23.6 | 13.9 | 13.2 |
| Hotels, cafes and restaurants   | 6.1  | 6.6  | 6.2  | 5.1  | 6.5  |
| Miscellaneous goods and services  | 3.3  | 3.7  | 3.8  | 3.7  | 3.8  |
| Expenditure on dwellings, house   | 10.6 | 9.5  | 10.0 | 10.2 | 12.3 |
| Other expenditure   | 5.9  | 3.7  | 6.4  | 6.6  | 7.6  |

Source: Household Budget Survey (SORS), 2010.

**The risk of poverty and material deprivation of population did not change much in 2009, however, the situation further deteriorated for some groups of population that are already at a strong risk of poverty.** In 2009, 11.3% of population lived below the poverty threshold, and at-risk-of-poverty rate was lower by 1 percentage point than in 2008. Lower rate, however, to a large extent results from the calculation based on administrative data for 2008 (mostly personal income tax data), when economic growth was still high and labour market situation was favourable. To some extent, it was also a result of some government measures taken in 2008: introduction of additional tax reliefs for those from the lowest income brackets, a significant rise of some social benefits (child benefits, unemployment benefits, etc.), as well as a rise of the minimum wage. Nevertheless, the situation deteriorated and the poverty deepened for some groups of population at risk of poverty compared to the year before.<sup>133</sup> The rate of material deprivation was higher than at-risk-of-poverty rate; in 2009, it was 16.2%, which was approximately the same as the year before (after a rise to 16.9% in 2008). Slovenia still belongs to a group of European countries with the lowest at-risk-of-poverty rates, and is ranked slightly below the EU average (17.2% in 2009) in terms of the material deprivation rate.

<sup>133</sup> The relative at-risk-of-poverty-gap widened; it indicates the extent to which the incomes of those at risk of poverty fall below the threshold on average. In 2009, this gap was 20.2%, up by almost one percentage point from the year before.

The indicators show that **income inequality** decreased in 2009. The Gini coefficient was 22.7% (in 2008, 23.4%) and the quintile coefficient (80/20) was 3.2 (in 2008, 3.4) in 2009. Like the risk of poverty indicators, also these indicators are calculated on the basis of incomes data for 2008. However, also the calculation of Gini coefficient from the sample of data on personal income tax<sup>134</sup> for 2009 and a comparison with the years 2005–2008 shows that the values of this coefficient have been relatively stable and that income inequality has not been rising (at least not for recipients of wages). According to all income inequality indicators, Slovenia still belongs to a group of countries with the lowest rates of inequality.

#### **Box 2: The Europe 2020: A European Strategy for Smart, Sustainable, and Inclusive Growth target in the area of poverty and social exclusion**

In its (Europe 2020) Strategy for Smart, Sustainable and Inclusive Growth, the European Commission set as the fifth target that 20 million fewer people should be living below the poverty line in 2020. This target, which was also endorsed by the European Council in June 2010, will be monitored by a common indicator of the number of population at risk of poverty or social exclusion. The common indicator is composed of three sub-indicators: 1) at-risk-of-poverty rate, 2) severe material deprivation rate (deprivation in at least four out of totally nine items of deprivation) and 3) the share of persons living in households with very low labour intensity (less than 20% of total labour potential of a household). The persons appearing in all the sub-indicators are only counted once in the common indicator. According to the common indicator, around 120 million of people lived at risk of poverty or were socially excluded in the EU in 2008; this means that the EU countries would have to bring above the poverty threshold one person out of six belonging to this group by 2020. In the framework of the EU 2020 targets, Slovenia has committed itself to reduce the number of persons who are at risk of poverty or socially excluded by around 40,000 by 2020. In 2008, which serves as the baseline year for the EU 2020 goals, 361,000 persons belonged to this group in Slovenia; therefore this number should be reduced to 320,000 by 2020. According to 2009 data, 223,000 people lived at-risk-of-poverty, 121,000 people were seriously materially deprived and 88,000 lived in households with very low labour intensity. Altogether (excluding any double counting across sub-indicators) there were 339,000 people who lived at-risk-of-poverty or were socially excluded.

<sup>134</sup> Tine Stanovnik, Income inequality in Slovenia in the period 2005-2009, internal documents.

### 4.3.2. Access to non-economic services of general interest and housing

*The children's attendance at the organised forms of pre-school education has been rising, as well as the pressure for enhancing kindergarten capacities.* In the school year 2010/2011, 54.6% of children aged 1–2 attended kindergarten, along with 89.1% of children aged 3–5. The attendance increased in both age groups, even more in the older one. In the entire period since 2000, however, the attendance in the younger age group was rising faster. In 2008 (the last available international data), the percentage of children aged 3–5 attending the organised forms of pre-school education was higher than the EU average for the second year in a row, and it even rose more than in 2007 and in the entire 2000–2008 period. Almost all the children attending kindergarten are included in day-care programmes,<sup>135</sup> with this share further rising. A high percentage of day-care attenders is related to high rates of women in employment and especially in full-time employment. As the number of births has increased in recent years and free-of-charge kindergarten was introduced for younger children if more than one child in a family attends kindergarten, there has been an increasing need to enhance kindergarten capacities. The number of children whose admission had to be rejected surged in the school year 2009/2010, and given the rising number of births, further pressures for enhancing kindergarten capacities are expected also in the future.

*Participation in education<sup>136</sup> in Slovenia exceeds the EU average, both of the young and adults.* Participation of the young in tertiary education and participation of adults in informal education has been rising further. However, trends of adult participation in formal education have been less favourable, as it has decreased in recent years.

*In 2010, important measures were taken to improve the access to health-care services.* Among them, there were measures for increasing the number of physicians, strengthening primary-level care and shortening of waiting time. It is estimated that Slovenia lacks around 500 physicians,<sup>137</sup> which has a negative impact on the quality, efficiency and cost-efficiency of medical treatment as well as on the equality of access. The greatest problems are encountered in the access to some primary-level services (preventive care, physiotherapy, turn of duty) and at the secondary level, primarily due to a long waiting time for the first examination in out-patient clinics and for some surgical treatments and

operations. In 2009, the number of physicians already rose more than in the past years, and in 2010, some measures were taken to increase the inflow of foreign physicians and to augment the enrolment at the faculty of medicine. 2009 also saw a higher increase in the number of general practitioners than in the past. In 2010, 40 new training out-patient clinics were opened, 40 reference out-patient clinics where registered nurses will assume greater responsibilities, and additional funds were provided for expansions at the primary level in the next years<sup>138</sup> to strengthen primary health-care. By the new regulation in place (Rules on the management of waiting lists and waiting times the maximum permissible for individual health services) waiting time shortened considerably. Also the access to acute hospital treatment has not deteriorated markedly despite the austerity measures taken in 2009.

*An increase in out-of-pocket household expenditure affected financial accessibility of health-care services and goods; in recent years, it has deteriorated for the households with the lowest incomes.* Back in 2008, (the last data available data), household expenditures on health<sup>139</sup> (excluding expenditure on supplementary health insurance) increased; in the period 2005–2008, the proportion of these expenditures in total consumption increased the most for the households with the lowest incomes (from 1.5% to 2.8%). A rise in premiums in 2009 and 2011 further pushed up these expenditures.<sup>140</sup> Worsened financial accessibility of health-care services for the households with lowest incomes further increases inequalities in health, based on socio-economic position. Financial accessibility is estimated to be the most problematic in dental care for adults, where waiting time in the public network is particularly long, and also the co-payments are very high. Also, great disparities in the frequency of visits to a dentist stemming from a socio-economic position are most likely related to the financial burden.<sup>141</sup>

*Looking at the social care, the number of users of various services continues to rise. In 2009, the number of users of long-term care increased the most (home-care as well as institutional care in old people's homes).* Despite the growing number of elderly persons in the population structure and increasing demand for these services, the inclusion of the elderly in these services improved thanks to increasing capacities of old people's homes and of home-care services (in 2009, 4.8% of the population aged 65 and more were included in institutional care services, and around 1.9% in home-care). Given the

<sup>135</sup> In the school year 2009/2010, 96.8% of children were included in day-care programmes, 3.1% in half-day care and 0.1% in shorter programmes.

<sup>136</sup> Education, including the participation of individual population groups in education, is dealt with in detail in Chapter 2.1. Education and Training.

<sup>137</sup> Estimate by the Medical Chamber based on the needs reported by public health institutes in 2009.

<sup>138</sup> Measures from Annex 2 to the 2010 General Agreement (adopted on 2 December 2010).

<sup>139</sup> According to the Household Budget Survey data.

<sup>140</sup> As the costs of services from compulsory programme for the most socially deprived are covered by the state and they are not obliged to pay supplementary health insurance, a rise in premium does not additionally deteriorate their financial accessibility.

<sup>141</sup> Inequalities in Health in Slovenia, 2011.

existing strategic goals<sup>142</sup> the situation has improved in particular in institutional care, but there is still a lag in the development of home care. In most EU countries for which data is available, the share of population included in home care is considerably higher than the percentage of those in institutional care, with the latter decreasing in the countries which had very high inclusion in the past. In Slovenia, the situation is the opposite, which is why the future measures should not be focused so much on the construction of new old people homes, but on the development of other forms of care.

*In the area of **housing supply**, the trends from the past have continued.* The housing fund increased by 1% in 2009, which was around the same as in the previous years. The trends of increasing floor area of dwellings have also continued. Consequently, the overcrowding rate<sup>143</sup> has decreased (from 42.0% in 2005 to 38.0% in 2009). The share of households for which housing expenditures represent a high burden has been slightly rising; in 2009, it was 36%, by 1 percentage point up from the year before; the percentage is particularly high among the tenants (although this did not increase from the year before – 60%).

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<sup>142</sup> Resolution on the national social assistance programme 2006–2010 sets forth as a goal the inclusion of 5% of persons aged 65 and more in the institutional care in old people's homes and 3%.

<sup>143</sup> The overcrowding rate is the percentage of persons living in dwellings with not enough rooms in view of the number of household members (source of data: SILC research by SORS).

## 5. Integration of measures to achieve sustainable development

**SDS guidelines:** The priority Integration of measures to achieve sustainable development 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, decreasing 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. 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 measures planned 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 the ethical, social, economic and political aspects of culture.

### 5.1. Integrating environmental criteria with sectoral policies

**Greenhouse-gas (GHG) emissions in Slovenia decreased in 2009, but the improvement in the emission intensity of the economy<sup>144</sup> was small for the second consecutive year.** After GHG emissions in Slovenia reached a peak in 2008, they decreased by 9.1% in 2009. The decrease was mostly

the result of lower economic activity in 2009, since emission intensity (the amount of emissions per unit of real GDP) decreased only by 1.1%<sup>145</sup>, which, in view of the past trends in Slovenia and the EU, is relatively little. Emission intensity is a synthetic indicator reflecting three main sets of factors: the energy intensity of the economy, the structure of energy consumption and the structure of economic activity in the wider sense. The first two have an impact mostly on emissions related to fuel consumption. With slightly lower energy intensity and an increase in the share of renewable energy sources, emissions from fuel consumption decreased slightly more (by 9.2%) than other GHG emissions (by 8.8%), in which emissions from agriculture even slightly increased<sup>146</sup>. In 2009, emissions from fuel combustion represented more than 80% of total GHG emissions in Slovenia; the remaining fifth was the result of emissions in agriculture (especially livestock production), industrial processes (e.g. in manufacture of cement and lime) and inappropriate waste management.

*Due to the economic crisis, in 2009, the consumption of all types of energy, except hydro-energy, decreased, which led to a considerable increase in the **share of renewable energy sources (RES)**.* The most important RES in Slovenia are wood and hydro-energy; the share of hydro-energy is the highest in the EU, which is to a large extent the result of natural conditions. With slow construction of new capacity<sup>147</sup> in Slovenia, use of RES fluctuates between years depending on hydrological conditions. In 2009, they were favourable, which enabled a large increase in production and consumption of hydro-energy (by 17.4%). This more than substituted for lower use of most of the other RES, giving a 4.7% total increase in RES use. With a 9.8% decrease in total energy consumption, which was mostly the result of the economic crisis, the share of RES increased in 2009 to 12.9%<sup>148</sup>. For 2010, we estimate that with the relatively slow economic recovery, energy consumption in Slovenia slightly increased, while consumption of hydro-energy decreased only marginally. This led to the decrease in the share of RES, but according to our estimates it was still somewhat above the target value of 12%<sup>149</sup>. The share of RES in electricity consumption fluctuates even

<sup>145</sup> In 2008, the trends were even more unfavourable; compared with 2007, emission intensity decreased only by 0.2%. See also the indicator Greenhouse-gas emissions.

<sup>146</sup> Emissions from agriculture and waste depend less on the economic cycle.

<sup>147</sup> Slovenia has considerable potential to increase the exploitation of renewable energy sources, but projects are not being realised (wind energy) or construction is progressing only slowly (hydro-energy). Progress in the sense of reducing administrative barriers (building permits) was achieved at the end of 2010 for smaller rooftop solar plants.

<sup>148</sup> From 11.0% in 2008.

<sup>149</sup> The target of the Resolution on the National Energy Programme (2004) was to achieve a 12% share of RES in primary energy consumption and a 33.6% share in total electricity consumption by 2010.

<sup>144</sup> GHG emissions per unit of real GDP.

Tabela 8: Greenhouse-gas emissions by sector, Slovenia and the EU

|   | Share in 2008  |              | Change compared to base year emissions* |              | Slovenia, 2009 |                  |  |
|---|----------------|--------------|---|--------------|----------------|------------------|--|
|   | Slovenia, 2008 | EU-27, 2008  | Slovenia, 2008                          | EU-27, 2008  | Share          | Growth over 2008 | Change compared with base-year emissions |
| GHG emissions from fuel combustion      | 80.4           | 77.2         | 10.1                                    | -6.7         | 80.3           | -9.2             | -0.1                                     |
| Energy                                  | 30.0           | 30.9         | -5.1                                    | -9.3         | 31.5           | -4.7             | -9.6                                     |
| Industry                                | 10.8           | 12.3         | -47.7                                   | -25.0        | 9.9            | -16.8            | -56.5                                    |
| Transport                               | 28.9           | 19.5         | 201.6                                   | 23.6         | 27.6           | -13.3            | 161.6                                    |
| Households and commercial use           | 9.4            | 12.9         | 5.7                                     | -11.8        | 11.3           | -3.3             | -7.6                                     |
| Agriculture, forestry and fisheries     | 1.2            | 1.6          | -44.6                                   | -15.1        |                |                  |  |
| GHG emissions from industrial processes | 5.6            | 8.3          | -6.8                                    | -15.4        | 4.4            | -29.9            | -34.7                                    |
| Agriculture                             | 9.2            | 9.6          | -11.4                                   | -20.2        | 10.3           | 1.6              | -10.0                                    |
| Waste                                   | 3.0            | 2.8          | 9.1                                     | -33.0        | 3.0            | -5.6             | 3.0                                      |
| Other                                   | 1.8            | 2.2          | -35.5                                   | -45.5        | 2.0            | -1.3             | -36.4                                    |
| <b>Total GHG</b>                        | <b>100.0</b>   | <b>100.0</b> | <b>5.2</b>                              | <b>-11.3</b> | <b>100.0</b>   | <b>-9.1</b>      | <b>-4.4</b>                              |

Source: UNFCCC, Environmental Agency of Slovenia; calculations by IMAD.

Note: \*According to the Kyoto Protocol, base-year GHG emissions for Slovenia are those in 1986, while for EU Member States they are the sum of emissions in different base years (mostly 1990).

more depending on the production of hydro-energy. In 2009, the share increased to a high 36.8%, while in 2010, it slightly decreased, according to our estimates, and drew close to the target level of 33.6%. The EU target for Slovenia is to achieve at least a 25% share of RES in gross final energy consumption by 2020, for which a real breakthrough will be needed in the next ten years.<sup>150</sup> To achieve this target, Slovenia adopted the National Action Plan for Renewable Energy Sources 2010-2020 in 2010, which specifies sectoral targets and measures to achieve them.

*The energy intensity of the economy slightly improved in 2009 and reached the 2007 level.* In the 2000–2007 period, energy consumption per unit of GDP on average decreased by 2.6% per year in Slovenia, while the 2008 trends were unfavourable as regards energy intensity. While in most EU Member States the downward trend in energy intensity<sup>151</sup> continued, energy intensity in Slovenia increased by 2.1%. The deterioration was mostly the result of exceptional growth in energy consumption in transport (by 17.2%). In the main crisis year, 2009, energy consumption decreased more than economic activity, which led to a 1.8% decrease in energy intensity. The greatest impact on the decrease in total primary-energy consumption was, contrary to the previous year, that of liquid fuels (49%), mostly as a result of the 13.4% decrease in liquid fuel consumption in transport. With the exception of 2009, the main pressures to increase energy consumption have for some time come from road transport. This is also true for the EU, but in Slovenia these pressures are more distinct. In addition to

the above-average share of transport<sup>152</sup> in total energy consumption in Slovenia, industry also has a relatively high share. Both contribute to the higher energy intensity of the economy, which was 16.4% higher than in the EU in 2008 (in 2000 13.3%).

*The decrease in energy intensity in manufacturing (by 1.3%) continued in 2009, while the share of emission-intensive industries remained the same.* In 2009, energy costs represented 12% of value added<sup>153</sup> on average in the manufacturing sector, with most in manufacture of basic metals and fabricated metal products (60%). More efficient energy consumption can thus have a significant impact on the competitiveness of this, the most export-oriented part of the Slovenian economy. While in the 2000-2008 period energy intensity in manufacturing on average decreased more quickly than in the total economy, it fell slightly behind in 2009. At the same time, the 1.3% improvement was lower than in the previous years. Decomposition analysis of the decline in energy consumption in manufacturing shows that it declined<sup>154</sup> in part due to a relatively higher decrease in value added in energy-intensive manufacturing activities, i.e. due to the effect of the changed structure. However, in 2009 the favourable downward trend did not continue in energy intensity within individual industries, which is the main indicator of quality changes<sup>155</sup> In manufacturing

<sup>152</sup> See also the indicator Energy intensity.

<sup>153</sup> A comparable share for all companies is 10.4% (calculations by IMAD on the basis of AJPES data).

<sup>154</sup> The largest contribution to the decrease in energy consumption was the smaller extent of production as a result of the economic crisis.

<sup>155</sup> These trends may be the result of narrow investment opportunities in this year, since the improvement of energy efficiency in industry is to a large extent related to technological modernisation.

<sup>150</sup> In 2008, the share was 15.1% (calculation of this indicator is methodologically different from the target of the Resolution on the National Energy Programme).

<sup>151</sup> On average in the EU it decreased in 2008 by 1.2%.

about 70% of GHG emissions are generated due to fuel consumption, while the remainder is made up of so-called process emissions. Industry-related emissions (due to fuel consumption and industrial processes) decreased significantly in 2009, mostly as a result of a large decrease in production in manufacturing activities, which were relatively more affected by the economic crisis. Within the structure of manufacturing, emission-intensive industries had a 22.8% share, as in the previous year. The importance of these industries is much greater than in most EU Member States, especially taking into account the fact that the share of manufacturing is relatively high in Slovenia.

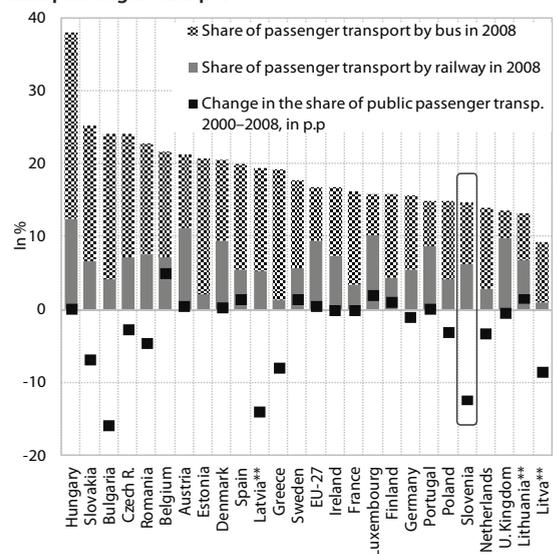
*The central instrument of reducing GHG emissions is the EU Emissions Trading System (EU ETS), while at the national level the key issue will be to reduce emissions from diffuse sources, especially transport.* The EU ETS mostly includes installations from the energy and manufacturing sectors. In the second trading period (2008–2012), emissions allowances are distributed on the basis of national allocations plans, which must reflect the Kyoto targets of EU Member States, while in the third trading period (2013–2020) the allowances will be determined at the EU level. For manufacturing activities, emission permits in the first and second trading periods were distributed free of charge, while from 2013 on they will be purchased at auctions, with a gradual transition.<sup>156</sup> Eligibility to receive free allowances will be determined on the basis of the average emissions performance of the most efficient 10% of installations in a given sector in the EU (benchmark), which should encourage enterprises to lower emissions. For the EU ETS sector, the target was determined for the EU as a whole, i.e. 21% emissions reduction by 2020 compared with 2005. From 2013 on, the responsibility of individual Member States will be to implement measures for reducing emissions from diffuse sources, such as transport, buildings, households and agriculture, for which targets are determined for each country; Slovenia is permitted to increase emissions by 4% compared with 2005.<sup>157</sup>

*The modal split of freight transport remains unfavourable.* With low economic activity in 2009, railway goods transport decreased much more than road goods transport, which led to a further increase in the share of road transport in total goods transport (to 84%). Such a trend, which is unfavourable from the point of view of sustainable mobility, is also present in the EU, but it is much more noticeable in Slovenia. Data for the first three quarters of 2010 show that more rapid growth in

railway transport<sup>158</sup> led to an improvement, but the share of road goods transport was still higher than before the crisis in 2008. In addition to the unfavourable modal split of freight transport, the volume of freight transport in Slovenia is extremely high. In 2009, the total tonne kilometres per capita of Slovenian transport operators<sup>159</sup> was more than twice the EU average; railway goods transport was also higher. The high growth in goods transport was recorded particularly after Slovenia joined the EU and at the latest enlargement. The volume of transport, which dropped significantly in 2009, returned to the 2008 level according to data for the first nine months of 2010.

*In public passenger transport the downward trend in bus transport continued in 2009 and 2010.* According to Eurostat data, in 2008 public passenger transport represented only 13.8% of total passenger transport in Slovenia, which is much less than in most EU Member States (see Figure 21). Despite suburbanisation, between 2001 and 2009 long-distance bus transport declined almost by half, while the number of passengers transported by urban transport fell by more than a fifth. In 2010, the downward trend continued in both modes of transportation. Since 2001, trends in railway passenger transport have been slightly more favourable; in 2001–2009, railway passenger transport increased by 17.5%, while data for the first three quarters of 2010 indicate a decline. Data on road passenger transport by cars for 2009 and 2010 are not yet available. A slight slowdown in growth can be inferred from the slower

Figure 21: Shares of transport by bus and by railway in total land passenger transport\*



Source: Eurostat Portal Page – Population and Social Conditions in Transport, 2011. Notes: \* Transport measured in passenger kilometres; \*\* Change in 2002–2008.

<sup>156</sup> In 2013, industry will be entitled to free allowances in the amount of 80% of the base, by 2020, the share of free allowances will decrease to 30%, while from 2027 onwards industry will also have to purchase all emission allowances at auctions. Industrial sectors that would be potentially exposed to carbon leakage will receive free allowances, taking into account the best available technology criterion.

<sup>157</sup> See also the indicator Greenhouse-gas emissions.

<sup>158</sup> Also due to the entry of a foreign railway operator into the Slovenian market.

<sup>159</sup> Most (85%) transport services are performed in international transport.

growth in the number of registered passenger cars and the above-average decrease in the sale of petrol in 2009 and 2010<sup>160</sup>.

**Absorption of EU Cohesion Policy funds for transport infrastructure within the Financial Perspective 2007–2013 is more successful for road than for railway infrastructure.** Within the Operational Programme of Environmental and Transport Infrastructure Development for the period 2007–2013 (OP ROPI), EUR 450 m of Cohesion Fund money<sup>161</sup> is intended for railway infrastructure; however, by the end of 2009, no project had been confirmed.<sup>162</sup> Slight progress was seen in 2010, since EUR 68 m was approved for modernising the existing Divača-Koper line, of which EUR 7.5 m was paid and EUR 2.5 m returned to the state budget and certified. Of the foreseen EUR 220.9 m for road and maritime infrastructure, EUR 156.8 m was certified by the end of 2010.

**Due to the increase in excise duties, in 2009 environmental taxes increased rather substantially; according to our estimates; the already relatively high share of energy taxes within environmental taxes thus increased further.** Revenue from transport taxes decreased by 16.9% in 2009.<sup>163</sup> Despite the above-average volume of transport, which is reflected in the road transport activity and the number of passenger cars per 1,000 inhabitants among other indicators, general government revenue from transport taxes (in % of GDP) in Slovenia is slightly lower than the EU average.<sup>164</sup> Among transport taxes, the largest revenue in 2009 was recorded from registration fees on vehicles paid by individuals (57%) and tax on sales of new motor vehicles (28%). Since the beginning of 2010, the tax rate for the latter has been linked to CO<sub>2</sub> emissions and the type of fuel used by the vehicle. This encourages the purchase of vehicles with lower emissions, since for vehicles with higher emissions, higher taxes must be paid. The tax rate is also higher for diesel-fuelled vehicles; this makes sense in terms of including negative externalities related to transport since the use of diesel fuel (gas oil used as propellant) causes higher emissions of NO<sub>x</sub> and PM, which affect air quality and human health. Higher taxes on diesel fuel are also foreseen by the introduction of the CO<sub>2</sub> tax, the implementation of which has been postponed until October 2011. In addition to EU ETS, the CO<sub>2</sub> tax should represent one of the key instruments of reducing GHG emissions. Its introduction would be accompanied by adjustment of excise duties. This tax would also penalise the business

use of fuels, slightly increasing its cost, including for hauliers, where in mid-2009 a possibility of excise refunds (up to a minimum level of excise duty) for diesel used for commercial purposes was introduced.<sup>165</sup> The main reason for introducing the scheme for commercial purposes was to reduce the costs of transport of goods and passengers, which stemmed a further decline in the sale of motor fuels to (transit) goods transport.<sup>166</sup> After being at the minimum permitted level in 2008, excise duties on petrol and diesel fuel increased considerably in 2009, on average to EUR 0.466 and EUR 0.431 per litre. By changing the rates of excise duties, the government is attempting to pursue some economic policy objectives (general government revenue, inflation), which could, however, lead to lower efficiency of this tax as an environmental policy instrument. Revenue from excise duties on motor fuels represented as much as 95% of energy taxes or almost 80% of all environmental taxes in Slovenia in 2009. Higher revenue from excise duties has led to an increase in revenue from environmental taxes, the share of which, according to our estimates, was 3.6% of GDP in 2009. Revenue from these taxes in Slovenia is rather high; however, at least until 2009 this was largely due to higher energy consumption. The implicit tax rate, which eliminates this effect, had been even slightly below the EU average in Slovenia,<sup>167</sup> but grew significantly in 2009, according to our estimates, due to the previously mentioned rise in excise rates.

**In 2009, energy consumption in households decreased by 2.0%, which was mostly the result of lower consumption of petroleum products.** Energy consumption in households varies rather significantly between years depending on the prices of petroleum products and natural gas, which can partly be attributed to the delay in purchasing to the time when prices of petroleum products and natural gas are lower, and partly to more efficient use during the period of high prices. Consumption of these two sources of energy, which also shows a declining trend, decreased in 2009 by 3.5%, which led to a decline in GHG emissions from households. In 2009, electricity consumption in households also declined; however, compared with 2000, it was a fifth higher.<sup>168</sup> In addition to transport, energy use in buildings is the field with the greatest opportunities for improving energy efficiency. To achieve energy savings, since 2008 the Eco Fund has been awarding grants to natural persons for improving energy efficiency, which are expected to amount to at least EUR 12.0 m in

<sup>160</sup> Sales of petrol were also decreasing in the past, which is most probably related to the rising share of passenger cars that run on diesel; however, the decrease in 2009 and 2010 was more distinct than in the past.

<sup>161</sup> The total estimated value of the five largest priority projects in the field of railway infrastructure is EUR 1.40 bn.

<sup>162</sup> 2009 Annual Report on OP ROPI Implementation, 2010.

<sup>163</sup> Estimates of revenue from environmental taxes for Slovenia for 2009 are calculated from SORS data by ESA 1995 categories.

<sup>164</sup> See the indicator Environmental taxes and implicit tax rate on energy consumption.

<sup>165</sup> OG RS 41/2009.

<sup>166</sup> According to our estimates, the (relative) elasticity of demand for diesel fuel in Slovenia is higher than in the case of petrol, which is attributable to the fact that demand for diesel largely depends on goods transport, both of transport operators registered in Slovenia and foreign transport operators.

<sup>167</sup> Latest available data for 2008.

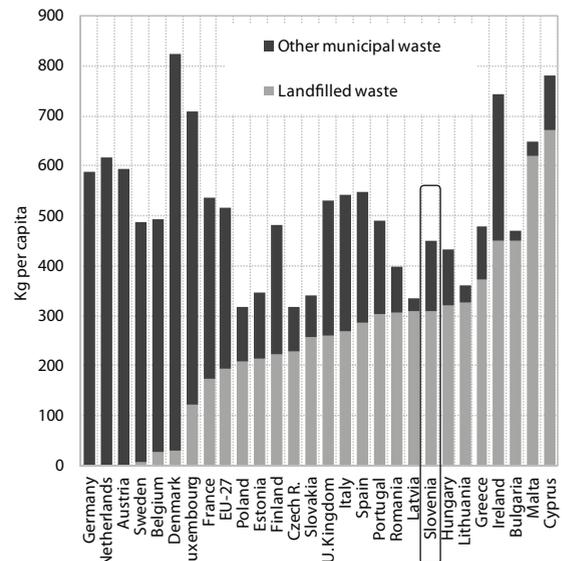
<sup>168</sup> Data on the use of renewable energy sources, which represent the most important energy sources in households, are collected with the survey every five or more years, so it is not possible to draw conclusions at the annual level.

total in 2011.<sup>169</sup> In accordance with the Regulation on Energy Savings Ensured to Final Customers,<sup>170</sup> funds for implementing the programme will be provided from collected contributions for electricity, and additions to the price of heat and fuel. Regulatory measures should also contribute to improving energy efficiency in buildings. In July 2010, new Rules on Efficient Use of Energy in Buildings<sup>171</sup> came into force, which for new and renovated buildings stipulate a mandatory 25% share of renewable energy sources in the total energy supply, along with strict criteria for thermal insulation, etc.

As regards **waste**, trends in 2009 were more favourable, while as regards municipal waste management Slovenia is still far behind the EU average. Sustainable waste management is based on the principles of hierarchy: we should try hardest to prevent waste generation, followed by reuse, recycling, energy recovery and finally disposal. In 2009, about 6.8 million tons of waste was generated,<sup>172</sup> of which 86.5% in production and service activities, and the rest was municipal waste. Compared with the previous year, the amount of waste decreased<sup>173</sup> and waste management improved. In 2009, almost 90% of waste from production and service activities was generated in three sectors: manufacturing (30%), energy and gas supply (29%), and construction (27%). This means that most waste per unit of value added was generated in energy supply.<sup>174</sup> In managing waste from production and service activities, relatively favourable trends continued in 2009, since most of this waste was recovered. In recent years the emphasis at the EU level has been on the integration of natural resources and waste policy. Substances obtained from waste in production processes are increasingly used as raw material, which contributes to the closing of material flows; besides, waste can be an important source of energy.<sup>175</sup> As regards *municipal waste*, the share of landfilled waste decreased in 2009 to 68.8%, but it was still high and much higher than the EU average (37.4%). The amount of municipal waste, which also depends on the general level of development, is lower in Slovenia than in the EU (Slovenia: 449 kg per capita; EU: 514 kg per

capita per year<sup>176</sup>); however, due to inappropriate waste management in Slovenia, in 2009 over 60% more waste per capita was landfilled than on average in the EU. One of the first steps towards appropriate municipal waste management is separate collection. This is especially important in biodegradable waste, which can with inappropriate degradation represent a significant source of GHG emissions (e.g. landfill methane). The second important obstacle to sustainable waste management is inappropriate infrastructure and facilities for waste management. Within the OP ROPI for 2007–2013, EUR 205 m<sup>177</sup> of cohesion policy funds was foreseen for ten projects in the field of municipal waste management, of which only EUR 10.8 m was certified by the end of 2010.<sup>178</sup>

Figure 22: Municipal waste per capita, EU Member States, 2009



Source: Eurostat Portal Page – Environment, 2011.

Note: Classified by the amount of landfilled waste per capita.

**The impact of agriculture on the environment** (measured by the use of fertilisers and pesticides, average yield of crops and intensity of livestock production) is moderate and decreasing in the long run; however, in the field of sustainable farming, for the first time a decline was recorded in 2009. In the past few years, Slovenian agriculture, which is not ranked among the more intensive according to some other indicators,<sup>179</sup> has been improving its environmental focus. This has largely

<sup>169</sup> 2010: EUR 18 m, 2009: EUR 4 m, 2008: EUR 7.5 m (Business and Financial Plan of the Eco Fund for 2011, 2010).

<sup>170</sup> OG RS 114/09.

<sup>171</sup> OG RS 52/10.

<sup>172</sup> In 2008, slightly more than 7 m (SI-STAT – Environment and natural resources, 2011).

<sup>173</sup> The amount of waste from production and service activities decreased by 5.7% and of municipal waste by 1.1%.

<sup>174</sup> The shares of value added in GDP in 2009 were: 17.1% (manufacturing), 6.9% (construction) and 2.8% (electricity, gas and water supply). On the other hand, most of the hazardous waste per unit of value added is generated in manufacturing.

<sup>175</sup> For example, biodiesel from waste edible oils and fats. The Benelux countries and Denmark use a significant amount of solid municipal waste for energy purposes (the share in the Netherlands is 42.7% of RES, while the EU average is 9.8%).

<sup>176</sup> In 2008, in Slovenia 459 kg per capita, and for the EU 520 kg per capita.

<sup>177</sup> The total value of projects is estimated at EUR 357 m.

<sup>178</sup> For two regional centres: Ljubljana and Koroška.

<sup>179</sup> Analysis by the European Commission (Agricultural statistics, 2010) stated that according to several indicators of environmental burden, Slovenian agriculture is below the EU average.

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 2009, use of NPP fertilisers per unit of utilised agricultural area decreased by 14.0% and was the lowest in the whole observed period. The sale of pesticide declined by 4.5% and was more than a fifth lower than in 2000. The change in agricultural production intensity, which is monitored by the average yield of the two most important crops, differed. The wheat yield per hectare decreased by 11.1%, while the maize yield per hectare increased by 6.8%; however, in both crops, yield was below the EU-15 average. The low level of crop production is not optimal in terms of utilising land as a natural resource. A very high level would also not be appropriate because it would put greater pressure on the environment. The impact of livestock production on the environment is relatively stronger in Slovenia because this activity has a relatively large share in agriculture. However, it is declining in the long term. In the field of sustainable farming, trends were not favourable in 2009, for the first time to date. After fairly good results in the early period, its volume declined. Controlled areas decreased by 0.7% over the previous year; controlled areas with integrated farming decreased by 0.2% and controlled areas with organic farming by 1.5%. Despite the growing demand and large development potentials, the achievement of strategic goals in this area has thus already become almost impossible.

*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. Due to lower sanitation of forests, total removal in 2009 decreased (by 1.6%) and was at the level of 66% of potential (in the previous year 70% of potential). Tree-tending removal, which is vital for forest development and therefore most extensive, increased by 18.8%, but its share in total tree removal was still relatively low (around 65%, in 2000 around 71%). Larger production of high-quality wood and its economic exploitation is hampered by the high degree of fragmentation of forest property, inappropriate technological equipment and the inadequate skill levels of private forest owners as well as lack of cooperation and market orientation. At the same time, the export of raw-wood categories increased, so that more than a quarter of total raw wood categories were exported. Export is mostly oriented to neighbouring markets, where the forest-wood chain is recognised as an important factor of economic development, and where, due to high capacities of processing and related better price competitiveness, wood purchasers offer higher purchase prices. Export also increased due to lower domestic demand in manufacturing, since the economic crisis greatly affected the Slovenian wood-processing industry.

Three development centres, financially supported by the European Regional Development Fund<sup>180</sup>, should help improve the competitiveness of this activity. To achieve higher value added, it would be necessary to strengthen all links in the forest-wood chain, from production and processing of wood to marketing of wood and wood products.

## 5.2. Sustained population growth

*The population in Slovenia increased further in 2010, while net migration, which was the main reason for population growth in the past, was much lower.* By 1 October 2010, the population increased to 2,048,951 (3,050 more than a year before). The population in Slovenia exceeded 2 million in 2005, and since then the main reason for the increase has been high net migration of foreigners related to high economic growth and Slovenia's accession to the EU. Enterprises began to experience shortages in certain domestic occupational profiles, especially in construction, and therefore hired foreign workers more frequently. 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 inhabitants, among the highest in the EU. The increase in 2008 can also be explained by fictitious immigration after Slovenia's accession to the Schengen agreement, as foreigners, having obtained residence permits in the Republic of Slovenia, sought employment or the opportunity to live in other countries that are parties to the Schengen agreement. In 2009, net migration in Slovenia decreased to 5.6 per 1,000 inhabitants, which was still among the highest in the EU, while in the first three quarters of 2010, net migration was even negative, according to preliminary data.

*Since 2006 the population has also been increasing due to natural increase.* After more than 20 years of decline, the number of births reached the lowest level in 2003 (17,321); at that time, the total fertility rate was 1.20. Since 2004, the number of births has been growing, and in 2009, 21,856 children were born in Slovenia (39 more than a year before) with the total fertility rate the same as in the previous year (1.53). The age of women at birth continues to increase. For the first time in ten years, in 2006 the number of births was higher than the number of deaths, which is almost not increasing. Positive trends in the field of infant mortality, which was in 2009 the lowest in the EU, continue.

<sup>180</sup> On the basis of a public tender (OG RS 62/2010) financial support was given to development centres of the wood-processing industry in the Notranjsko-kraška, Koroška and Gorenjska regions. The total value of co-financing was EUR 25.7 m.

The fertility rate also depends on the conditions for creating a family. The set of measures for improving the conditions for starting a family and increasing the quality of family life includes parental leave, child benefits and organised care of preschool children. Slovenia has one of the most parent- and children-friendly parental-leave systems in the EU, as it enables a year's absence from work and 100% wage compensation. In 2009, 22,365 beneficiaries used parental benefits, which is 9.4% more than in the previous year. Inclusion of children aged 3–5 in kindergartens in Slovenia is high. According to the latest available data, it is slightly higher than the EU average.<sup>181</sup> In the field of labour, the quality of family life depends on measures easing parents' reconciliation of work and family life. One such measure is the project of Family-Friendly Enterprise Certificates promoting the corporate social responsibility concept. A total of 64 enterprises were given these certificates between 2007 (when they were awarded for the first time) and December 2010; this means that 54,224 employees were able to use various measures contributing to easier reconciliation of work and family life.

Longer life expectancy leads to a higher share of old people and high old-age dependency ratio. By 2009, life expectancy in Slovenia had increased to 82.3 years for women and 75.8 years for men (which is 3.2 years and 3.9 years more than in 2000). In 2010, there were already 23.9 old people (65+) per 100 working-age population (which is 3.9 more than in 2000), while the share of old population was 16.6%. Both indicators of age structure are still lower than the EU average, but the gap is decreasing. In view of Eurostat's demographic projections,<sup>182</sup> by 2020 the share of old people should grow to a fifth and by 2060 to a third. The old-age dependency ratio is expected to increase to more than 30% by 2020 and to much more than 50% by 2060. This demographic development will significantly increase the burden on the income of people in employment and the government. However, old people are materially and socially at above-average risk. In 2009, the at-risk-of-poverty rate for people over 65 was 20%, which is higher than the EU average (17.8%) and much higher than the average at-risk-of-poverty rate in the country (11.3%).<sup>183</sup> Old women have an especially high at-risk-of-poverty rate (25.5%). How old people live is shown by the material-deprivation rate, which was 18.1% in 2009, indicating the share of old persons deprived of important living sources such

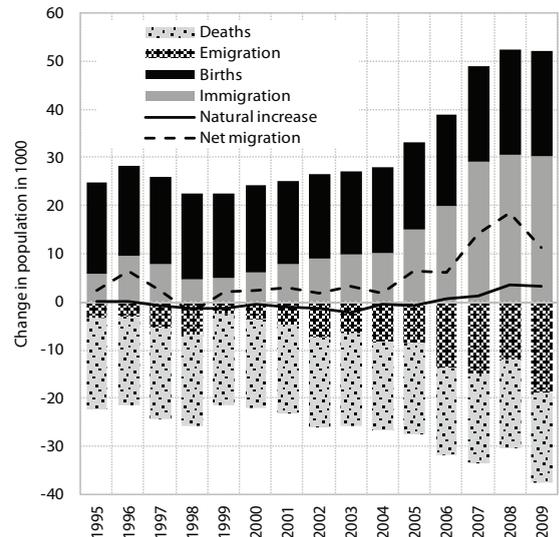
<sup>181</sup> In the 2007/08 school year (latest available international data), inclusion of children of this age in Slovenia (82.1%) was slightly higher than the EU average (79.8%); by 2011 it had increased further. For more on inclusion of children in kindergartens, see Chapter 4.3.2. Availability of non-economic services of general importance and dwellings.

<sup>182</sup> Data from latest projections (2008) available during the preparation of the report.

<sup>183</sup> The difference between the at-risk-of-poverty rate of older people and the average at-risk-of-poverty rate in the country is much higher in Slovenia than in the EU (average rate in the EU is 16.3%).

as adequate heating of a dwelling, appropriate meals, etc.<sup>184</sup> The expected trends and the given conditions demand systematic and harmonised measures in the fields of demographic, social, employment and public-finance policies.

Figure 23: Components of population growth, Slovenia



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

### 5.3. More balanced regional development

According to the latest data for 2008, regional variation in GDP per capita slightly decreased; however, it has been rather stable since 2003. Disparities of GDP per capita at the NUTS-3 level in Slovenia are rather low compared with those in other EU Member States, as Slovenia is ranked among the top quarter of EU Member States with the lowest disparities, which also includes the Nordic countries. In the EU as a whole, the disparities are decreasing, but mostly in new Member States with a simultaneous increase in disparities among regions within countries. In 2008, regional dispersion of GDP per capita in Slovenia decreased by 0.4 p.p.; it was 2.4 p.p. higher than in 2000, meaning that in the long run, differences between regions increased slightly, but they have been relatively stable since 2003. Regional differences in net disposable income per capita are even smaller; they also changed less in the 2000–2008 period. As in most other EU countries, in Slovenia economic activity is concentrated in the region with the state capital, i.e. Osrednjeslovenska; however, differences between the two regions at the far ends of the country are much smaller than in most other EU Member States.

<sup>184</sup> For more on material deprivation, see the indicator Risk of poverty and material deprivation.

The registered unemployment rate increased in 2009 and 2010 in all regions; the **regional variation in unemployment** also slightly increased. After declining in the 2003–2008 period, in the past two years, regional variation in unemployment increased. In 2009 and 2010, the registered unemployment rate significantly increased in all regions, and slightly more (measured in percentage points) in regions with above-average registered unemployment rates (especially regions in Vzhodna Slovenija), which led to larger intra-regional disparities. Similarly, the ratio between the region with the highest registered unemployment rate and the region with the lowest registered unemployment rate slightly increased. In 2010, the rate was still highest in the Pomurska region (19%) and lowest in the Obalno-kraška region (7.9%). The number of unemployed persons increased most in the Osrednjeslovenska region, in which the lowest registered unemployment rate was recorded a year previously. The rate also increased significantly in some other regions with below-average rates. Given labour-market trends, the number of recipients of unemployment benefits and financial social assistance also increased. In 2010, the number of recipients of unemployment benefits increased most in the Koroška region, while the highest number of recipients per 1,000 population was recorded in Pomurska (25), followed by Koroška (20). The number of recipients of financial social assistance also increased most in the Koroška region, while the highest number of recipients per 1,000 population was recorded in Pomurska and Podravska.

In Slovenia, too, economic and social consequences of the economic crisis are felt most in the least developed regions. During the economic crisis, the already high unemployment rate in the Pomurska region increased further, and this was the drive for the adoption of the Development Support to the Pomurska Region Act.<sup>185</sup> For restructuring the region, the Act (valid for the 2010–2015 period) enabled redistribution of financial resources from the existing programmes and provided additional funds. It is based on a new approach (regional development intervention), which involves a place-based policy and mutual coordination between programmes and various sectors at national and local levels. On the basis of the adopted act, the ministries allocated to the Pomurska region EUR 231 m for the entire period, of which just over EUR 37.7 m was approved in 2010. It is still too early to be able to assess the success of implementing the act, but initial data<sup>186</sup> show that by the end of 2010, 91 business entities were included in co-financed projects (by the end of 2015, 150 business entities are expected to be included), and enterprises into which public funds were invested created 154 new jobs (by

the end of 2015, 400 new jobs are expected). Due to bankruptcy of enterprises, unemployment continued to increase in 2010 in the Koroška region and in Pokolpje (in Jugovzhodna Slovenija). Based on the amended Decree on Regional Development Incentives,<sup>187</sup> Pokolpje was able to obtain funds for financing additional development tasks in the region, especially for strengthening regional management. Within this measure in Pokolpje the same approach as in the Pomurska region is being applied. Because economic conditions could also deteriorate in other regions, the Promotion of Balanced Regional Development Act envisages a temporary systemic measure intended for development support to areas where unemployment will rise to critical levels.

**Accelerated absorption of cohesion policy funds<sup>188</sup> continued in 2010.** In tighter economic and social conditions in the regions, financial resources from cohesion funds play a particularly important role. Due to the economic crisis, the Operational Programme for Strengthening Regional Development Potentials for the 2007–2013 period and the Operational Programme of Environmental and Transport Infrastructure Development for the 2007–2013 period were amended and appropriate redistribution of funds within individual development priorities of the Operational Programme for Development of Human Resources for the 2007–2013 period were carried out. Measures were adopted that simplified the disbursement of cohesion-policy funds. According to data at the end of 2010, activities in the amount of EUR 2.3 m of European funds were confirmed (56% of total entitlement spending in the programming period), including 46.5% within the Operational Programme for Strengthening Regional Development Potentials, which, among other things, pursues the objective of balanced regional development. This operational programme otherwise represents more than 40% of entitlement spending of all operational programmes in the entire programming period. By the end of 2010, almost 18% of entitlement spending for the entire programming period was certified refund applications to the European Commission (the EU-27 average was 11.6%), and 28.2% of entitlement spending was from the budget of the Republic of Slovenia (European part).

**The regional tertiary education network continues to expand.** Between 2000 and 2009, new higher-education institutions and vocational colleges were established, which significantly changed their regional distribution and the distribution of study programmes. The situation is favourable for undergraduate studies, especially in professional higher-education programmes. Greater accessibility has an impact on greater participation in tertiary education, where the already small regional differences continue to diminish. The participation of the population aged 20–29 in tertiary education increased

<sup>185</sup> Development Support to the Pomurska Region in the 2010–2015 Period Act (ZRPPR1015; OG RS 87/2009), which started to be implemented on 1 January 2010.

<sup>186</sup> First annual report on implementing the measures in the Development Support to the Pomurska Region in the 2010–2015 Period Act, 2011.

<sup>187</sup> Decree amending the Decree on Regional Development Incentives, OG RS 37/2010.

<sup>188</sup> Structural funds and the cohesion fund.

in 2009 in all regions except in Osrednjeslovenska (-3.5 p.p.). On this indicator, regional differences are not large and continue to decrease. The number of graduates per 1,000 population by regions is also mostly growing, while regional differences continue to decrease. However, these data do not offer information about the efficiency of the tertiary-education network and its quality, which is related to lack of supervision over the quality of tertiary education. Reconciliation of the number of available jobs requiring tertiary education with the number of tertiary graduates and the quality of tertiary studies is also important in reducing regional disparities in development, along with the accessibility of educational institutions; however, these data are not available.

*As regards **population settlement**, the concentration of population and jobs in cities of the Osrednjeslovenska region continues, accompanied by processes of suburbanisation and deurbanisation, which weaken regional centres.* The concentration<sup>189</sup> of jobs and population, especially in the Osrednjeslovenska region, increases short- and long-distance labour mobility as well as motor-vehicle transport. Higher daily mobility is also affected by suburbanisation, which is, among other things, the result of an unregulated real-estate market and spatial planning, all of which has an impact on increased greenhouse-gas emissions and other external costs of transport (road congestion, accidents, lower quality of life, negative health impacts, etc.). With inappropriate spatial planning, 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 in areas receiving immigrants, which is usually not adapted to the increased population.

## 5.4. Improving spatial management

***Updating of legislation related to spatial management** continued in 2010; however, changes were too small to effectively solve the accumulated problems.* The Act amending the Spatial Planning Act<sup>190</sup>, which came into force in early 2010, slightly facilitated and stimulated<sup>191</sup> the adoption of new municipal spatial plans; however, only a small number of municipalities managed to do that. According to the Ministry of the Environment and Spatial Planning,<sup>192</sup> by the end of 2010 municipal

spatial plans were adopted by 22 municipalities, while 55 municipalities have not yet started the procedure, among them some larger urban municipalities such as Maribor. In municipalities that have adopted spatial plans the process was accompanied by many problems.<sup>193</sup> The act introduced smaller changes in legislation; however, this does not significantly reduce the biggest deficiencies of the present system of spatial planning, which have been present for several years.<sup>194</sup> The key complaint of the professional public is that instead of efficient spatial management Slovenia has a multitude of mutually exclusive sectoral policies and regionally non-harmonised municipal policies; therefore, many emerging development initiatives are placed in physical space unsystematically or with such risk that this presents a serious obstacle for investors. In the field of spatial management, in 2010 the Act on Planning Special Arrangements of National Significance (*Zakon o umeščanju prostorskih ureditev državnega pomena v proctor*)<sup>195</sup> was adopted, which should accelerate the preparation of national spatial plans, especially in the field of infrastructure. The concern of the professional public with regard to this act is that all spatial-management legislation should be improved and not only the area of partial spatial plans of national significance. The act introduces, upon request of the investor and on condition that the environmental-impact assessment has already been carried out, the possibility of obtaining a permit for placing in physical space even before a building permit has been obtained if this facilitates the investor's acquisition of European funds. It also introduces the previously abolished spatial conference as a permanent working body of the investor and government bodies for coordination of public interest and earlier inclusion of the public. It simplifies the expropriation procedure in the event of compulsory land acquisition and for compensation determines the use of the system of mass real-estate valuation of the Surveying and Mapping Authority of the Republic of Slovenia. This part of the act will not come into force before 2012 and raises most doubts as to whether it will increase the number of legal disputes, which is

<sup>189</sup> The job-concentration index increased in 2010 to 25.5 (in 2000 it was 22.3 and in 2009 25.2). The population-concentration index also increased, to 20.4 (from 20.3 in 2009 and 19.9 in 2008, the first year for which comparable data are available). Similarly, population concentration was increasing until 2008 (in the period when population was monitored according to the old definition). Despite the increase, population concentration in Slovenia remains among the lowest in the EU.

<sup>190</sup> OG RS 108/2009.

<sup>191</sup> The act disables the introduction of new procedures for monitoring and supplementing spatial components of old and partial planning acts and thus forces municipalities to prepare new comprehensive spatial plans if they want to implement changes in space that are not foreseen in the previous acts.

<sup>192</sup> Internal data of the Ministry of the Environment and Spatial Planning.

<sup>193</sup> E.g. procedural complications in adopting the Spatial Plan of the Urban Municipality of Ljubljana.

<sup>194</sup> There are no real data on the situation in space, legislation is unclear and changes too rapidly and without analytical preparation. Investors are faced with slow and inefficient procedures of authorising placing of projects in physical space and have no binding information available about the possibility of construction before they purchase land and prepare detailed documentation to obtain a building permit.

<sup>195</sup> OG RS 80/2010.

contrary to the intention of the law. The preparation of the third important act regulating the area of spatial management, the Act amending the Agricultural Land Act, was postponed and the act is still in the process of being adopted by the National Assembly.

*The economic crisis was reflected in the **real-estate market**, especially in the reduced number of transactions, which in 2010 still did not achieve pre-crisis levels.* According to the Surveying and Mapping Authority of the RS (SMARS), in 2010 there were about a third more market transactions of (mainly) second-hand dwellings than in 2009, when the number was the lowest, but still a third fewer than in the pre-crisis 2007 and less than 1% of the housing fund.<sup>196</sup> Compared with the pre-crisis 2007, in 2010 prices of second-hand dwellings in Slovenia were 3.3% lower, while prices of new dwellings decreased by 4%. Compared with some other European countries, which also experienced a shrinking of the construction and real-estate sector, in Slovenia the fall in the prices of dwellings was much lower; in Spain, prices of dwellings fell by about 10% and in Ireland by more than 30%. The reasons for the large fluctuations in the number of transactions and dwelling prices not adjusting to lower demand can be linked to the fact that in Slovenia no adjustments were implemented that would reduce the stock of unsold dwellings. According to SORS data on building permits, the planned floor area of new dwellings in 2010 decreased further compared with a year earlier, and was almost half lower than the level in 2007, when the greatest number of building permits was issued. This indicates that, without implementation of appropriate measures, the crisis in the housing market will continue. With such a situation in the real-estate market and with the end of the National Housing Programme in 2009, it would be now be appropriate to draw up a new housing policy.

*In 2010 the Surveying and Mapping Authority conducted the first phase of the **mass real-estate valuation**, which represents the first major step towards solving some long-term real-estate market problems, particularly in terms of real-estate taxation.* The Surveying and Mapping Authority informed all real-estate owners about the test calculation of the value of their real estate according to the principles and models of mass real-estate valuation. When the deadline for transmitting comments expired, more than 1.1 m comments were transmitted regarding data, value and ownership of real estate. According to the Surveying and Mapping Authority, this is just over 1% of all publicly presented data and refers to about 7% of real estate. Owners will be able to complete the data by the end of 2011 or until it is necessary to update the values for the purpose of introducing the real-estate tax. Due to improved and new data and better information for owners, mass real-estate valuation is

useful for improving the functioning of the real-estate market; however, most of the effect will be lost in a few years unless more-permanent administrative methods for updating the data on real estate are found to replace censuses.

## 5.5. Culture

*In 2008 (latest available data), **expenditure on culture per household member grew by more than a tenth.** The ratio between expenditure of the highest and lowest quintiles on recreation and culture also increased.* Expenditure per household member increased most after 2000 (the year for which the first data are available). After three years of decline, expenditure that contributes most directly to shaping cultural identity increased; expenditure for cinemas, theatres, concerts (2.9% share in culture) increased most, expenditure on books (5.6% share in culture) increased only slightly, while expenditure on museums, galleries, zoological gardens and the like (0.9% share in culture) decreased. For almost the entire period, high real growth has been recorded in expenditure on technical equipment (TV sets, photographic and cinematographic equipment, computers, etc.). In international comparison, which is only possible for expenditure on culture together with recreation,<sup>197</sup> in 2009, the share of this expenditure in Slovenia was slightly above the EU average level. The financial accessibility of culture and recreation to various socioeconomic groups of population is shown by data on expenditure by different expenditure groups. Expenditure of the first (lowest) quintile significantly lags behind expenditure of the fifth (highest) quintile; in 2008, the ratio was slightly higher than a year before and the highest in the 2000–2008 period.

*The situation with respect to **books and public libraries** remained relatively favourable in 2009.*<sup>198</sup> After growth in the recent past, the total number of published books and brochures decreased in 2009, while favourable trends continued in literature. An important indicator of the service offered in public libraries is the number of units of library material, which, as in previous years, increased further in 2008. Public-library membership declined in 2008 for the second consecutive year, but the number of borrowed units of library material per person remained the same.<sup>199</sup> Availability of library material in areas with

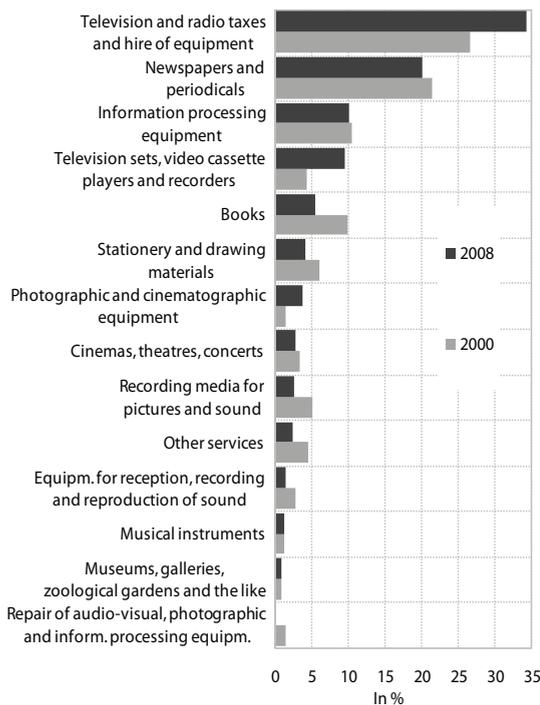
<sup>197</sup> According to the national accounts methodology; only data for the group recreation and culture are available.

<sup>198</sup> According to SORS (Statistical Yearbook 2010).

<sup>199</sup> In 2004, Slovenia introduced author's remuneration for public-library loans as financial support to authors of materials that are subject to borrowing in public libraries. This is implemented in the form of payments to authors depending on the borrowing of their works in public libraries and in the form of scholarships granted by professional associations in the fields of literature, translation, music, film and illustration. The number of recipients of author's remuneration has been increasing since 2005, while the number of scholarships decreased in 2009.

<sup>196</sup> According to SORS: Construction of dwellings and dwelling stock, 2009, there were 838,000 dwellings in Slovenia at the end of 2009.

Figure 24: Household expenditure on culture, 2000 and 2008, %



Source: SORS – HBS, 2010; calculations by IMAD.

Notes: Culture includes the following COICOP groups: Recreation and culture: .09111 Equipment for the reception, recording and reproduction of sound; .09112 Television sets, video cassette players and recorders; .09121 Photographic and cinematographic equipment; .09130 Information processing equipment and accessories (writing machine, calculator, personal computer); .09140 Recording media for pictures and sound; .09150 Repair of audio-visual, photographic and information processing equipment; .09211 Musical instruments; .09421 Cinemas, theatres, concerts; .09422 Museums, galleries, zoological gardens, etc.; .09423 Television and radio taxes and hire of equipment; .09424 Other services; .09510 Books; .09520 Newspapers and periodicals; .09540 Stationery and drawing materials.

poorer access to public libraries has been significantly improved by bibliobuses (mobile libraries). Their number did not change in 2009 and remains at the highest level in the observed period. An important contribution to the accessibility of cultural content and the preservation of cultural heritage comes from the Digital Library of Slovenia<sup>200</sup> (dLib.si). The total number of units in the dLib portal is increasing, although it recorded lower growth in 2008 and 2009. The number of users is also rising.

**Attendance at museums and exhibition grounds increased in 2009 to the highest level in the 2004–2009 period.**<sup>201</sup> The increase in the number of visitors probably reflects a higher number of exhibitions in 2009. An important aspect of the accessibility of exhibitions

is spatial accessibility (tours of other museums from Slovenia and other countries). The number of exhibitions on tour declined in 2009 on account of a large decline in the number of tours from Slovenia, while the number of tours from abroad increased. The supply of cultural content in museums and exhibition grounds and cultural education was improved by various seminars and workshops in museums. The number of programmes for children and youth<sup>202</sup> decreased substantially in 2009, as did attendance of programmes. The number of programmes for adults also decreased, but the implemented programmes were probably more adjusted to demand, given that attendance increased significantly. The number of people attending programmes for children and youth and programmes for adults combined rose notably in the 2004–2009 period as a whole.

*Trends in the field of **theatrical activity** were favourable in 2009, while in the field of **film activity**, production declined.*<sup>203</sup> Data show that attendance at theatrical performances (excluding puppet theatres)<sup>204</sup> increased, as did the number of theatrical performances. Attendance (excluding puppet theatres) increased over the entire 2004–2009 period, despite a decrease in the total number of theatrical performances. This larger attendance was probably due to a larger number of new productions, compared with both 2008 and 2004. Among these productions, in 2009 and in the 2004–2009 period, there was a strong increase in the number of productions by Slovenian authors. An additional aspect of the enrichment of the theatrical offer are tours of theatrical groups from other theatres from Slovenia and abroad. The number of tours of theatrical groups<sup>205</sup> is rising, which is especially due to the increasing number of tours from Slovenia. As regards film production, the number of cinema films produced and shown decreased for the first time in 2009, but was still much higher than in 2004. As regards cinema activity, for the second consecutive year the number of cinemagoers watching long films increased in 2009, while the number of cinemagoers watching Slovenian long films decreased.<sup>206</sup>

<sup>200</sup> The digital library offers users information sources in digital form and provides accessibility and use. It is available to anyone via a computer or a mobile phone. Access is free and without limitations. The library offers texts (newspapers, books, Slovenia Research Agency reports, higher-education theses), pictures (artoteque, photographs, sheet music, posters, picture postcards, manuscripts, maps) and multimedia (virtual exhibitions, audio recordings).

<sup>201</sup> According to SORS.

<sup>202</sup> Programmes for children and adults cover all forms of collective work intended for children or adults (workshops, conversations, seminars, lectures, courses, etc.).

<sup>203</sup> According to SORS.

<sup>204</sup> The figure on the number of people attending theatrical performances shows a strong decline in 2009, which, however, is the result of one large reporting unit (puppet theatre) failing to report.

<sup>205</sup> The figure includes all theatres.

<sup>206</sup> This strongly depends on the popularity of films shown, which contributes to large year-on-year changes in attendance.



# **Part II**

# **Indicators of Slovenia's development**



## **THE FIRST PRIORITY:**

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

- Gross domestic product per inhabitant in purchasing power standards
- Real GDP growth
- 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
- Total assets of banks
- Insurance premiums
- Market capitalisation of shares

## Gross domestic product per inhabitant in purchasing power standards

***After more than a decade of Slovenia catching up with the EU average in terms of development, the development gap widened amidst the economic crisis in 2009 as well as in 2010, in our estimation.***

By recording higher economic growth rates than the EU average, Slovenia was narrowing the gap to the EU average in economic development, measured as GDP per capita, in the period up to 2008. With the economic crisis in 2009, the convergence process came to a halt, with GDP shrinking much more than on average in the EU. According to December's<sup>1</sup> Eurostat figures, GDP per capita in purchasing power standards reached PPS<sup>2</sup> 20,700, or 88% of the EU-27 average, in 2009, which is a 3 p.p. decline relative to the previous year's level, and the same level as in 2006 and 2007. The 2009 interruption in narrowing the gap to the average development level in the EU was due to a significant productivity loss. This is also an area where, despite its sizeable gap with the EU, Slovenia has thus far made relatively little headway in implementing SDS, due to both inadequate rebalancing of the economy and an insufficient increase in value added per employee in individual sectors of the economy.<sup>3</sup> Given that Slovenia recorded lower economic growth than the EU average in 2010, we estimate that its development gap to the EU average, measured in GDP per capita in purchasing power standards, widened further in 2010. Unlike in 2009, this was due to a relatively steep decline in employment, whereas labour productivity strengthened more than in the EU, precisely as a result of this huge drop in employment.

***Since 2005 (the period of implementation of SDS), the other new EU members have proved more successful in narrowing their gaps to the EU average than Slovenia in terms of GDP per capita in purchasing power standards.***

However, this was expected, to a certain extent, in view of the lower levels of GDP per capita in these countries relative to Slovenia (with the exception of Cyprus). Nonetheless, certain new EU Member States which are relatively close to Slovenia in terms of this indicator made significant headway in this regard (after 2005, particularly

Slovakia, Poland and the Czech Republic, and over the last ten years, Hungary; see Table). Their progress was based on a substantial increase in productivity and the rebalancing of the economy towards high-technology activities,<sup>4</sup> i.e. through developments that were much more intense in these countries than in Slovenia. With greater shares of foreign direct investment (FDI) in the economy (relative to GDP) than in Slovenia in 2005, in the run-up to the crisis, the majority of these countries also recorded relatively high inflows of FDI, which usually has a favourable impact on the technological restructuring of the economy (Damijan, Rojec, 2007). Compared with the countries that had been roughly on a par with Slovenia in terms of development at the beginning of the previous decade (Portugal, Greece and Malta), Slovenia recorded similar progress to that achieved by Greece (Greece and Slovenia had closed their gaps with the EU-27 by 9 p.p. and 8 p.p., respectively, by the end of 2009), while Malta and Portugal recorded even greater lags, by 3 p.p. and 1 p.p., respectively. In terms of GDP per capita in purchasing power standards, Slovenia thus overtook Portugal by 8 p.p.

<sup>1</sup> Based on revised purchasing power standards for 2007–2009 and the latest data on GDP in national currencies and population size.

<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 in the EU-27.

<sup>3</sup> See also the indicator Productivity.

<sup>4</sup> See also Chapter 1.2. Increasing competitiveness and promoting entrepreneurial development.

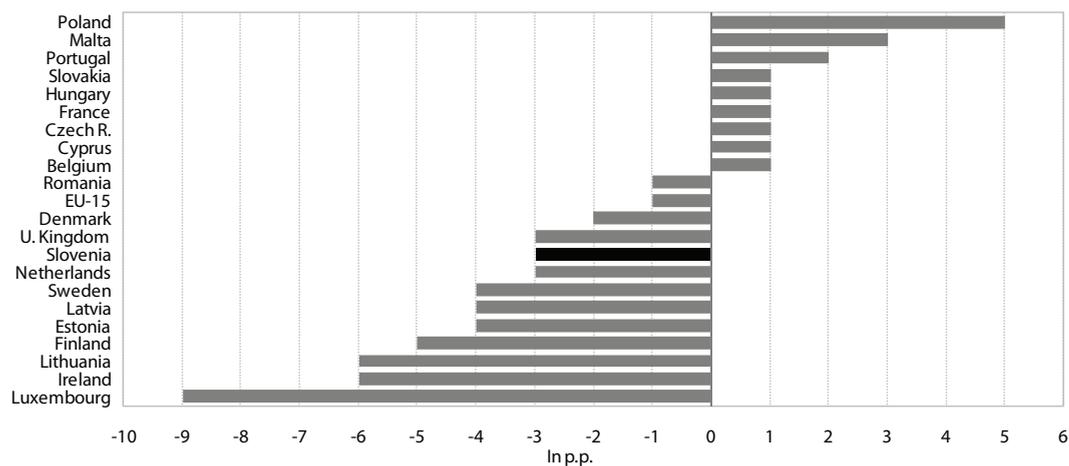
Table: GDP per inhabitant in PPS, volume indices, 1995–2009, EU-27=100

|                 | 1995       | 2000       | 2005       | 2006       | 2007       | 2008       | 2009       |
|-----------------|------------|------------|------------|------------|------------|------------|------------|
| <b>EU-25</b>    | <b>105</b> | <b>105</b> | <b>104</b> | <b>104</b> | <b>104</b> | <b>103</b> | <b>103</b> |
| <b>EU-15</b>    | <b>116</b> | <b>115</b> | <b>113</b> | <b>112</b> | <b>112</b> | <b>111</b> | <b>110</b> |
| Austria         | 135        | 131        | 124        | 125        | 123        | 124        | 124        |
| Belgium         | 129        | 126        | 120        | 118        | 116        | 115        | 116        |
| Bulgaria        | 32         | 28         | 37         | 38         | 40         | 44         | 44         |
| Cyprus          | 88         | 89         | 91         | 91         | 93         | 97         | 98         |
| Czech Rep.      | 73         | 68         | 76         | 77         | 80         | 81         | 82         |
| Denmark         | 132        | 131        | 124        | 124        | 123        | 123        | 121        |
| Estonia         | 36         | 45         | 62         | 66         | 69         | 68         | 64         |
| Finland         | 108        | 117        | 114        | 114        | 117        | 118        | 113        |
| France          | 116        | 115        | 111        | 109        | 108        | 107        | 108        |
| Greece          | 84         | 84         | 91         | 93         | 91         | 93         | 93         |
| Ireland         | 103        | 131        | 144        | 145        | 147        | 133        | 127        |
| Italy           | 121        | 117        | 105        | 104        | 104        | 104        | 104        |
| Latvia          | 31         | 37         | 49         | 52         | 56         | 56         | 52         |
| Lithuania       | 36         | 39         | 53         | 55         | 59         | 61         | 55         |
| Luxembourg      | 223        | 245        | 254        | 270        | 275        | 280        | 271        |
| Hungary         | 52         | 55         | 63         | 63         | 62         | 64         | 65         |
| Malta           | 86         | 84         | 78         | 78         | 77         | 78         | 81         |
| Germany         | 129        | 118        | 117        | 116        | 116        | 116        | 116        |
| Netherlands     | 123        | 134        | 131        | 131        | 132        | 134        | 131        |
| Poland          | 43         | 48         | 51         | 52         | 54         | 56         | 61         |
| Portugal        | 77         | 81         | 79         | 79         | 78         | 78         | 80         |
| Romania         | N/A        | 26         | 35         | 38         | 42         | 47         | 46         |
| Slovakia        | 48         | 50         | 60         | 63         | 68         | 72         | 73         |
| <b>Slovenia</b> | <b>74</b>  | <b>80</b>  | <b>87</b>  | <b>88</b>  | <b>88</b>  | <b>91</b>  | <b>88</b>  |
| Spain           | 92         | 97         | 102        | 104        | 105        | 103        | 103        |
| Sweden          | 125        | 127        | 122        | 123        | 125        | 122        | 118        |
| U. K.           | 113        | 119        | 122        | 120        | 116        | 115        | 112        |

Source: Eurostat Portal Page – National Accounts, 2010. Data for 2009 for Bulgaria by SORS.

Note: N/A – not available.

Figure: Relative change in GDP per inhabitant in PPS (in p.p.) in comparison with the EU-27 in 2009



Source: Eurostat Portal Page – National Accounts, 2010. Data for 2009 for Bulgaria by SORS; calculations by IMAD.

Note: In 2009, Austria, Bulgaria, Greece, Italy, Germany and Spain did not change their positions in comparison with the EU-27 relative to the previous year.

## Real GDP growth

**Driven by increased export demand and a relatively high contribution of inventory changes, GDP rose by 1.2% in 2010.** Positive signals of an upswing of economic activity started to appear in the second half of 2009, when foreign demand picked up, and strengthened through 2010. The nature of the upswing was emphasised during the year, as the recovery was limited largely to export-oriented and technologically stronger industries, while domestic factors held it back. Domestic consumption exceeded the level of 2009 by only 0.4%; only change in inventories had a significant contribution to growth, whereas other key aggregates were still lower than in the previous year (gross fixed capital formation) or saw only moderate growth (household and government consumption).

**The economic environment in EU countries was conducive to Slovenian exports, whereas growth of exports to non-EU countries was much more subdued.** Following a plunge in 2009, goods exports rose 10.2% in real terms in 2010. The recovery was driven by the recovery in Slovenia's main trading partners in the EU, but the surge subsided in the second half of the year as global trade slowed down, temporary incentives tailed off and austerity measures kicked in to curb general government deficits. In the second half of the year, the contribution of the other group of countries accounting for a substantial portion of Slovenia's exports – the countries of the former Yugoslavia – turned positive. Exports of road and rail transport services saw the biggest rise in services exports, in line with the increase in goods exports, but overall services exports dropped 1.1% in real terms.

**Domestic consumption exceeded the 2009 level by only 0.4%, with construction investment recording the biggest drop compared with 2009.** Household consumption inched up (0.5%), but the current balance of payments for 2009 (in particular in the segment of the household travel trade) does not yet represent a real basis for the calculation as the figures are not yet final. We estimate that the positive rates of household consumption in 2010 do not mirror an actual strengthening of the expenditure of Slovenian households.<sup>1</sup> Growth in general government consumption, meanwhile, slowed further (to 0.8%) due to austerity measures. On the other hand, there were positive signals from business investment figures, as foreign demand and capacity utilisation increased. Investment in machinery and equipment exceeded the 2009 level by 6.8%. Our assessment, however, is that the situation on financial markets started to exert an excessive drag on this segment of investment

as the year progressed.<sup>2</sup> After net borrowing with banks in the first half of the year, companies deleveraged in the second half of the year. At the same time, banks extended a significant proportion of credit to refinancing existing loans and to the construction sector; allocations for write-downs and provisions surged by one half over the year before. The decline in construction investment (15.7%) was slightly lower than in 2009 (19.2%). Residential construction recorded the biggest fall from the peak of construction activity in October 2008, followed by civil-engineering projects and non-residential construction. Apart from investment in machinery and equipment, economic growth was also driven by changes in inventory (1.6 p.p.), which rose after a steep decline in 2009. Given the weak domestic demand, export growth outpaced import growth last year. Goods imports rose 7.7% in real terms. The structure of economic growth, largely based on exports, which have a high import component, meant that intermediary goods were the fastest growing segment of imports. Services imports exceeded the 2009 level by only 1.1%.

**Differences in the pace of recovery of foreign and domestic demand were also evident in sectoral results.** Manufacturing (8%) and transport (5.7%) recorded the fastest growth in value added as exports rose. The adverse situation in construction and the labour market, on the other hand, held back recovery in retail and wholesale trade, and led to a further decline in hotels and restaurants, and in the architectural activities segment of business services. In public services, one of the few activities in which the number of employees grew last year, growth in value added plummeted in health and social care (from 4.9% to 0.5%), while it remained at a similar rate as in the previous year in public administration, defence, social protection and education.

**The economic recovery was slower than in the euro area and the EU.** In the euro area, economic growth averaged 1.7% last year (EU: 1.8%). After a deeper fall than in the EU in 2009, the decline in gross fixed capital formation in 2010 was again more pronounced than on average in the EU due to the continued severe decrease in construction investment. For the two years taken together, the severity of the decline in construction was second only to Bulgaria in the EU. The growth in household consumption was also somewhat lower than in the EU. The contribution of external trade to economic growth was similar, but export growth in the euro area outpaced Slovenia's, which we deem to be a consequence of the technologically less favourable structure of Slovenia's exports and the significant importance of the markets of the former Yugoslavia among non-EU markets, for which the recovery was slow last year. Change in inventories, however, made a significantly bigger contribution to GDP growth than in the euro area.

<sup>1</sup> This is also indicated by labour-market data on employment and wages, revenue in retail and wholesale trade and other household expenditure indicators for last year.

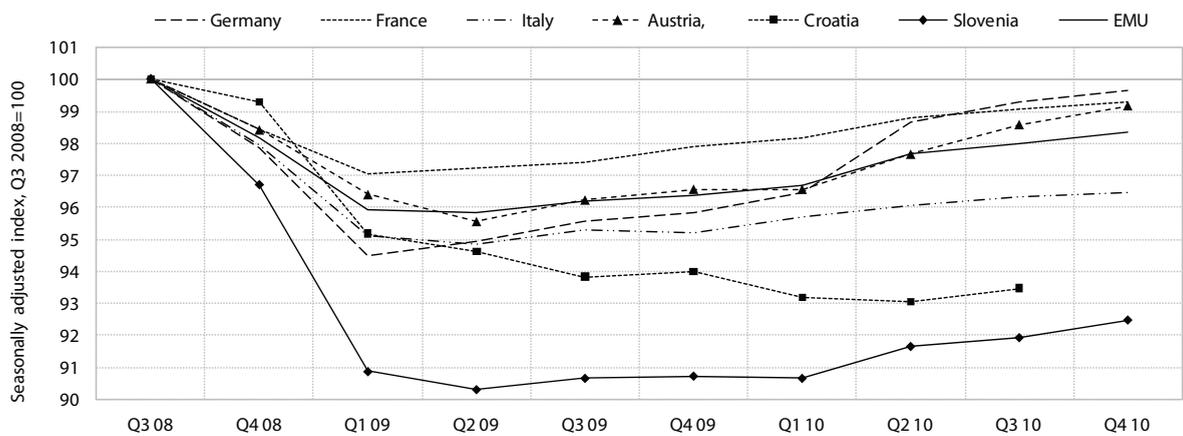
<sup>2</sup> This is also indicated by the Results of the Survey of Demand for Loans by Nonfinancial Companies by Activities, which was released in October 2010 by the Bank of Slovenia.

Table: Contribution of individual expenditure components to GDP growth in Slovenia

|  | 1996 | 2000 | 2005 | 2006 | 2007 | 2008 | 2009  | 2010 |
|--|------|------|------|------|------|------|-------|------|
| Real GDP growth, in %  | 3.6  | 4.4  | 4.5  | 5.9  | 6.9  | 3.7  | -8.1  | 1.2  |
| <i>Contribution to GDP growth, in p.p.</i>                   |      |      |      |      |      |      |       |      |
| External trade balance (export-import of goods and services) | 0.3  | 2.5  | 2.2  | 0.2  | -2.0 | -0.4 | 2.0   | 0.8  |
| - Exports of goods and services                              | 1.4  | 6.2  | 6.1  | 7.8  | 9.1  | 2.3  | -11.9 | 4.5  |
| - Imports of goods and services                              | 1.1  | 3.7  | 4.0  | 7.6  | 11.2 | 2.7  | -13.9 | 3.8  |
| Total domestic consumption                                   | 3.3  | 1.8  | 2.3  | 5.7  | 8.9  | 4.2  | -10.1 | 0.4  |
| - Household consumption                                      | 1.9  | 0.7  | 1.5  | 1.6  | 3.5  | 1.5  | -0.4  | 0.3  |
| - General government expenditure                             | 0.5  | 0.6  | 0.6  | 0.8  | 0.1  | 1.1  | 0.5   | 0.2  |
| - Gross fixed capital formation                              | 1.8  | 0.6  | 0.9  | 2.6  | 3.4  | 2.3  | -6.2  | -1.6 |
| - Change in inventories                                      | -1.0 | 0.0  | -0.7 | 0.7  | 1.8  | -0.8 | -4.0  | 1.6  |

Source: SI-TAT Data Portal – National Accounts. Gross domestic product, annual data, Gross domestic product by quarters, 2011; IMAD calculations.

Figure: Recovery of GDP in Slovenia and its key trading partners



Source: Eurostat Portal Page – Economy and Finance – National Accounts, 2011.

## Inflation

**Consumer price growth was at 1.9% in 2010, similar to the level in the previous two years.** Sluggish economic activity was reflected in moderate price growth in most index groups and in low core inflation, with various core inflation indicators hovering between 0% and 1.0% at the end of the year. However, the growth rates of energy prices and prices of excise duty goods were considerably higher. Prices of non-processed food (vegetables and fruit) also saw relatively high growth, which differed significantly from the general price growth and was also significantly higher than in the euro area. Growth in prices of liquid fuels for transport and heating, natural gas and district heating, resulting from higher oil prices on the global market, and higher electricity prices, along with higher excise duties for some of these products, contributed 1.5 p.p. to 1.9% inflation, with higher excise duties accounting for around 0.6 p.p. The total effect of higher excise duties and other tax changes<sup>1</sup> amounted to between 0.6 p.p. and 0.7 p.p., similar to the level in 2009 (0.8 p.p.). One important area of reduction in retail prices last year was a decline in the prices of primary school meals due to the introduction of subsidies, which reduced the amount to be paid by parents. Inflation was thus lower by 0.7 p.p. at the end of the year.

**In addition to commodity prices, food prices also increased significantly on the global market last year, which was reflected during the year in industrial producer prices and, to a small extent, in retail prices.** Last year, food prices on the global market recorded even higher growth (39.9%) than prices of energy commodities (33.3%),<sup>2</sup> but this growth had not yet been passed on into retail prices by the end of last year. After the 2009 drop, relatively strong growth was recorded for prices of non-processed food (vegetables 17.1%, fruit 8.1%), while prices of processed food fell somewhat in 2009–2010.<sup>3</sup> In other euro-area countries, last year's food price rises also largely resulted from higher prices of non-processed food, with processed food prices (including tobacco, alcohol and non-alcohol beverages) recording lower growth. In Slovenia, a more pronounced pass-through of commodity price shocks into retail prices of processed food was first seen at the beginning of 2011, probably due to the fact that the terms of trade between producers and distributors tend to be set at that time of the year. On the side of food manufacturers in the euro area, a spillover of higher commodity prices was already observed at the end of 2010, with prices

in the manufacture of food products increasing by 4.2%; the growth of these prices in Slovenia had been strengthening throughout 2010 but was still low at the end of the year (1.3%). Prices of imported food also recorded substantially higher growth (14.6%).

**Energy prices were also the main driver of administered price rises last year and the government once again stepped in by freezing prices of public utility services.**

Last year, administered prices rose by 11.1%, to our estimate. Looking at prices under various regimes of control, last year saw outstanding growth in prices that are, due to the model-based formulation, only under indirect government control (liquid fuels for transport and heating, district heating, natural gas), which increased by 14.3% last year. Administered prices under direct government control rose by 0.8%.<sup>4</sup> The calculation also takes into account growth in public utility prices, which were frozen by the government in August 2010. In doing so, the government intervened in an area of regulation that had otherwise been the responsibility of local communities since August 2009. Public utility prices had risen by 6.5% by the end of August 2010, and continued to show significant growth having already increased by 9.8% in 2009.

**Inflation in Slovenia was at the euro-area average in 2010, but its structure was somewhat different.**

As in Slovenia, inflation in the euro area measured by the HICP<sup>5</sup> totalled 2.2% at the end of the year and was also significantly affected by weak economic activity. As in Slovenia, price growth in the euro area was marked particularly by higher energy prices and tax impacts, but the contribution of these factors was greater in Slovenia than in the euro area. The contribution of energy price rises to inflation in Slovenia was greater due to a greater share of these prices in the structure of household consumption, but also due to somewhat higher growth (gas and district heating, in particular). Excise duties and other taxes also increased more than in the euro area (contributing 0.6–0.7 p.p. to inflation in Slovenia and around 0.3 p.p. in the euro area). The euro area saw a smaller increase in prices of non-processed food and a greater increase in prices of non-energy industrial goods, which declined in Slovenia, as they had in 2009, particularly due to the impact of lower prices of transport vehicles. Prices of services, which lag behind the euro-area average most and had been strengthening faster than in the euro area in previous years, stagnated last year (+0.1%; an increase of 1.3% in the euro area), as a result of the above-mentioned reduction in prices of school meals. Slovenia would have otherwise recorded similar growth in services prices to those in the euro area.

<sup>1</sup> 0.3 p.p. excise duties on all other energy sources; 0.3 p.p. excise duties on alcohol and tobacco; 0.1 p.p. the net effect of certain other tax changes.

<sup>2</sup> Source: IMF; conversion into euro prices by IMAD.

<sup>3</sup> Processed food: bread and cereals, milk, dairy products and eggs, oils and fats, sugar and confectionery, food products n.e.c.; for comparison with euro-area inflation, the processed food group also includes non-alcoholic and alcoholic beverages and tobacco products.

<sup>4</sup> The administered prices plan predicted that these prices would increase by less than 0.4%.

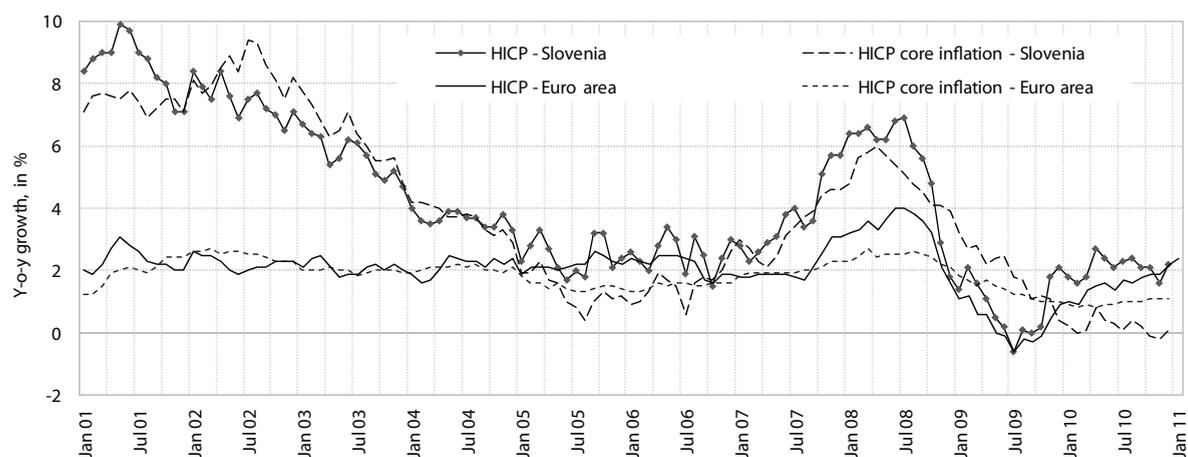
<sup>5</sup> HICP – Harmonised Index of Consumer Prices is used for comparison between consumer price rises in the euro area and the EU.

Table: Annual price rises in Slovenia and in the euro area, in %

|  | 1995 | 2000 | 2005 | 2006 | 2007 | 2008  | 2009 | 2010 |
|--|------|------|------|------|------|-------|------|------|
| Consumer prices (CPI)  | 9.0  | 8.9  | 2.3  | 2.8  | 5.6  | 2.1   | 1.8  | 1.9  |
| Goods  | 7.1  | 8.8  | 2.0  | 2.1  | 6.0  | 1.3   | 1.9  | 2.7  |
| Services   | 15.9 | 9.2  | 3.0  | 4.3  | 4.8  | 3.8   | 1.6  | 0.0  |
| Administered prices  | 10.0 | 16.0 | 7.7  | 2.1  | 7.2  | -7.8  | 12.6 | 11.5 |
| Energy   | 8.2  | 18.9 | 9.8  | 3.7  | 9.6  | -11.9 | 14.7 | 14.3 |
| Other  | 11.4 | 12.0 | 3.0  | -2.1 | 1.5  | 0.4   | 4.0  | 0.7  |
| Consumer prices – harmonised index of consumer prices (HICP) |      |      |      |      |      |       |      |      |
| Slovenia   | N/A  | 8.9  | 2.4  | 3.0  | 5.7  | 1.8   | 2.1  | 2.2  |
| Euro area  | 2.5  | 2.5  | 2.2  | 1.9  | 3.1  | 1.6   | 0.9  | 2.2  |

Source: SI-STAT Data Portal – Prices – Consumer price indices, annual data (SORS); calculations by IMAD; Eurostat Portal Page – Economy and Finance – Prices – Harmonised index of consumer prices, 2011. Note: N/A – not available.

Figure: Y-o-y consumer price rises in Slovenia and in the euro area (HICP)



Source: Eurostat Portal Page – Economy and Finance – Prices – Harmonised index of consumer prices, 2011.

## General government debt

### **General government debt as a percentage of GDP was estimated at 38.0% at the end of 2010.**<sup>1</sup>

General government debt has declined steadily since 2000, reaching 21.9% of GDP in 2008. Amid relatively low general government deficits, the decline in the debt-to-GDP ratio in that period resulted from changes in the debt structure (away from inflation indexed debt instruments) on the one hand, and relatively high GDP growth on the other. In 2009, the debt-to-GDP ratio surged by 12.1 p.p. due to the increase in the deficit and pre-financing of the borrowing requirement in 2010. The proceeds were used to ease the liquidity conditions of the banking system in the form of government deposits. In 2010, general government debt increased by 3.5 p.p. of GDP, mainly due to deficit financing (5.5 p.p. of GDP). The increase of general government debt was smaller than the amount of the deficit, which can be explained by pre-financing of the future borrowing requirement in 2009. The bulk of the general government debt (non-consolidated debt) is from central government (96% of the total at the end of 2010). The share of non-consolidated debt at the local-government level has also increased. It has nearly doubled in the last three years, but is nevertheless still fairly low.<sup>2</sup>

### **Long-term securities also accounted for the bulk of central government borrowing in 2010.**

In the first quarter of 2010, Slovenia issued a five-year and a ten-year bond (totalling EUR 1 bn and EUR 1.5 bn, respectively). Most of the central-government debt was long term (97% at the end of 2009),<sup>3</sup> as a result of the strategy of issuing mainly 10-year maturity fixed coupon bonds denominated in euros. Slovenia's central government debt maturity profile exhibits a fairly uniform structure and is spread out without major concentration of debt maturing in a single year.

### **Publicly guaranteed debt continued to grow last year.**

After increasing significantly in 2009,<sup>4</sup> publicly guaranteed debt also continued to grow last year, albeit at a somewhat slower pace; at the end of 2010, it amounted to EUR 7.7 bn (21.5% of GDP). Publicly guaranteed debt thus rose by 9 p.p. of GDP over the last

two years (general government debt by just over 15 p.p. of GDP). 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 being called up can affect the way a country is perceived by financial markets, and this can make borrowing more expensive by widening spreads.

### **The Slovenian government bond yield spread with respect to German benchmark government bonds is wider than before the crisis.**

The yield of the Slovenian ten-year government bond fell slightly, below 4%, at the end of 2009 and remained at that level during the first eleven months of 2010. It increased again in December, averaging 4.11% that month. Until April 2010, the Slovenian government ten-year bond yield spread with respect to German benchmark government bonds hovered below 100 basis points, which was above the pre-crisis levels. On the back of the Greek financial crisis, the yield spread widened in Slovenia in the second half of 2010, as was the case in most other euro-area members, but in Slovenia the increase was much smaller than in some high-risk countries of the euro area.

### **Despite the relatively large increase, the debt-to-GDP ratio in Slovenia remains among the lowest in the euro area.**

The debt-to-GDP ratio of Slovenia's government is estimated to have been the sixth lowest in the EU at the end of 2010. Although Slovenia is still ranked among the countries with relatively low debt-to-GDP ratios, it has drawn closer to the EU average in the last two years regarding the relative increase in its debt-to-GDP ratio, while it has already exceeded the increase in the euro-area average.

<sup>1</sup> SORS (March 2011).

<sup>2</sup> Local government borrowing is otherwise constrained by the Financing of Municipalities Act stipulating that a local government's debt in a given year should not exceed 20% of the previous year's revenue and debt-servicing expenditure should not exceed 5% of the previous year's revenue.

<sup>3</sup> Report on the management of public debt in Slovenia (Poročilo o upravljanju z javnim dolgom Republike Slovenije za leto 2009) (July 2010).

<sup>4</sup> Particularly due to guarantees in the amount of EUR 2 bn provided by the government to domestic banks (see also Development Report 2010, 2010).

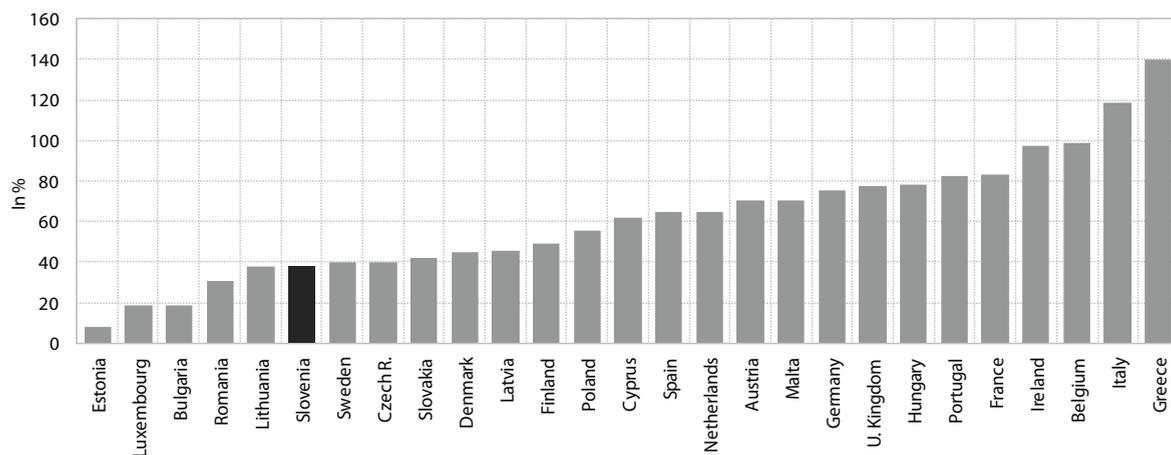
Table: Consolidated general government debt by sub-sectors, Slovenia

|     | EUR m  | 2000         | 2006         | 2007         | 2008         | 2009          | 2010          |
|-----|--|--------------|--------------|--------------|--------------|---------------|---------------|
| 1   | <b>General government, total<sup>1</sup></b> | <b>4,886</b> | <b>8,204</b> | <b>7,981</b> | <b>8,180</b> | <b>12,449</b> | <b>13,704</b> |
| 1.1 | Central government                           | 4,804        | 8,118        | 7,904        | 8,091        | 12,110        | 13,171        |
| 1.2 | Local government                             | 60           | 236          | 256          | 354          | 523           | 626           |
| 1.3 | Social-security funds                        | 97           | 3            | 3            | 3            | 2             | 52            |
| 1.4 | Consolidated debt among sub-sectors          | -74          | -153         | -182         | -268         | -187          | -146          |
|     | <b>as a % of GDP</b>                         |              |              |              |              |               |               |
| 1   | <b>General government, total<sup>1</sup></b> | <b>26.4</b>  | <b>26.4</b>  | <b>23.1</b>  | <b>21.9</b>  | <b>35.2</b>   | <b>38.0</b>   |
| 1.1 | Central government                           | 26.0         | 26.1         | 22.9         | 21.7         | 34.2          | 36.5          |
| 1.2 | Local government                             | 0.3          | 0.8          | 0.7          | 0.9          | 1.5           | 1.7           |
| 1.3 | Social security funds                        | 0.5          | 0            | 0            | 0            | 0             | 0.1           |
| 1.4 | Consolidated debt among sub-sectors          | -0.4         | -0.5         | -0.5         | -0.7         | -0.5          | -0.4          |

Source: General government debt, Slovenia, 1994–2010 (SORS), 2011.

Note: <sup>1</sup> Data on debt are consolidated (reduced by the amounts of debt between government units).

Figure: Consolidated general government debt by EU Member States, 2010 (forecast), as % of GDP



Source: Source: AMECO data base, 2011.

## General government balance

**The general government deficit was only slightly reduced in 2010, remaining at a high level.** The general government deficit<sup>1</sup> for 2010 is estimated at 5.5% of GDP, down 0.5 p.p. on the 2009 level.<sup>2</sup> Expenditure growth (1.8%) was much slower than in 2009 (5.4%), when the increase was the consequence of automatic stabilisers, a wage reform and anti-crisis measures. Nevertheless, as general government revenue increased by 2.8%, the deficit was not significantly reduced. The general government deficit was generated primarily at central government level<sup>3</sup>, much as it was in the years before, but the deficits of local government (0.4% of GDP) and social-security funds (0.4% of GDP) were also relatively high compared to the previous mid-term period.

**The revenue-to-GDP ratio rose by 0.4 p.p. in 2010, mostly on account of transfers and other revenues.** Transfers (funds from the EU budget) and other general government revenues accounted for two-thirds of the increase in revenue (1.8 p.p.), while tax revenues only represented a third of the total (1 p.p.). Among key tax categories, the share of revenue from social-security contributions remained level over the year before (15.2% of GDP). The share of taxes on production and imports meanwhile dropped by 0.1 p.p. to 14.0% of GDP. Only excise duties and value-added tax rose slightly in nominal terms, the former due to higher excise rates (while the quantity of excise products sold decreased). Current taxes on income and property dropped by 0.2 p.p.

**Relative general government expenditure remained level with respect to the year before in 2010 (49% of GDP).** Social benefits in cash and kind, subsidies and interest expenditure rose in 2010, whereas investment and investment transfers were the main factors driving expenditure down. The share of social benefits in cash and kind rose by 0.4 p.p. largely due to the rising number of the unemployed and socially disadvantaged, as increases in pensions and social transfers were limited by an emergency act. The continued implementation of anti-crisis measures increased the share of expenditure on subsidies by 0.3 p.p. Interest payments were up 0.3 p.p. as government borrowing rose. Compensation of employees remained at the 2009 level in relative terms despite a 1.5% increase in the number of employees in

the general government sector.<sup>4</sup> This was underpinned by a postponement of the continuation of the public-sector wage reform (payment of the third and fourth quarters of the sum for the elimination of wage disparities) and a restrictive wage policy in the public sector. Expenditure on intermediate consumption also remained at the 2009 level. Government expenditure contracted only in capital transfers and expenditure on gross capital formation, where it was down by 0.6 p.p. of GDP.

**The worsening of Slovenia's fiscal position was milder than on average in the EU in 2009.**<sup>5</sup> In the crisis year of 2009, the general government deficit rose by 4.5 p.p. (to 6.8% of GDP) in the EU and by 4.3 p.p. (to 6.3% of GDP) in the euro area as a consequence of automatic stabilisers and stimulus measures. All EU members recorded deficits in 2009 and as many as 21 breached the 3% of GDP<sup>6</sup> ceiling.

<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> In the entire period 2000–2010, the central government accounted for over 90% of the total deficit.

<sup>4</sup> It should be noted that the number of civil servants (i.e. employees in the civil part of public-administration bodies) continued to decline in 2010 (-2.5%, or -2.3% excluding the re-assignment of civil servants in the newly founded agency).

<sup>5</sup> The latest available data for EU countries are for 2009. In Slovenia, the general government deficit as a share of GDP increased by 4.2 p.p. in 2009.

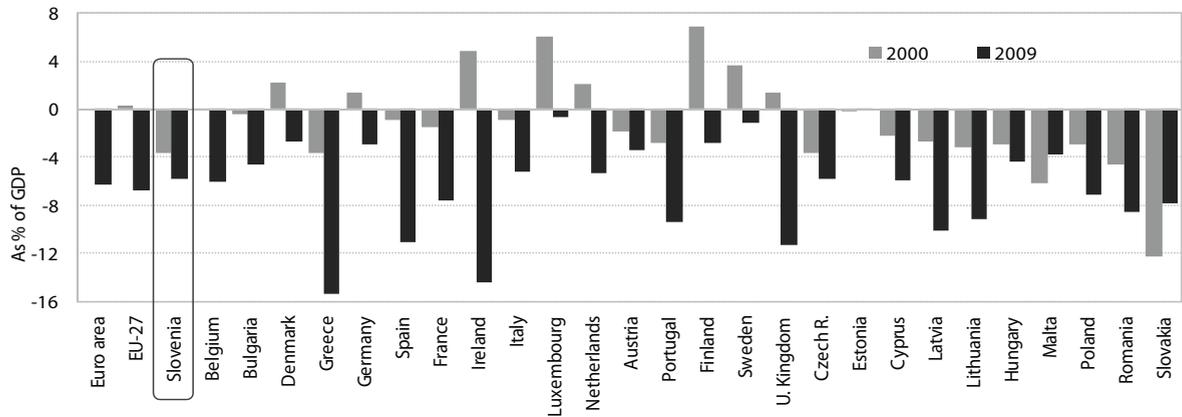
<sup>6</sup> The Stability and Growth Pact, which applies to all EU Member States, stipulates that the general government deficit may not exceed 3% of GDP.

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

|                                   | 1995        | 2000        | 2005        | 2006        | 2007        | 2008        | 2009        | 2010        |
|-----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| General government revenue        | 44.3        | 43.0        | 43.8        | 43.2        | 42.4        | 42.3        | 43.1        | 43.5        |
| General government expenditure    | 52.6        | 46.7        | 45.3        | 44.6        | 42.5        | 44.1        | 49.0        | 49.0        |
| <b>General government deficit</b> | <b>-8.3</b> | <b>-3.7</b> | <b>-1.5</b> | <b>-1.4</b> | <b>-0.1</b> | <b>-1.8</b> | <b>-6.0</b> | <b>-5.5</b> |
| Central government                | -7.9        | -3.2        | -2.2        | -1.3        | -0.1        | -1.2        | -5.0        | -4.7        |
| Local government                  | 0.2         | 0.0         | 0.0         | -0.1        | -0.1        | -0.6        | -0.5        | -0.4        |
| Social-security funds             | -0.8        | -0.5        | 0.8         | 0.1         | 0.2         | 0.0         | -0.4        | -0.4        |

Source: SI-STAT Data Portal – Economy – National accounts – Main aggregates of the general government, First release (SORS), March 31, 2011 (for 2006–2010). Non-financial accounts: general government S-13; IMAD calculations (for 1995, 2000, 2005).

Figure: General government balance, 2000 and 2009, as % of GDP



Source: Eurostat, General Government deficit (-) surplus (+), EDP, January 2011.

## Balance of payments

**The deficit of the current account of the balance of payments narrowed further in 2010, but for different reasons from those applying in 2009.** After shrinking substantially in 2009 (from 6.7% to 1.5% of GDP), the current account deficit also declined last year (1.1% of GDP). In 2009, the fall had mainly been a result of a lower deficit in merchandise trade, which had already widened slightly in 2010 due to the deterioration in terms of trade. The narrowing of the deficit in 2010 was a consequence of a better balance of current transfers, which turned from a deficit into a surplus due to increased absorption of EU funds, and a smaller deficit in investment income after Slovenian enterprises abroad recorded lower outflows of capital from reinvested earnings and dividends than in 2009, according to the Bank of Slovenia estimates.<sup>1</sup>

**The merchandise deficit increased in 2010 due to deterioration in the terms of trade.** The merchandise deficit recorded EUR 973.8 m in 2010, an increase of EUR 274.7 m over 2009. Exports otherwise recorded much higher real growth (10.2%) than imports (7.7%), but the price effect, which had contributed to a decline in the merchandise trade deficit in 2009, worked towards its increase in 2010 (see Figure). Amid significant rises in energy and non-energy commodity prices, import prices saw much higher growth (6.5%) than export prices (3.1%), and the terms of trade deteriorated by 3.2% (having improved by 4.7% in 2009).<sup>2</sup> Broken down by end-use product groups, the nominal deficit widened due to a higher deficit in trade in intermediate goods under the impact of recovering domestic production in manufacturing and, particularly, commodity price rises. The trade deficit in investment goods shrank as a result of domestic investment activity, which was still weak. The surplus in consumer goods trade increased, as passenger cars and durable goods, the two most important components in the structure of consumer-goods trade, recorded higher growth in exports than imports last year. This was related to strong foreign demand for cars produced by the Slovenian car manufacturer (due to the subsidies in certain EU countries to stimulate car purchases, particularly in the first half of 2010) on the one hand, and modest consumption by Slovenian households on the other.

**The surplus in the balance of services narrowed slightly again.** The surplus in the services balance declined by EUR 56.9 m to EUR 1,057.4 m, mainly due to a higher trade deficit in licences, patents and copyrights. After contracting in 2009, the trade surplus in transport services increased somewhat last year. The trade surplus in travel services was also slightly higher after the 2009 decline.<sup>3</sup>

**The deficit in factor incomes shrank again, largely due to a lower deficit in investment income and a higher surplus in income from labour.** The balance of factor incomes recorded a deficit of EUR 596.6 m in 2010, EUR 185.6 m than in 2009. The deficit in investment income shrank as a consequence of lower net outflows of income from equity capital of direct investment (reinvested earnings, see Note 1) and net interest payments on foreign loans. Net interest paid by commercial banks diminished the most, as net interest payments mainly declined due to the repayment of the domestic banking sector's debt. Lower net outflows were also recorded for the Bank of Slovenia's interest payments into the Eurosystem. As a result of bonds issued by the government sector and banks, interest payments abroad exceeded interest received from portfolio investment, in contrast to previous years when Slovenia had recorded net inflows from interest on this type of investment. As in 2009, the inflow of income from labour also increased last year, still mainly as a result of a smaller outflow of foreign workers' income abroad.

**The deficit in the balance of current transfers turned into a surplus due to improved net drawing of EU funds.** After five years of deficit, the current account balance ran a surplus of EUR 103.9 m in 2010 (a deficit of EUR 158.6 m in 2009). The improvement in the last two years was mainly a result of increased absorption of EU funds. Slovenia's state budget, which as recently as in 2007 and 2008 still recorded a net deficit<sup>4</sup> against the EU budget, enjoyed a net budgetary surplus of EUR 155.7 m in 2009, which expanded to EUR 326.4 m in 2010 (with 69.7% realisation of planned inflows). Within other government transfers, net payments of taxes and contributions abroad declined most sharply. The deficit for private-sector transfers remained roughly at the level of the preceding year.

<sup>1</sup> The current balance of payments data on reinvested earnings are still an estimate of the Bank of Slovenia based on the average values for several years. The actual data will be included in the balance of payments after the annual accounts of companies have become available. We estimate, however, that the net outflow of capital from reinvested earnings according to actual data is also not likely to reach the high level of 2009 in 2010 (EUR 335 m), as a result of disinvestment of Slovenian companies abroad.

<sup>2</sup> Terms of trade according to the national accounts statistics.

<sup>3</sup> Due to the newly calculated (lower) values of exports/imports of travel services based on new data on overnight stays and average tourist consumption, the Bank of Slovenia announced a revision of the balance of payments (the previous revision had been made last August). November's 2010 balance of payments already includes the new calculations for 2010, while the new figures for 2008 and 2009 have not yet been taken into account. Comparisons between these periods are therefore not reliable. Other items (transport services and the group of other services), for which the BS has only updated the sources of data, underwent no noticeable change.

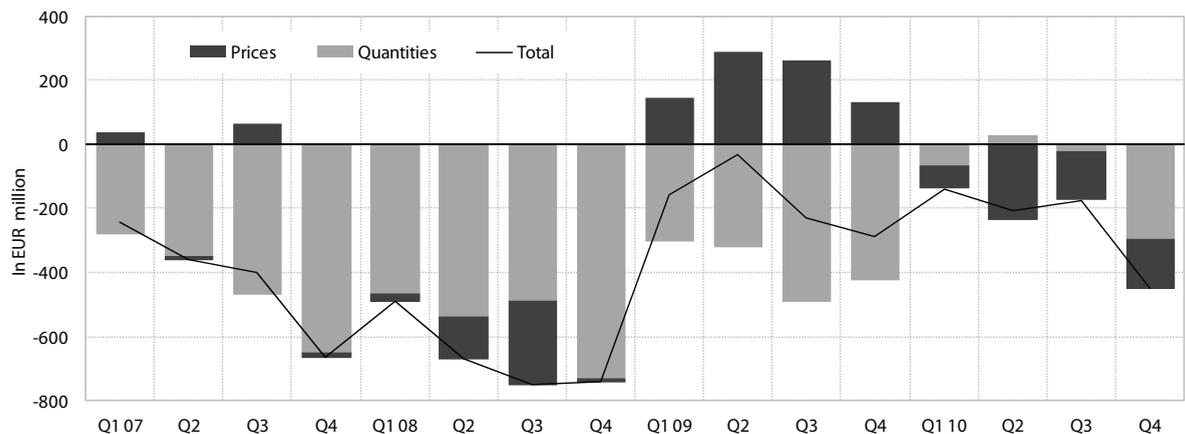
<sup>4</sup> Deficits of EUR 64.7 m and EUR 8.7 m in 2008 and 2007, respectively.

Table: Current account of the balance of payments and terms of trade, Slovenia, 1995–2010

|  | 1995  | 2000  | 2005  | 2006 | 2007  | 2008 | 2009  | 2010  |
|--|-------|-------|-------|------|-------|------|-------|-------|
| <b>Current account, % of GDP</b>                           | -0.3  | -2.7  | -1.7  | -2.5 | -4.8  | -6.7 | -1.5  | -1.1  |
| Goods  | -4.7  | -5.7  | -3.6  | -3.7 | -4.8  | -7.1 | -2.0  | -2.7  |
| Services   | 2.9   | 2.3   | 3.2   | 3.2  | 3.0   | 4.0  | 3.1   | 2.9   |
| Labour and investment income                               | 1.0   | 0.1   | -1.0  | -1.4 | -2.3  | -2.8 | -2.2  | -1.7  |
| Current transfers  | 0.5   | 0.6   | -0.3  | -0.6 | -0.7  | -0.8 | -0.4  | 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  | 3.3  | -17.7 | 7.8   |
| Imports of goods and services                              | 11.3  | 7.1   | 6.6   | 12.2 | 16.7  | 3.8  | -19.7 | 6.6   |
| <b>Terms of trade, index</b>                               |       |       |       |      |       |      |       |       |
| Goods  | 103.1 | 96.2  | 97.6  | 99.6 | 100.6 | 98.2 | 104.7 | 96.8  |
| Services   | 100.6 | 102.1 | 100.0 | 99.5 | 102.7 | 99.5 | 99.9  | 101.7 |

Source: SI-STAT data portal – National accounts, 2011; Financial accounts, External economic relations (Bank of Slovenia), 2011; calculations by IMAD.

Figure: Contribution of quantities and prices to the balance of trade in goods, in EUR m, 2007–2010



Source: SI-STAT data portal – National Accounts, 2011; calculations by IMAD.

## Gross external debt

**Growth in gross external debt slowed in the last two years.** Slovenia's gross external debt was EUR 40.9 bn at the end of 2010, up EUR 0.6 bn from December 2009 (and up EUR 1.0 bn in 2009). In the last two years, its growth was thus much smaller than in 2007 and 2008 when it was the highest to date (see Table). Besides the increase in general government debt, which made the greatest contribution to the total growth of gross external debt in both 2009 and 2010, the debt of affiliated enterprises also increased, after shrinking in 2009, while the debt of the banking sector continued to fall. The gross external debt of the *general government* rose by EUR 1.6 bn in 2010 (by EUR 2.8 bn a year earlier), to EUR 8.2 bn, representing 20.0% of total external debt (16.3% at the end of 2009). After repaying loans in 2009, Slovenian foreign investment enterprises also increased their debt to foreign parent companies last year.<sup>1</sup> The debt of affiliated enterprises thus rose by EUR 0.6 bn, to EUR 4.6 bn. The bulk of this debt stock was generated by non-bank financial institutions involved in financial leasing, the rest by non-financial corporations (enterprises). The debt of the so-called other sectors, in which enterprises prevail, rose only marginally last year, by EUR 88 m to EUR 9.7 bn, after a significant increase in 2009. With strong growth in imports, the otherwise modest corporate debt growth mainly resulted from a higher volume of short-term commercial credits (up EUR 0.4 bn to EUR 3.7 bn), while enterprises continued to make net repayments of foreign loans. Given the limited access to foreign sources of finance, domestic commercial banks also net repaid foreign liabilities in 2010. Their external debt declined relative to the end of 2009 (down EUR 0.4 bn to EUR 16.0 bn). Total net repayments (of loans and deposits) amounted to EUR 1.5 bn, less than half the levels recorded in 2009 (EUR 2.8 bn). Commercial banks' debt as a share of total gross external debt accounted for 39.2% at the end of last year (40.8% at the end of 2009). The Bank of Slovenia's debt declined for the second successive year (by EUR 1.2 bn to EUR 2.4 bn). The bulk of the BS debt is short-term, in the form of cash and deposits. The long-term debt of the BS in the form of other debt liabilities remained at the previous year's level.

**In the structure of gross external debt, public and publicly guaranteed debt increased once again while non-guaranteed private debt declined.** Private sector debt, particularly the debt of domestic commercial banks, had started to decline in 2009 and continued to do so in 2010 (by EUR 1.9 bn to EUR 24.4 bn), though the repayments were smaller. Public and publicly guaranteed debt also strengthened further last year, albeit at a somewhat slower pace than in 2009. Public

debt<sup>2</sup> expanded by EUR 1.6 bn and publicly guaranteed debt<sup>3</sup> by EUR 0.6 bn (to a total of EUR 16.5 bn; within that, publicly guaranteed debt EUR 8.3 bn). Public debt and publicly guaranteed debt combined accounted for 40.3% of gross external debt at the end of 2010, which is the highest figure to date. The 2010 expansion in public and publicly guaranteed debt (which is mainly long-term) also increased the share of long-term debt in total debt. Excluding liabilities to affiliated entities, which are not tracked for maturity, long-term debt represented 76.6% of total debt at the end of 2010, 3.4 p.p. more than a year earlier.

**Despite its strong borrowing in previous years, Slovenia remains among the least indebted countries in the euro area.** At the end of 2010, Slovenia's gross external debt represented 113.4% of GDP (0.4 p.p. less than a year earlier), which is much less than the average debt in the euro area, which had reached 205.3% of GDP in 2009. However, this comparison alone is not sufficient to assess Slovenia's debt repayment risk, as the level of external debt of a country needs to be judged in the context of broader macroeconomic and other circumstances such as potential economic growth, the competitiveness of the economy, the interest rate for raised loans, debt structure, etc.

<sup>1</sup> See the indicator Foreign direct investment.

<sup>2</sup> External public debt is generated with borrowing of the institutional government sector (according to ESA 95) on foreign financial markets. The government may borrow from international financial institutions, foreign governments or government agencies, foreign commercial banks, and even from private lenders in the event of an issue of transferrable securities on a foreign financial market.

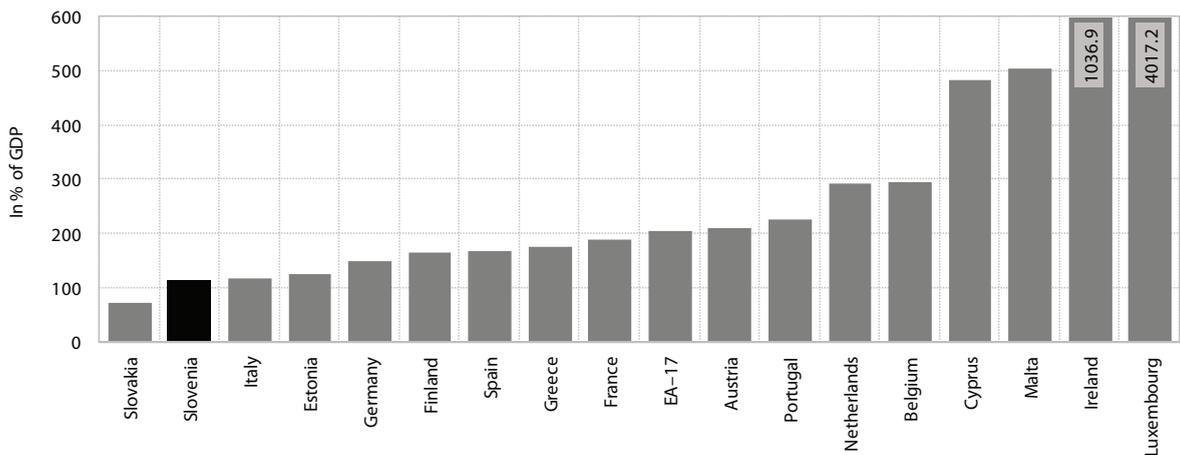
<sup>3</sup> Publicly guaranteed debt is a liability of a private legal entity, but payment is guaranteed by the state. Publicly guaranteed debt includes Bank of Slovenia liabilities to the Eurosystem incurred by the transfer of monetary policy from the BS to the ECB.

Table: Slovenia's gross external debt position, end of the year, in EUR m, 1995–2010

|                                    | 1995  | 2000  | 2005   | 2006   | 2007   | 2008   | 2009   | 2010   |
|------------------------------------|-------|-------|--------|--------|--------|--------|--------|--------|
| <b>Total gross external debt</b>   | 4,275 | 9,491 | 20,496 | 24,067 | 34,783 | 39,234 | 40,276 | 40,897 |
| Short-term debt                    | 1,470 | 2,283 | 4,573  | 5,239  | 10,733 | 11,595 | 9,699  | 8,503  |
| Public & publicly-guaranteed debt  | 0     | 0     | 70     | 77     | 3,588  | 3,603  | 3,360  | 2,145  |
| Private non-guaranteed debt        | 1,470 | 2,283 | 4,503  | 5,162  | 7,145  | 7,992  | 6,339  | 6,358  |
| Long-term debt                     | 2,083 | 5,895 | 14,509 | 17,710 | 20,058 | 22,820 | 26,512 | 27,771 |
| Public & publicly-guaranteed debt  | 1,178 | 2,883 | 3,729  | 4,275  | 4,508  | 5,533  | 10,613 | 14,351 |
| Private non-guaranteed debt        | 905   | 3,012 | 10,780 | 13,435 | 15,550 | 17,287 | 15,899 | 13,420 |
| Liabilities to affiliated entities | 722   | 1,312 | 1,415  | 1,119  | 3,992  | 4,818  | 4,065  | 4,624  |
| Public & publicly-guaranteed debt  | 0     | 0     | 0      | 0      | 0      | 0      | 0      | 0      |
| Private non-guaranteed debt        | 722   | 1,312 | 1,415  | 1,119  | 3,992  | 4,818  | 4,065  | 4,624  |

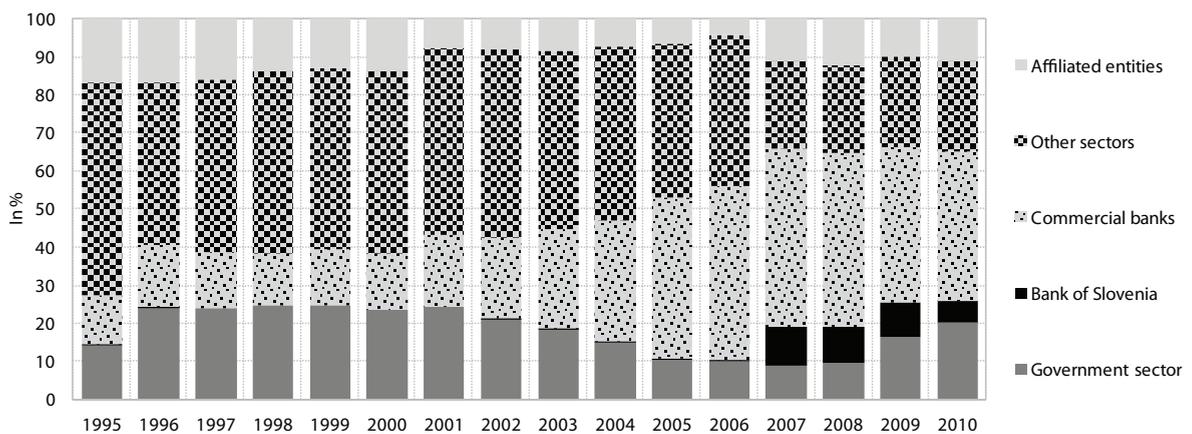
Source: Bulletin of the Bank of Slovenia, 2011.

Figure 1: Gross external debt in euro area countries, at the end of 2009, in % of GDP



Source: national central banks; calculations by IMAD.

Figure 2: Structure of Slovenia's gross external debt by sector



Source: Bank of Slovenia, calculations by IMAD.

## Labour productivity

***A severe drop in labour productivity<sup>1</sup> in 2009 was followed by subdued growth in 2010, but, given the weak economic recovery, this was largely a consequence of lower employment.*** Labour productivity in Slovenia averaged EUR 25,452 per employee in 2010, up 3.4% over the year before. While the decline in economic activity had been much more severe than the drop in employment in 2009 (-8.1% compared to -1.9%), employment dropped further in 2010 (-2.2%) even as economic activity picked up (1.2%). In 2009, as in 2010, the increase in hourly productivity<sup>2</sup> was much higher than the rise in value added per employee. This is due to the steeper decline in the number of hours worked relative to employment, which may be attributed to the implementation in 2009 of emergency laws designed to preserve jobs.<sup>3</sup>

***Productivity rose across most industries in 2010.***

The biggest growth rates were recorded in mining, manufacturing and transport, warehousing and communications. In construction and some service industries (financial intermediation, and the real estate, lease and business services sector), meanwhile, productivity continued to stagnate. In manufacturing, where the decline in productivity was very steep in 2009 (-8.1%), productivity surged by 15.3% last year, due to the baseline effect as well as higher activity buoyed by foreign demand; manufacturing is the most export-oriented segment of Slovenia's economy. Employment in manufacturing continued to drop, but at a slower pace than in 2009. Only mining saw faster growth in productivity (19.6%), largely due to the significant decline in the number of employees as a result of gradual mine closures, and partially due to higher value added in the industry. The strong decline in productivity in construction (-5.4%) is attributed to the drop in activity, which is also evident in the sagging demand for workers. As expected, services were affected by the economic crisis with a lag, which was reflected in a decrease in productivity in the majority of service industries in 2010.

***Productivity growth outpaced the EU average in 2010.***

Real productivity growth (3.4%) was slightly above the EU average (2.3%), but in the EU the drop in the previous year was smaller than in Slovenia. To a larger extent than in the EU, productivity gains in Slovenia were underpinned by lower employment (the drop in

employment was 0.5% on average in the EU and 2.2% in Slovenia), while economic growth was weaker than in the EU. Expressed in purchasing power standards, Slovenia had achieved 84.6% of the average productivity in the EU in 2008 (77.0% of the euro-area average), but, as the economy contracted at a much faster pace, the gap to the EU widened by as much as 2.2 p.p. in 2009, according to the latest available data. Given that productivity growth outpaced the EU average last year, we estimate that the gap did not widen further.

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<sup>1</sup> Labour productivity is calculated as the ratio between GDP at constant prices and employment according to the methodology of the national accounts statistics.

<sup>2</sup> Hourly productivity is calculated as the ratio between GDP at constant prices and the number of hours worked according to the methodology of the national accounts statistics.

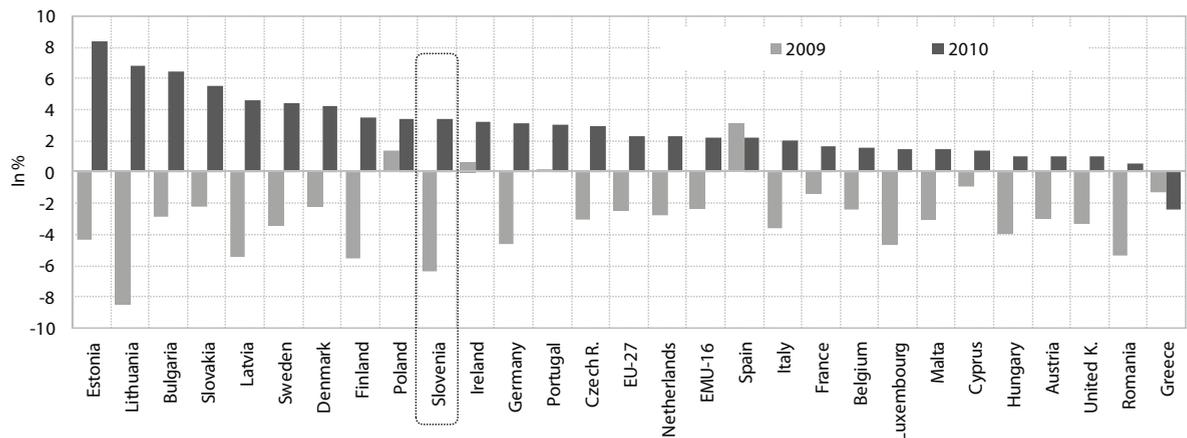
<sup>3</sup> Active employment-policy measures, the Partial Subsidising of Full-time Work Act and Partial Reimbursement of Payment Compensation Act.

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

|                 | 1997         | 2000         | 2005         | 2006         | 2007         | 2008         | 2009         |
|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>EU-27</b>    | <b>100.0</b> |
| Austria         | 119.9        | 120.6        | 115.0        | 115.9        | 113.9        | 114.2        | 113.2        |
| Belgium         | 137.4        | 136.5        | 129.7        | 128.3        | 126.9        | 125.5        | 125.6        |
| Bulgaria        | 26.3         | 31.1         | 35.6         | 36.2         | 37.3         | 39.3         | 40.0         |
| Cyprus          | 80.7         | 84.9         | 82.8         | 83.7         | 85.3         | 88.5         | 89.1         |
| Czech Rep.      | 60.5         | 61.8         | 68.5         | 69.3         | 71.4         | 72.1         | 72.9         |
| Denmark         | 110.0        | 110.5        | 106.6        | 106.4        | 104.3        | 103.8        | 103.3        |
| Estonia         | 39.9         | 46.9         | 60.5         | 62.1         | 65.4         | 64.4         | 65.5         |
| Finland         | 110.5        | 114.8        | 110.5        | 110.0        | 113.0        | 112.5        | 109.1        |
| France          | 125.7        | 125.0        | 122.1        | 121.1        | 121.3        | 120.0        | 121.0        |
| Greece          | 93.2         | 93.6         | 98.3         | 98.0         | 96.5         | 99.3         | 98.1         |
| Ireland         | 125.3        | 127.6        | 134.3        | 135.1        | 136.9        | 127.8        | 130.5        |
| Italy           | 128.9        | 126.0        | 110.9        | 109.9        | 110.5        | 111.5        | 111.9        |
| Latvia          | 35.5         | 40.1         | 47.9         | 48.8         | 51.4         | 51.5         | 53.2         |
| Lithuania       | 38.5         | 42.7         | 54.4         | 56.2         | 59.0         | 61.3         | 57.3         |
| Luxembourg      | 166.3        | 175.9        | 169.3        | 178.6        | 179.0        | 177.7        | 170.4        |
| Hungary         | 56.9         | 57.8         | 67.4         | 67.8         | 68.0         | 71.4         | 72.3         |
| Malta           | N/A          | 96.7         | 91.4         | 91.0         | 89.4         | 88.9         | 90.8         |
| Germany         | 114.2        | 108.0        | 109.2        | 109.1        | 108.4        | 107.2        | 105.1        |
| Netherlands     | 110.2        | 114.4        | 113.9        | 113.8        | 113.9        | 114.3        | 111.2        |
| Poland          | 49.5         | 55.2         | 61.3         | 60.7         | 61.9         | 61.9         | 65.0         |
| Portugal        | 70.3         | 71.5         | 72.2         | 72.5         | 73.4         | 72.9         | 75.4         |
| Romania         | N/A          | 23.6         | 35.9         | 39.5         | 43.2         | 48.7         | 47.4         |
| Slovakia        | 54.5         | 58.0         | 68.6         | 71.5         | 76.2         | 79.5         | 80.7         |
| <b>Slovenia</b> | <b>73.3</b>  | <b>76.1</b>  | <b>83.8</b>  | <b>83.9</b>  | <b>83.9</b>  | <b>84.6</b>  | <b>82.4</b>  |
| Spain           | 108.3        | 103.7        | 101.1        | 102.6        | 103.1        | 104.2        | 109.9        |
| Sweden          | 113.6        | 114.3        | 111.4        | 112.5        | 114.3        | 112.8        | 109.9        |
| U. K.           | 109.0        | 110.7        | 112.3        | 112.0        | 109.5        | 108.6        | 106.5        |

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

Figure: Real annual productivity growth in EU Member States, 2009 and 2010, in %



Source: Eurostat Portal Page – Economy and finance – National accounts, 2010.  
Note: For 2010, data for the Czech Republic, France, Greece and Luxembourg are Eurostat estimates.

## Market share

### **After a long period of growth, Slovenia's market share of the world market in goods started to decrease during the crisis.**

In 2001–2007, when the EU recorded stagnation in its market share on the world market, Slovenia was ranked 10<sup>th</sup> in the group of the 15 Member States with growing market shares, behind most of the new Member States, which are its main competitors. In 2008–2009, when the market share of the EU shrank in the world market amid the slump in foreign demand, Slovenia was in the group of countries with above-average declines, meaning that Slovenia's relative position deteriorated markedly in comparison with previous years. The quarterly data for the first nine months of 2010<sup>1</sup> show that amid a revival in foreign demand, Slovenia's market share on the world market continued to shrink at an accelerated pace, as did the market share of the EU. Slovenia ranked in the middle of EU countries in terms of its decline in market share, which was at the EU average.

**In the time of crisis, Slovenia's market share has declined mainly as a result of the loss of market shares outside the EU.** In 2009, Slovenia's market share increased in France and Germany, to a large extent due to the impact of additional subsidies to stimulate car purchases.

Slovenia's aggregate market share in the EU therefore stopped falling in 2009, despite declining market shares in other trading partners from the EU, particularly Italy and Austria. Looking at non-EU countries, the economic crisis accelerated the decline in Slovenia's market shares in Croatia and Russia, as well as Serbia, where Slovenia's market share had been rising before the crisis. The quarterly data for the first nine months of 2010 show that the abolition of incentives for car purchases contributed to a new decline in Slovenia's market share in the German market and, consequently, in the EU (by 1%). Last year, Slovenia saw further growth in its market share in France; its market share in Austria also rose, after three years of decline. The decline in Slovenia's market shares outside the EU deepened in 2010 and Slovenia therefore also recorded a larger decline in its market share on the world goods market (-9%). Last year, Slovenia's market shares continued to fall in Croatia, Russia and Serbia. In Bosnia and Herzegovina, and Macedonia, its market shares declined, after two years of growth.<sup>2</sup> Broken down into the sectors of the Standard International Trade Classification (SITC), the decline in Slovenia's global market share during the crisis was mainly impacted by medical and pharmaceutical products, metals, power generating, industrial and electrical machinery and furniture.

Table 1: Slovenia's market share according to SITC

| SITC code |   | Share in Slovenia's exports in 2009, in % | Share on world market, annual growth, in % |             |
|-----------|---|---|--|-------------|
|           |   |   | 2001-2007                                  | 2008-2009   |
| 0 to 9    | <b>Total</b>                                      | <b>100.0</b>                              | <b>4.9</b>                                 | <b>-2.8</b> |
| 0 to 4    | <b>Food and raw materials</b>                     | <b>10.7</b>                               | <b>5.9</b>                                 | <b>8.4</b>  |
| 5 to 8    | <b>Manufactured products</b>                      | <b>89.0</b>                               | <b>5.4</b>                                 | <b>-3.1</b> |
| 5         | Chemicals and related products, n.e.s.            | 16.2                                      | 5.8  | 0.7         |
| 54        | Medicinal and pharmaceutical products             | 9.4                                       | 5.0  | -2.3        |
| 6         | Manufactured goods classified chiefly by material | 20.8                                      | 2.9  | -6.6        |
| 64        | Paper, paperboard and articles thereof            | 3.0                                       | 1.5  | 1.4         |
| 67        | Iron and steel                                    | 2.7                                       | 3.1  | -13.5       |
| 69        | Manufactures of metal                             | 4.7                                       | 5.8  | -7.9        |
| 7         | Machinery and transport equipment                 | 40.2                                      | 8.5  | -0.2        |
| 71        | Power generating machinery and equipment          | 2.5                                       | 4.4  | -3.0        |
| 74        | General industrial machinery                      | 5.8                                       | 9.3  | -6.3        |
| 77        | Electrical machinery, apparatus and appliances    | 10.0                                      | 6.2  | -0.9        |
| 78        | Road vehicles                                     | 15.5                                      | 9.4  | 6.7         |
| 8         | Miscellaneous manufactured articles               | 11.8                                      | 0.4  | -8.6        |
| 82        | Furniture and parts thereof                       | 3.2                                       | -1.0                                       | -16.6       |
| 89        | Miscellaneous manufactured articles, n.e.s.       | 3.6                                       | 7.4  | -3.7        |

Source: United Nations Commodity Trade Statistics Database, 2010; calculations by IMAD. Note: SITC – Standard International Trade Classification.

<sup>1</sup> According to preliminary WTO data.

<sup>2</sup> The markets that have otherwise grown fastest during the crisis (China, India), as well as the South and Central America markets (Brasil) are relatively insignificant for Slovenia, given the structure of its foreign trade.

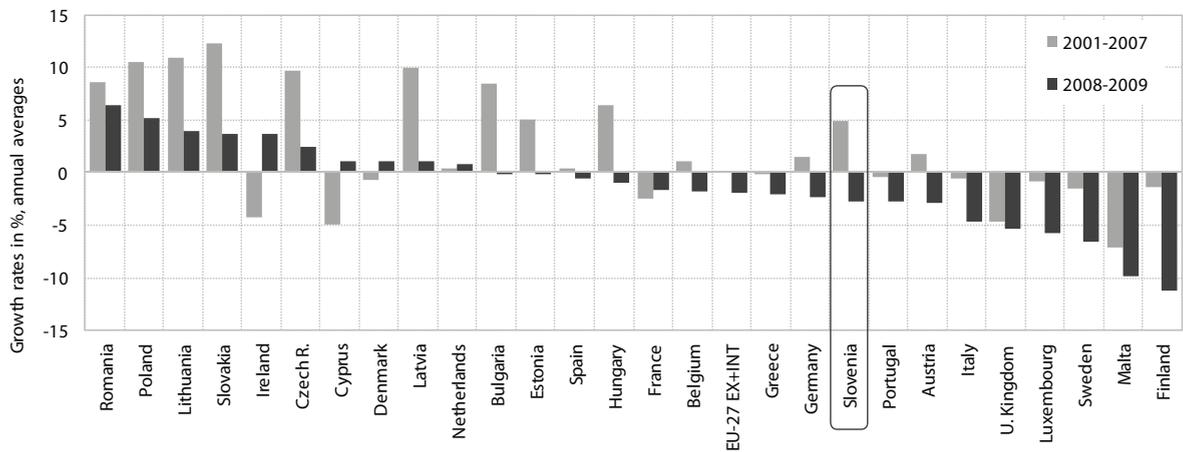
Table 2: Slovenia's market shares in the world market and in main trading partners, in %

|   | 1996   | 2003   | 2004   | 2005   | 2006   | 2007   | 2008   | 2009   |
|---|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Market share on world market <sup>1</sup></b>                    |        |        |        |        |        |        |        |        |
| Slovenia  | 0.157  | 0.171  | 0.174  | 0.172  | 0.175  | 0.192  | 0.184  | 0.181  |
| EU  | 40.925 | 41.082 | 40.354 | 38.228 | 37.556 | 37.852 | 36.481 | 36.381 |
| <b>Slovenia's market share in main trading partners<sup>2</sup></b> |        |        |        |        |        |        |        |        |
| Germany   | 0.555  | 0.490  | 0.477  | 0.457  | 0.449  | 0.473  | 0.459  | 0.470  |
| Italy   | 0.530  | 0.561  | 0.582  | 0.589  | 0.612  | 0.687  | 0.630  | 0.630  |
| Austria   | 0.819  | 1.021  | 1.066  | 1.203  | 1.356  | 1.328  | 1.311  | 1.281  |
| France  | 0.218  | 0.199  | 0.236  | 0.311  | 0.268  | 0.287  | 0.275  | 0.351  |
| United Kingdom  | 0.057  | 0.072  | 0.076  | 0.086  | 0.097  | 0.115  | 0.110  | 0.110  |
| Poland  | 0.383  | 0.518  | 0.484  | 0.446  | 0.488  | 0.515  | 0.487  | 0.437  |
| Hungary   | 0.655  | 0.529  | 0.513  | 0.536  | 0.630  | 0.940  | 0.838  | 0.828  |
| Czech Republic  | 0.530  | 0.452  | 0.455  | 0.521  | 0.525  | 0.574  | 0.507  | 0.514  |
| Croatia   | 10.979 | 8.029  | 8.723  | 8.731  | 8.471  | 8.267  | 8.156  | 8.066  |
| Serbia  | np     | np     | np     | 3.013  | 4.824  | 4.925  | 4.574  | 4.585  |
| Bosnia and Herzegovina  | np     | 11.059 | 10.182 | 9.032  | 8.002  | 7.518  | 7.591  | 8.275  |
| Russian Federation  | 0.492  | 0.688  | 0.690  | 0.587  | 0.541  | 0.473  | 0.445  | 0.425  |

Source: United Nations Commodity Trade Statistics Database, 2010; calculations by IMAD.

Note: <sup>1</sup> The market share of exports is calculated as a share of merchandise exports of Slovenia or the EU (intra and extra) in world merchandise exports. <sup>2</sup> Slovenia's market shares of the markets of its main trading partners are calculated as a share of Slovenia's merchandise exports in the merchandise imports of the trading partner.

Figure: Market shares of EU Member States on the world market in 2001–2009, growth rates in %



Source: United Nations Commodity Trade Statistics Database, 2010; calculations by IMAD.

## Unit labour costs

**The ratio of labour costs to GDP has deteriorated significantly during the crisis.** After declining slightly in 2000–2007,<sup>1</sup> real unit labour costs started to rise in 2008. In 2009, they recorded significant growth (5.1%, after 1.8% growth in 2008) arising from a substantial decline in labour productivity due to lower economic activity. Growth in compensation per employee slowed in 2009, after increasing strongly in the previous year due to wage adjustment for high past inflation and productivity, particularly in the private sector, and partly as a result of the beginning of the elimination of wage disparities in the public sector.

**During the crisis, the ratio of labour costs to value added in manufacturing deteriorated even more than in the overall economy.** As the most export-oriented sector, manufacturing was hit hardest by the sharp fall in foreign demand during the crisis. Value added in manufacturing therefore recorded an above-average decline. The decline in employment in manufacturing was also larger than in other sectors of the economy,<sup>2</sup> but failed to totally offset the negative effects of the larger drop in value added on labour productivity. Growth in real unit labour costs in manufacturing was therefore much stronger (3.3% in 2008; 9.3% in 2009) than in the economy as a whole (1.9% and 5.8%, respectively), despite weaker growth in compensation per employee.

**The cost competitiveness of the economy in Slovenia has deteriorated much more during the crisis than the EU average.** Real unit labour costs in the euro area and in the EU have also risen as a result of the crisis, but less notably than in Slovenia. The deterioration of Slovenia's competitive edge in 2008 resulted from higher growth in compensation per employee than in the EU, and in 2009, from a greater decline in labour productivity, since the fall in economic activity in Slovenia was one of the largest in the EU. Slovenia's position had already deteriorated slightly before the crisis, with cost competitiveness improving somewhat less than, on average, in the EU in 2000–2007.<sup>3</sup> In terms of the labour costs to GDP ratio, Slovenia came closest to the euro-area average and the EU average in 1999, as in the second half of the 1990s, real unit labour costs in Slovenia declined much faster than in the EU.<sup>4</sup> In

2008–2009, Slovenia was ranked 9<sup>th</sup> among EU Member States in terms of loss in cost competitiveness.<sup>5</sup>

**According to the quarterly data, the ratio of labour costs per employee to GDP per person employed improved once again in 2010, but less than, on average, in the EU.** In 2010, real unit labour costs fell once again under the impact of resumed labour productivity growth amid the rebound in economic growth and a further contraction of employment. However, due to the relatively strong wage growth in the private sector due to a higher minimum wage, their decline was much smaller than in the euro area and the EU.<sup>6</sup> Labour productivity in 2010 was higher than in the EU, but due to a larger decline in employment rather than economic growth, which lagged behind the EU average. Manufacturing, which had suffered a greater loss in cost competitiveness than other sectors of the economy over the past two years, also recorded a greater improvement in 2010.

<sup>1</sup> In 2000–2007, real unit labour costs dropped by 0.4% annually, on average; in the second half of the 1990s, by 2.6%.

<sup>2</sup> Employment would have dropped even more in 2009, had the government not adopted two intervention acts during the economic crisis to preserve jobs (see the indicator *Employment Rate*).

<sup>3</sup> The average annual drop of real unit labour costs in 2000–2007 in Slovenia was 0.4%; in the euro area 0.6%; in the EU 0.5%.

<sup>4</sup> In 1999, a unit of GDP was produced by 0.621 of a unit of labour costs in Slovenia, 0.605 of a unit of labour costs in the EU, 0.589 of a unit of labour costs in the euro area; in 2007, by 0.603 of a unit of labour costs in Slovenia compared with 0.578 and 0.562 in the EU and euro area, respectively; in 2009, by an estimated 0.643 compared with 0.601 and 0.588, respectively.

<sup>5</sup> In 2000–2007, the improvement in cost competitiveness was more pronounced than in Slovenia in 11 Member States, in 1995–1999, in only Ireland, with Slovenia sharing the second/third place with Estonia.

<sup>6</sup> 20 out of the 23 EU countries for which the figures for 2010 are available recorded larger drops in real unit labour costs than Slovenia.

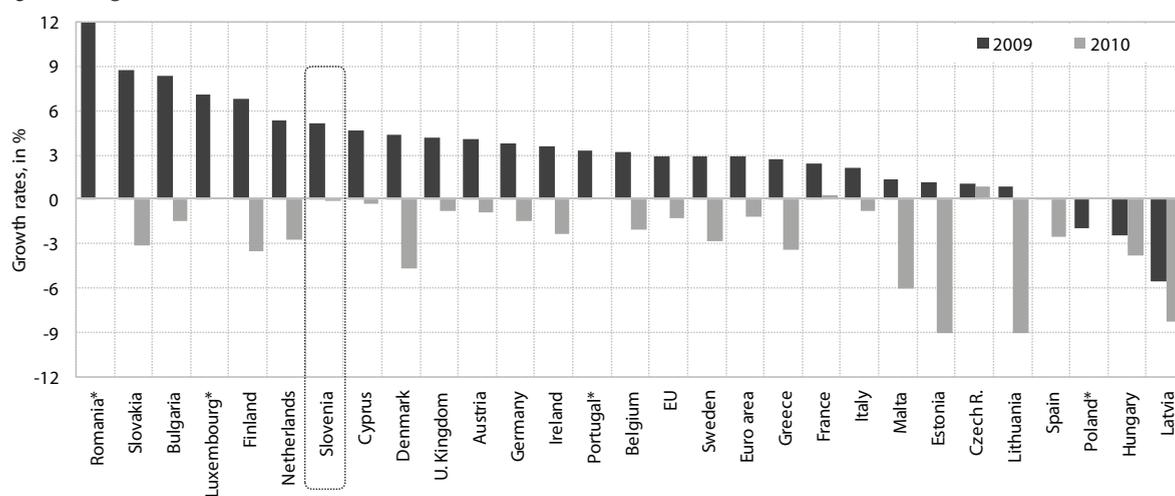
Table: Unit labour costs in Slovenia and the EU

| Real annual growth rates, in %                  | 1996–2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|-----------|------|------|------|------|------|
| <b>Unit labour costs<sup>1</sup></b>            |           |      |      |      |      |      |
| Slovenia  | -1.1      | -1.0 | -1.6 | 1.8  | 5.1  | -0.1 |
| EU-27   | -0.5      | -1.1 | -0.7 | 0.7  | 2.9  | -1.3 |
| EMU-16  | -0.6      | -0.9 | -0.9 | 1.4  | 3.0  | -1.2 |
| <b>Unit labour costs<sup>2</sup> – Slovenia</b> |           |      |      |      |      |      |
| Total   | -1.4      | -1.1 | -1.6 | 1.9  | 5.8  | -0.1 |
| Manufacturing                                   | -2.1      | -2.6 | -2.2 | 3.3  | 9.3  | -5.2 |

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

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

Figure: Real growth of unit labour costs in Slovenia and EU Member States in 2009 and 2010



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

Note: \*Data for 2010 are not yet available.

## Structure of merchandise exports by factor intensity

**With the contraction of production in low-tech industries, which were most affected by the crisis, the structure of merchandise exports by technological intensity<sup>1</sup> of products improved significantly in 2008 and 2009.** After the remarkable one-off increase in 2003 (as a result of increased sales of pharmaceutical products in the US market that year), the share of *high-tech products* declined in 2004 and 2005. It started to increase modestly in 2006, but did not exceed the 2003 level before 2008. The share of high-tech products in Slovenia's merchandise exports increased further in 2009 (by 2.3 p.p.). The share of exports of pharmaceutical products, in particular, grew sharply. Despite the improvement in the last two years, the share of high-tech products was still well below the EU average in 2009 (by 6.6 p.p.), as well as below the average of the new EU Member States (by 1.8 p.p.). The share of *medium-high-tech products* in Slovenia's merchandise exports also increased in 2009 (by 0.6 p.p.), largely on account of a larger share of passenger-car exports (which were favourably impacted by measures stimulating car purchases in certain countries of the EU during the crisis), electrical machinery and household-type equipment. Slovenia's relative export advantage index for medium-high-tech products<sup>2</sup> thus also increased and was the highest for this group of products<sup>3</sup> in 2009. Medium-tech products accounted for 39.9% of Slovenia's merchandise exports, which is far above the EU average.

**For a number of years, the total share of labour intensive and low-tech products in merchandise exports has contracted largely due to a further drop in the share of labour-intensive products.<sup>4</sup>** The share of labour-intensive products also continued to decline in 2009. After several years of sharp decline, the share of these products dropped by a mere 0.1 p.p. in Slovenia in 2009, remaining significantly larger than the EU average and also slightly above the average of the new Member States. After strengthening for several years, the share

of low-tech products also dropped more notably under the conditions of the economic crisis in 2009, particularly owing to a smaller share of exports of miscellaneous metal products. It is nonetheless higher than at the adoption of SDS (in 2005) and still exceeds the EU average.

**The share of exports of natural-resource-intensive products has fluctuated between 15% and 16% since 2005.** After a slight decline in 2007, data for 2008 and 2009 reveal a new increase in the share of resource-intensive products in merchandise exports<sup>5</sup> to the average level of 2005 and 2006. As the bulk 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 perspective of sustainability. These trends are, however, less favourable in view of their contribution to economic development, as these products generate 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> 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 the group of countries that serves as a reference level (in this case, the EU-27).

<sup>3</sup> The relative export advantage index for low-tech products was also at approximately the same level.

<sup>4</sup> The groups of low-tech and labour-intensive products include products with the lowest value added per employee such as: clothing, textile products, footwear, furniture, glass and glass products, flat- and rolled-iron products, and base-metal products.

<sup>5</sup> The main groups of exported resource-intensive products in Slovenia's merchandise exports are: aluminium, finished mineral manufactures, electricity, rough and worked wood, veneer and other manufactured wood, wood manufactures, and non-alcoholic and alcoholic beverages.

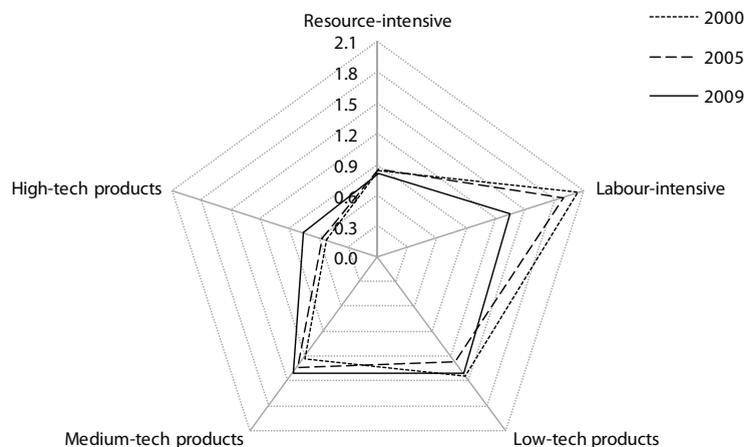
Table: Structure of merchandise exports by factor intensity<sup>1</sup> in Slovenia and in the EU, 2000-2009

|                    |          | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|--------------------|----------|------|------|------|------|------|------|------|------|------|------|
| Resource-intensive | EU-27    | 18.2 | 17.7 | 17.7 | 17.7 | 18.2 | 17.9 | 19.4 | 19.2 | 20.3 | 19.6 |
|                    | EU-15    | 18.0 | 17.5 | 17.7 | 17.6 | 18.2 | 17.8 | 19.4 | 19.3 | 20.5 | 19.6 |
|                    | EU-12    | 20.7 | 19.7 | 18.8 | 18.2 | 18.8 | 19.2 | 19.0 | 18.5 | 19.5 | 19.4 |
|                    | Slovenia | 15.3 | 15.1 | 14.6 | 14.6 | 14.0 | 15.4 | 16.1 | 15.5 | 15.8 | 15.9 |
| Labour-intensive   | EU-27    | 10.6 | 10.7 | 10.7 | 10.4 | 9.8  | 9.0  | 8.6  | 8.5  | 8.2  | 8.7  |
|                    | EU-15    | 10.1 | 10.1 | 10.1 | 9.8  | 9.3  | 8.6  | 8.2  | 8.1  | 7.9  | 8.4  |
|                    | EU-12    | 18.5 | 18.9 | 18.8 | 17.7 | 15.8 | 14.0 | 12.3 | 11.4 | 10.2 | 10.8 |
|                    | Slovenia | 21.6 | 21.3 | 20.0 | 18.7 | 17.8 | 17.0 | 14.2 | 12.6 | 11.7 | 11.6 |
| Low-tech           | EU-27    | 6.9  | 7.0  | 7.0  | 7.2  | 7.7  | 7.0  | 7.4  | 7.9  | 8.2  | 7.0  |
|                    | EU-15    | 6.6  | 6.7  | 6.7  | 6.9  | 7.4  | 6.6  | 7.1  | 7.6  | 7.8  | 6.7  |
|                    | EU-12    | 10.5 | 10.9 | 11.0 | 11.0 | 11.5 | 10.6 | 10.8 | 11.1 | 11.0 | 9.1  |
|                    | Slovenia | 9.9  | 9.9  | 9.9  | 10.1 | 10.8 | 8.8  | 10.2 | 10.4 | 11.1 | 9.8  |
| Medium-tech        | EU-27    | 29.8 | 30.4 | 30.5 | 30.9 | 31.0 | 30.1 | 29.9 | 30.8 | 30.0 | 28.4 |
|                    | EU-15    | 29.8 | 30.3 | 30.5 | 30.7 | 30.8 | 29.8 | 29.5 | 30.2 | 29.5 | 27.8 |
|                    | EU-12    | 30.1 | 30.6 | 31.5 | 33.1 | 33.3 | 33.3 | 34.3 | 35.5 | 34.1 | 33.7 |
|                    | Slovenia | 36.2 | 36.2 | 37.3 | 37.3 | 38.3 | 40.2 | 39.1 | 40.9 | 39.3 | 39.9 |
| High-tech          | EU-27    | 28.7 | 28.7 | 28.7 | 27.6 | 27.1 | 27.7 | 27.7 | 25.8 | 25.2 | 27.7 |
|                    | EU-15    | 29.4 | 29.4 | 29.5 | 28.3 | 27.9 | 28.5 | 28.6 | 26.5 | 25.8 | 28.3 |
|                    | EU-12    | 18.1 | 17.3 | 17.9 | 18.0 | 18.8 | 18.2 | 19.2 | 19.7 | 20.6 | 22.9 |
|                    | Slovenia | 15.5 | 16.0 | 16.7 | 17.9 | 17.2 | 16.0 | 17.1 | 17.4 | 18.8 | 21.1 |

Source: Handbook of Statistics 2007–2008 (United Nations), 2007; United Nations Commodity Trade Statistics Database, 2009; calculations by IMAD.

Note: <sup>1</sup>The classification of products into individual 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<sup>1</sup> of Slovenia's exports by factor intensity



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

Note: <sup>1</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 the group of countries that serves as a reference level (in this case, the EU-27).

## Exports and imports as a share of GDP

***After declining significantly in the first year of the crisis (2009), the openness of Slovenia's economy to foreign trade increased somewhat in 2009, largely as a result of the recovery of foreign demand, while domestic demand shrank once again.*** The rapid increase in the openness of Slovenia's economy recorded during the economic upturn slowed substantially in 2009. In 2010, the level of Slovenia's trade integration increased somewhat again, but was lower than in 2006–2008. The average share of trade in goods and services in GDP thus reached 63.1% in 2010, a 5.7 p.p. higher figure than a year previously, with the increase solely a result of higher trade in goods. The share of merchandise exports expanded by 5.2 p.p., the share of merchandise imports by 5.9 p.p. The growth of merchandise exports in Slovenia was slower than in most other EU countries. The growth of merchandise imports was, given the strengthening of production volume in manufacturing, largely affected by higher imports of intermediate goods, with imports of consumer goods recording modest growth due to weak household consumption. Imports of investment goods dropped amid a further contraction of domestic investment activity. The value of total merchandise imports was also impacted by higher energy and commodity prices. Foreign trade in services as a share of GDP remained at the 2009 level. The share of transport services in services exports strengthened somewhat, while exports of travel services declined. The share of predominantly knowledge-intensive services (the group of other services), including insurance, financial, computer and IT services, communication services, licences, patents and copyrights, and other business services, stagnated for the third consecutive year. The share of the group of other services in Slovenia's exports (33.6%) thus remains way below the EU average (58.1% in 2009).

***Trade integration increased somewhat more in Slovenia than the average for the EU, but less than in the majority of the small economies of the EU.*** The level of trade integration in the EU increased in the period of favourable economic conditions (2003–2008). In 2009, it declined, before rising again in 2010. In both years, the changes were less pronounced than in Slovenia. The gap in openness to foreign trade between Slovenia and the EU average, which widened in 2000–2007, has thus been narrowing since 2007 (from 30.6 p.p. to 23.3 p.p. in 2010), largely due to a significant decline in the share of trade in GDP in Slovenia at the beginning of the crisis. In 2000–2007, Slovenia's openness to foreign trade increased much more than that in other small EU Member States. In the twelve EU countries that are classified among small countries according to demographic criteria,<sup>1</sup>

foreign trade as a share of GDP increased on average from 48.2% in 2000 to 56.1% in 2007. In 2008 and 2009, most of the small open economies were affected by the slump in world trade, though less than Slovenia. The average increase in the openness to foreign trade in small countries in 2010 was smaller (by 3.2 p.p.) than in Slovenia (by 5.7 p.p.).

<sup>1</sup> A demographic criterion, the absolute number of population, was used as a measure of an individual country's size. Altogether,

12 Member States with less than 10 million inhabitants qualify as small according to this criterion: Austria, Cyprus, Denmark, Estonia, Finland, Ireland, Latvia, Luxembourg, Malta, Slovakia and Slovenia.

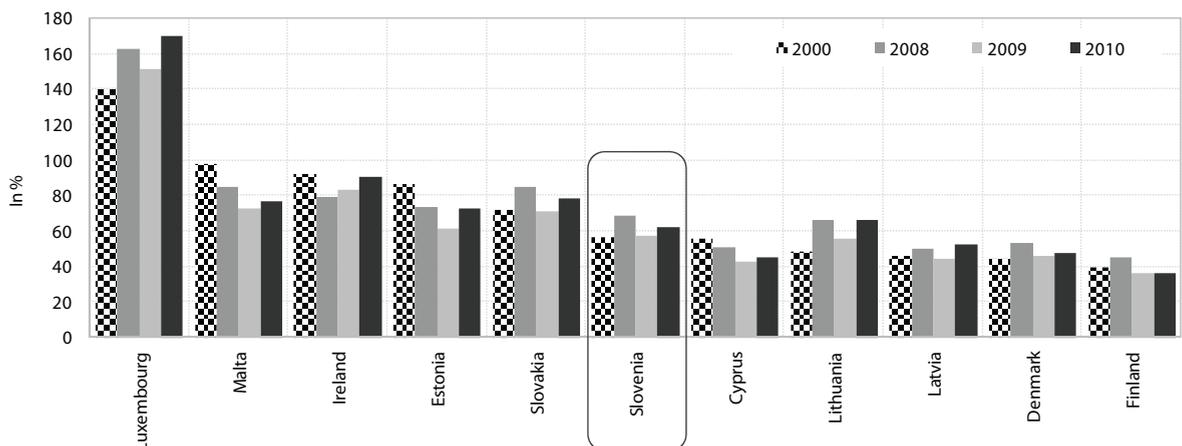
Table: Average trade-to-GDP ratio (exports and imports)<sup>1</sup> in Slovenia and the EU, in %

|                                      | 1995        | 2000        | 2005        | 2006        | 2007        | 2008        | 2009        | 2010        |
|--------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Trade-to-GDP ratio – Slovenia</b> | <b>50.9</b> | <b>55.7</b> | <b>62.3</b> | <b>66.8</b> | <b>70.4</b> | <b>68.9</b> | <b>57.5</b> | <b>63.1</b> |
| Goods                                | 42.4        | 47.3        | 52.6        | 56.7        | 59.8        | 57.3        | 46.8        | 52.3        |
| Services                             | 8.6         | 8.5         | 9.7         | 10.1        | 10.7        | 11.6        | 10.8        | 10.8        |
| <b>Exports of goods and services</b> | <b>49.9</b> | <b>53.9</b> | <b>62.1</b> | <b>66.5</b> | <b>69.5</b> | <b>67.4</b> | <b>58.1</b> | <b>63.4</b> |
| Goods                                | 40.0        | 44.4        | 50.8        | 54.8        | 57.3        | 53.7        | 45.7        | 50.9        |
| Services                             | 9.9         | 9.6         | 11.3        | 11.7        | 12.3        | 13.6        | 12.4        | 12.5        |
| <b>Imports of goods and services</b> | <b>51.8</b> | <b>57.4</b> | <b>62.5</b> | <b>67.0</b> | <b>71.3</b> | <b>70.4</b> | <b>56.8</b> | <b>62.9</b> |
| Goods                                | 44.7        | 50.2        | 54.4        | 58.6        | 62.2        | 60.9        | 47.8        | 53.7        |
| Services                             | 7.2         | 7.3         | 8.1         | 8.4         | 9.1         | 9.5         | 9.1         | 9.2         |
| <b>Trade-to-GDP ratio – EU-27</b>    | <b>28.9</b> | <b>35.8</b> | <b>36.8</b> | <b>39.4</b> | <b>39.9</b> | <b>41.1</b> | <b>36.1</b> | <b>39.8</b> |
| Goods                                | 22.9        | 28.0        | 28.5        | 30.6        | 30.8        | 31.7        | 27.0        | 30.5        |
| Services                             | 6.0         | 7.9         | 8.4         | 8.8         | 9.1         | 9.4         | 9.1         | 9.3         |

Sources: SI-STAT data portal – National accounts, 2011; Eurostat Portal Page – Economy and finance, 2011; calculations by IMAD.

Note: <sup>1</sup>The ratio between the average value of total exports and imports according to the national accounts statistics and GDP in current prices.

Figure: Average trade-to-GDP ratio (exports and imports) in Slovenia and selected small EU Member States, in %, 2008–2010



Sources: SI-STAT data portal – National accounts, 2011; Eurostat Portal Page – Economy and finance, 2011; calculations by IMAD.

## Foreign direct investment

***In 2009, the economic crisis had a strong negative impact on inward and outward FDI in Slovenia.*** Inward FDI stock dropped by 6.6% and outward FDI stock by 3.4%. The decrease is also corroborated by data on FDI flows. Inflows were negative in 2009 whereas outflows dropped to 12.7% of the sum recorded in the year before – the first time in Slovenia's history that FDI inflows were negative. Slovenia thus recorded a net outflow of FDI in 2009. Breaking down FDI stock to changes in equity capital and reinvested profit, and changes in net claims (liabilities arising from crediting between affiliates), it becomes clear that practically the entire decrease in FDI stock in 2009 was due to a contraction of crediting between affiliates, whereas the stock of equity capital remained practically unchanged. Net liabilities of Slovenian subsidiaries to parent companies abroad thus dropped by EUR 701.9 m (95.4% of the total decrease), while net claims of Slovenian investors on their foreign subsidiaries were down EUR 181.7 m (94.6% of the total decrease).

***Despite the steep decline in FDI stock in 2009, its share relative to GDP dropped only marginally amid strong contraction of economic activity, but nevertheless remained substantially lower than in the majority of EU countries.*** Inward FDI stock rose from 20.2% of GDP to 30.1% of GDP in the 2005–2008 period, dropping to 29.7% of GDP in 2009. Outward FDI stock meanwhile rose from 9.2% to 15.2% of GDP in 2005–2008 and to 15.5% of GDP in 2009, with the dynamics in Slovenia different from those in other EU countries. In the vast majority of EU countries, inward FDI stock dropped in 2008 as a result of the recession and rebounded in 2009. In Slovenia, the contraction was delayed until 2009, when the majority of other EU countries were already recording a rebound in FDI stock. Slovenia thus remains among the EU countries with the lowest inward FDI stock as a share of GDP. In terms of outward FDI stock as a share of GDP, it lags behind Cyprus, Estonia, Malta and Hungary among the new Member States.

***FDI flows and changes in FDI stock in 2010 indicate a gradual recovery and renewed increase in FDI.*** In 2010, FDI inflows to Slovenia amounted to EUR 629.8 m. Outflows meanwhile dropped once more. Slovenia thus recorded net FDI inflows of EUR 515.9m in 2010. The structure of inflows was as follows: increase in equity capital accounted for 3.0% of the total, reinvested profit accounted for 30.5% and increase in net liabilities of Slovenian subsidiaries to parent companies abroad (intra-company financing) 66.5%. The fact that EUR 138.2 m of profit of foreign investors in Slovenia was reinvested in 2010 as compared to only EUR 37.7 m in 2009, and that intra-company crediting of Slovenian subsidiaries started to increase again (by EUR 109.4 m in 2010 compared

with a drop of EUR 552.3 m the year before), signals a return of confidence of foreign parent companies in their Slovenian subsidiaries. This is also clear from the results of surveys among Slovenia-based foreign subsidiaries in 2009 and 2010. In 2009, as many as 67.7% of respondents forecast a drop in sales for the current year while in 2010, 59.2% did. Improved expectations for the following year are even more obvious. In 2009, 60.8% forecast an improvement in sales for the following year and as many as 78.9% did in 2010. As for the number of employees, 42.3% forecast an increase in 2009 and 67.4% in 2010 (IER-JAPTI, 2009, 2010).

Table: Flows and stock of inward and outward FDI<sup>1</sup> in Slovenia in 2000–2010<sup>2</sup> in EUR m

|                             | 2000    | 2005    | 2006    | 2007     | 2008     | 2009     | 2010   |
|-----------------------------|---------|---------|---------|----------|----------|----------|--------|
| <b>INWARD FDI</b>           |         |         |         |          |          |          |        |
| Year-end stock              | 3,109.8 | 6,133.6 | 6,822.3 | 9,765.1  | 11,236.3 | 10,500.2 | N/A    |
| Annual inflow               | 149.1   | 472.5   | 513.3   | 1,106.4  | 1,329.5  | -418.6   | 629.8  |
| Stock as a % of GDP         | 14.8    | 21.7    | 22.0    | 28.2     | 30.1     | 29.7     | N/A    |
| <b>OUTWARD FDI</b>          |         |         |         |          |          |          |        |
| Year-end stock              | 825.3   | 2,788.7 | 3,452.2 | 4,916.6  | 5,677.0  | 5,484.9  | N/A    |
| Annual outflow <sup>3</sup> | -71.7   | -515.6  | -687.0  | -1,316.6 | -948.7   | -120.5   | -113.9 |
| Stock as a % of GDP         | 3.9     | 9.9     | 11.1    | 14.2     | 15.2     | 15.5     | N/A    |

Source: Bank of Slovenia, 2011 – www.bsi.si, SI-STAT Data Portal – National Accounts, 2009, 2008.

Notes: 1 Companies in which a foreign investor has a 10% or higher share. 2 Since 1996, the figure has also included 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 that are part of the foreign owner's group of companies (see International economic relations – Bank of Slovenia, March 2007, p. 11–13). 3 Negative value denotes outflow; N/A – not available.

Figure 1: Inward FDI stock relative to GDP in the EU in 2005 and 2009

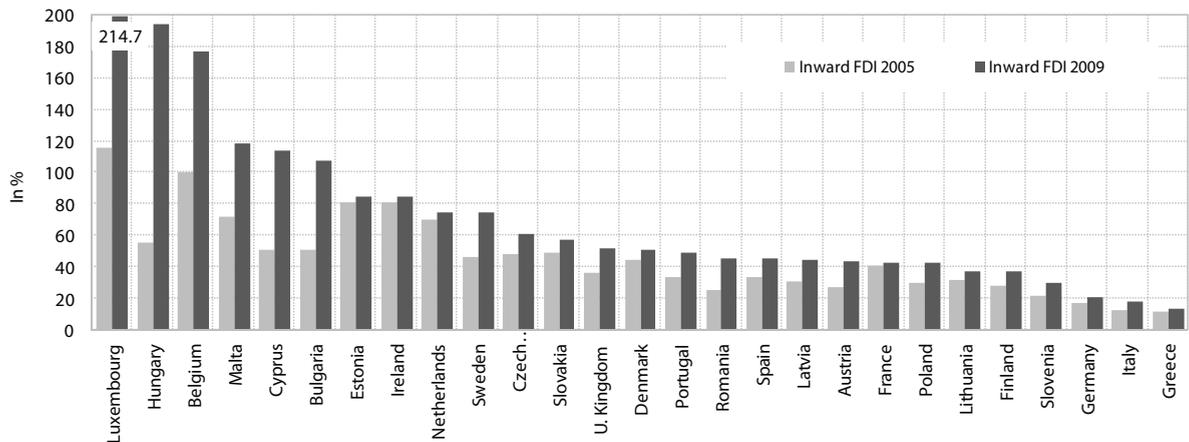
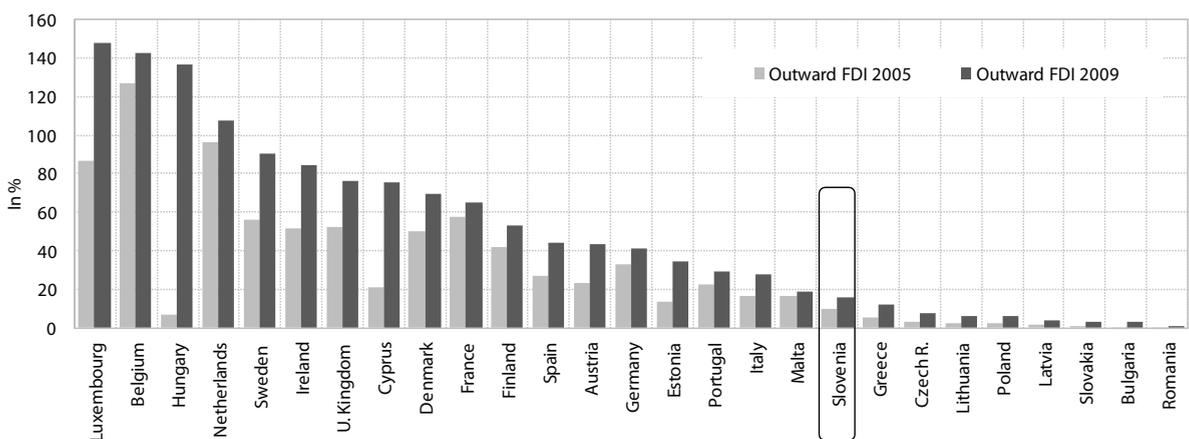


Figure 2: Outward FDI stock relative to GDP in the EU in 2005 and 2009



Source: UNCTAD, World Investment Report, Annex Tables 7 and 8, <http://www.unctad.org/Templates/Page.asp?intItemID=5545&lang=1>; Bank of Slovenia, 2011 – www.bsi.si (for Slovenia).

# Entrepreneurial activity

**Entrepreneurial activity in Slovenia dropped during the crisis, according to the Global Entrepreneurship Monitor (GEM).** The rate of total early-stage entrepreneurial activity, measuring the share of the population entering entrepreneurial activity (TEA index)<sup>1</sup> dropped significantly for the second year in a row (1 p.p. in 2009 and 0.7 p.p. in 2010), to the 2006–2007 level. In 2010<sup>2</sup> it was 4.7%, down, to roughly the level of the average of the 17 EU countries (4.8%) that were included in the GEM survey in 2010.<sup>3</sup> The main cause of the drop is a significant decline in the share of nascent entrepreneurs, those entering entrepreneurial activity or owning and running a business less than three months (1.9 p.p. during the crisis). The share of new entrepreneurs did, however, inch up as it continued to hover at a level higher than the average in the 2005–2007 period. In EU Member States participating in the GEM survey, the rate of early-stage entrepreneurial activity dropped by much less than in Slovenia in 2010, sliding only 0.1 p.p. to 4.8%.<sup>4</sup> However, at the peak of the economic cycle, the increase in total early-stage entrepreneurial activity in these countries was much lower than in Slovenia. In 2010, the rate of overall entrepreneurial activity in Slovenia suffered a sharp decline of 1.3 p.p., due to the decline of total early-stage entrepreneurial activity as well as a drop in the share of entrepreneurs in business for over 3.5 years (established entrepreneurs). The decline in overall entrepreneurial activity was much bigger than on average in the EU (by 0.2 p.p.).

**The period of the economic crisis saw a substantial decline in early-stage entrepreneurial activity, which had been driven mainly by business opportunities that had been the engine of entrepreneurial activity during the period of economic growth.** The share of the population that engaged in early-stage entrepreneurial activity to exploit perceived business opportunities was down 1.0 p.p. in 2010, plunging by a combined 1.9 p.p. during the financial and economic crisis, to 3.7%. Nevertheless, perceived business opportunities remain the main driving force behind decisions to set up a business, as the share of necessity-driven entrepreneurship remains relatively low (2008: 0.8%) despite having risen in 2010. The increase in necessity-driven entrepreneurship in 2010 can be partially

explained with enhanced active employment-policy measures: data from the Employment Service of Slovenia indicate that 5,148 persons received subsidies for self-employment in 2010.<sup>5</sup> In most EU Member States, the rate of necessity-driven entrepreneurship declined. In the majority of EU countries early-stage entrepreneurial activity driven by perceived business opportunities improved, with the Netherlands recording the biggest rise (to 6.1%). In 2010, average European rates of early-stage entrepreneurial activity, both necessity-based and opportunity-driven, remained unchanged over the year before (necessity: 1%, opportunity: 3.6%).

**The mortality rate of nascent businesses dropped in 2010 along with the steep decline in early-stage entrepreneurial activity.** In 2010, the mortality rate, measured as the ratio of nascent entrepreneurs to new entrepreneurs, declined to 0.9, the lowest level in the 2002–2010 period. The trend was partially driven by an increase in the share of new entrepreneurs, which indicates that a portion of nascent entrepreneurs became new entrepreneurs. However, as a result of the economic crisis and the attendant scarcity of business opportunities, the share of nascent companies dropped even more.

**High levels of payment default risk remained the biggest limiting factor to doing business in 2010.** However, Interstat<sup>6</sup> data show a decline since the second half of 2009 in the share of entrepreneurs who named payment default risk the biggest obstacle to doing business. The share of entrepreneurs coping with payment default stood at 74.6% in the second half of 2009, but this dropped by 8.3 p.p. by the first half of last year and by 13.1 p.p. by the second half of 2010. On the other hand, problems related to tax policy and red tape remain a significant factor hampering business, highlighted as such by 27.5% and 26.3% of entrepreneurs, respectively, with the first figure similar to the previous year's and the latter figure falling in 2010. Declining sales remained a significant factor hampering business in 2010, but in the second half of 2010 the share of entrepreneurs naming it as a problem fell from the level seen in the first half by 8.5 p.p. to 25.6%.<sup>7</sup>

<sup>1</sup> See notes below the table for methodological explanations of measures of entrepreneurial activity.

<sup>2</sup> Data are from the survey carried out in the first half of the year.

<sup>3</sup> 14 Member States were included in the GEM survey in 2009 and 17 in 2010 (the same as in 2009 plus Ireland, Portugal and Sweden).

<sup>4</sup> In 2008, Slovenia's TEA-index exceeded the EU average for the first time (by 1.1 p.p.) and it remained higher in 2009 (by 0.5 p.p.).

<sup>5</sup> In 2009, 4,330 persons received subsidies for self-employment, up from 1,599 in the previous year.

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

<sup>7</sup> Peak was achieved in the first half of 2009 (35.6%).

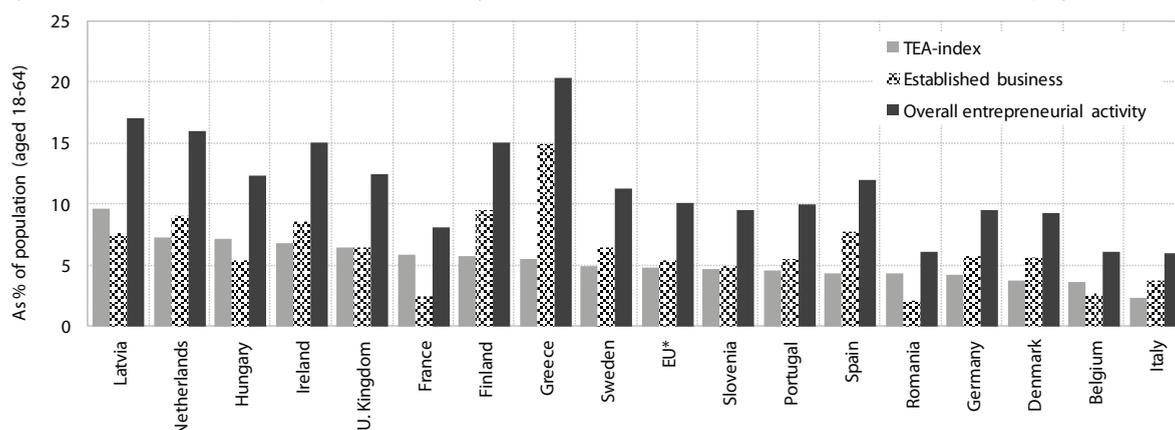
Table: Selected indicators of entrepreneurial activity in Slovenia in the period 2002–2010

| As % of the population (aged 18–64)           | 2002 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|------|------|------|------|------|------|------|
| TEA index <sup>1</sup>                        | 4.6  | 4.4  | 4.6  | 4.8  | 6.4  | 5.4  | 4.7  |
| TEA-nascent entrepreneurs <sup>2</sup>        | 3.3  | 3.0  | 2.9  | 3.0  | 4.1  | 3.2  | 2.2  |
| TEA-new entrepreneurs <sup>3</sup>            | 1.5  | 1.4  | 1.8  | 1.8  | 2.4  | 2.1  | 2.4  |
| TEA-opportunity <sup>4</sup>                  | 3.3  | 3.8  | 4.0  | 4.2  | 5.6  | 4.7  | 3.7  |
| TEA-necessity <sup>5</sup>                    | 1.4  | 0.5  | 0.5  | 0.5  | 0.8  | 0.5  | 0.8  |
| Established business <sup>6</sup>             | -    | 6.3  | 4.4  | 4.6  | 5.6  | 5.7  | 4.9  |
| Overall entrepreneurial activity <sup>7</sup> | -    | 10.1 | 9.0  | 9.3  | 11.8 | 10.8 | 9.5  |

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, Bosma et al., 2011.

Notes: <sup>1</sup> The TEA-index is the rate of total early-stage entrepreneurial activity measuring the share of the population engaging in entrepreneurship. It includes individuals who have started setting up new businesses or are 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). 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 entrepreneurs). <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 represents the share of people who own a firm that has been operating for more than 42 months. <sup>7</sup> The overall entrepreneurial-activity includes the TEA index and the share of established business.

Figure: Selected indicators of entrepreneurial activity in Slovenia and 17 EU Member States included in the GEM project in 2010



Source: Bosma et al., 2011.

Note: \* Weighted average of 17 EU Member States included in the GEM 2010 survey, calculations by IMAD.

## Share of non-financial market services

**The share of non-financial market services and the share of knowledge-based activities in value added of Slovenia's economy stopped increasing in 2009.** In 2009, non-financial market services<sup>1</sup> generated 40.2% of total value added, which is roughly the same figure as a year earlier. The number of employed persons continued to increase in 2009 and their share in total employment strengthened further (by 0.8 p.p. to 34.6%). Labour productivity in non-financial market services (in current prices) thus deteriorated notably relative to 2008, and was only 16% higher than in the economy as a whole (compared with nearly one fifth in the previous year). That the share of value added remained at the previous year's level was a result of different levels of movement by activities (see Table). The share of value added thus declined in services that were more severely affected by the economic crisis in 2009. The share of business activities (K) continued to increase.

**Among non-financial market services, business services have strengthened the most in the total period of the implementation of SDS (since 2005), but the share of knowledge-based activities still lags significantly behind the SDS target.** The increase in the share of business services in 2009 resulted from stronger real estate activities (SKD K70),<sup>2</sup> while the share of knowledge-based business services increased, although only marginally (by 0.1 p.p. to 10.3%). The share of knowledge-based business services has also increased significantly in the total period of the implementation of the strategy, but was still well below the 2013 target (12% of value added of the Slovenian economy) in 2009. In 2005–2008, knowledge-based business services were also the main factor behind the increase in the total share of knowledge-based non-financial market services<sup>3</sup> in the Slovenian economy, which otherwise remained at the 2008 level (12.6%) in 2009 due to the decline in post and telecommunication activities.<sup>4</sup>

**The gap between Slovenia and the EU average in the share of non-financial market services in value added widened considerably in 2009, and Slovenia's greatest development potential still lies in knowledge-based services, although these now lag behind the EU average significantly less than in 2005.** The gap between Slovenia and the EU average according to the share of non-financial market services in the structure of the economy (which had been at the lowest level in 2008) widened in 2009 (by 0.4 p.p. to 4.2 p.p.), largely as a result of a lower volume of transport, which has – as with distributive trades – held a larger share in the structure of the economy in Slovenia than in the EU for several years. The gap in business services, where Slovenia's economy lags most notably behind the EU average, remained at a similar level over the last four years, amid similar growth rates of business services in the EU and Slovenia over the same period (5.2 p.p. in 2009). International comparisons for knowledge-based non-financial market services (part of business services and post and telecommunications), which are only available for the period until 2008, show that in 2005–2008 Slovenia significantly approached the average of the EU-15 countries,<sup>5</sup> where the share of these services has remained at a similar level throughout the period since 2002 (13.5%). In 2008, the share of knowledge-based non-financial services in Slovenia was 0.9 p.p. lower than in the EU-15 (1.4 p.p. in 2004).

<sup>1</sup> Activities of the Standard Classification of activities (SKD): wholesale and retail trade, 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 activities in total value added in 2009 was 7.9%. Real-estate business mostly consists of the estimated housing activities of households characterised by relatively low and constant growth rates of value added. In 2000, housing activity of households accounted for 94.1% of value added in real-estate activities and 48.2% of value added of all K activities, and in 2009, for 82.3% or 35.8% of all K activities.

<sup>3</sup> According to the OECD methodology, knowledge-based services comprise business services (renting machinery and equipment – section 71, computer and related activities – section 72, research and development – section 73 and other business activities – section 74) and post and telecommunications (section 64).

<sup>4</sup> The share of post and telecommunication services, which has

been just above the EU average for several years, decreased by 0.1 p.p. in 2009.

<sup>5</sup> The figure refers to the EU-15 excluding Ireland.

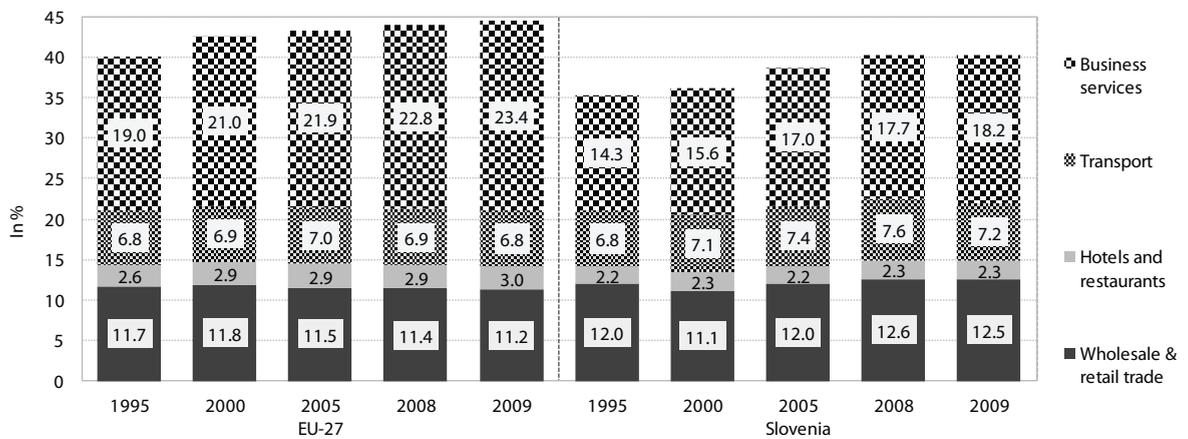
Table: Share of non-financial market services in value added

| in %                                 | 1995 | 2000 | 2005 | 2006 | 2007 | 2008 | 2009 |
|--------------------------------------|------|------|------|------|------|------|------|
| Non-financial market services – NFMS | 35.4 | 36.1 | 38.5 | 38.5 | 39.6 | 40.2 | 40.2 |
| Wholesale & retail trade (G)         | 12.0 | 11.1 | 12.0 | 11.8 | 12.2 | 12.6 | 12.5 |
| Hotels and restaurants (H)           | 2.2  | 2.3  | 2.2  | 2.2  | 2.3  | 2.3  | 2.3  |
| Transport (I)                        | 6.8  | 7.1  | 7.4  | 7.5  | 7.7  | 7.6  | 7.2  |
| Business services (K)                | 14.3 | 15.6 | 17.0 | 17.0 | 17.4 | 17.7 | 18.2 |
| Excluding K70 <sup>2</sup>           | 6.3  | 7.6  | 9.3  | 9.5  | 9.9  | 10.2 | 10.3 |
| Knowledge-based NFMS <sup>1</sup>    | 8.3  | 9.7  | 11.9 | 12.1 | 12.4 | 12.6 | 12.6 |

Source: SI-STAT data portal – National Accounts (SORS), 2011; calculations by IMAD.

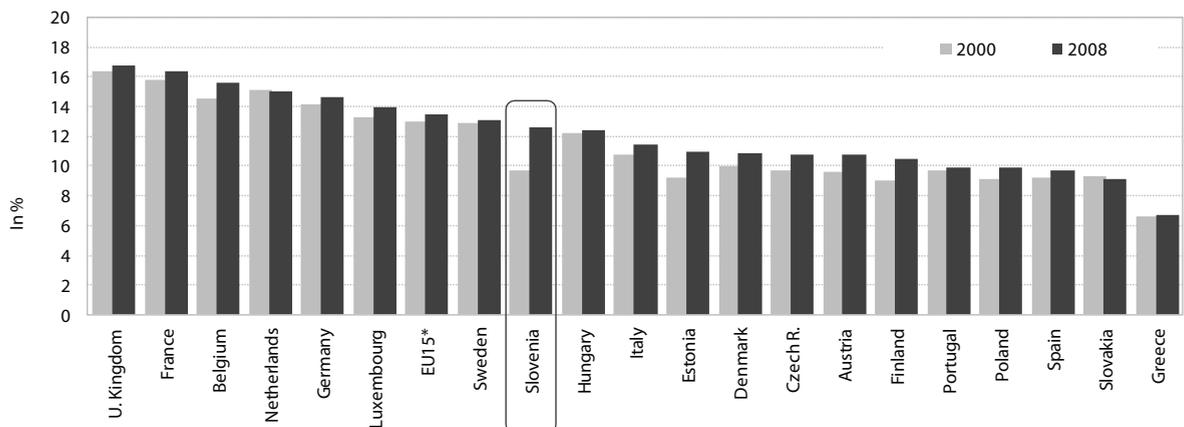
Note: <sup>1</sup> Post and telecommunications – section 64, renting machinery and equipment – section 71, computer and related activities – section 72, research and development – section 73, other business activities – section 74.2 Real-estate activities.

Figure 1: Share of non-financial market services in value added in Slovenia and the EU



Source: Eurostat Portal Page – Economy and finance – National accounts, 2011; calculations by IMAD.

Figure 2: Share of knowledge-based non-financial market services in value added



Source: STAN Database for Structural Analysis (OECD), 2011; calculations by IMAD.

Note: \* EU-15 excluding Ireland.

## Total assets of banks

***The value of total assets of banks relative to GDP declined in 2010 for the first time since 1995.*** With slightly positive GDP growth, total bank assets declined by 2.5% in 2010. In 2010, banks continued to net repay foreign deposits and loans, but their net repayments were approximately one half lower of the level a year earlier. At the same time, banks recorded strong outflows of government deposits, but also lower inflows of financial assets from issuing their own bonds. Net inflows of household deposits in banks also dropped amid a further tightening of labour-market conditions. To repay liabilities, banks therefore had to reduce the volume of investment, particularly assets deposited with the Eurosystem and foreign banks, which contracted nearly one half in 2010. With bank investment contracting, lending to non-banking sectors picked up in 2010, but banks mainly extended loans to households, and, to a certain extent, the government, while enterprises and NFIs even recorded significant net repayments of loans in 2010. In our estimation, banks were not willing to take on new risks or finance new projects. However, due to their high exposure to non-performing loans, they were most likely forced to refinance certain loans, given that bank exposure to individual, more indebted, sectors even increased rather than declined. Banks' reluctance to finance enterprises and NFIs can also be attributed to the relatively low capital adequacy of Slovenia's banking system, which discourages banks from taking risks and makes access to new sources of finance more challenging.

***Total assets of banks relative to GDP in Slovenia are much lower than on average in the EU, although in 2009, the latest year for which data are available, the gap narrowed more than in previous years.*** This relatively large drop in 2009 was due to both a much larger decline in the value of GDP compared with the EU and 8.3% growth in total bank assets, which had, until then, been the lowest in the last five years, though still among the highest in the EU. A significant contribution to the relatively strong growth in total assets came from the government, which deposited in banks a large portion of funds obtained by issuing government bonds and, by providing government guarantees, facilitated bank borrowing on international financial markets. On the other hand, the value of total bank assets in the EU dropped somewhat as a result of the bad situation on international financial markets, as well as general economic conditions, and a consequent reduction in the volume of loans. The decline in total bank assets was most pronounced in the euro area (2.3%), which accounts for over 70% of the banking system in the EU, while total bank assets in the other EU countries recorded strong, 5.5%, growth. Total assets of the banking system strengthened most in the United Kingdom (6.6%), in our estimation as a result of the expansionary monetary policy of its monetary authorities and, to some extent,

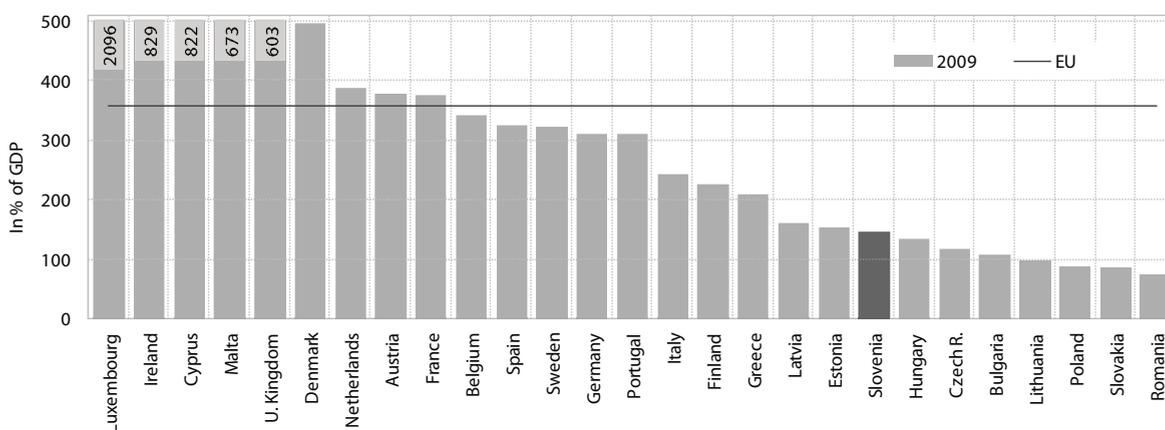
successful strengthening of the banking system. Among the EU members outside the euro area, total bank assets dropped only in the Baltic countries. In 2009, Slovenia still lagged noticeably on this indicator of development of the banking sector, reaching only just above 40% of the EU average value. In 2010, Slovenia's catching up with the EU again came to a halt, by our estimate, as the indicator value in Slovenia declined compared with the EU average value, which showed more favourable movements, with lending activity in the EU strengthening more than in Slovenia.

Table: Basic structure of bank total assets, 1995-2010, in EUR m

|                              | 1995   | 2000   | 2005   | 2006   | 2007   | 2008   | 2009   | 2010   |
|------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Assets                       | 9,138  | 14,776 | 29,135 | 33,717 | 42,343 | 47,628 | 51,612 | 50,327 |
| as % of GDP                  | 58,3   | 70,4   | 101,8  | 109,1  | 122,5  | 127,7  | 145,9  | 139,6  |
| Loans to banking sector      | 1,571  | 1,723  | 2,849  | 3,058  | 4,072  | 4,031  | 5,708  | 4,815  |
| Loans to non-banking sectors | 3,764, | 7,731  | 15,909 | 20,089 | 28,302 | 33,530 | 33,910 | 34,454 |
| Other assets                 | 3,803  | 5,322  | 10,376 | 10,570 | 9,969  | 10,067 | 12,005 | 11,058 |

Source: Bank of Slovenia Annual Report, Financial Stability Report (various volumes).

Figure: Total assets of banks in EU Member States in 2009, as a % of GDP



Source: Financial Stability Report, 2010; ECB, 2010; National accounts (SORS), 2011, Eurostat, 2011.

## Insurance premiums

**After declining for two years in a row, the volume of insurance premiums relative to GDP strengthened half a percentage point in 2009, to 5.9%.** The strengthening of this indicator was to a great extent attributable to the decline in the nominal value of GDP, given that insurance premiums recorded the lowest growth rate for the last ten years, below even 3%. The share of life-insurance premiums declined for the second successive year. Growth started to ease at the onset of the financial crisis and in 2009, their volume even shrank. The growth rate of non-life insurance premiums also moderated substantially, dropping below 5% for the first time since 2000, which is in our estimation also due to stronger competition in motor vehicle third-party liability insurance. The volume of these premiums declined by close to 4% in 2009, even as the number of registered vehicles saw nearly 1.7% growth.

**As in Slovenia, the share of insurance premiums relative to GDP also strengthened in the EU as a whole, to 8.5%.** This was also attributable to a lower value of GDP, as the volume of insurance premiums declined by 0.5%. There are, however, considerable differences between countries. In Latvia, the volume of insurance premiums declined by more than one third, while it increased, for instance, by nearly 30% in Italy. Unlike in Slovenia, non-life insurance premiums in the EU strengthened somewhat, but were, after a sizeable, nearly 20%, drop in 2008 still much below the figures posted before the outbreak of the financial crisis.

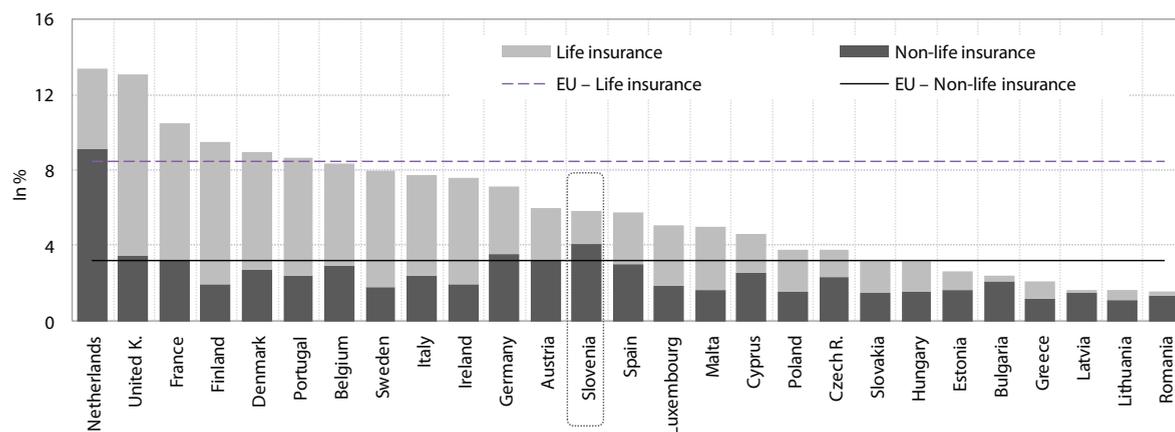
**The development gap, measured as the difference between the value of insurance premiums relative to GDP in Slovenia and across the EU, narrowed in 2009 for the second time in a row, but the large differences in the structure of insurance still reveal a relatively low level of development of the insurance market.** Slovenia achieved nearly 70% of the EU average in terms of the relative volume of insurance premiums and is now ranked in the upper half of EU Member States. This relatively small lag is largely attributable to an exceptionally large share of non-life insurance premiums, one of the largest in the EU. However, Slovenia has a below-average share of life-insurance premiums, and this even contracted in 2009. The low volume of life-insurance premiums also reflects the volume of savings for old age, which is still relatively small (and where long-term life-insurance premiums, one of the main indicators of development of the insurance market, should represent an important part).

Table: Insurance premiums by type of insurance in Slovenia

|   | 1995  | 2000  | 2005  | 2006  | 2007  | 2008  | 2009 |
|---|-------|-------|-------|-------|-------|-------|------|
| Relative to GDP, in %                   |       |       |       |       |       |       |      |
| Insurance premiums, total               | 4.2   | 4.4   | 5.4   | 5.6   | 5.5   | 5.4   | 5.9  |
| Life insurance                          | 0.6   | 0.9   | 1.6   | 1.7   | 1.8   | 1.7   | 1.8  |
| Non-life insurance                      | 3.6   | 3.5   | 3.8   | 3.8   | 3.7   | 3.7   | 4.1  |
| Structure, in %                         |       |       |       |       |       |       |      |
| Insurance premiums, total               | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100  |
| Life insurance                          | 14.8  | 19.4  | 30.0  | 31.3  | 32.2  | 31.8  | 30.4 |
| Non-life insurance                      | 85.2  | 80.6  | 70.0  | 68.7  | 67.8  | 68.2  | 69.6 |
| Year-on-year nominal growth rates, in % |       |       |       |       |       |       |      |
| Insurance premiums, total               | 61.8  | 6.3   | 6.3   | 11.4  | 9.8   | 6.6   | 2.7  |
| Life insurance                          | 66.9  | 14.2  | 8.3   | 16.3  | 12.7  | 5.5   | -2.0 |
| Non-life insurance                      | 60.9  | 4.5   | 5.5   | 9.3   | 8.4   | 7.1   | 4.8  |

Source: Statistical Insurance Bulletin 2010 (Slovenian Insurance Association), 2010; <http://www.zav-zdrufenje.si/>.

Figure: Total insurance premiums, life and non-life insurance premiums in EU countries in 2009, as % of GDP



Source: Statistical Insurance Bulletin 2010 (Slovenian Insurance Association), 2010; CEA: European Insurance in Figures, 2010; National accounts (SORS), 2011; Eurostat, 2011.

## Market capitalisation of shares

**After a modest increase in 2009, the value of market capitalisation of shares relative to GDP declined again in 2010, falling below 20%.** It reached the lowest value since 2001, just one third of the highest level in 2007. The main reason for the decline is a further drop in market capitalisation on the Ljubljana Stock Exchange, which has declined since 2008 largely due to lower values of securities<sup>1</sup> and, to a smaller extent, withdrawal of certain shares from the listing on the Stock Exchange. The value of GDP also rose somewhat in 2010, which added to the decline in the indicator's value. Market capitalisation of shares contracted by 16.9% (the least, by just over one tenth, market capitalisation of the most liquid shares listed in the prime market and representing two thirds of total market capitalisation of shares on the Ljubljana Stock Exchange). The volumes of market capitalisation of shares in the standard and entry markets dropped much more, by one third and one fifth, respectively. The volume of trading of shares fell even more, hitting a ten-year low, EUR 360.8 m, less than half of the figure a year previously.

**Slovenia's capital market is a relatively insignificant source of financing Slovenia's economy** Enterprises seldomly acquire financial sources by issuing securities. They are often too small for this type of financing; with low capital market transparency and liquidity, investors are also not particularly interested in purchasing securities on the Ljubljana Stock Exchange, which is ranked among the least liquid stock exchanges in the EU. The marketability of shares listed on the Ljubljana Stock Exchange, measured as the ratio of turnover to market capitalisation, nearly halved in 2010 to 0.05; if this ratio remained unchanged, the turnover of total market capitalisation would take 20 years compared with less than 1 year on the most developed capital markets.

**Slovenia is ranked among the countries with lowest values for market capitalisation relative to GDP and the development gap increased further in 2010.** The market capitalisation of shares relative to GDP thus reached less than 30% of the EU average, which was at the level of 70% of GDP, and increased for the second successive year. A further widening of the gap reflected the growth in market capitalisation in the EU, which otherwise strengthened by 17.1% in 2010 but nevertheless amounted to only just over half of 2009 growth. Growth was significantly underpinned by movements in the United Kingdom, which accounted for nearly one third of market capitalisation of shares in the EU. Market capitalisation of shares thus strengthened by nearly 40%, in our assessment also as a result of new issues of securities, as the main index of the London

Stock Exchange (FTSE100) recorded less than 10% growth last year, while the value of the British Pound Sterling appreciated by only slightly more than 3% in 2010 against the euro.

<sup>1</sup> The SBI TOP index recorded a 13.5% decline in 2010.

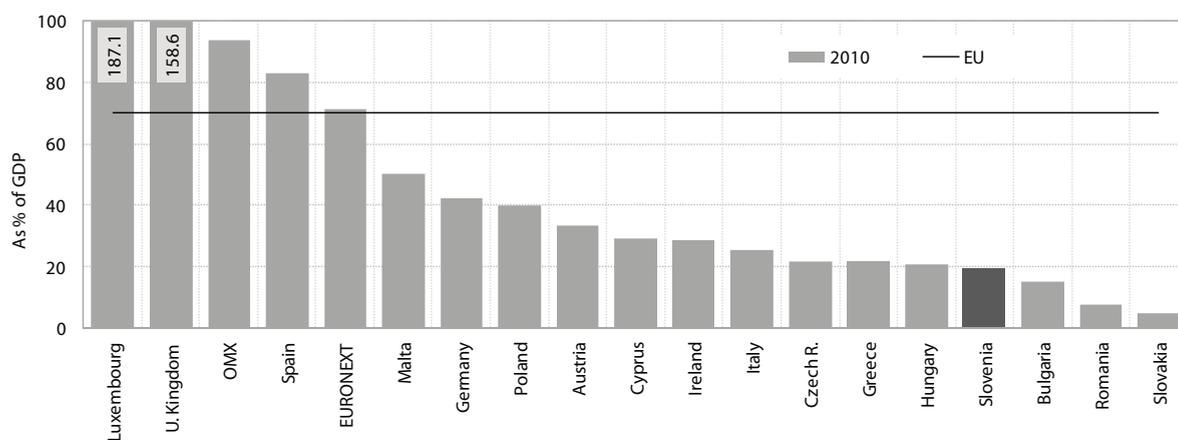
Table: Selected capital market indicators for Slovenia, 1995–2010

|   | 1995  | 2000    | 2005    | 2006     | 2007     | 2008    | 2009    | 2010    |
|---|-------|---------|---------|----------|----------|---------|---------|---------|
| Market capitalisation of shares, excl. investment funds, EUR1 mR <sup>1</sup> | 250.7 | 3,333.7 | 6,696.6 | 11,513.1 | 19,740.1 | 8,468.4 | 8,462.2 | 7,027.9 |
| Market capitalisation of shares, excl. investment funds, % of GDP             | 1.6   | 15.6    | 23.3    | 37.1     | 57.1     | 22.7    | 24.3    | 19.5    |
| SBI20   |       |         | 941.02  | 1473.33  | 2518.92  | 854.26  | 982.67  | 850.35  |
| Number of securities  | 49    | 267     | 227     | 202      | 185      | 187     | 174     | 159     |
| Shares  | 27    | 197     | 128     | 109      | 96       | 96      | 89      | 80      |
| Of which investment funds   | 0     | 44      | 10      | 7        | 10       | 11      | 11      | 6       |
| Bonds   | 22    | 68      | 99      | 93       | 89       | 90      | 85      | 79      |

Source: Annual Statistical Report (Ljubljana Stock Exchange), 2011; National accounts (SORS), 2011; calculations by IMAD.

Notes: SBI – Slovenian Stock Exchange Index, <sup>1</sup> IMAD's conversion into euros taking into account the exchange rate on the last day of the current year.

Figure: Market capitalisation in selected EU Member States in 2010, as % of GDP



Source: Annual Statistical Report (Ljubljana Stock Exchange), 2011; First Release – national accounts (SORS), 2011; Stock-market capitalisation (Eurostat), 2011; 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 a tertiary education
- Average years of schooling of adult population
- Ratio of students to teaching staff
- Public expenditure on education
- Private expenditure on education
- Expenditure on educational institutions per student
- Adult participation in education
- Gross domestic expenditure on research and development
- Science and technology graduates
- Innovation-active enterprises
- Intellectual property
- Internet use and access

## Share of population with a tertiary education

**In 2010, the share of population with a tertiary education increased; however, the gap behind the EU average has not narrowed substantially in the period of SDS implementation.** According to the Labour Force Survey (LFS) for the second quarter of 2010, the share of the population with a tertiary education aged 25–64 was 23.7%, which is 2.0 p.p. below the EU average. On this indicator, Slovenia lags significantly behind the economically more advanced northern European countries, in particular. In 2010, this share rose slightly more in Slovenia than the EU average (Slovenia: 1.3 p.p.; EU: 0.8 p.p.). Although in Slovenia this share also rose slightly faster in the period of SDS implementation (2005–2010), the gap behind the leading countries did not narrow significantly.

**In Slovenia, enrolment in tertiary education per 1,000 population aged 20–29 is significantly above the EU average, yet it lags behind in the number of graduates per 1,000 population of the same age.** This is due to the low efficiency of studies in Slovenia and to young people taking part in education to access the benefits of student status. The increase in the share of the population with a tertiary education in the age group 25–64 was the result of the growing number of students enrolled in a tertiary education over the period 2000/2001–2009/2010 (by 25.6%), and consequently, of a higher number of graduates (by 57.5% in the 2000–2009 period). In 2008 (the latest international data available), the ratio of the number of those enrolled in tertiary education to the number of the population aged 20–29 was one of the highest in the EU (40.7), significantly exceeding the EU average (28.9). Yet by number of graduates per 1,000 population aged 20–29 (60.7), Slovenia lagged behind the EU average (63.5) in 2008, which suggests low efficiency of studies.

**The share of female tertiary-education graduates considerably exceeds the corresponding male share, and the gap between the two widened notably in the 2000–2010 period.** In 2010, the share of women with tertiary education was 28.8%, and the corresponding share of men was 18.9%. However, Slovenia exceeded the EU average only in terms of the share of female tertiary-education graduates. The increase in the female share was also more notable than that of the male share. In 2010, the gap between the share of female and male tertiary graduates was 9.9 p.p., thus reaching the highest level in the 2000–2010 period. The average gap in the EU was 1.5 p.p. The higher share of female tertiary-education graduates can be associated with the higher share of women enrolled in tertiary education

(2009/2010: 57.8%, men: 42.2%) and the higher share of women in the total number of graduates (2009: 61.8%, men: 38.2%). In the 2000–2009 period, both female shares further increased.

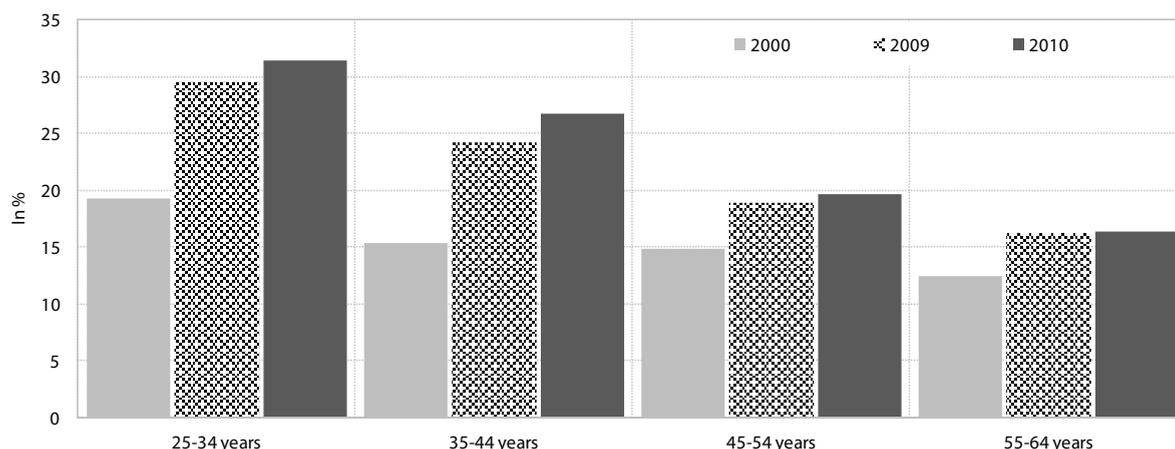
**The gap in the share of tertiary-education graduates between the young and the elderly population is considerable, and a notable increase was also recorded in the 2000–2010 period.** In the 30–34 age group, the share of tertiary-education graduates was 34.0% in 2010, exceeding the EU average by 0.6 p.p. Compared to 2009, the share increased by 2.6 p.p., with growth higher than the EU average (1.4 p.p.). However, taking into account young people aged 25–29, and thus expanding the age group to 25–34 years, the trend in the share of tertiary-education graduates is less favourable. At 31.4%, it lagged behind the EU average (32.9%) in 2010, and the gap, given the high participation rate of young people in tertiary education, is mainly due to the long average duration of studies. The share of population with tertiary education differs substantially with regard to age. The share of the elderly population with tertiary education is considerably lower than the share of young people (2010: aged 35–44: 26.7%; aged 45–54: 19.7%; aged 55–64: 16.3%). The large gap between young people and elderly people in tertiary-education graduate rates can mainly be attributed to considerable differences in participation in tertiary education. The participation of young people aged 20–29 in tertiary education strongly exceeds the participation of other age groups (30–39, 40–64), and also recorded significantly higher growth in the 2000/2001–2009/2010 period. As a consequence, the gap in the share of tertiary-education graduates between the youngest (25–34 years) and the older age groups also widened in 2000–2010. In terms of share of population with a tertiary education, Slovenia lagged behind the EU average in 2010 in all age groups (25–34 years, 35–44 years, 45–54 years and 55–64 years), with the gap widest in the 45–54 age group, and narrowest in the 35–44 age group. In 2000–2010, the increase in the share of population with a tertiary education exceeded the average increase in the EU in all the analysed categories, except in the oldest age group (55–64 years).

Table: Share of population aged 25–64 with tertiary education, EU, 1995–2010 (second quarter), in %

|                 | 1995        | 2000        | 2005        | 2006        | 2007        | 2008        | 2009        |             |
|-----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>EU-27</b>    | <b>9.4</b>  | <b>18.5</b> | <b>22.2</b> | <b>22.8</b> | <b>23.4</b> | <b>24.1</b> | <b>25.0</b> | <b>25.7</b> |
| Austria         | N/A         | 14.5        | 17.6        | 17.7        | 17.7        | 18.1        | 19.1        | 19.5        |
| Belgium         | 25.3        | 27.1        | 30.7        | 31.0        | 31.4        | 31.9        | 32.4        | 35.2        |
| Bulgaria        | N/A         | 18.4        | 21.4        | 21.7        | 22.1        | 22.8        | 22.9        | 22.8        |
| Cyprus          | N/A         | 25.1        | 27.8        | 29.9        | 33.0        | 34.6        | 34.3        | 35.1        |
| Czech Rep.      | 10.5        | 11.5        | 13.1        | 13.5        | 13.7        | 14.3        | 15.4        | 16.7        |
| Denmark         | 25.4        | 25.2        | 32.9        | 34.8        | 30.5        | 34.3        | 32.7        | 33.1        |
| Estonia         | 30.2        | 28.9        | 33.6        | 32.9        | 34.0        | 33.5        | 35.9        | 35.7        |
| Finland         | 28.8        | 32.3        | 34.5        | 34.9        | 36.4        | 36.5        | 37.1        | 37.1        |
| France          | N/A         | N/A         | 25.0        | 25.9        | 26.8        | 27.1        | 28.6        | 28.9        |
| Greece          | 16.8        | 16.9        | 20.5        | 21.3        | 21.9        | 22.5        | 22.7        | 23.7        |
| Ireland         | 0.0         | 21.2        | 28.3        | 30.1        | 31.2        | 32.7        | 34.2        | 36.1        |
| Italy           | 8.6         | 9.4         | 11.9        | 12.7        | 13.5        | 14.3        | 14.4        | 14.7        |
| Latvia          | 17.0        | 18.0        | 21.5        | 21.4        | 23.6        | 24.2        | 23.7        | 26.9        |
| Lithuania       | 41.0        | 41.8        | 26.5        | 27.2        | 29.8        | 30.5        | 30.2        | 32.3        |
| Luxembourg      | N/A         | 17.9        | 26.5        | 24.0        | 28.6        | 28.3        | 34.0        | 34.5        |
| Hungary         | 13.1        | 14.0        | 17.0        | 17.8        | 17.9        | 19.1        | 19.8        | 20.0        |
| Malta           | N/A         | 5.4         | 12.1        | 12.4        | 12.4        | 13.3        | 12.8        | 12.9        |
| Germany         | N/A         | 22.5        | 24.5        | 24.2        | 24.3        | 25.1        | 26.3        | 26.4        |
| Netherlands     | 21.8        | 24.0        | 29.9        | 29.8        | 30.3        | 32.0        | 32.3        | 33.8        |
| Poland          | 10.7        | 11.4        | 16.5        | 17.8        | 18.8        | 19.6        | 21.2        | 22.6        |
| Portugal        | 8.3         | 9.0         | 12.7        | 13.4        | 13.6        | 14.2        | 14.7        | 15.5        |
| Romania         | 8.7         | 9.2         | 11.0        | 11.8        | 12.0        | 12.9        | 13.2        | 13.4        |
| Slovakia        | 10.3        | 10.2        | 13.9        | 14.4        | 14.4        | 14.6        | 15.6        | 17.1        |
| <b>Slovenia</b> | <b>14.4</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> | <b>23.7</b> |
| Spain           | 20.0        | 22.5        | 28.2        | 28.4        | 28.9        | 29.3        | 29.5        | 30.5        |
| Sweden          | 27.4        | 29.5        | 29.3        | 30.3        | 31.2        | 31.9        | 32.8        | 34.0        |
| U.K.            | N/A         | 24.4        | 28.3        | 29.3        | 30.4        | 31.6        | 32.9        | 34.5        |

Source of data: Eurostat Portal Page – Population and Social Conditions, 2011.  
 Note: N/A – not available.

Figure: Share of population with tertiary education, Slovenia, by age, 2000, 2009 and 2010, (second quarter), in %



Source of data: Eurostat Portal Page – Population and Social Conditions, 2011.

## Average years of schooling of adult population

**In 2009, the average number of years of schooling of the adult population increased further.** According to the Labour Force Survey, the population aged 25–64 completed an average of 11.6 years of schooling<sup>1</sup> in 2009 (0.1 year more than the figure for the previous year, and 0.7 year more than in 2000, respectively). The average number of years of schooling continues to show an increasing trend, mainly due to a growing share of recent educational cohorts completing tertiary education. Among these, the share of women continues to increase, and consequently, the average education level of women in 2003 was already higher than that in men. Due to increasing participation of young generations in tertiary education over the past ten years, the average number of years of schooling of Slovenia's population in older age groups lags behind that of younger age groups. On average, the education level achieved by the population aged 25–39 is an entire schooling year higher than that for the age group 40–64, which in turn exceeds by almost one schooling year and a half the education level of the group older than 65 years. By a rough estimate based on the available data by Eurostat, the average number of years of schooling of the population aged 25–64 is slightly higher in Slovenia than in EU countries, which is mainly due to a high share of population with secondary education, whereas in terms of share of tertiary-education graduates, Slovenia is only slowly catching up with the most advanced economies.<sup>2</sup>

**The average number of years of schooling of the population in employment is also rising, mainly due to a reduced number of employees with lower levels of education.**<sup>3</sup> According to the Labour Force Survey, the workforce in Slovenia had completed an average of 12.2 years of schooling in 2009 (0.1 year more than the year

before, and 0.7 year more than in 2000, respectively). According to the Statistical Register of Employment, which does not include farmers and persons in informal employment but does include temporarily employed foreigners who mainly have low educational attainment (not covered by the Labour Force Survey), the average number of years of schooling of the population in employment is slightly lower. In September 2009, it was 11.8, and a year later 11.9. In 2009–2010, the economic crisis was hardest on sectors employing a less-educated workforce (construction, labour-intensive manufacturing), which is why the number of employed people with lower- and upper-secondary vocational education declined in particular in these two years. The number of employed people with general secondary education also dropped in 2010, while the number of employed people with post-secondary and higher education increased in both years, particularly in business and public services, and in wholesale and retail trade, while the increase in the number of employees with higher education in manufacturing was relatively modest.

<sup>1</sup> Calculations made by IMAD, taking into account the following assumptions on the average regulatory length of schooling: 6 years without completed primary school, 8 years with completed primary school, 9.5 years with lower vocational education, 11 years with upper-secondary vocational education, 12.2 years with completed vocational or general secondary school, 14 years with post-secondary education, 16.2 years with university education, and 19 years with postgraduate education.

<sup>2</sup> Source of data: Eurostat Portal Page – Population and social conditions – Education and Training – Educational attainment. According to our rough estimate based on the assumption that, in all the countries covered, 8 years of schooling are needed to achieve lower-secondary education level, 11.7 years for higher-secondary education, and 16 years for tertiary education, the average level of education in Slovenia exceeds the EU average by 0.3 years of schooling. See the indicator *Share of the population with tertiary education*.

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

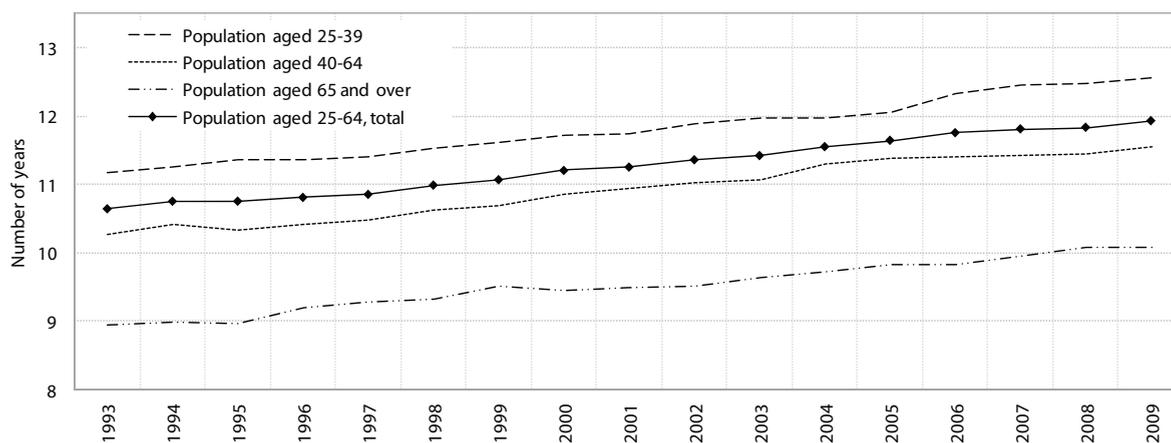
**Table: Average number of years in formal education attained by persons in employment in Slovenia in 1995–2010, by activity group**

|   | 1995        | 2000        | 2005        | 2006        | 2007        | 2008        | 2009        | 2010 <sup>1</sup> |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------------|
| <b>Employment according to 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>12.2</b> |                   |
| <b>Persons in employment excluding farmers, according to SORS register,</b> | <b>10.8</b> | <b>11.1</b> | <b>11.4</b> | <b>11.5</b> | <b>11.5</b> | <b>11.5</b> | <b>11.8</b> | <b>11.9</b>       |
| BUSINESS SECTOR   | 10.4        | 10.6        | 10.9        | 10.9        | 11.0        | 11.0        | 11.3        | 11.4              |
| Agriculture, hunting, forestry, fisheries                                   | 10.0        | 10.4        | 10.3        | 10.2        | 10.3        | 10.3        | 10.4        | 10.5              |
| Industry  | 9.9         | 10.1        | 10.4        | 10.4        | 10.5        | 10.6        | 10.8        | 10.9              |
| Construction  | 9.9         | 9.6         | 9.6         | 9.6         | 9.5         | 9.4         | 9.9         | 10.0              |
| Wholesale & retail trade, hotels & restaurants, transport                   | 10.8        | 11.0        | 11.2        | 11.3        | 11.3        | 11.3        | 11.5        | 11.5              |
| Financial and business services   | 12.1        | 12.3        | 12.5        | 12.6        | 12.6        | 12.6        | 12.9        | 13.0              |
| PREDOMINANTLY NON-MARKET-ORIENTED SERVICES                                  | 12.4        | 12.6        | 13.2        | 13.2        | 13.3        | 13.4        | 13.5        | 13.6              |
| Health and social work  | 11.8        | 11.7        | 12.6        | 12.7        | 12.7        | 12.8        | 12.9        | 13.0              |
| Public administration, education  | 12.9        | 13.3        | 13.7        | 13.8        | 13.9        | 14.0        | 14.0        | 14.1              |
| Other mainly non-market-oriented services                                   | 11.7        | 11.8        | 12.2        | 12.2        | 12.2        | 12.3        | 12.5        | 12.6              |

Source of data: Labour market – Labour Force Survey and Persons in Employment (farmers excluded) by level of education, activity and sex on 30 September (for year 1995) and on 31 December (for 2000). SORS; calculations by IMAD.

Note: <sup>1</sup> Given the improved methodology for collecting and monitoring data on the highest attained level of education and the changed classification of activities, calculations for the years 2009 and 2010 are not comparable with data for previous years.

**Figure: Average number of years of schooling of the adult population by age, Slovenia**



Source of data: Labour market – Labour Force Survey, SORS; calculations by IMAD.

## Ratio of students to teaching staff

***The ratio of students<sup>1</sup> to teaching staff<sup>2</sup> in Slovenia is improving, but the gap behind other European countries is still considerable.*** On the international level, this ratio is an important indicator of the quality of tertiary education. A lower ratio (i.e. lower number of students per teacher) presumably facilitates the use of active teaching techniques as well as enhancing communication between students and teachers. This has a positive impact on the quality of the teaching process, which, in turn, influences the quality of the acquired knowledge and skills, the progress achieved by the students, as well as the efficiency of studies. In terms of this ratio, in year 2008 (2007/2008 academic year), for which the latest data are available at the international level, Slovenia lagged significantly (with 20.5 students per teacher) behind the OECD average (15.8) and behind the average of the EU-19 countries that are also OECD members. According to this indicator, Slovenia also lagged behind all other EU countries in the 2007/2008 academic year.<sup>3</sup> The unfavourable ratio of students to teaching staff is also due to participation in tertiary education merely because of the benefits of student status. Compared with 2007, the ratio of students to teaching staff improved in Slovenia, while it diminished on the OECD average, which contributed to the narrowing of Slovenia's gap behind this average. The gap behind the EU-19 average, on the other hand, widened slightly in 2008. As in 2008, the ratio of students to teaching staff in the 2000–2008 period improved, which is contrary to the dynamics within the OECD average where it deteriorated. The trend of improving students to teaching staff ratio continued into the 2008/2009 and 2009/2010 academic years when the growth in the number of teachers exceeded the growth in the number of students enrolled in tertiary education. In the period of SDS implementation, this ratio recorded a slight improvement in Slovenia, but the gap behind the leading countries remains substantial.

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

<sup>3</sup> Data for 2008 not available for Greece.

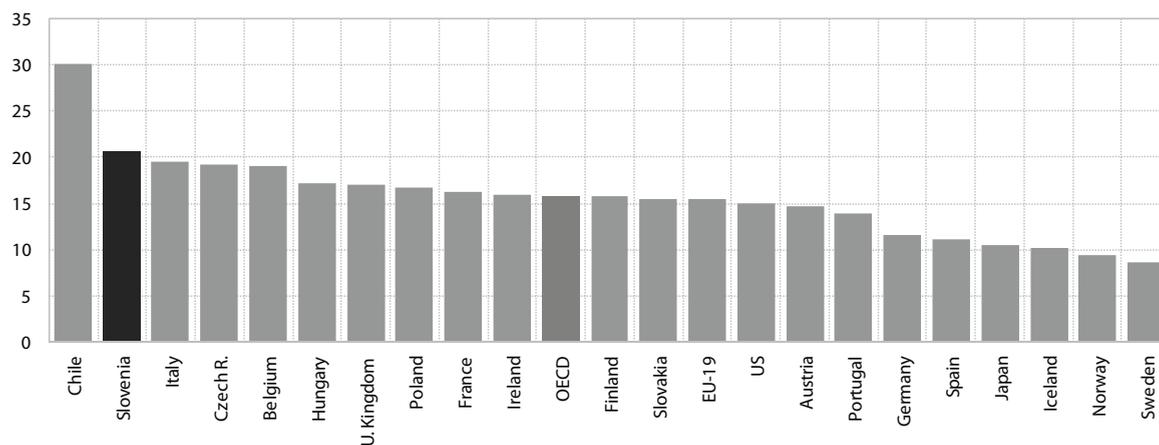
Table: Ratio of students to teaching staff in tertiary education, Slovenia and OECD countries, 1998–2008

|                 | 1998        | 2000        | 2005        | 2006        | 2007        | 2008        |
|-----------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>OECD</b>     | <b>14.8</b> | <b>14.7</b> | <b>15.8</b> | <b>15.3</b> | <b>15.3</b> | <b>15.8</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> | <b>15.4</b> |
| Austria         | N/A         | N/A         | 15.3        | 13.0        | 13.7        | 14.6        |
| Belgium         | N/A         | 19.9        | 19.6        | 18.7        | 18.1        | 19.0        |
| Czech Rep.      | 13.5        | 13.5        | 19.0        | 18.5        | 18.6        | 19.1        |
| Čile            | N/A         | N/A         | N/A         | N/A         | N/A         | 30.0        |
| Finland         | N/A         | N/A         | 12.5        | 15.8        | 16.6        | 15.8        |
| France          | N/A         | 18.3        | 17.3        | 17.0        | 16.6        | 16.2        |
| Greece          | 26.3        | 26.8        | 30.2        | 27.8        | 26.3        | N/A         |
| Ireland         | 16.6        | 17.4        | 17.4        | 17.9        | 16.5        | 15.9        |
| Italy           | N/A         | 22.8        | 21.4        | 20.4        | 19.5        | 19.5        |
| Israel          | N/A         | N/A         | N/A         | N/A         | 12.9        | N/A         |
| Hungary         | 11.8        | 13.1        | 15.9        | 16.5        | 17.1        | 17.1        |
| Germany         | 12.4        | 12.1        | 12.2        | 12.4        | 12.1        | 11.5        |
| Poland          | N/A         | 14.7        | 18.2        | 17.3        | 17.2        | 16.7        |
| Portugal        | N/A         | N/A         | 13.2        | 12.7        | 13.2        | 13.8        |
| Slovakia        | N/A         | 10.2        | 11.7        | 12.4        | 13.2        | 15.4        |
| <b>Slovenia</b> | <b>N/A</b>  | <b>23.8</b> | <b>22.7</b> | <b>21.4</b> | <b>21.0</b> | <b>20.5</b> |
| Spain           | 17.2        | 15.9        | 10.6        | 10.8        | 10.4        | 11.1        |
| Sweden          | 9.0         | 9.3         | 8.9         | 9.0         | 8.8         | 8.5         |
| U.K.            | 17.7        | 17.6        | 18.2        | 16.4        | 17.6        | 16.9        |
| Iceland         | 9.3         | 7.9         | 11.0        | 10.7        | 10.2        | 10.1        |
| Japan           | 11.8        | 11.4        | 11.0        | 10.8        | 10.6        | 10.4        |
| Norway          | 13.0        | 12.7        | N/A         | 10.5        | 10.0        | 9.3         |
| USA             | 14.6        | 13.5        | 15.7        | N/A         | 15.1        | 15.0        |

Source of data: Education at a Glance, (OECD), issues 2002–2010; Teaching staff at higher education institutions and vocational colleges, Slovenia, (SORS, first release), 2008; Teaching staff at higher education institutions and vocational colleges, Slovenia, (SORS, first release), 2007; Teaching staff at higher education institutions and vocational colleges, Slovenia, (SORS, first release), 2006; Teaching staff at higher education institutions and vocational colleges, Slovenia, (SORS, first release), 2006; Rapid Report No.5; Teaching and professional staff at higher education institutions and vocational colleges, (SORS), 2001; Rapid Report No.37 – Student enrolment in tertiary education (SORS), 2007; SI-STAT–Demography and social statistics - Education, 2011.

Notes: <sup>1</sup> Data are only available for the EU countries that are members of OECD; N/A – no data available.

Figure: Ratio of students to teaching staff in tertiary education, Slovenia and OECD countries, 2008 (2007/2008 academic year)



Source of data: Education at a Glance (2010); Teaching staff at higher education institutions and vocational colleges (First release), 2008; SORS; SI-STAT data portal – Demography and social statistics – Education, 2010, calculations by IMAD.

## Public expenditure on education

**Total public expenditure on education<sup>1</sup> as a share of GDP<sup>2</sup> exceeds the EU average.** In 2008, it accounted for 5.19% of GDP, a level approximately identical to that in 2007. In 2000–2007 (the latest international data available), public expenditure on education in Slovenia exceeded the EU average, which is related to the high level of participation of young people in education, which is one of the highest in the EU.

**With regard to level of education, public expenditure as a share of GDP in 2008 increased only at the lower levels of education.** The highest increase was recorded at the level of pre-school education where this share was 0.49% in 2008. Public expenditure as a share of GDP also rose at the level of primary education (to 2.35% of GDP). At the level of upper-secondary education, public expenditure accounted for 1.15% of GDP, a slight drop over the level in 2007. At the tertiary level, it accounted for 1.21% of GDP, remaining at the previous year's level. In 2001–2007, public expenditure on tertiary education as a share of GDP exceeded the EU average (2007: 1.12%), given that participation in tertiary education in Slovenia is also significantly higher than in the EU. In 2000–2008, public expenditure on education as a share of GDP diminished at all education levels, with the exception of pre-school education where it increased slightly, but was lower in 2007 than on average in the EU. For this level of education, in 2001–2007, public expenditure as a share of GDP increased in more than half of EU countries, which is due to policies aiming to increase participation of children in organised pre-school programmes. A higher number of births in recent years will put additional pressure on pre-school programmes in Slovenia, and consequently, on public expenditure for this level of education. The decline in public expenditure as a share of GDP for upper-secondary and primary education levels in 2000–2008 is also a result of a reduced number of students enrolled due to changed demographics (population ageing and consequently, shrinking generations for enrolment in education programmes). However, given the rise in the number of children born in recent years, the size of the generation for enrolment in primary education will start to grow, which will also have an impact on the volume of public expenditure on primary education. At the level

of tertiary education, public expenditure on education as a share of GDP diminished in 2000–2008 despite the sharp increase in the number of enrolled students. In 2001–2007, Slovenia thus diverged from the EU average, where public expenditure on tertiary education as a share of GDP increased.

**The share of public expenditure on transfers to households is relatively high, which particularly applies to tertiary education, where the share increased even further in 2008.** Within the structure of public expenditure on education (all levels), 7.9% was allocated for transfers to students and/or households<sup>3</sup> in 2008, with the share gradually diminishing since 2001. Despite the decline, Slovenia's share of public expenditure allocated to transfers exceeded the average share in the EU in 2001–2007, and Slovenia was among the higher-ranking countries on this indicator. However, the share of public expenditure for transfers at the level of tertiary education deviates strongly from the EU average. At 22.8%, it was considerably above the EU average (17.0%) in 2007, and increased further in 2008.

<sup>1</sup> Total public expenditure on education comprises the total budgetary expenditure on formal education of youth and adults at central and local 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> Calculations by IMAD.

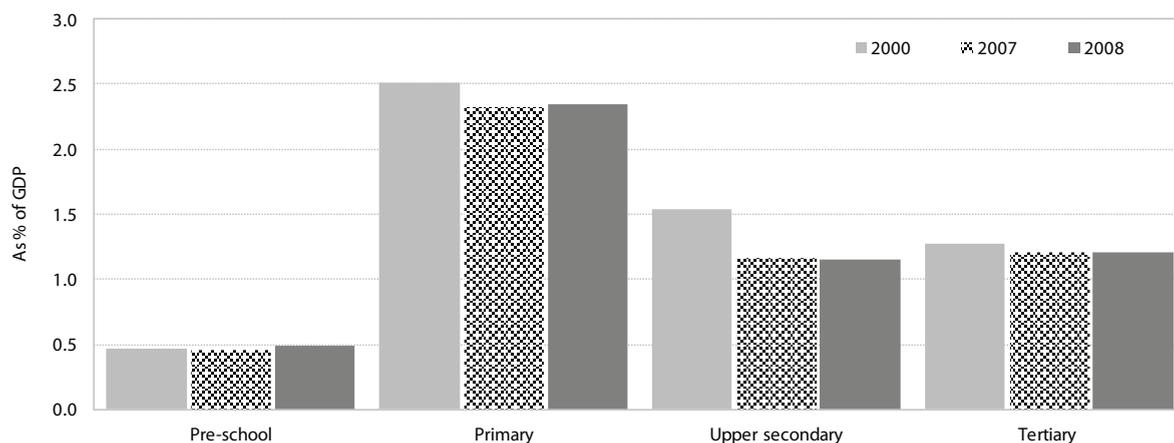
<sup>3</sup> Public transfers for education include grants, child benefits in the segment in which payments are additionally conditional on participation in education, subsidised transport, meals, accommodation, textbooks, learning technology and technical literature, etc.).

Table: Total public expenditure on education as % of GDP

|                 | 1995        | 2000        | 2001        | 2002        | 2003        | 2004        | 2005        | 2006        | 2007        |
|-----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>EU-27</b>    | <b>N/A</b>  | <b>4.90</b> | <b>5.00</b> | <b>5.10</b> | <b>5.10</b> | <b>5.10</b> | <b>5.00</b> | <b>5.00</b> | <b>5.00</b> |
| Austria         | 6.04        | 5.74        | 5.79        | 5.72        | 5.57        | 5.52        | 5.48        | 5.46        | 5.40        |
| Belgium         | N/A         | N/A         | 6.00        | 6.10        | 6.03        | 5.96        | 5.93        | 6.00        | 6.02        |
| Bulgaria        | 3.39        | 3.97        | 3.78        | 4.03        | 4.23        | 4.51        | 4.51        | 4.24        | 4.13        |
| Cyprus          | 4.63        | 5.35        | 5.93        | 6.55        | 7.29        | 6.70        | 6.92        | 7.02        | 6.93        |
| Czech Rep.      | N/A         | 3.97        | 4.09        | 4.32        | 4.51        | 4.37        | 4.26        | 4.60        | 4.20        |
| Denmark         | 7.67        | 8.29        | 8.44        | 8.44        | 8.33        | 8.43        | 8.30        | 7.97        | 7.83        |
| Estonia         | 5.88        | 6.10        | 5.28        | 5.48        | 5.29        | 4.92        | 4.88        | 4.75        | 4.85        |
| Finland         | 6.85        | 5.89        | 6.04        | 6.21        | 6.44        | 6.43        | 6.31        | 6.19        | 5.91        |
| France          | 6.04        | 6.03        | 5.94        | 5.88        | 5.90        | 5.79        | 5.65        | 5.58        | 5.59        |
| Greece          | 2.87        | 3.39        | 3.50        | 3.57        | 3.56        | 3.82        | 4.04        | N/A         | N/A         |
| Ireland         | 5.07        | 4.28        | 4.27        | 4.29        | 4.38        | 4.70        | 4.75        | 4.76        | 4.90        |
| Italy           | 4.85        | 4.55        | 4.86        | 4.62        | 4.74        | 4.58        | 4.43        | 4.70        | 4.29        |
| Latvia          | 6.19        | 5.64        | 5.64        | 5.71        | 5.32        | 5.07        | 5.06        | 5.07        | 5.00        |
| Lithuania       | 5.12        | 5.90        | 5.89        | 5.84        | 5.16        | 5.19        | 4.90        | 4.84        | 4.67        |
| Luxembourg      | 4.26        | N/A         | 3.74        | 3.79        | 3.77        | 3.87        | 3.78        | 3.38        | 3.15        |
| Hungary         | 5.39        | 4.42        | 5.01        | 5.38        | 5.89        | 5.41        | 5.47        | 5.42        | 5.20        |
| Malta           | N/A         | 4.49        | 4.46        | 4.38        | 4.70        | 4.83        | 6.79        | N/A         | 6.31        |
| Germany         | 4.62        | 4.46        | 4.49        | 4.70        | 4.70        | 4.59        | 4.53        | 4.40        | 4.50        |
| Netherlands     | 5.06        | 4.96        | 5.06        | 5.15        | 5.42        | 5.46        | 5.48        | 5.46        | 5.32        |
| Poland          | 5.10        | 4.89        | 5.42        | 5.41        | 5.35        | 5.41        | 5.47        | 5.25        | 4.91        |
| Portugal        | 5.37        | 5.42        | 5.61        | 5.54        | 5.57        | 5.29        | 5.39        | 5.25        | 5.30        |
| Romania         | N/A         | 2.86        | 3.25        | 3.51        | 3.45        | 3.28        | 3.48        | N/A         | 4.25        |
| Slovakia        | 5.01        | 3.93        | 4.00        | 4.30        | 4.30        | 4.20        | 3.85        | 3.80        | 3.62        |
| <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>5.73</b> | <b>5.72</b> | <b>5.16</b> |
| Spain           | 4.66        | 4.28        | 4.23        | 4.25        | 4.28        | 4.25        | 4.23        | 4.27        | 4.35        |
| Sweden          | 7.22        | 7.21        | 7.12        | 7.43        | 7.30        | 7.18        | 6.97        | 6.85        | 6.69        |
| U.K.            | 5.02        | 4.46        | 4.57        | 5.11        | 5.24        | 5.16        | 5.36        | 5.47        | 5.39        |

Source of data: Eurostat Portal Page – Population and Social Conditions, 2010; Expenditure on formal education, Slovenia, 2005–2008 – final data – correction – SORS (2011); Expenditure on formal education, 2004 – SORS (2007); Expenditure on formal education, (2006) – SORS; Statistical Yearbook 2008 – SORS (2008).  
 Notes: Indicators for Slovenia were calculated on the basis of the latest revision of GDP (October 2010); N/A – not available.

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



Source of data: Expenditure on formal education, Slovenia, 2005–2008 – final data – correction – SORS (2011).  
 Note: Indicators for Slovenia were calculated on the basis of the latest revision of GDP (October 2010).

## Private expenditure on education

***In 2008, the share of private expenditure<sup>1</sup> in total expenditure on formal education dropped at all levels, except at the primary education level.*** In 2008, it totalled 11.6% for all levels of formal education, a 1.5 p.p. drop over the year before. In 2008, this ratio was affected by systemic changes, as well as the start of elimination of wage disparities in the public sector, which increased the volume of public expenditure on education. In terms of the share of private expenditure on education, Slovenia lagged behind the EU average in 2007 (latest international data available) after exceeding it in the preceding period.

***Of all education levels, pre-school education witnessed the highest share of private expenditure.*** At the pre-school level, parents pay a contribution to cover the full cost of pre-school programmes. In 2000–2007, the share of private expenditure on pre-school education fell. It also fell in 2008, to 22.5% (a 1.3 p.p. drop over the year 2007). This decline was mainly due to amended legislation, which, starting with the school year 2008/2009, provides for free kindergarten for the second child in a family. At the primary-education level, parents pay the costs of meals, open-air school and several other contributions, while at the secondary-education level, they cover the costs of accommodation in residence halls, in addition to the costs of meals and other contributions. In private primary and secondary schools, however, parents also pay tuition fees. Tuition fees for adults enrolled in secondary education programmes that are not financed by the state<sup>2</sup> but are paid from private sources. The share of private expenditure on primary education reached 8.2% in 2008, an increase over the year before, while the share of private expenditure on upper-secondary education dropped relative to the year before, to 8.7%. The reduction in the share of private expenditure on upper-secondary education since the school year 2008/2009 is attributable to the new system of subsidising secondary-school student meals, introducing the right to a subsidised cooked meal for every student.

***The share of private expenditure on tertiary education dropped significantly in 2008.*** At the tertiary level, private expenditure includes tuition fees, enrolment

fees and other contributions, cost of accommodation in residence halls, etc. In 2008, private expenditure accounted for 16.2% of GDP, a 6.6 p.p. drop compared with the year before. The drop was attributable to a decrease in enrolment in part-time studies and a significant increase in enrolment in 2<sup>nd</sup>-level Bologna studies, which are publicly funded for full-time students.<sup>3</sup> In the 2008/2009 academic year, no call for applications for pre-reform masters and specialist programmes was launched for first-year students, which led to a decrease in funds raised from tuition fees. With 22.8%, the share of private expenditure on tertiary education in 2007 was 0.3 p.p. above the EU average. In the 2001–2007 period, private expenditure on tertiary education as a share of GDP diminished in Slovenia, which is contrary to the EU average where it recorded a considerable increase.

<sup>1</sup> Share of private expenditure on educational institutions in total expenditure on educational institutions (public and private 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> Adult secondary education may be financed by the state as part of the Active Employment Policy (AEP) measures on the basis of the Education and Training Programme for the Unemployed and the Annual Adult Education Programme.

<sup>3</sup> Pursuant to the Decree amending the Decree on budgetary financing of higher education and other university member institutions from 2004 to 2008, adopted in 2006, budget funding is provided to full-time students enrolled in post-secondary vocational and university degree programmes adopted prior to 11 June 2004, and to those enrolled in first- and second-level study programmes, excluding pre-graduation students at a higher-education institution in the current year.

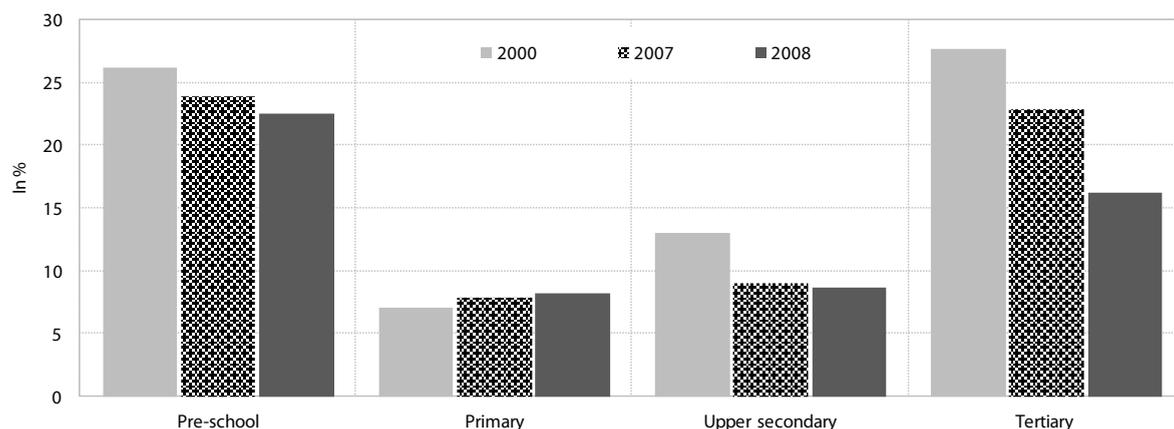
Table: Share of private expenditure for all levels of formal education in total expenditure on formal education, in %

|                 | 1999        | 2000        | 2001        | 2002        | 2003        | 2004        | 2005        | 2006        | 2007        |
|-----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <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>12.6</b> | <b>13.5</b> |
| Austria         | 5.1         | 5.8         | 5.6         | 6.7         | 5.5         | 7.2         | 8.6         | 10.8        | 9.0         |
| Belgium         | 5.0         | 7.9         | 5.9         | 5.8         | 5.8         | 5.7         | 5.8         | 5.6         | 5.6         |
| Bulgaria        | 12.7        | 14.7        | 16.3        | 15.2        | 14.7        | 14.3        | 13.9        | 15.2        | 15.0        |
| Cyprus          | 34.0        | 34.9        | 18.8        | 19.4        | 17.4        | 16.6        | 16.7        | 16.6        | 17.5        |
| Czech Rep.      | 12.4        | 10.1        | 9.4         | 5.5         | 7.9         | 12.7        | 12.4        | 11.1        | 11.3        |
| Denmark         | 4.0         | 4.0         | 3.9         | 3.9         | 4.5         | 4.4         | 7.7         | 8.1         | 7.5         |
| Estonia         | N/A         | 6.5         |
| Finland         | 2.2         | 2.0         | 2.2         | 2.2         | 2.1         | 2.1         | 2.2         | 2.5         | 2.5         |
| France          | 8.1         | 8.8         | 8.9         | 9.0         | 9.0         | 9.0         | 9.2         | 9.1         | 9.0         |
| Greece          | 6.7         | 6.2         | 5.8         | 4.6         | 5.5         | 4.7         | 6.0         | N/A         | N/A         |
| Ireland         | 7.3         | 7.0         | 7.8         | 6.6         | 7.0         | 7.1         | 6.3         | 6.2         | 5.2         |
| Italy           | 9.7         | 9.1         | 6.2         | 7.4         | 8.1         | 9.6         | 9.5         | 7.7         | 8.9         |
| Latvia          | 9.8         | 11.1        | 12.7        | 13.5        | 14.5        | 14.8        | 13.8        | 12.0        | 10.4        |
| Lithuania       | N/A         | N/A         | N/A         | N/A         | 8.8         | 9.0         | 9.8         | 9.2         | 9.3         |
| Hungary         | 12.1        | 11.7        | 11.0        | 10.2        | 9.2         | 9.3         | 8.7         | 9.5         | N/A         |
| Malta           | 6.1         | 10.6        | 17.4        | 13.4        | 24.7        | 8.5         | 5.3         | N/A         | 5.7         |
| Germany         | 19.2        | 18.9        | 18.6        | 16.7        | 17.4        | 17.7        | 18.0        | 14.8        | 14.6        |
| Netherlands     | 16.3        | 15.9        | 15.8        | 16.3        | 16.3        | 16.9        | 16.0        | 15.7        | 16.2        |
| Poland          | 3.1         | N/A         | N/A         | 10.8        | 11.1        | 9.9         | 9.3         | 9.5         | 9.4         |
| Portugal        | 1.3         | 1.4         | 1.5         | 1.6         | 1.7         | 2.5         | 7.4         | 8.0         | 8.3         |
| Romania         | 9.8         | 8.3         | 6.5         | 4.5         | N/A         | N/A         | N/A         | N/A         | 10.8        |
| Slovakia        | 2.2         | 3.6         | 2.9         | 4.7         | 9.8         | 16.0        | 16.1        | 14.8        | 13.8        |
| <b>Slovenia</b> | <b>13.6</b> | <b>14.9</b> | <b>13.7</b> | <b>13.9</b> | <b>13.7</b> | <b>13.7</b> | <b>13.0</b> | <b>12.8</b> | <b>13.1</b> |
| Spain           | 17.7        | 12.6        | 12.2        | 11.6        | 11.4        | 12.9        | 11.4        | 11.1        | 12.7        |
| Sweden          | 3.0         | 3.0         | 3.2         | 2.6         | 2.9         | 3.0         | 3.0         | 2.7         | 2.6         |
| U.K.            | 16.3        | 14.8        | 15.3        | 15.6        | 16.0        | 16.1        | 19.9        | 24.7        | 30.5        |

Source of data: Eurostat Portal Page – Population and Social Conditions, 2011; Expenditure on formal education, Slovenia, 2005–2008 – final data – correction – SORS (2011); 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 Luxembourg: N/A – not available.

Figure: Share of private expenditure on formal education in total expenditure on formal education, by education level, Slovenia, in %



Source of data: Expenditure on formal education, Slovenia, 2005–2008 – final data – correction – SORS (2011); Statistical Yearbook 2008 – SORS (2008).

# Expenditure on educational institutions per student

***Expenditure on educational institutions per student (measured in EUR PPS<sup>1</sup>) dropped in 2007 below the EU average.*** In addition to the ratio of students to teaching staff, expenditure on educational institutions is frequently used at the international level as an indicator of quality of education. Moreover, it is an indicator of the level of investment in education of individuals enrolled in formal-education programmes. In 2007 (the latest available data), expenditure on educational institutions per student at all levels of formal education totalled EUR PPS 6,055.4, slightly below the EU average (EUR PPS 6,250.7). Compared with the year before, this dropped, while the EU average increased. In the 2001–2007 period, expenditure on educational institutions per student measured in EUR PPS increased, with higher growth recorded than that in the EU.

***Low expenditure on educational institutions per student (in EUR PPS) is mainly due to a low level of this expenditure in tertiary education, which dropped further in 2007 (the latest data available).*** Expenditure on tertiary education amounted to EUR PPS 5,955.1 in 2007. Slovenia thus lagged significantly behind the EU average, which was EUR PPS 9,101.8. In contrast to Slovenia, the average expenditure on educational institutions per tertiary education student in the EU (in EUR PPS) increased in 2007, so that Slovenia's gap widened further. Slovenia also lagged considerably behind the EU average in terms of expenditure on educational institutions per tertiary-education student as a share of GDP per capita (Slovenia: 27.0%; the EU: 36.3%). In 2007, this expenditure diminished further (4.4 p.p.), falling even more behind the EU average. Expenditure on educational institutions as a share of GDP is comparable with the EU average, while expenditure on educational institutions per student is low (2007: 1.2%) as a result of the high level of participation in tertiary education, which is also due to the benefits arising from student status. In the period following 2000, participation in tertiary education rose rapidly in Slovenia, but expenditure on educational institutions as a share of GDP per capita dropped in 2000–2008. Consequently, expenditure on educational institutions per tertiary-education student as a share of GDP per capita also fell sharply in 2001–2007. However, expenditure per student (in EUR PPS) diminished only at the tertiary-education level in that period, falling further behind the EU average, which improved.

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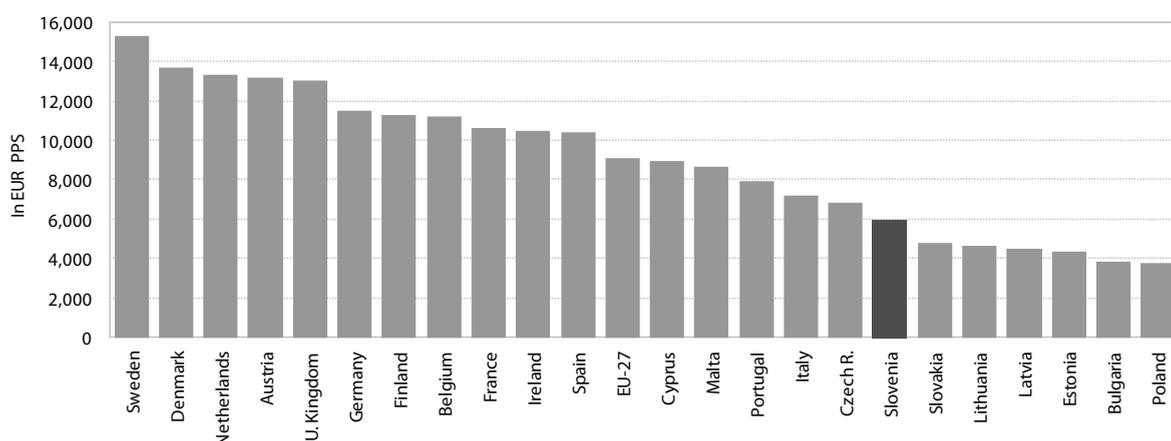
<sup>1</sup> Purchasing Power Standard.

**Table: Annual expenditure on educational institutions per student, in purchasing power standards (EUR PPS) and in comparison with GDP per capita, 2001–2007**

|                 | In EUR PPS    |               |               |               | Expenditure per student in comparison with GDP per capita, in % |             |             |             |
|-----------------|---------------|---------------|---------------|---------------|---|-------------|-------------|-------------|
|                 | 2001          | 2005          | 2006          | 2007          | 2001  | 2005        | 2006        | 2007        |
| <b>EU-27</b>    | <b>5081.1</b> | <b>5673.4</b> | <b>5936.0</b> | <b>6250.7</b> | <b>24.6</b>   | <b>25.3</b> | <b>25.2</b> | <b>24.9</b> |
| Austria         | 7001.9        | 8092.4        | 8633.5        | 8694.9        | 28.3  | 28.9        | 29.3        | 28.4        |
| Belgium         | 6284.2        | 6431.4        | 6974.2        | 7263.8        | 25.7  | 23.9        | 25.0        | 25.2        |
| Bulgaria        | 1326.2        | 1952.8        | 2131.4        | 2290.0        | 22.9  | 25.2        | 24.7        | 24.4        |
| Cyprus          | 4953.1        | 6584.4        | 7136.3        | 7708.0        | 27.6  | 32.2        | 33.3        | 33.1        |
| Czech Rep.      | 2786.5        | 3792.4        | 4411.9        | 4451.8        | 20.1  | 22.2        | 24.2        | 22.3        |
| Denmark         | 7305.7        | 8092.7        | 8402.3        | 8595.4        | 28.9  | 29.1        | 28.6        | 28.5        |
| Estonia         | N/A           | 2825.0        | 3181.5        | 3674.7        | N/A   | 20.4        | 20.7        | 21.4        |
| Finland         | 5285.8        | 6202.1        | 6400.9        | 6682.0        | 23.1  | 24.1        | 23.7        | 22.8        |
| France          | 5931.3        | 6295.6        | 6493.9        | 6928.3        | 25.9  | 25.3        | 25.3        | 25.6        |
| Greece          | 3237.7        | 4485.0        | N/A           | N/A           | 18.9  | 21.7        | N/A         | N/A         |
| Ireland         | 4636.5        | 6026.1        | 6516.3        | 7172.4        | 17.7  | 18.6        | 18.9        | 19.4        |
| Italy           | 6384.6        | 5901.6        | 6438.5        | 6205.2        | 27.4  | 25.0        | 26.1        | 24.1        |
| Latvia          | 1995.1        | 2682.7        | 3074.2        | 3665.5        | 26.0  | 24.6        | 25.2        | 26.4        |
| Lithuania       | 1860.3        | 2447.4        | 2751.2        | 3174.4        | 22.7  | 20.6        | 21.0        | 21.5        |
| Luxembourg      | N/A           | N/A           | N/A           | N/A           | N/A   | N/A         | N/A         | N/A         |
| Hungary         | N/A           | 3801.7        | 3995.1        | N/A           | N/A   | 26.8        | 26.7        | N/A         |
| Malta           | 3306.7        | 5914.3        | N/A           | 6437.1        | 21.5  | 33.8        | N/A         | 33.8        |
| Germany         | 5815.2        | 6620.5        | 6474.1        | 6752.1        | 25.2  | 25.2        | 23.6        | 23.4        |
| Netherlands     | 6265.8        | 7317.3        | 7494.2        | 7891.0        | 23.7  | 24.9        | 24.2        | 24.0        |
| Poland          | 2183.8        | 3068.2        | 3040.5        | 3225.9        | 23.2  | 26.6        | 24.8        | 23.8        |
| Portugal        | 4037.2        | 4813.9        | 5016.3        | 5124.9        | 26.4  | 27.8        | 27.8        | 27.2        |
| Romania         | N/A           | 1437.9        | N/A           | N/A           | N/A   | 18.3        | N/A         | N/A         |
| Slovakia        | 1845.6        | 2695.0        | 2936.3        | 3122.0        | 17.8  | 19.9        | 19.6        | 18.5        |
| <b>Slovenia</b> | <b>4647.5</b> | <b>5949.2</b> | <b>6248.5</b> | <b>6055.4</b> | <b>29.5</b>   | <b>30.2</b> | <b>30.1</b> | <b>27.4</b> |
| Spain           | 4526.5        | 5681.7        | 6169.8        | 6772.9        | 23.3  | 24.8        | 24.9        | 25.9        |
| Sweden          | 6095.6        | 7029.8        | 7395.8        | 7906.5        | 25.4  | 26.0        | 25.8        | 25.9        |
| U.K.            | 5152.4        | 7137.2        | 7925.4        | 7971.5        | 22.1  | 26.1        | 28.1        | 27.3        |

Source of data: Eurostat Portal Page – Population and Social Conditions, 2011.

Note: PPS – Purchasing Power Standard; N/A – not available.

**Figure: Expenditure on educational institutions per student, in EUR PPS, tertiary education, 2007**


Source of data: Eurostat Portal Page – Population and Social Conditions, 2011.

## Adult participation in education

***The level of adult participation in formal education<sup>1</sup> diminished slightly in 2008 for the second year running, but was still above the EU average.*** In 2008, for which the most recent data are available, participation of adult population aged 25–64 in all levels of formal education reached 4.1%, a 0.2 p.p. drop over the year before. In 2008, it exceeded the EU average by 0.9 p.p. In the 2000–2008 period, adult participation in education increased by 1.6 p.p. in Slovenia, while it fell slightly for the EU as a whole.

***The highest rate of adult participation in formal education is recorded at the tertiary-education level.*** Participation in primary and upper-secondary education is low, which is also related to a low share of early school leavers.<sup>2</sup> The share of population having completed no more than primary education amounted to 16.5% in the second quarter of the year. It rises with age and is still significantly high in the middle (35–44 years, 45–54 years) and higher age groups (55–64 years).<sup>3</sup> In 2008, adult participation in upper-secondary education diminished for the third year in succession. It accounted for 0.7% and was 0.3 p.p. higher than on average in the EU. It dropped compared with the level in 2007, as it did in the EU. In the academic year 2009/2010, for which the latest data are available for Slovenia, participation in tertiary education totalled 3.2%, remaining at the previous year's level. In 2008, it was 0.9 p.p. higher than the EU average (2.4%). In 2000–2008, adult participation in secondary education rose by 0.2 p.p. and adult participation in tertiary education by 1.3 p.p.

***Adult participation in non-formal education is also above the EU average, increasing even further in 2009.*** According to the Labour Force Survey, in 2009, for which the latest international data are available, participation of the adult population aged 25–64 in non-formal education<sup>4</sup> was 9.2%, exceeding the EU average by 2.4 p.p. Compared with the previous year, it rose by 0.7 p.p. In 2004–2009, it fell, as did the EU average, but the decline in Slovenia was steeper (by 2.1 p.p.; EU: 0.6 p.p.).

***Adult participation in non-formal education was lower than the EU average only in the population group with a lower level of education.*** Adult participation in non-formal education varies in terms of gender, age, level of education and labour status. In 2009, female participation in non-formal education was higher than male participation, and also recorded a slightly higher increase. In the 25–34, 35–44 and 45–54 age groups, participation rates were similar (about 10%), while the participation rate in the 55–74 age group dropped (5.1%). Compared with the level in 2008, the participation rate rose in all age groups, except in the youngest. By level of education, participation is lowest in the population group with a lower level of education. Here, it lags considerably behind the participation of people with upper secondary and tertiary education, having increased least in this group among all education groups in 2009. With regard to activity status, the highest level of participation in non-formal education is recorded for people in employment, followed by unemployed people, while participation is lowest in the non-active population. In 2009, participation in non-formal education increased in all activity-status groups, and most in the group of the unemployed, and least in the non-active population. In all socio-economic groups, except those with a lower level of education, participation exceeds the EU average. In the 2004–2009 period, the only socio-economic group witnessing growth was the unemployed population; in the 55–74 age group the level remained unchanged, while in all other socio-economic groups it fell.

<sup>1</sup> Includes full-time and part-time students at all levels of formal education (primary, upper secondary and tertiary).

<sup>2</sup> Percentage of the population aged 18–24 with at most lower-secondary education and not in further education or training.

<sup>3</sup> According to the Labour Force Survey for Q2, it was 15.0% in the 35–44 age group in 2010, 20.0% in the 45–54 age group, and 26.2% in the 55–64 age group.

<sup>4</sup> Internationally available data on adult participation in non-formal education in accordance with the Labour Force Survey are not available for the period since 2004. The indicator refers to the proportion of persons aged 25–64 receiving some form of lifelong learning in the four weeks preceding the survey. The indicator is calculated on the basis of the annual average of quarterly data. The European Commission has called attention to the methodological faults of the indicator.

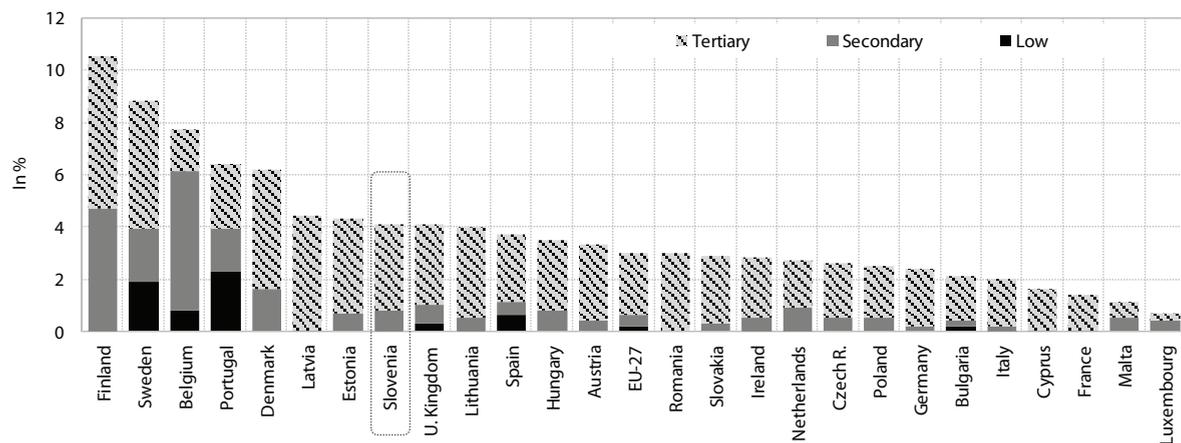
Table: Participation of the population aged 25–64 in formal and non-formal education, EU-27, in %

|                 | Participation in all levels of formal education |            |            |            |            | Participation in all levels of non-formal education <sup>1</sup> |            |            |            |
|-----------------|---|------------|------------|------------|------------|--|------------|------------|------------|
|                 | 1998  | 2000       | 2005       | 2007       | 2008       | 2004   | 2005       | 2008       | 2009       |
| <b>EU-27</b>    | <b>2.8</b>                                      | <b>3.3</b> | <b>4.2</b> | <b>3.1</b> | <b>3.2</b> | <b>7.4</b>   | <b>7.0</b> | <b>6.9</b> | <b>6.8</b> |
| Austria         | 3.2   | 3.4        | 2.6        | 3.0        | 3.3        | 10.6   | 10.5       | 10.5       | 10.8       |
| Belgium         | N/A   | 5.2        | 7.4        | 7.5        | 7.7        | 7.8  | 6.5        | 4.9        | 4.8        |
| Bulgaria        | 1.5   | 1.5        | 1.7        | 1.9        | 2.1        | 0.3  | 0.2        | 0.4        | 0.4        |
| Cyprus          | N/A   | 0.3        | 1.0        | 1.3        | 1.6        | 8.1  | 4.8        | 6.4        | 4.9        |
| Czech Rep.      | 1.0   | 1.1        | 2.7        | 2.9        | 2.5        | 4.9  | 3.9        | 6.0        | 4.9        |
| Denmark         | 4.7   | 5.0        | 6.7        | 6.6        | 6.3        | 20.3   | 22.0       | 26.5       | 27.7       |
| Estonia         | N/A   | 2.4        | 4.4        | 4.5        | 4.3        | 3.0  | 2.4        | 6.6        | 6.7        |
| Finland         | 5.6   | 6.9        | 9.5        | 10.2       | 10.5       | 17.4   | 16.4       | 16.4       | 15.6       |
| France          | N/A   | 1.2        | 1.5        | 1.5        | 1.4        | 7.2  | 6.5        | 5.4        | 5.4        |
| Greece          | 0.9   | 0.6        | 3.0        | 3.8        | N/A        | 0.7  | 0.6        | 1.4        | 1.8        |
| Ireland         | 1.7   | 2.0        | 2.8        | 3.4        | 2.8        | 4.2  | 4.1        | 3.9        | 2.7        |
| Italy           | 1.7   | 1.9        | 2.2        | 2.2        | 2.0        | 4.1  | 3.0        | 3.5        | 3.3        |
| Latvia          | 1.5   | 2.9        | 4.7        | 4.7        | 4.4        | 4.5  | 3.8        | 2.9        | 2.5        |
| Lithuania       | 0.9   | 1.6        | 4.2        | 4.2        | 4.0        | 3.6  | 2.8        | 2.1        | 1.5        |
| Luxembourg      | N/A   | 0.3        | 0.4        | 0.3        | 0.7        | 8.9  | 7.4        | 7.0        | 11.8       |
| Hungary         | 1.5   | 2.3        | 4.0        | 3.9        | 3.5        | 1.8  | 1.5        | 1.2        | 0.9        |
| Malta           | 0.0   | 0.8        | 1.9        | 1.3        | 1.1        | 4.1  | 4.4        | 5.1        | 5.0        |
| Germany         | 2.6   | 2.4        | 2.3        | 2.3        | 2.5        | 5.3  | 5.2        | 5.4        | 5.2        |
| Netherland      | 2.9   | 2.6        | 2.5        | 2.5        | 2.6        | 10.3   | 9.2        | 10.1       | 10.0       |
| Poland          | 1.6   | 2.0        | 2.7        | 2.6        | 2.5        | 2.7  | 1.8        | 2.0        | 1.9        |
| Portugal        | 2.8   | 3.3        | 3.3        | 3.0        | 6.5        | 2.0  | 1.3        | 1.5        | 1.8        |
| Romania         | 0.6   | 0.7        | 1.8        | 2.6        | 3.0        | 0.4  | 0.2        | 0.2        | N/A        |
| Slovakia        | N/A   | N/A        | 2.2        | 2.7        | 3.0        | 3.4  | 3.2        | 1.7        | 1.2        |
| <b>Slovenia</b> | <b>1.5</b>                                      | <b>2.5</b> | <b>4.4</b> | <b>4.3</b> | <b>4.1</b> | <b>11.3</b>  | <b>9.5</b> | <b>8.5</b> | <b>9.2</b> |
| Spain           | 2.4   | 2.5        | 3.8        | 3.8        | 3.7        | 2.9  | 8.0        | 8.4        | 8.3        |
| Sweden          | 9.0   | 10.3       | 9.4        | 9.0        | 8.8        | 30.2   | 16.4       | 17.7       | 17.6       |
| U.K.            | 7.1   | 11.0       | 14.0       | 4.3        | 4.1        | 32.1   | 25.2       | 17.9       | 17.9       |

Source of data: Eurostat Portal Page – Population and social conditions – Education and training, 2011.

 Note: <sup>1</sup> Data on adult participation in non-formal education are available from 2004 onwards, N/A – not available.

Figure: Participation of population aged 25–64 in individual levels of formal education, 2008, in %



Source of data: Eurostat Portal Page – Population and Social Conditions – Education and Training, 2011.

# Gross domestic expenditure on research and development

**Gross domestic expenditure on R&D (GERD) was 1.86% of GDP in 2009.** As in 2008, this figure was, along with the real growth in GERD, once more a result of a higher number of reporting units in the Slovenian business sector,<sup>1</sup> but also of a considerable shrinkage of GDP in 2009. In real terms, GERD increased by 5.5%, totalling EUR 656.9 m. Slovenia's gap behind the European average narrowed to 0.15 p.p., which is the lowest value so far. The narrowing of the gap was also influenced by the movement of GERD in the EU average, as it dropped by 2.3% in real terms, and to the fact that the real shrinkage of GDP in Slovenia (by 8.1%) significantly exceeded the EU average (by 3.9 p.p.).

**The share of the business sector in the funding of GERD diminished noticeably in 2009.** The decline in companies' financial capabilities in 2009 resulted in a 2.6% drop in R&D investment of the business sector in real terms, with its share in funding of GERD thus dropping to 58.0% (by 4.8 p.p.). Amid a considerable contraction of the economy, the business sector's expenditure as a share of GDP nevertheless increased in 2009 for the second year running, reaching 1.08% of GDP.<sup>2</sup> With the R&D expenditure of the European business sector recording slower growth, Slovenia's business sector almost caught up with the EU average as early as 2008 (1.05% of GDP, Slovenia: 1.04%). The measures adopted by the Government to boost competitiveness in 2009 brought about an increase in the government sector's expenditure on R&D in real terms, which was reflected in a higher share of this expenditure (35.7%) in total expenditure on R&D (see Figure). In 2000–2009, the shares of the higher education sector and funds from abroad in the funding of GERD were fairly steady, while in the past two years, foreign funds rose in real terms (2008: by 13.2%, 2009: by 14.0%).

**The number of taxpayers claiming tax relief in relation to investment in R&D, and the volume of relief claimed diminished in 2009.** The consequences of the financial and economic crisis<sup>3</sup> contributed to a considerable

reduction in the volume of tax relief on investment in R&D in 2009, despite increased government-budget appropriations for R&D<sup>4</sup> as part of anti-crisis measures. Their amount dropped for the first time since 2006 when they were introduced on the basis of the Corporate Income Tax Act.<sup>5</sup> Tax relief on R&D investment was claimed by 418 taxpayers (2008: 483), but its volume diminished significantly, by 22.0%, to EUR 48.8 m. Almost three fifths of relief were claimed by 28 taxpayers in the manufacture of pharmaceutical ingredients and preparations (37.6%), motor vehicles, trailers and semi-trailers (10.7%), and computers, electronic and optical equipment (9.6%). Furthermore, the volume of claimed regional tax relief for R&D also dropped, by 26.8%, to EUR 9.8 m. This was claimed by 164 taxpayers and was concentrated on an even smaller number of eligible legal entities than the basic tax relief on R&D.

**In 2009, the share of researchers working in the business sector again climbed slightly, which is extremely important in terms of transfer of (new) knowledge and the sector's absorption capacity.** The total number of researchers<sup>6</sup> rose by 5.9%, with the highest increase recorded in the higher-education and business sectors (by 10.2% and 7.2%, respectively). The business sector once more employed the largest share of researchers in 2009, 44.0%, which is the highest figure since 2000 (31.8%). The number of researchers working in the business sector grew by an annual average rate of 10.1% in 2000–2009. In 2008,<sup>7</sup> Slovenia's business sector came very close to the European average in the share of researchers employed, lagging by a mere 2.4 p.p., the smallest gap in the 2000–2008 period (2000: 15.1 p.p.).

<sup>4</sup> In nominal terms, government budget appropriations for R&D grew by 46% in 2009, and in 2010, according to preliminary figures, by 21%.

<sup>5</sup> Corporate Income Tax Act (OG RS Nos. 117/06, 56/08, 76/08, 5/09 and 96/09). In 2010 (OG RS No. 43/10), the general tax relief on R&D investment increased from 20% to 40% of the invested amount, with other conditions regarding claims remaining unchanged. The higher general tax relief on R&D investment also resulted in an increase in total tax relief in regions that fulfil specific conditions regarding the level of development, to 50% (from 30%) and 60% (from 40%) of the amount invested in R&D, respectively.

<sup>6</sup> The number of researchers is expressed as a full-time equivalent, with the analysis only including researchers (excluding technical and other staff).

<sup>7</sup> Latest available data for the EU-27.

<sup>1</sup> The number of reporting units covered increased by 54 companies.

<sup>2</sup> In accordance with the Europe 2020 strategy, Slovenia's goal is to increase expenditure on R&D to 3% of GDP, with the focus on improvement of R&D funding conditions and opportunities (Europe 2020, 2010).

<sup>3</sup> The volume of collected corporate income tax decreased in 2008–2010, amounting to EUR 1,257 m, EUR 712 m and EUR 449 m (realisation before tax assessment), respectively.

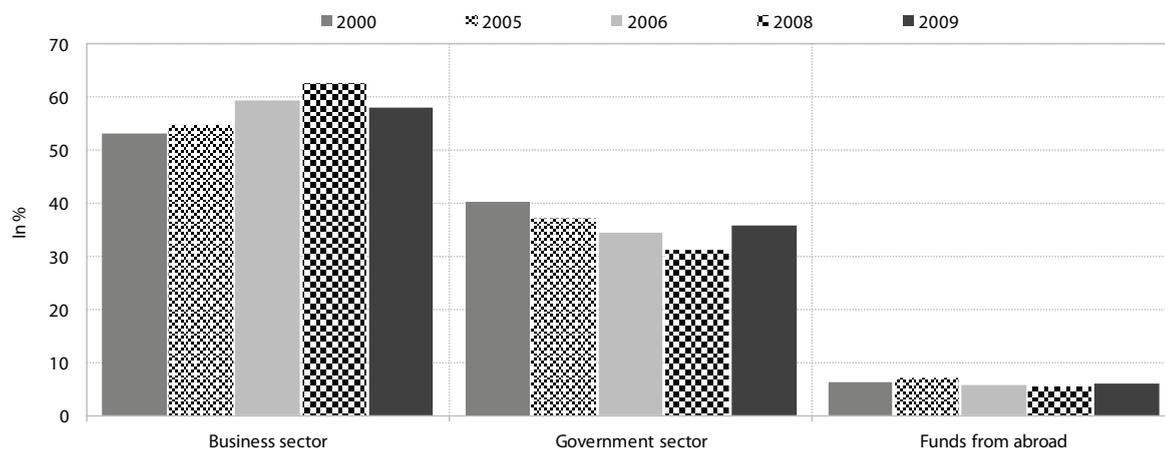
Table: Gross domestic expenditure on R&D in Slovenia and some EU Member States, in % of GDP

|                 | 1996        | 2000        | 2005        | 2006        | 2007        | 2008        | 2009        |
|-----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>EU-27</b>    | <b>1.75</b> | <b>1.86</b> | <b>1.82</b> | <b>1.85</b> | <b>1.85</b> | <b>1.92</b> | <b>2.01</b> |
| Austria         | 1.60        | 1.94        | 2.45        | 2.46        | 2.52        | 2.67        | 2.75        |
| Czech Rep.      | 0.97        | 1.21        | 1.41        | 1.55        | 1.54        | 1.47        | 1.53        |
| Estonia         | N/A         | 0.60        | 0.93        | 1.13        | 1.10        | 1.29        | 1.42        |
| Finland         | 2.53        | 3.35        | 3.48        | 3.48        | 3.47        | 3.72        | 3.96        |
| Italy           | 0.99        | 1.05        | 1.09        | 1.13        | 1.18        | 1.23        | 1.27        |
| Latvia          | 0.42        | 0.44        | 0.56        | 0.70        | 0.59        | 0.61        | 0.46        |
| Lithuania       | 0.49        | 0.59        | 0.75        | 0.79        | 0.81        | 0.80        | 0.84        |
| Hungary         | 0.63        | 0.79        | 0.95        | 1.00        | 0.97        | 1.00        | 1.15        |
| Germany         | 2.19        | 2.45        | 2.49        | 2.53        | 2.53        | 2.68        | 2.82        |
| Poland          | 0.65        | 0.64        | 0.57        | 0.56        | 0.57        | 0.60        | 0.59        |
| Portugal        | 0.56        | 0.73        | 0.78        | 0.99        | 1.17        | 1.50        | 1.66        |
| Slovakia        | 0.91        | 0.65        | 0.51        | 0.49        | 0.46        | 0.47        | 0.48        |
| <b>Slovenia</b> | <b>1.29</b> | <b>1.39</b> | <b>1.44</b> | <b>1.56</b> | <b>1.45</b> | <b>1.65</b> | <b>1.86</b> |
| Spain           | 0.81        | 0.91        | 1.12        | 1.20        | 1.27        | 1.35        | 1.38        |

Source of data: Eurostat Portal Page – Science and Technology- Research and Development, 2010.

Notes: Data for 2009 for Austria, Estonia, Italy, Germany and Portugal are not final; data for EU-27 are Eurostat estimates; N/A – no data available.

Figure: Gross domestic R&D expenditure by source of funds, Slovenia, 2000–2009, in %<sup>1</sup>



Source: Research and development activity, Slovenia, 2000–2009 (SORS), 2010.

Note: <sup>1</sup> Due to their small shares, the higher-education and private non-profit sectors are not shown in the GERD funding structure (in 2005–2009, they contributed on average 0.4% to the total GERD).

## Science and technology graduates

***The number and share of science and technology graduates<sup>1</sup> are increasing, but the gap behind the EU average is still wide.*** In 2009<sup>2</sup>, the number of science and technology graduates rose for the third consecutive year (by 6.6% to 3,237). The number of science and technology graduates per 1,000 population aged 20–29 is therefore also rising, reaching 11.4 in 2009. In 2009, the share of science and technology graduates in the total number of tertiary-education graduates grew for the third consecutive year and reached 18.8%, but was still lower than the level in 2000 (22.8%). In 2008, Slovenia was also behind the EU average on this figure, and the gap was wider than in 2000 (see Table). Slovenia also recorded a significant gap behind the EU average in the share of graduates (2008: 4.3 p.p.) (see Figure), which was also wider than in 2000.

***Due to the growth in the number of students enrolled in science and technology studies over recent years, the gap behind the EU average narrowed significantly in 2008.*** The share has been rising for several years, reaching 25.6% in 2009/2010. In 2008, it drew much closer to the EU average, lagging by only 0.3 p.p., which is the least in the whole 2000–2008 period. In 2009/2010, the number of students enrolled in science and technology studies increased by 2.0% and amounted to 29,419, but its growth slowed relative to previous years. Despite the relatively favourable trend in enrolment in science and technology, the number of science and technology graduates is too low due to lower enrolment in previous years, largely as a result of insufficient government incentives for undergraduate science and technology studies. Enrolment in science and technology can also be boosted by company scholarships. However, the share of science and technology students receiving company scholarships is relatively small and fell even further in 2009/2010. The slow growth in the number of science and technology graduates is also due to the low efficiency of studies (i.e. the long average duration of studies).

***The share of doctors in the field of science and technology is high, but fell in 2009.*** In 2009, their number rose by 14.1%, to 227, a considerable increase over the number in 2000. In terms of the share of doctors of science and technology in the total number, Slovenia also exceeds the EU average (2008: Slovenia: 49.1%; EU: 36.8%), but this share diminished in 2004–2008, as in the EU. In Slovenia, this trend continued into 2009. The large share of doctors of science and technology is related to measures taken by the state to foster enrolment (the Young Researchers programme, which requires that a certain share of young researchers comes from the field of science and technology, and the Young Researchers for Business and Industry programme, where a large share is accounted for by young researchers in science and technology).

<sup>1</sup> Science and technology indicators according to ISCED 97 comprise two broader fields, i.e. "science, mathematics and computing" (ISC 42, 44, 46 and 48) and "engineering, manufacturing and construction" (ISC 52, 54 and 58). The classification is based on the International Standard Classification of Education (ISCED) 1997 and Eurostat's Fields of Education and Training Manual 1999. 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.

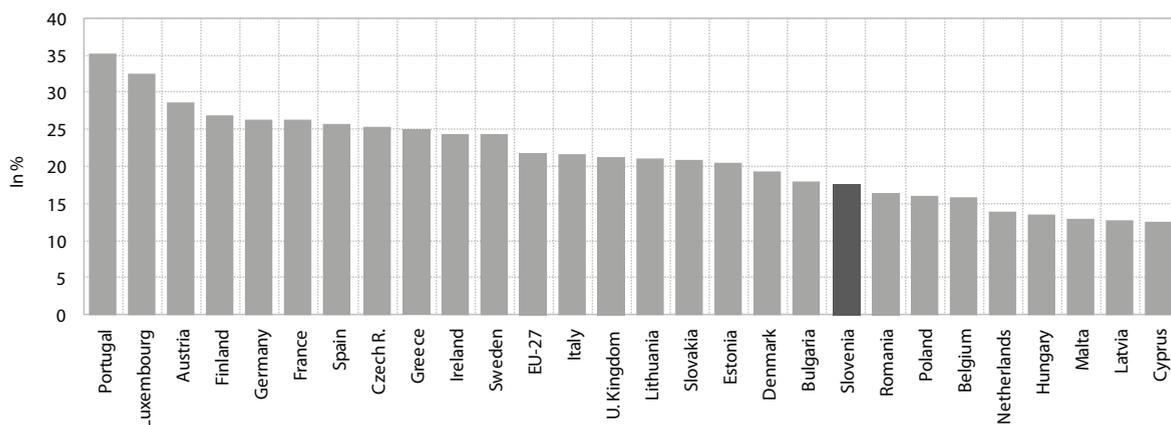
<sup>2</sup> Data on graduates refer to calendar years (the latest to 2009), and those on students enrolled in the 2000/2001–2009/2010 period.

Table: Number of science and technology graduates per 1,000 population aged 20–29, 1998–2008

|                 | 1998       | 2000        | 2005        | 2006        | 2007        | 2008        |
|-----------------|------------|-------------|-------------|-------------|-------------|-------------|
| <b>EU-27</b>    | <b>8.8</b> | <b>10.1</b> | <b>13.2</b> | <b>13.0</b> | <b>13.4</b> | <b>13.9</b> |
| Austria         | 7.9        | 7.2         | 9.8         | 10.8        | 11.0        | 11.8        |
| Belgium         | N/A        | 9.7         | 10.9        | 10.6        | 14.0        | 11.6        |
| Bulgaria        | 5.5        | 6.6         | 8.6         | 8.5         | 8.4         | 9.1         |
| Cyprus          | N/A        | 3.4         | 3.6         | 4.3         | 4.2         | 4.0         |
| Czech Rep.      | 4.6        | 5.5         | 8.2         | 10.0        | 12.0        | 15.0        |
| Denmark         | 8.1        | 11.7        | 14.7        | 13.8        | 16.4        | 15.5        |
| Estonia         | 3.3        | 7.8         | 12.1        | 11.2        | 13.3        | 11.4        |
| Finland         | 15.9       | 16.0        | 18.1        | 17.9        | 18.8        | 24.3        |
| France          | 18.5       | 19.6        | 22.5        | 20.7        | 20.5        | 20.1        |
| Greece          | N/A        | N/A         | 10.1        | N/A         | 8.5         | 11.2        |
| Ireland         | 22.9       | 24.2        | 24.5        | 21.4        | 18.7        | 19.5        |
| Italy           | 5.1        | 5.7         | 12.4        | 13.0        | 8.2         | 7.6         |
| Latvia          | 6.1        | 7.4         | 9.8         | 8.9         | 9.2         | 8.8         |
| Lithuania       | 9.3        | 13.5        | 18.9        | 19.5        | 18.1        | 17.8        |
| Luxembourg      | 1.4        | 1.8         | N/A         | N/A         | N/A         | 1.8         |
| Hungary         | 5.0        | 4.5         | 5.1         | 5.8         | 6.4         | 6.1         |
| Malta           | 1.3        | 3.4         | 3.4         | 5.0         | 7.1         | 6.0         |
| Germany         | 8.8        | 8.2         | 9.7         | 10.7        | 11.4        | 12.5        |
| Netherlands     | 6.0        | 5.8         | 8.6         | 9.0         | 8.9         | 8.8         |
| Poland          | 4.9        | 6.6         | 11.1        | 13.3        | 13.9        | 14.1        |
| Portugal        | 5.2        | 6.3         | 12.0        | 12.6        | 18.1        | 20.7        |
| Romania         | 4.2        | 4.5         | 10.3        | 10.5        | 11.9        | 15.2        |
| Slovakia        | 4.3        | 5.3         | 10.2        | 10.3        | 11.9        | 15.0        |
| <b>Slovenia</b> | <b>8.0</b> | <b>8.9</b>  | <b>9.8</b>  | <b>9.5</b>  | <b>9.8</b>  | <b>10.4</b> |
| Spain           | 8.0        | 9.9         | 11.8        | 11.5        | 11.2        | 11.6        |
| Sweden          | 7.9        | 11.6        | 14.4        | 15.1        | 13.6        | 13.2        |
| U.K.            | 15.5       | 18.5        | 18.4        | 17.9        | 17.5        | 17.6        |

Source of data: Eurostat Portal Page – Population and Social Conditions – Education and training, 2011; SI-STAT Data Portal – Demography and social statistics – Education, 2011.  
 Note: N/A – not available.

Figure: Share of science and technology graduates in the total number of graduates, EU, 2008, in %



Source of data: Eurostat Portal Page – Population and Social Conditions – Education and training, 2011.

## Innovation-active enterprises

**In a three-year period (2006–2008), Slovenia, like the majority of EU countries, recorded a drop in the share of innovation-active enterprises.** In 2006–2008, 50.3% of enterprises in Slovenia were innovation active, the share being slightly higher in manufacturing (54.6%), and lower in services (46.1%). Since these data are methodologically incomparable<sup>1</sup> with those for the previous period (2004–2006), changes can only be inferred taking account of the previous definition<sup>2</sup> of innovation activity, according to which 34.3% of Slovenia's enterprises introduced a technological innovation in 2006–2008 (2004–2006: 35.1%). The intensity of innovation activity in enterprises diminished, as it did in most of the EU, particularly in larger countries. The results are not encouraging, given that these figures are for the period when the international economic and financial crisis had only just set in.<sup>3</sup>

**In most cases, innovation-active enterprises simultaneously introduced both technological and non-technological innovations.** Regardless of their activity, Slovenia's innovation-active enterprises mostly introduced both technological and non-technological innovations in 2006–2008. These enterprises accounted for more than one fifth (see Table) (in manufacturing for as much as 29.0%). This corroborates the statement that technological and non-technological innovations are intertwined and interdependent, as services are a key element of business processes regardless of the company activity. At the same time it emphasises the significance of innovation across the entire value added chain and not only in the development of a new product. In terms of innovation, service sectors lag<sup>4</sup> behind manufacturing

in Slovenia, as well as in most other countries of the EU. The share of innovation active Slovenian enterprises in knowledge-based services accounts for 61%, ranging between 46% (M 71) and 83% (J 62).

**Innovation activity achieved by enterprises is growing with their size.** In the 2006–2008 period, the share of small and medium-sized innovation-active enterprises drew very close to the EU average (Slovenia: small – 44.5%, EU: 47.7%; Slovenia: medium-sized – 63.4%, EU: 63.7%), while the share of large enterprises exceeded the EU average by 10.4 p.p. (Slovenia 89.2%). In Slovenia, the share of small-sized non-innovative-active enterprises remains high, which is, at least to a certain extent, due to the fact that their foundation is frequently driven by necessity rather than being a result of penetrating innovative ideas.

**Slovenia's progress in the area of innovation capacity is too slow, yet constant.** According to the latest data for the composite innovation indicator for 2010<sup>5</sup> based on 2007–2009 data, Slovenia was ranked among the innovation followers for the second year running. With an indicator value of 0.487, Slovenia drew close to the EU average (0.516), sharing the leading position in the group with Estonia on account of the high average annual-growth rate (6.5%). Slovenia's innovation environment nevertheless shows a gap between innovation inputs and outputs,<sup>6</sup> as pointed out by both the European Commission and OECD. The innovation gap can be partly explained by the fact that innovation policy instruments have a relatively fast impact on factors entering the innovation process, and a typically slower impact on results, particularly because these are usually conditional on economic restructuring (Bučar et al., 2010).

<sup>1</sup> The most recent statistical survey of innovation activities for the 2006–2008 period used the changed definition of innovation-active enterprises, taking into account the introduction of technological and/or non-technological innovations (innovations in the field of marketing and/or organisation). Further explanations about methodological changes are provided by SORS (Innovation activity in manufacturing and selected services, 2010 a). Consequently, caution is needed in the interpretation of comparisons with data on past innovation activities.

<sup>2</sup> Innovation-active enterprises were those introducing merely technological innovations (a new or significantly upgraded product and/or service and/or manufacturing procedure).

<sup>3</sup> VTo a certain extent, the results are probably due to changes in methodology, as, with a newly introduced category (technological and non-technological innovations combined), a greater number of enterprises decided on this answer rather than reporting merely technological innovations.

<sup>4</sup> This is also due to inadequate collection of data on innovations in the service sector not taking into account public services, due to insufficient knowledge of the specificity of innovation activities in services, as well as insufficient competition and level of development of services.

<sup>5</sup> Innovation Union Scoreboard 2010, 2011.

<sup>6</sup> A high level of business-sector investment in R&D (input), the number of innovation-active enterprises and the number of patent applications (output).

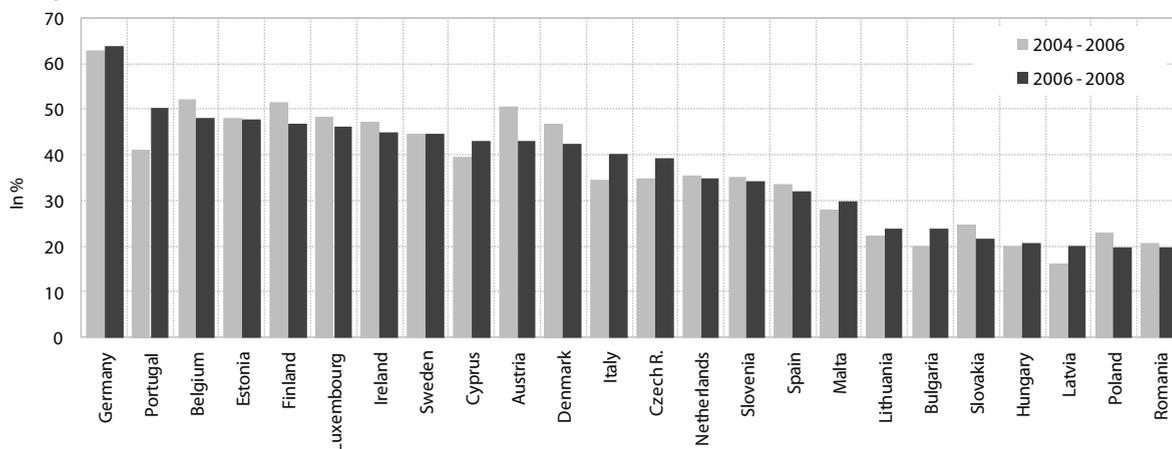
Table: Innovation-active enterprises by type of innovation activity, 2006–2008, in % of total number of enterprises

|                          | TOTAL       | Technological innovations | Technological innovations | Tech. and non-tech. innov. at the same time | MANUF. ACTIV. | Technological innovations | Non-techn. innovations | Tech. and non-tech. innov. at the same time | SERVICES    | Technological innovations | Non-tech. innovations | Tech. and non-tech. innov. at the same time |
|--------------------------|-------------|---------------------------|---------------------------|---|---------------|---------------------------|------------------------|---|-------------|---------------------------|-----------------------|---|
| <b>EU-27<sup>1</sup></b> | <b>51.6</b> | <b>N/A</b>                | <b>N/A</b>                | <b>N/A</b>                                  | <b>54.5</b>   | <b>N/A</b>                | <b>N/A</b>             | <b>N/A</b>                                  | <b>48.5</b> | <b>N/A</b>                | <b>N/A</b>            | <b>N/A</b>                                  |
| Austria                  | 56.2        | 11.9                      | 13.3                      | 31.0  | 59.4          | 16.4                      | 9.9                    | 33.1  | 53.8        | 8.3                       | 15.9                  | 29.5  |
| Belgium                  | 58.1        | 13.1                      | 10.2                      | 34.8  | 63.0          | 16.8                      | 9.0                    | 37.2  | 54.8        | 10.4                      | 11.2                  | 33.2  |
| Czech Rep.               | 56.0        | 9.0                       | 16.7                      | 30.3  | 56.4          | 10.9                      | 13.1                   | 32.4  | 56.9        | 6.7                       | 21.1                  | 29.0  |
| Finland                  | 52.2        | 19.2                      | 5.5                       | 27.5  | 57.1          | 24.7                      | 3.0                    | 29.4  | 48.6        | 13.9                      | 7.6                   | 27.1  |
| Italy                    | 53.2        | 12.1                      | 13.1                      | 28.1  | 56.0          | 14.4                      | 11.8                   | 29.8  | 48.1        | 7.4                       | 15.8                  | 24.9  |
| Latvia                   | 24.3        | 9.4                       | 4.1                       | 10.7  | 30.9          | 15.4                      | 2.8                    | 12.7  | 19.3        | 4.8                       | 4.8                   | 9.7   |
| Hungary                  | 28.9        | 7.1                       | 8.2                       | 13.7  | 28.4          | 8.2                       | 6.8                    | 13.4  | 29.6        | 5.1                       | 10.1                  | 14.3  |
| Germany                  | 79.9        | 10.9                      | 16.2                      | 52.9  | 86.3          | 12.4                      | 12.9                   | 61.0  | 73.6        | 9.1                       | 19.2                  | 45.3  |
| Poland                   | 27.9        | 7.9                       | 8.1                       | 11.9  | 29.2          | 9.1                       | 7.2                    | 12.8  | 26.1        | 5.9                       | 9.5                   | 10.7  |
| Portugal                 | 57.8        | 13.3                      | 7.7                       | 36.8  | 54.1          | 14.9                      | 6.2                    | 32.9  | 63.9        | 10.2                      | 10.1                  | 43.5  |
| Slovakia                 | 36.1        | 6.4                       | 14.4                      | 15.3  | 37.3          | 7.3                       | 10.7                   | 19.2  | 35.0        | 4.8                       | 18.5                  | 11.7  |
| <b>Slovenia</b>          | <b>50.3</b> | <b>9.1</b>                | <b>15.9</b>               | <b>25.2</b>                                 | <b>54.6</b>   | <b>11.7</b>               | <b>13.9</b>            | <b>29.0</b>                                 | <b>46.1</b> | <b>5.8</b>                | <b>18.7</b>           | <b>21.6</b>                                 |
| Spain                    | 43.5        | 12.6                      | 11.7                      | 19.3  | 44.7          | 14.6                      | 9.9                    | 20.3  | 42.6        | 10.4                      | 13.7                  | 18.5  |

Source of data: Eurostat Portal Page – Science and Technology – Community innovation survey, 2010; calculations by IMAD.

Notes: <sup>1</sup> The EU-27 aggregate does not include data for Greece. The innovation-active enterprise introduced technological innovations and/or non-technological innovations and/or both technological and non-technological innovations. N/A – not available.

Figure: Share of innovation active enterprises introducing technological innovations\* in 2006–2008, in % of total number of enterprises



Source of data: Eurostat Portal Page – Science and technology – Community innovation survey, 2010; calculations by IMAD.

Note: \* Data are comparable with those from the previous statistical survey on innovation activity for the 2004–2006 period, not excluding the possibility that enterprises may have also introduced non-technological innovations.

## Intellectual property

***Slovenia continues to trail the European average by a wide margin on the number of patent applications filed with the EPO (European Patent Office).*** Provisional data show that in 2009<sup>1</sup> Slovenian applicants filed 58.6 patent applications per million population, while the European average was 123.6. Compared with 2008, the number of patent applications dropped by 8% in 2009, compared to a 6% fall across the EU-27. The gap behind the EU average did not change significantly in 2006–2009 (2006: 66; 2009: 65 patent applications per million population fewer than in the EU). By number of patent applications filed with the EPO, Slovenia was ranked 14th among the EU countries in 2009, ranking even above some Old Member States (Spain, Portugal and Greece). However, the data on national patent applications<sup>2</sup> filed with the IPO (Intellectual Property Office of the Republic of Slovenia) for 2008–2010 are highly promising, showing much faster annual growth in recent years (2008–2010: 19.2%). In this period, Slovenian applicants filed a total of 1,157 national patent applications with IPO (2008: 318, 2009: 387, 2010: 452) and were granted 461 patents (2008: 222, 2009: 239).

***Slovenia has recorded substantial progress in the area of Community trade marks and designs.*** In 2010, Slovenia filed 110.9 applications for Community trade marks<sup>3</sup> per million population with the Office of Harmonisation in the Internal Market (OHIM),<sup>4</sup> increasing the number of applications by an average of 19.2% a year in the 2004–2010 period.<sup>5</sup> In 2010, the average number of applications in EU was 140.2 Community trade marks per million population; Slovenia therefore achieved 79.1% of the EU average. The best result was recorded in 2008 (84.9%). The majority of goods and services for which applications for Community trade-mark protection were

filed by Slovenian applicants were in three categories on the basis of the International Classification:<sup>6</sup> 35 – advertising, business management and business administration; 42 – scientific and technological services, and research and design relating thereto; development of computer hardware and software; and 9 – scientific and computer apparatus and instruments. The majority of Slovenian companies that filed trade-mark protection applications with OHIM came from the food-processing industry (Alicante News, 2010). In 2010, Slovenian applicants registered 65 Community designs<sup>7</sup> per million population with OHIM, which was 56% of the EU average. This was the smallest gap behind the EU average in the entire period for which data are available.<sup>8</sup>

<sup>1</sup> The data on patent applications filed in 2008 and 2009 are taken from the EPO Annual Report, and refer to the current year. These are not necessarily the first patent applications on a global scale as released by Eurostat (for more information, see the Slovenian Economic Mirror 2/2009).

<sup>2</sup> Guaranteeing legal protection of inventions in the territory of Slovenia since the patent-application filing date.

<sup>3</sup> A trade mark/service mark is a legally protected combination of signs enabling identification and distinction of an identical or similar product/service, and having graphic presentation characteristics. Trade-mark protection lasts for 10 years from the application filing date and can be renewed (IPO Annual Report 2009, 2010).

<sup>4</sup> Office for Harmonisation in the Internal Market.

<sup>5</sup> Since 2004, Slovenia has also been able to obtain legal protection of a trade mark/service mark following the European procedure, the right to legal protection being effective and safeguarded as of the application filing date in all EU countries. Before 2004, trade-mark protection applications could be filed only according to the national application procedure at the Intellectual Property Office of the Republic of Slovenia or through international application with the World Intellectual Property Organisation (IPO Annual Report 2009, 2010).

<sup>6</sup> International classification of products and services due to trade-mark registration on the basis of the Nice Agreement (Intellectual Property Act, OG RS No.102/04).

<sup>7</sup> A design is a legally protected visual appearance that is novel and unique. Its protection is effective for a period of 5 years and can be renewed (IPO Annual Report 2009, 2010).

<sup>8</sup> When applying for Community design protection, Slovenian applicants have since 2004 also been able to follow the European application procedure via OHIM.

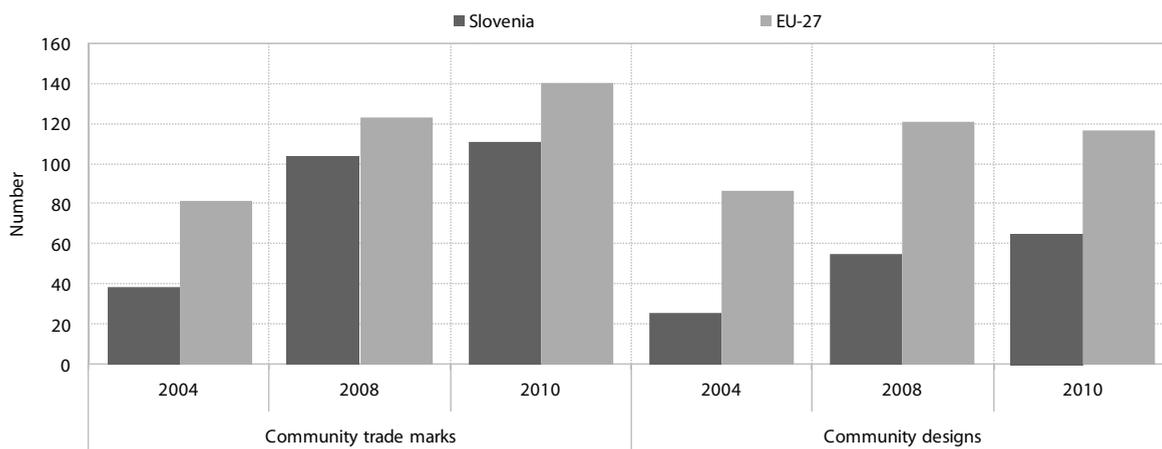
Table: Patent applications filed with EPO by year of first filing,<sup>1</sup> per million population

|                 | 2000         | 2004         | 2005         | 2006         | 2007 <sup>2</sup> | 2008 <sup>3</sup>        | 2009 <sup>3</sup>        |
|-----------------|--------------|--------------|--------------|--------------|-------------------|--------------------------|--------------------------|
| <b>EU-27</b>    | <b>106.4</b> | <b>111.6</b> | <b>112.6</b> | <b>113.9</b> | <b>116.5</b>      | <b>131.4<sup>4</sup></b> | <b>123.6<sup>4</sup></b> |
| Austria         | 147.1        | 175.5        | 180.0        | 203.5        | 217.0             | 180.7                    | 180.0                    |
| Belgium         | 126.6        | 141.8        | 135.6        | 136.4        | 139.0             | 178.0                    | 151.6                    |
| Bulgaria        | 0.9          | 2.4          | 3.1          | 3.5          | 3.8               | 2.0                      | 2.2                      |
| Cyprus          | 10.4         | 8.2          | 21.4         | 9.6          | 11.5              | 71.0                     | 57.7                     |
| Czech Rep.      | 6.5          | 11.1         | 10.4         | 14.7         | 15.8              | 10.6                     | 13.0                     |
| Denmark         | 177.1        | 191.8        | 202.1        | 193.7        | 194.1             | 289.3                    | 270.0                    |
| Estonia         | 4.1          | 6.4          | 4.7          | 15.0         | 17.4              | 5.2                      | 25.4                     |
| Finland         | 274.6        | 264.0        | 247.1        | 248.6        | 250.8             | 340.0                    | 271.7                    |
| France          | 120.4        | 133.4        | 130.7        | 130.9        | 132.4             | 142.1                    | 138.7                    |
| Greece          | 5.1          | 6.1          | 9.9          | 9.3          | 9.8               | 7.9                      | 9.1                      |
| Ireland         | 54.3         | 64.6         | 63.7         | 64.4         | 66.8              | 110.0                    | 110.1                    |
| Italy           | 7.1          | 79.4         | 82.3         | 83.6         | 86.4              | 73.1                     | 64.6                     |
| Latvia          | 3.3          | 4.2          | 8.0          | 7.2          | 8.4               | 18.5                     | 21.7                     |
| Lithuania       | 1.3          | 4.0          | 2.6          | 2.8          | 2.4               | 3.3                      | 3.9                      |
| Luxembourg      | 186.1        | 247.7        | 209.2        | 221.4        | 230.2             | 566.4                    | 593.7                    |
| Hungary         | 11.8         | 15.4         | 13.4         | 16.0         | 17.2              | 10.8                     | 11.4                     |
| Malta           | 11.8         | 11.3         | 27.9         | 18.9         | 20.5              | 65.8                     | 149.9                    |
| Germany         | 267.8        | 276.2        | 283.7        | 283.6        | 290.7             | 324.3                    | 306.2                    |
| Netherlands     | 216.8        | 221.3        | 208.2        | 220.5        | 223.5             | 448.6                    | 408.7                    |
| Poland          | 1.1          | 3.2          | 3.2          | 3.6          | 3.8               | 4.4                      | 4.5                      |
| Portugal        | 4.1          | 5.6          | 11.0         | 10.1         | 11.4              | 8.0                      | 10.1                     |
| Romania         | 0.3          | 1.1          | 1.3          | 0.9          | 1.0               | 0.8                      | 0.6                      |
| Slovakia        | 2.1          | 3.8          | 5.7          | 7.3          | 7.8               | 5.2                      | 4.6                      |
| <b>Slovenia</b> | <b>25.5</b>  | <b>57.5</b>  | <b>53.4</b>  | <b>48.2</b>  | <b>51.5</b>       | <b>63.7</b>              | <b>58.6</b>              |
| Spain           | 20.0         | 28.6         | 31.0         | 30.2         | 32.6              | 29.3                     | 27.5                     |
| Sweden          | 258.0        | 246.2        | 260.1        | 280.0        | 298.4             | 341.3                    | 340.0                    |
| U.K.            | 102.1        | 90.9         | 88.5         | 89.8         | 89.2              | 82.2                     | 78.3                     |

Source of data: Eurostat Portal Page – Science and Technology – Patent Statistics, 2011; EPO Annual Report 2009, 2010.

Note: <sup>1</sup> Data for 2008, 2009 relate to patent applications that are not necessarily the first on a global scale but were filed with the EPO in the current year (EPO Annual Report 2009, 2010); <sup>2</sup> Eurostat estimate; <sup>3</sup> provisional data; <sup>4</sup> an estimate by IMAD based on calculations for Member States.

Figure: Number of trade mark and registered Community design applications per million population



Source of data: OHIM Web Page, 2011; calculations by IMAD.

Note: Data for 2004 relate to EU-25.

## Internet use and access

**Use of the Internet increased significantly again in 2010. The share of regular Internet users thus caught up with the EU average, but Slovenia still lags behind the EU in the use of more advanced e-services.** Following a slowdown of Internet use in 2007 and 2008, Slovenia has seen fast changes in this area over the past two years. In the first quarter of 2010, 68% of the population aged 16–74 were Internet users, while the share of regular users using the Internet at least once a week reached 65%, a share equal to that in EU. It is encouraging that the share of everyday Internet users grew considerably in both 2009 and 2010. According to this indicator, Slovenia also reached the EU average in 2010. The positive trends from 2009 also continued with regard to the age and education structure of Internet users, but, despite the progress (more than 10 p.p.), Slovenia still has a relatively wide gap to the EU in the share of elderly Internet users (55–74 years), which is narrowing only slowly. However, significant shifts in the past two years have narrowed the gap behind the EU in Internet users with a low level of education and, in the last year, also in the group of Internet users with secondary education. In other population groups (young people, the middle-aged population, people with a higher education), Slovenia has a larger share of Internet users than the EU average. In addition to the prevalence of Internet use, the purpose of Internet use is also important, with the use of advanced and more sophisticated e-services becoming increasingly important in terms of development. In most e-services covered in statistical surveys, the share of Internet users is otherwise identical to or higher in Slovenia than the EU average, but the use of advanced services shows a considerable gap in the prevalence of e-banking and online shopping and the proportion of people interacting with public administration exclusively in electronic form. This is somewhat surprising, given that the figures on e-skills in Slovenia show a relatively favourable picture. Moreover, Slovenian users do not differ significantly from EU users in their attitude to e-safety.

**Over the past three years, access to Internet at home, an important factor in regular Internet use and the use of more advanced e-services, started to fall slightly behind the EU average.** The share of households with Internet access at home reached 68% in the first quarter of 2010 and was slightly below the EU average for the third consecutive year, after exceeding it in the period before 2007. The major reasons for the increase in recent years is the expansion of broadband Internet access (62% of households in 2010), which has been almost identical to the EU average for several years now. Slovenia nevertheless lags behind the EU according to the share of population with broadband Internet access at home (22.7% in 2010), with a gap persisting at around 2 p.p. for several years. Given the relatively high share of households with broadband Internet access in

Slovenia, this gap relative to the EU is probably due to Slovenia having a relatively higher share (compared to EU) of households with dependent children, which have Internet access, while it lags behind the EU in the share of childless households with Internet access. The figures show that the frequency of Internet access at work and in educational institutions in Slovenia is slightly higher than in the EU, which can partly explain the relatively lower share of childless households with Internet access. The availability of regular high-speed Internet access is of key importance for the use of advanced and sophisticated e-services, and Slovenia still faces relatively substantial barriers in this area compared with the EU. The main reasons for not having broadband Internet access stated more frequently by Slovenian households than by those across the EU are: (i) lack of broadband Internet access in the respective territory, (ii) the fact that some family members have Internet access elsewhere (e.g. at work etc.), (iii) the outstanding proportion of individuals that find this type of connection too expensive in Slovenia. This calls for further improvement on the supply side, both in terms of availability and cost of services, for which a sufficient level of competition among telecommunication service providers and their efficient supervision are of key importance.

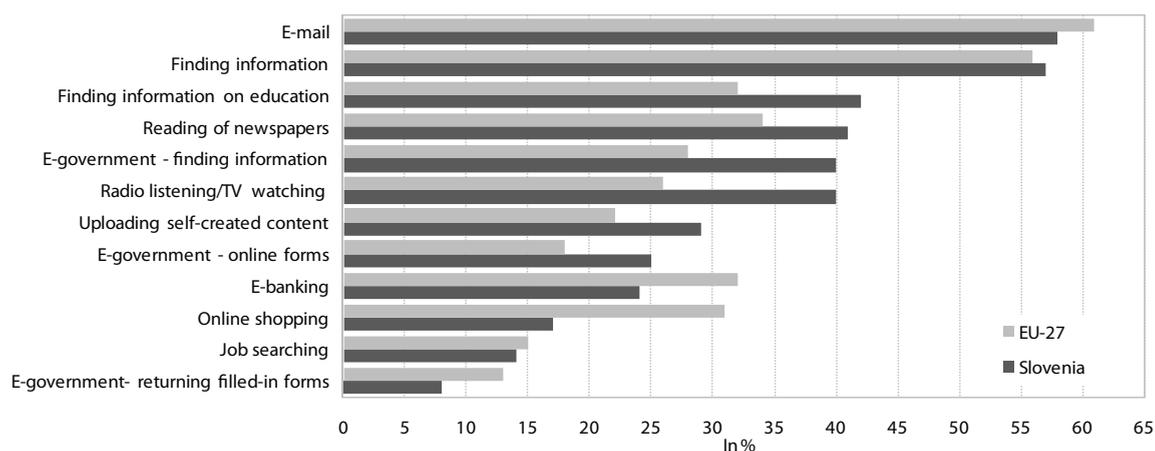
Table: Internet use and access, Slovenia, 2004–2010<sup>1</sup>, in %

|  | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | EU 2010 |
|--|------|------|------|------|------|------|---------|
| Households with Internet access at home, in %          | 48   | 54   | 58   | 59   | 64   | 68   | 70      |
| Household with broadband Internet access at home, in % | 19   | 34   | 44   | 50   | 56   | 62   | 61      |
| Regular Internet users <sup>2</sup> , total:           |      |      |      |      |      |      |         |
| 16–74 years  | 40   | 47   | 49   | 52   | 58   | 65   | 65      |
| By age:  |      |      |      |      |      |      |         |
| 16–24 years  |      | 81   | 83   | 91   | 95   | 97   | 90      |
| 25–54 years  |      | 54   | 57   | 60   | 68   | 76   | 73      |
| 55–74 years  |      | 12   | 12   | 16   | 20   | 26   | 37      |
| By education level:                                    |      |      |      |      |      |      |         |
| Low (or unskilled)                                     |      | 19   | 23   | 28   | 36   | 41   | 44      |
| Secondary  | 40   | 47   | 49   | 52   | 56   | 65   | 69      |
| Higher   |      | 87   | 88   | 86   | 92   | 93   | 90      |

Source of data: SORS.

Notes: <sup>1</sup> Data for all the years refer to the first quarter of the year. <sup>2</sup> Those using the Internet at least once a week.

Figure: Share of Internet users<sup>1</sup> by end-use purpose, in % of population aged 16–74



Source of data: Eurostat Portal Page – Information Society, 2011.

Note: <sup>1</sup> The share of users who used the Internet in the past three months.



## **THE THIRD PRIORITY:**

### **An efficient and less costly state**

- General government expenditure
- Economic structure of taxes and contributions
- Subsidies
- State aid

## General government expenditure

**Despite the changed structure, general government expenditure relative to GDP in 2010 stood at the 2009 level (49% of GDP).** The share of social benefits and benefits in cash and kind rose (by 0.4 p.p. of GDP) mainly as a result of problems in the labour market and higher expenditure on unemployment benefits and on other social benefits and benefits in cash and kind. Although their adjustment was restricted by an emergency act, the number of beneficiaries of various forms of benefits rose fast. The adoption of anti-crisis measures led to a higher share of subsidies (by 0.3 p.p. of GDP), while general government borrowing increased the share of expenditure on interest payments (0.3 p.p. of GDP). The share of compensation of employees remained at the previous year's level despite a 1.5% rise in the number of employees in the public sector and a restrictive wage policy. A similar share was recorded in intermediate consumption following the adoption of rationalisation measures. A considerable decrease was achieved in gross capital formation and capital transfers (by 0.6 p.p. of GDP).

**In the period 2005–2010, general government expenditure grew by 3.8 p.p. of GDP; the increase was most pronounced in expenditure on social benefits and benefits in cash and kind, gross capital formation, and compensation of employees.** Between 2005 and 2007, the share of compensation of employees (2005: 11.5%; 2010: 12.4% of GDP) gradually reduced due to the restrictive wage policy prior to EU accession, only to rise again in 2008 and 2009, following the wage reform and growing employment in the public sector. It remained at the 2009 level in 2010 thanks to a restrictive wage policy. The share of social benefits and benefits in cash and kind (2005: 17.7%; 2010: 19.1% of GDP) began to decelerate after 2005, most markedly in 2007, when a new mechanism to adjust transfers only with inflation was put in place. In 2008, the share of social transfers picked up once more 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. Increases in 2009 and 2010 were mainly due to the rapidly growing number of the unemployed and other beneficiaries to social benefits during the economic crisis, despite a restrictive approach toward the increase of such expenditure. In this period, considerable growth was also recorded in expenditure on gross capital formation (2005: 3.2%; 2010: 4.3% of GDP). Following a period of stability between 2005 and 2008, expenditure on subsidies in 2009 and 2010 rose under the effect of anti-crisis measures, and was up by 0.5 p.p. of GDP in the period of SDS implementation (2005–2010). The share of intermediate consumption decreased in 2005–2007, but afterwards rose gradually. Relative expenditure on capital transfers (2005: 1.0%; 2010: 0.9% of GDP) was

higher in 2008 and 2009 but decreased in 2010. Relative expenditure on interest payments (2005: 1.6%; 2010: 1.6% of GDP) narrowed until 2008 but has since been rising again due to increased borrowing.

**Relative general government expenditure in Slovenia in 2009 was at a lower level than in the EU on average, yet rose faster than across the EU amid a larger decline in GDP.** In 2009 (the latest available data), total general government expenditure<sup>1</sup> relative to GDP in Slovenia was 49.0% (EU average: 50.8%). Compared with 2008, the share went up by 4.9 p.p. of GDP in Slovenia and by 3.9 p.p. of GDP on average in the EU. An increase was recorded in all Member States (except Malta), accounting for over 3% of GDP and in some countries even more than 6% of GDP (Denmark, Finland, Ireland, Lithuania and Slovakia). This rise was a result of higher expenditure intended to solve the economic crisis and of lower GDP. In the structure of general government expenditure, Slovenia allocated over 3.2 p.p. more to capital transfers and gross capital formation than the EU average, 2.2 p.p. more on subsidies, and 3.4 p.p. more on compensation of employees. It spent less than the EU average on social benefits in cash and kind (4.5 p.p.), and interest payments (2.2 p.p.), and almost the same share on intermediate consumption.

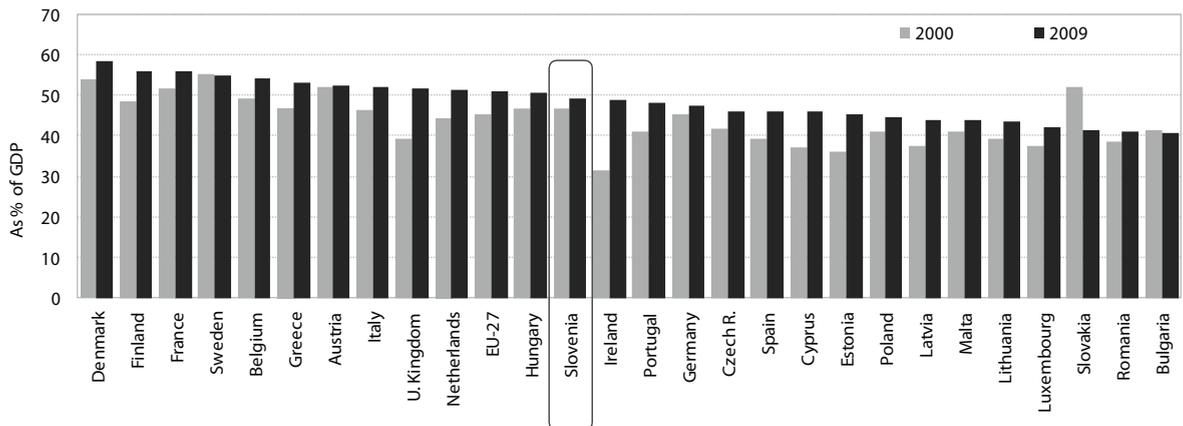
<sup>1</sup> Slovenia's general government expenditure according to ESA-95 includes four general government budgets (state and local budgets, and the pension and health funds), public funds (including the Pension Fund (KAD) and the Slovenian Restitution Fund (SOD)), public institutes and public agencies.

Table: Breakdown of general government expenditure as % of GDP in 2000–2010

|   | 2000 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|------|------|------|------|------|------|------|
| Total general government expenditure          | 46.7 | 45.2 | 44.5 | 42.5 | 44.2 | 49.0 | 49.0 |
| Intermediate consumption                      | 6.6  | 6.2  | 6.2  | 5.6  | 6.0  | 6.5  | 6.5  |
| Compensation of employees                     | 11.3 | 11.5 | 11.2 | 10.5 | 11.0 | 12.4 | 12.4 |
| Other taxes on production, expenditure        | 0.5  | 0.5  | 0.4  | 0.3  | 0.2  | 0.0  | 0.0  |
| Social benefits and benefits in cash and kind | 18.0 | 17.7 | 17.3 | 16.3 | 16.6 | 18.7 | 19.1 |
| Other current transfers, expenditure          | 1.3  | 2.1  | 2.0  | 1.6  | 1.9  | 2.2  | 2.1  |
| Subsidies, expenditure                        | 1.9  | 1.6  | 1.6  | 1.6  | 1.6  | 1.8  | 2.1  |
| Property income, payable                      | 2.4  | 1.6  | 1.4  | 1.3  | 1.1  | 1.3  | 1.6  |
| Capital transfers                             | 1.6  | 1.0  | 0.8  | 0.9  | 1.2  | 1.2  | 0.9  |
| Gross capital formation                       | 3.2  | 3.2  | 3.7  | 4.3  | 4.5  | 4.6  | 4.3  |
| Total general government revenue              | 43.0 | 43.8 | 43.2 | 42.4 | 42.3 | 43.1 | 43.5 |

Source: SORS, Main Aggregates of the General Government Sector, Slovenia 2007–2010, 31 March 2011, Non-financial sector: 5 13 general government, calculations by IMAD (2000 and 2005).

Figure: General government expenditure as % of GDP in EU Member States, in 2000 and 2009



Source: Eurostat Portal Page — Government Finance Statistics, 2011.

## Economic structure of taxes and contributions

**The overall burden of taxes and contributions measured as a share of GDP, which in Slovenia is below the EU average, increased in 2009 following a considerable fall in GDP.** The tax burden in Slovenia in 2009 was 38% of GDP, which was, following a significant fall in GDP, 0.4 p.p. of GDP higher than in 2008 and 0.3 p.p. higher than in 2000. Slovenia ranks in the middle of EU countries (EU average: 39.4% of GDP).<sup>1</sup> The overall tax burden in Slovenia increased in 2000–2005, fell in 2006–2008, but rose again in 2009 given the large fall in GDP. This increase was mainly due to a higher share of social-security contributions (by 0.9 p.p. of GDP). The share of taxes decreased by 0.5 p.p. of GDP, mostly in taxes on income and property, more precisely, corporate income tax. Taxes on production and imports stood at the 2008 level (14.4% of GDP), despite a higher share of excise duties and a lower share of other taxes on production as a result of the abolition of payroll tax.

**In terms of tax structure, in 2000–2008 Slovenia and the EU on average increased the otherwise low tax burden on capital while the burden on labour and consumption was lower.** Thanks to the tax reform, the overall burden of taxes and contributions in Slovenia was down by 0.6 p.p. of GDP in 2007 and by a further 0.4 p.p. of GDP in 2008. Tax reform, in particular of personal income tax and corporate income tax, 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.

**A structural analysis of tax systems<sup>2</sup> reveals that, compared with the EU average, in 2008 Slovenia had a higher tax burden on labour and a lower tax burden on capital.** The share of taxes on consumption in total taxes and contributions in Slovenia was 35.7% and slightly exceeded the EU average (33.1%), whereas the share of taxes on labour was considerably above the EU average (Slovenia: 51.7%; EU: 46.7%). 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 fell to 12.7% in 2008 (EU: 20.4%).

<sup>1</sup> Given the differences in tax systems, the difference between the country with the highest tax burden (Denmark: 48.9% of GDP) and the country with the lowest tax burden (Latvia: 26.7% of GDP) is very large (22.2 p.p. of GDP).

<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.

**Calculations and comparisons of implicit tax rates<sup>3</sup> also confirm that the tax burden on labour was above average in Slovenia in 2008.** The implicit tax rate on consumption for Slovenia stood at 23.9%, whereas the EU average was 21.5%. Seven Member States reported higher rates. After 2003, this rate dropped in Slovenia, while the average for European countries rose. The calculated implicit tax rate on labour in Slovenia totalled 35.7% and was higher than the EU average (34.2%) on account of relatively high 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 21.6% and is below the EU-25<sup>4</sup> average (26.5%). The implicit tax rate showed an upward trend both in Slovenia and in EU countries in 2007, but declined in 2008.

<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.

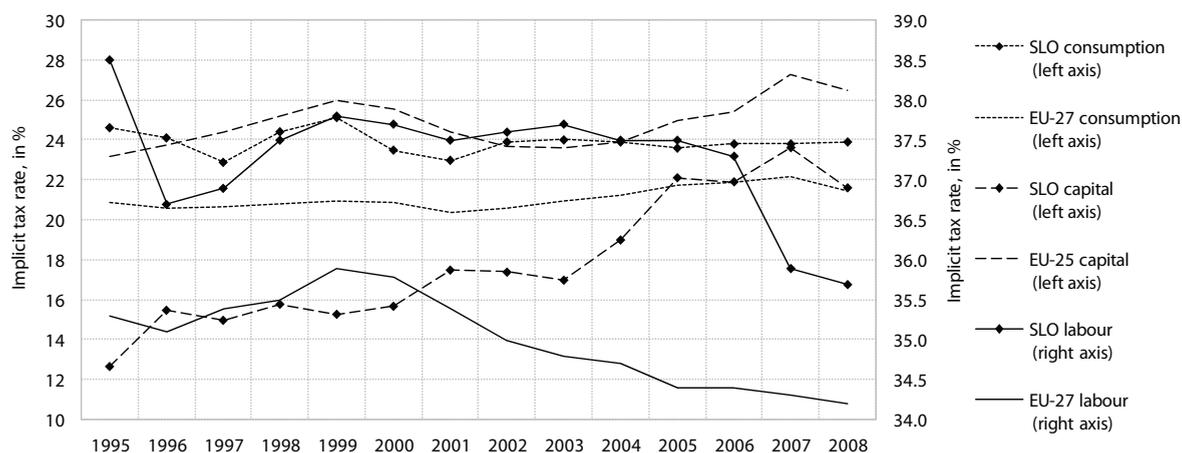
<sup>4</sup> No data for EU-27.

Table: Economic structure of taxes and social security contributions, as % of GDP

|                 | Total       |             | Taxes on consumption |             | Taxes on labour |             | Taxes on capital |            |
|-----------------|-------------|-------------|----------------------|-------------|-----------------|-------------|------------------|------------|
|                 | 2000        | 2008        | 2000                 | 2008        | 2000            | 2008        | 2000             | 2008       |
| <b>EU-27</b>    | <b>40.6</b> | <b>39.3</b> | <b>11.4</b>          | <b>10.8</b> | <b>20.3</b>     | <b>19.7</b> | <b>8.9</b>       | <b>9.0</b> |
| Austria         | 43.2        | 42.8        | 12.4                 | 11.7        | 24.0            | 23.9        | 6.9              | 7.3        |
| Belgium         | 45.0        | 44.3        | 11.3                 | 10.7        | 24.2            | 23.6        | 9.5              | 10.0       |
| Bulgaria        | 32.5        | 33.3        | 14.4                 | 18.0        | 14.0            | 10.2        | 4.6              | 5.4        |
| Cyprus          | 30.0        | 39.2        | 10.6                 | 15.9        | 9.4             | 11.1        | 9.9              | 12.2       |
| Czech Rep.      | 33.8        | 36.1        | 10.6                 | 10.8        | 17.1            | 18.8        | 6.2              | 6.6        |
| Denmark         | 49.4        | 48.2        | 15.7                 | 15.5        | 26.6            | 25.7        | 7.2              | 7.1        |
| Estonia         | 31.0        | 32.2        | 11.7                 | 11.8        | 17.5            | 17.7        | 1.8              | 2.6        |
| Finland         | 47.2        | 43.1        | 13.6                 | 12.9        | 23.7            | 23.0        | 9.9              | 7.3        |
| France          | 44.1        | 42.8        | 11.6                 | 10.7        | 23.0            | 22.6        | 9.9              | 9.8        |
| Greece          | 34.6        | 32.6        | 12.4                 | 11.3        | 12.4            | 14.0        | 9.8              | 7.3        |
| Ireland         | 31.6        | 29.3        | 12.1                 | 10.7        | 11.5            | 11.2        | 8.0              | 7.4        |
| Italy           | 41.8        | 42.8        | 10.9                 | 9.8         | 19.9            | 21.6        | 10.9             | 11.4       |
| Latvia          | 29.5        | 28.9        | 11.3                 | 10.5        | 15.3            | 14.4        | 2.9              | 4.0        |
| Lithuania       | 30.1        | 30.3        | 11.8                 | 11.4        | 16.3            | 14.9        | 2.3              | 4.0        |
| Luxembourg      | 39.1        | 35.6        | 10.7                 | 10.0        | 15.3            | 15.4        | 13.1             | 10.2       |
| Hungary         | 39.0        | 40.4        | 15.5                 | 14.5        | 19.0            | 20.8        | 4.5              | 5.1        |
| Malta           | 28.2        | 34.5        | 12.1                 | 13.9        | 9.7             | 9.6         | 6.3              | 11.0       |
| Germany         | 41.9        | 39.3        | 10.5                 | 10.6        | 24.5            | 21.8        | 6.8              | 6.9        |
| Netherlands     | 39.9        | 39.1        | 11.7                 | 12.0        | 20.4            | 20.3        | 7.8              | 6.8        |
| Poland          | 32.6        | 34.3        | 11.3                 | 12.9        | 14.2            | 13.1        | 7.2              | 8.5        |
| Portugal        | 34.3        | 36.7        | 12.2                 | 12.7        | 14.1            | 15.9        | 8.0              | 8.1        |
| Romania         | 30.2        | 28.0        | 11.5                 | 11.2        | 13.2            | 11.6        | 5.5              | 5.2        |
| Slovakia        | 34.1        | 29.1        | 12.2                 | 10.3        | 15.0            | 12.3        | 6.9              | 6.5        |
| <b>Slovenia</b> | <b>37.5</b> | <b>37.3</b> | <b>13.9</b>          | <b>13.3</b> | <b>20.7</b>     | <b>19.3</b> | <b>3.0</b>       | <b>4.8</b> |
| Spain           | 33.9        | 33.1        | 9.9                  | 8.4         | 15.9            | 16.7        | 8.7              | 8.6        |
| Sweden          | 51.8        | 47.1        | 12.4                 | 12.9        | 31.0            | 28.5        | 8.3              | 5.7        |
| U.K.            | 36.7        | 37.3        | 11.8                 | 10.5        | 14.0            | 14.1        | 10.9             | 12.6       |

Source: Taxation trends in the European Union (Eurostat, European Commission), 2010.

Figure: Implicit tax rate on consumption, labour and capital (as % of the base), 1995–2008



Source: Taxation trends in the European Union (Eurostat, European Commission), 2010.

## Subsidies

**In 2009, general government subsidies increased by 12.4% in nominal terms mainly due to the stimulus measures taken to offset the economic crisis, and in relative terms by 0.3 p.p. of GDP due to the decline in GDP.** After remaining unchanged for several years, the share of subsidies in GDP (1.6% of GDP) increased to 1.9% of GDP in 2009 as a result of an increase in subsidies and a concurrent decline in GDP. According to the most recent internationally comparable data for 2008, subsidies were much higher in Slovenia than the EU average (1.1% of GDP), and were fairly stable in the 2005–2008 period both in Slovenia and in the EU. In 2008, only six EU countries had a higher level of subsidies than Slovenia. Interestingly, the highest subsidies were recorded for three developed countries (Austria, 3.5%, Belgium and Denmark, 2.1% of GDP) and three less developed countries (Malta, 2.1%, and the Czech Republic and Slovakia, 1.7%).

**The classification of subsidies by function shows that Slovenia allocates the bulk of subsidies for economic affairs, with subsidies for agriculture and transport**

**accounting for the greatest shares.** Subsidies for economic affairs are highest in Slovenia (Table 1). Their structural share had been diminishing in the period until 2008 on account of faster growth in subsidies for other functions (2006: 79%; 2008: 74%), but it increased once again in 2009 (to 78%). Expenditure on subsidies had accounted for 24.5% (2008) to 31.3% (2006) of total general government expenditure on economic affairs in 2005–2008, and its share increased to 29.4% in 2009. The data on subsidies for economic affairs at the second level indicate that until 2008, the bulk of subsidies were allocated for agriculture and transport, while in 2009, subsidies for employment expanded significantly to cushion the impact of the economic crisis. After representing around 30% of all subsidies for economic affairs in 2005–2008, subsidies for agriculture plummeted to 20.1% in 2009. Subsidies for transport had accounted for an even higher share (around 50%), but they also shrank in 2009 in both absolute and relative terms (to 44%). In response to the economic crisis, the relatively low subsidies for general economic, commercial and labour affairs surged in 2009 (2008: 11.1%; 2009: 32.2%) due to measures targeted at preserving jobs. In this context, it should be noted that subsidies for economic affairs do not include subsidies for R&D.

Table 1: Subsidies by functional classification in Slovenia in the period 2000–2008, in EUR m

|  | 2000  | 2005  | 2006  | 2007  | 2008  | 2009  |
|--|-------|-------|-------|-------|-------|-------|
| TOTAL  | 349.9 | 452.1 | 503.1 | 549.7 | 587.2 | 660.3 |
| 1. General public services                         | 16.6  | 7.1   | 7.9   | 14    | 11    | 9.2   |
| 2. Defence   | 0     | 1.6   | 4.1   | 8.0   | 9.8   | 4.7   |
| 3. Public order and safety                         | 0     | 1.3   | 0.3   | 0.9   | 1.1   | 1.7   |
| 4. Economic affairs                                | 287.4 | 327.8 | 396.8 | 405.0 | 432.9 | 514.6 |
| 4.1 General economic affairs                       | 57.3  | 63.1  | 62.2  | 104.1 | 49.1  | 165.7 |
| 4.2 Agriculture, forestry, fisheries               | 91.3  | 101.2 | 120.0 | 112.3 | 143.6 | 103.6 |
| 4.3 Energy   | 0.2   | 0.3   | 1.0   | 0.9   | 1.3   | 4.9   |
| 4.4 Mining, manufacturing, construction            | 10.6  | 1.3   | 2.8   | 2.6   | 0.7   | 1.0   |
| 4.5 Transport                                      | 125.4 | 159.4 | 207.0 | 180.9 | 231.1 | 227.9 |
| 4.6 Communications                                 | 0.4   | 0     | 0.2   | 0     | 2.6   | 1.4   |
| 4.7 Other activities                               | 2.1   | 2.5   | 3.6   | 4.2   | 4.4   | 10.0  |
| 4.8 R&D in the economy                             | 0.1   | 0     | 0     | 0     | 0     | 0     |
| 4.9 Other economic affairs                         | 0     | 0     | 0     | 0     | 0     | 0     |
| 5. Environmental protection                        | 29.4  | 51.6  | 44.1  | 46.8  | 49.1  | 36.9  |
| 6. Housing and community amenities                 | 3.1   | 4.8   | 6.5   | 9.5   | 9.8   | 13.6  |
| 7. Health  | 0.1   | 0     | 0     | 2.8   | 0.2   | 0.2   |
| 8. Recreation, culture, activities of associations | 3.5   | 8.4   | 9.3   | 12.0  | 12.9  | 9.3   |
| 9. Education                                       | 1.1   | 2.8   | 5.0   | 19.4  | 26.1  | 30.6  |
| 10. Social protection                              | 8.7   | 46.6  | 29.2  | 31.3  | 34.3  | 39.5  |

Source: General government expenditure by function and type of expenditure (SORS).

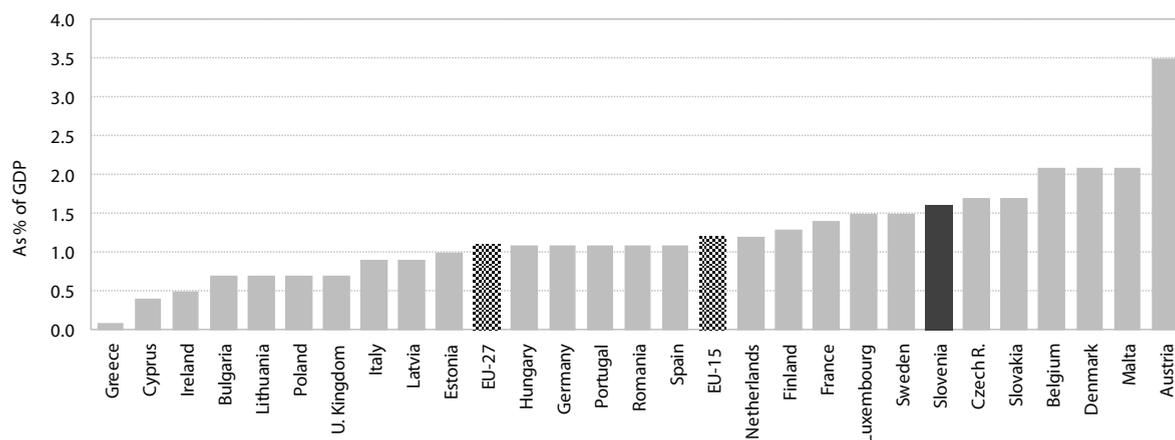
Table 2: Subsidies paid by general government in EU Member States, 1995–2008, as % of GDP

|                 | 1995       | 2000       | 2005       | 2006       | 2007       | 2008       |
|-----------------|------------|------------|------------|------------|------------|------------|
| <b>EU-27</b>    | <b>N/A</b> | <b>N/A</b> | <b>1.1</b> | <b>1.1</b> | <b>1.1</b> | <b>1.1</b> |
| <b>EU-15</b>    | <b>1.6</b> | <b>1.3</b> | <b>1.1</b> | <b>1.1</b> | <b>1.2</b> | <b>1.2</b> |
| Austria         | 2.8        | 3.2        | 3.4        | 3.4        | 3.3        | 3.5        |
| Belgium         | 1.2        | 1.2        | 1.6        | 1.7        | 1.9        | 2.1        |
| Bulgaria        | N/A        | 1.0        | 0.8        | 0.7        | 0.7        | 0.7        |
| Cyprus          | 0.9        | 1.4        | 0.7        | 0.5        | 0.4        | 0.4        |
| Czech Rep.      | 2.9        | 2.8        | 1.8        | 1.9        | 1.8        | 1.7        |
| Denmark         | 2.7        | 2.4        | 2.3        | 2.2        | 2.2        | 2.1        |
| Estonia         | 0.8        | 1.1        | 0.7        | 0.9        | 0.9        | 1.0        |
| Finland         | 2.7        | 1.5        | 1.3        | 1.4        | 1.3        | 1.3        |
| France          | 1.6        | 1.5        | 1.4        | 1.4        | 1.4        | 1.4        |
| Greece          | 0.4        | 0.1        | 0.1        | 0.1        | 0.1        | 0.1        |
| Ireland         | 1.0        | 0.7        | 0.5        | 0.4        | 0.5        | 0.5        |
| Italy           | 1.4        | 1.2        | 0.9        | 0.9        | 1.0        | 0.9        |
| Latvia          | N/A        | 1.0        | 0.5        | 0.6        | 0.6        | 0.9        |
| Lithuania       | N/A        | 0.8        | 0.7        | 0.7        | 0.9        | 0.7        |
| Luxembourg      | 1.6        | 1.5        | 1.6        | 1.5        | 1.5        | 1.5        |
| Hungary         | 2.2        | 1.6        | 1.4        | 1.4        | 1.4        | 1.1        |
| Malta           | 1.7        | 1.4        | 2.1        | 2.1        | 2.0        | 2.1        |
| Germany         | 2.1        | 1.7        | 1.2        | 1.2        | 1.1        | 1.1        |
| Netherlands     | 1.0        | 1.5        | 1.2        | 1.1        | 1.3        | 1.2        |
| Poland          | N/A        | N/A        | 0.6        | 0.6        | 0.6        | 0.7        |
| Portugal        | 1.2        | 1.2        | 1.5        | 1.4        | 1.1        | 1.1        |
| Romania         | 3.4        | 1.8        | 1.5        | 1.8        | 1.4        | 1.1        |
| Slovakia        | 4.7        | 2.5        | 1.3        | 1.3        | 1.2        | 1.7        |
| <b>Slovenia</b> | <b>N/A</b> | <b>1.9</b> | <b>1.6</b> | <b>1.6</b> | <b>1.6</b> | <b>1.6</b> |
| Spain           | 1.0        | 1.1        | 1.0        | 1.0        | 1.1        | 1.1        |
| Sweden          | 3.6        | 1.5        | 1.5        | 1.5        | 1.4        | 1.5        |
| U.K.            | 0.7        | 0.4        | 0.6        | 0.7        | 0.7        | 0.7        |

Source: Eurostat Portal Page – Government Finance Statistics, obtained on 6 January 2011.

Note: N/A – not available. As the data for Estonia released on 6 January 2011 are incorrect, we used data from the previous release (22 December 2010).

Figure: Subsidies, 2008, in % of GDP



Source: Eurostat Portal Page – Government Finance Statistics (Eurostat), 2011.

## State aid

**In 2009, state aid as a share of GDP increased significantly as a result of measures taken to mitigate the impact of the economic crisis.** Compared with 2008, state aid increased by as much as 86.6% (0.86 p.p. of GDP) or EUR 280 m in 2009; compared with 2007, when it hit the lowest level after several years of decline, state aid was almost one p. p. of GDP or EUR 337 m higher. State aid as a share of GDP in 2009 was also much higher than in 2005. 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), is no longer considered state aid.

**Slovenia attempted to mitigate the economic crisis by horizontal aid, which returned to the 2006 level in 2008 after a sizeable decline in 2007 and increased strongly in 2009.** The increase in horizontal aid derives from Slovenia's attempts to address the economic crisis with a very large amount of state aid (0.6% of GDP) allocated under a special horizontal category referred to as »the aid to remedy a serious disturbance in the economy«, with a three-times increase in funds dedicated to R&D (relative to 2008) and a six-times larger amount for employment aid. Regional aid also increased somewhat in absolute and relative terms (relative to GDP). Among the other categories of horizontal aid, state aid for small and medium-sized enterprises and training recorded a decline in both the amount and structure, given that aid measures implemented under the »de minimis« rule for these functions are not considered state aid (Twelfth Survey on State Aid in Slovenia, 2011). Also without the aid to remedy a serious disturbance in the economy, the increase of horizontal aid as a share of total state aid (2008: 47.6%; 2009: 71.4%) meets the development objectives defined in Slovenia's Development Strategy and the Europe 2020 strategy and contributes to the general efficiency of state aid with regard to its impact on the development of individual recipients and, through spillover effects, on the society as a whole. The amount of state aid dedicated for special sectors and agriculture rose in absolute terms, but the share of this aid decreased (2008: 52.4; 2009: 28.5%), which was also due to the absolute and relative declines in state aid for agriculture and fisheries. State aid for transport increased, as it was for the first time also allocated for maritime traffic. A relatively large increase was also recorded in the otherwise small state aid for rescuing and restructuring enterprises in difficulties.

**State aid (excluding state aid for rail transport)<sup>1</sup> increased significantly in Slovenia in 2009, but was still below the EU average.** State aid (excluding state

aid for rail transport) in Slovenia reached 1.5% of GDP<sup>2</sup> and lagged strongly behind the EU average (3.6% of GDP). This significant increase of state aid in the EU as a whole reflects large rises in response to the crisis in nine EU Member States (Belgium, Denmark, Germany, Ireland, Austria, Greece, Latvia, Sweden and the United Kingdom). Aid to remedy the financial crisis accounted for 3% of GDP in the EU and was intended for the financial sector (Report from the Commission, State Aid Scoreboard, 2010). The European Commission granted aid for the Slovenian financial sector in October 2008, but no aid measures were implemented before 2009 when only 0.01% of GDP was spent on state aid.

Table 1: Indicators of state aid in Slovenia, 2000–2009

|  | 2000   | 2005   | 2006   | 2007   | 2008   | 2009   |
|--|--------|--------|--------|--------|--------|--------|
| State aid in EUR m, current prices               | 407,2  | 267,15 | 276,27 | 267,87 | 324,10 | 604,76 |
| Share of state aid GDP (%)                       | 2,07   | 0,95   | 0,91   | 0,77   | 0,87   | 1,73   |
| Share of state aid in government expenditure (%) | 4,68   | 2,18   | 2,09   | 1,92   | 2,10   | 3,69   |
| State aid per employee (in EUR)                  | 530,11 | 328,37 | 331,64 | 309,9  | 368,2  | 716    |
| State aid per resident (in EUR)                  | N/A    | 133,35 | 137,42 | 132,23 | 159,47 | 295,44 |

Source: for 2000: Third Survey on State Aid in Slovenia, 2001; for 2005: Tenth Survey on State Aid in Slovenia, 2008; for 2007–2009, Twelfth Survey on State Aid in Slovenia, 2011.

Notes: for tolar/EUR conversion for 2000 and 2005, the average exchange rate of the Bank of Slovenia was used (1 euro = 205.0316 tolar); N/A – not available.

<sup>1</sup> The European Commission only publishes data on state aid in Member States excluding: (1) railway transport and (2) agriculture, fisheries and transport.

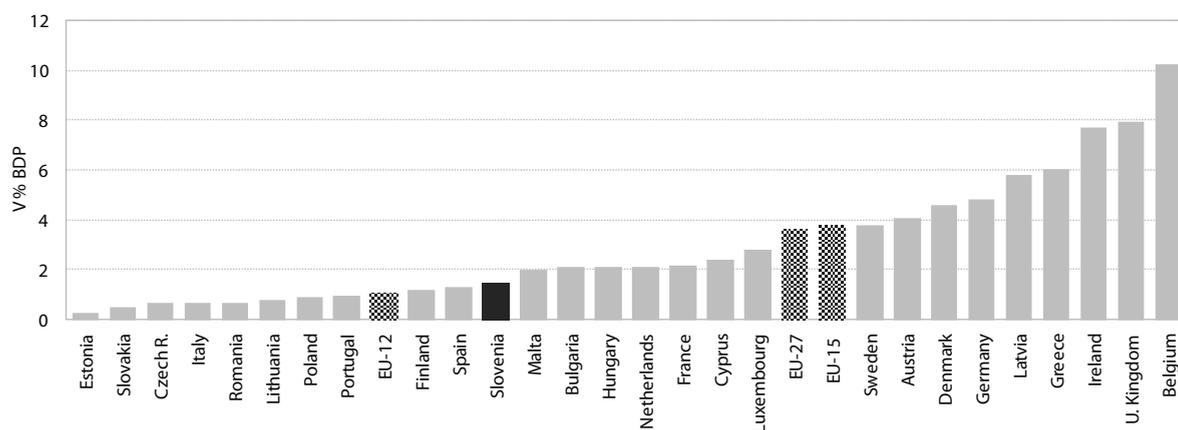
<sup>2</sup> The estimate based on the national report indicates a somewhat higher level of state aid (1.62% of GDP) (Twelfth Survey on State Aid in Slovenia, 2011).

Table 2: State aid excluding railway transport, as a % of GDP

|                 | 1995       | 2000       | 2005       | 2006       | 2007       | 2008       | 2009       |
|-----------------|------------|------------|------------|------------|------------|------------|------------|
| <b>EU-27</b>    | <b>1.0</b> | <b>0.7</b> | <b>0.6</b> | <b>0.8</b> | <b>0.5</b> | <b>2.5</b> | <b>3.6</b> |
| <b>EU-15</b>    | <b>1.0</b> | <b>0.6</b> | <b>0.5</b> | <b>0.8</b> | <b>0.5</b> | <b>2.6</b> | <b>3.8</b> |
| <b>EU-12</b>    | <b>N/A</b> | <b>1.2</b> | <b>1.1</b> | <b>0.9</b> | <b>0.9</b> | <b>1.1</b> | <b>1.1</b> |
| Austria         | 1.1        | 0.7        | 0.5        | 0.8        | 0.5        | 0.9        | 4.1        |
| Belgium         | 0.6        | 0.4        | 0.4        | 0.4        | 0.4        | 6.6        | 10.2       |
| Bulgaria        | N/A        | N/A        | 0.1        | 0.1        | 1.4        | 1.2        | 2.1        |
| Cyprus          | N/A        | 2.6        | 1.4        | 0.6        | 0.7        | 0.6        | 2.4        |
| Czech Rep.      | N/A        | 2.4        | 0.6        | 0.8        | 0.8        | 1.0        | 0.7        |
| Denmark         | 0.6        | 1.0        | 0.8        | 0.7        | 0.8        | 24.9       | 4.6        |
| Estonia         | N/A        | 0.1        | 0.3        | 0.3        | 0.2        | 0.3        | 0.3        |
| Finland         | 2.8        | 1.4        | 1.3        | 1.3        | 1.2        | 1.1        | 1.2        |
| France          | 0.8        | 0.6        | 0.6        | 1.7        | 0.5        | 2.0        | 2.2        |
| Greece          | 1.4        | 0.6        | 0.4        | 0.4        | 0.4        | 0.6        | 6.0        |
| Ireland         | 0.7        | 1.1        | 0.5        | 0.5        | 0.7        | 1.2        | 7.7        |
| Italy           | 1.2        | 0.5        | 0.4        | 0.4        | 0.4        | 0.4        | 0.7        |
| Latvia          | N/A        | 0.6        | 1.1        | 1.3        | 1.0        | 5.0        | 5.8        |
| Lithuania       | N/A        | 0.3        | 0.5        | 0.5        | 0.6        | 0.8        | 0.8        |
| Luxembourg      | 0.5        | 0.3        | 0.3        | 0.2        | 0.2        | 7.3        | 2.8        |
| Hungary         | N/A        | 1.1        | 3.2        | 2.2        | 1.9        | 2.3        | 2.1        |
| Malta           | N/A        | 3.4        | 3.6        | 2.8        | 2.4        | 2.0        | 2.0        |
| Germany         | 1.4        | 0.8        | 0.8        | 0.8        | 0.6        | 2.7        | 4.8        |
| Netherlands     | 0.4        | 0.5        | 0.4        | 0.4        | 0.4        | 2.7        | 2.1        |
| Poland          | N/A        | 1.0        | 0.8        | 0.8        | 0.6        | 0.9        | 0.9        |
| Portugal        | 0.9        | 0.8        | 0.9        | 0.9        | 1.3        | 1.2        | 1.0        |
| Romania         | N/A        | N/A        | 0.6        | 0.7        | 1.2        | 0.6        | 0.7        |
| Slovakia        | N/A        | 0.4        | 0.6        | 0.5        | 0.4        | 1.1        | 0.5        |
| <b>Slovenia</b> | <b>N/A</b> | <b>1.0</b> | <b>0.7</b> | <b>0.7</b> | <b>0.6</b> | <b>0.7</b> | <b>1.5</b> |
| Spain           | 1.0        | 0.9        | 0.5        | 0.5        | 0.5        | 0.6        | 1.3        |
| Sweden          | 0.4        | 0.4        | 1.0        | 1.0        | 0.9        | 1.0        | 3.8        |
| U.K.            | 0.4        | 0.2        | 0.2        | 0.2        | 0.3        | 4.0        | 7.9        |

Source: State Aid Scoreboard, Autumn 2010, (European Commission), 2010; for 2005 and 2007, data for Slovenia: Eurostat.  
 Note: N/A – not available.

Figure: State aid excluding railway transport, 2009, as % of GDP



Source: State Aid Scoreboard, Autumn 2010, (European Commission), 2010.



## **THE FOURTH PRIORITY:**

### **A modern welfare state**

- Employment rate
- Unemployment rate
- Long-term unemployment rate
- Temporary employment
- Part-time employment
- Social-protection expenditure
- Expenditure on health
- Expenditure on long-term care
- Human development index
- Minimum wage
- Risk of poverty and material deprivation of the population
- Healthcare resources
- Life satisfaction

## Employment rate

**The employment rate<sup>1</sup> declined in 2010 for the second year in a row but remains above the EU average.** It was at 66.5% in the second quarter of 2010, 1.1% p.p. lower than in the second quarter of 2009. Until 2003, the employment rate had hovered around 63%, slightly above the EU average. It was increasing in 2004–2008, but has dropped by around 2 p.p. since. The female employment rate has always been higher than the EU average (63.7%<sup>2</sup> in the second quarter of 2010, having declined by just over 1 p.p. since 2008), while the male employment rate has only caught up with the EU average in the last three years (69.1% in the second quarter of 2010, having declined by nearly 4 p.p. since 2008). Particularly the employment rates of young people aged 15–24 and people aged 25–54 declined in 2009 and 2010, while the employment rate of those aged 55–64 is steadily increasing. The employment rate of the young (39.2% in the second quarter of 2010) is hovering around the EU average largely due to high informal employment in this population group (work through student job agencies), but formal employment of the young population according to the Statistical Register of Employment (SRE) is low (see Figure). The employment rate in the age group of 55–64 (37.1% in the second quarter of 2010) remains below the EU average.

**Also in 2010, the employment rate mainly dropped due to the contraction of formal employment, which was most pronounced in manufacturing and construction.** The number of formally employed persons according to SRE<sup>3</sup> declined by an average of 23,132 or 2.7% in 2010 (0.3 p.p. more than in 2009), and by 25,680 from December 2009 to December 2010. The number of employees declined by 2.6% in 2010. The number of farmers also dropped (by 13.2%<sup>4</sup>), while the number of other self-employed persons rose by 2.2% (after declining in the first half of 2010, it started to increase again in the second, also due to a stronger implementation of active employment-policy measures in the area of self-employment). With informal employment increasing slightly, the number of employed persons according to the survey

recorded a somewhat smaller decline (1.5%<sup>5</sup>). In 2010, employment declined in most market activities, most notably in manufacturing (by 11,250 persons or 5.6%) and construction (by 8,230 persons or 9.5%). It rose only in information, professional, scientific and technical and other business services, and in education, health and social work. With the decline in employment in the construction sector, the number of foreigners working in Slovenia also continued to fall (by 5,000 or 7.8%, on average, relative to the previous year).

**In 2010, the fall in employment was also mitigated by emergency measures in the labour market, but fewer employers applied for subsidy schemes than a year earlier.** To cushion the consequences of the economic crisis on the labour market, the government adopted two emergency acts<sup>6</sup> in 2009, which included over 35,000 employees per month, on average, in subsidy schemes in 2009 (4.3% of the total number of persons in employment) and around 9,000 per month, on average, in 2010, and thus prevented even faster growth in unemployment. Approximately 16,000 unemployed persons, up 19% over the previous year, thus landed work under active employment-policy programmes in the areas of employment, self-employment and public works.

<sup>1</sup> In the age group of 15–64 years.

<sup>2</sup> In the third quarter of 2010, the employment rate was still 0.2 p.p. lower, i.e. 66.3%, even though it usually increases for seasonal reasons in that period of the year.

<sup>3</sup> The number of employees and self-employed persons according to the statistical register of employment plus monthly SORS estimates on the number of individual farmers.

<sup>4</sup> SORS estimates the number of self-employed farmers based on data from the Labour Force Survey for the previous quarter. The number of formally employed persons in agriculture thus oscillates every three months. It is thus estimated to have declined by 5,781 (17.9%) between December 2009 and January 2010, and increased again by 2,718 or 10.3% between March and April 2010. Such strong fluctuations can hardly be interpreted otherwise than as a statistical error.

<sup>5</sup> IMAD calculations based on quarterly data by SORS. The decline in employment according to the labour-force survey was smaller than the decline in formal employment, in part because the survey does not include the number of temporarily employed foreigners, which shrank by one fifth in 2010 according to IMAD estimates.

<sup>6</sup> The Partial Subsidising of Full-Time Work Act, OG RS 5/2009, and the Partial Reimbursement of Payment Compensation Act, OG RS 42/2009.

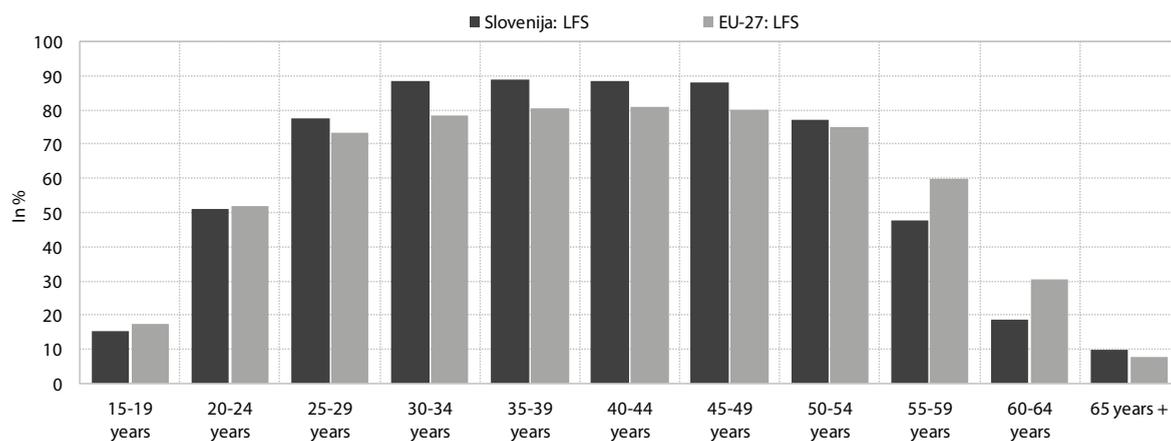
Table: Employment rates (15–64 age group) according to the labour-force survey, Slovenia and the EU, 1995–2009, in %

|                 | 1995       | 2000        | 2005        | 2006        | 2007        | 2008        | 2009        | 2010(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>64.6</b> | <b>64.3</b> |
| Austria         | 68.8       | 68.5        | 68.6        | 70.2        | 71.4        | 72.1        | 71.6        | 71.4        |
| Belgium         | 56.1       | 60.5        | 61.1        | 61.0        | 62.0        | 62.4        | 61.6        | 61.5        |
| Bulgaria        | N/A        | 50.4        | 55.8        | 58.6        | 61.7        | 64.0        | 62.6        | 60.2        |
| Cyprus          | N/A        | 65.7        | 68.5        | 69.6        | 71.0        | 70.9        | 69.9        | 69.8        |
| Czech Rep.      | N/A        | 65.0        | 64.8        | 65.3        | 66.1        | 66.6        | 65.4        | 64.9        |
| Denmark         | 73.4       | 76.3        | 75.9        | 77.4        | 77.1        | 78.1        | 75.7        | 74.1        |
| Estonia         | N/A        | 60.4        | 64.4        | 68.1        | 69.4        | 69.8        | 63.5        | 59.5        |
| Finland         | 61.6       | 67.2        | 68.4        | 69.3        | 70.3        | 71.1        | 68.7        | 69.2        |
| France          | 59.5       | 62.1        | 63.7        | 63.7        | 64.3        | 64.9        | 64.2        | 64.2        |
| Greece          | 54.7       | 56.5        | 60.1        | 61.0        | 61.4        | 61.9        | 61.2        | 60.1        |
| Ireland         | 54.4       | 65.2        | 67.6        | 68.7        | 69.2        | 67.6        | 61.8        | 60.4        |
| Italy           | 51         | 53.7        | 57.6        | 58.4        | 58.7        | 58.7        | 57.5        | 57.2        |
| Latvia          | N/A        | 57.5        | 63.3        | 66.3        | 68.3        | 68.6        | 60.9        | 58.9        |
| Lithuania       | N/A        | 59.1        | 62.6        | 63.6        | 64.9        | 64.3        | 60.1        | 56.7        |
| Luxembourg      | 58.7       | 62.7        | 63.6        | 63.6        | 64.2        | 63.4        | 65.2        | 64.6        |
| Hungary         | N/A        | 56.3        | 56.9        | 57.3        | 57.3        | 56.7        | 55.4        | 55.3        |
| Malta           | N/A        | 54.2        | 53.9        | 53.6        | 54.6        | 55.3        | 54.9        | 55.9        |
| Germany         | 64.6       | 65.6        | 66.0        | 67.5        | 69.4        | 70.7        | 70.9        | 71.0        |
| Netherland      | 64.7       | 72.9        | 73.2        | 74.3        | 76.0        | 77.2        | 77.0        | 76.3        |
| Poland          | N/A        | 55.0        | 52.8        | 54.5        | 57.0        | 59.2        | 59.3        | 59.3        |
| Portugal        | 63.7       | 68.4        | 67.5        | 67.9        | 67.8        | 68.2        | 66.3        | 65.7        |
| Romania         | N/A        | 63.0        | 57.6        | 58.8        | 58.8        | 59.0        | 58.6        | 60.1        |
| Slovakia        | N/A        | 56.8        | 57.7        | 59.4        | 60.7        | 62.3        | 60.2        | 58.6        |
| <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>67.5</b> | <b>66.5</b> |
| Spain           | 46.9       | 56.3        | 63.3        | 64.8        | 65.6        | 64.3        | 59.8        | 58.6        |
| Sweden          | 70.9       | 73.0        | 72.5        | 73.1        | 74.2        | 74.3        | 72.2        | 72.9        |
| U.K.            | 68.5       | 71.2        | 71.7        | 71.6        | 71.5        | 71.5        | 69.9        | 69.3        |

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

Note: N/A – not available.

Figure: Employment rate by age, Slovenia and EU-27, 2009



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

Note: ADS: LFS – Labour Force Survey; SRE: Statistical Register of Employment (including formally employed and self-employed persons).

## Unemployment rate

***In 2010, the survey and registered unemployment rates continued to increase as a result of the economic crisis, but the internationally comparable survey unemployment rate remained below the EU average.***

From the third quarter of 2008, when it reached the lowest level since measurements began (4.1%), the survey unemployment rate increased to 7.8% by the fourth quarter of 2010. The average annual survey unemployment rate in 2010 was 7.2%,<sup>1</sup> a 1.4 p.p. increase over 2009. Despite this growth, according to the available data,<sup>2</sup> the survey unemployment rate remained lower than, on average, in the EU and in the euro area. The registered unemployment rate has also been rising since September 2008, when it fell to the lowest level since 1990, 6.3%. By the end of 2009, it was already 10.3%, reaching 11.8% at the end of 2010. For 2010 as a whole, it stood at 10.7%.

***The unemployment rates of young people and persons with lower levels of education increased the most during the crisis in 2009 and 2010; the unemployment rate of women remains lower than that for of men.***

The survey unemployment rate of young people, which fell to the lowest level since measurements began in the second quarter of 2007 (9.3%), is again on an upward trend. It averaged 10.4% in 2008, 13.6% in 2009 and 15.8% in the second quarter (but was nevertheless still far below the EU average – 20.6%). Above-average growth was also recorded for the survey unemployment rates of persons with lower and secondary education levels: the former had dropped to 6.2%, on average, by 2008, but reached 11.7% again in the second quarter of 2010; the latter rose to 6.3% in 2009 from 4.4% in 2008 as a whole, reaching 7.3% in the second quarter of 2010. The survey unemployment rate for persons with tertiary education, which is on a slow, though steady upward trend, also increased again in 2010 (to 4.1%). The survey unemployment rate for women, which had fluctuated around 7% in 2001–2006, dropped to 4.4% by the third quarter of 2008. Since then, it has been increasing, but at a slower pace than the unemployment rate of men. It was 7.2% in 2010 as a whole, while the survey unemployment rate for men was 7.3%.

***December 2010 saw the highest number of registered unemployed persons since March 2000 (110,021), but in 2010 as a whole, the average number of unemployed persons increased less year-on-year than in 2009.***

A total of 110,021 persons were registered as unemployed at the end of December 2010, 13,349 (13.8%) more than in December 2009. On average, 100,504 persons were unemployed in 2010, 14,151 (16.4%) more than in 2009 (when the number of unemployed persons increased by 36.6%). Overall, 83,466 persons lost work in 2010

(7.8% fewer than in 2009). People who had lost fixed-term employment still prevailed (48.9% of all who lost their jobs). The number of persons that had become unemployed because of bankruptcies, expiry of fixed-term employment and for business reasons declined, but many more persons lost work due to the winding up of businesses. On the other hand, 57,004 unemployed persons landed work in 2010 (17.4% more than in 2009), 16.6% through active employment-policy programmes (programmes of employment, self-employment and public works). Owing to the lack of new jobs, the number of long-term unemployed persons also grew in 2010 (by 35.8%). The number of all registered first-time job-seekers also increased (by 17.9%), while the number of newly registered first-time job-seekers fell (by 1.2%). There was a further increase (by 22.8%) in 2010 in the number of unemployed persons according to the Labour Force Survey, to 76,000.<sup>3</sup>

<sup>1</sup> IMAD calculations based on the quarterly data by SORS.

<sup>2</sup> For the third quarter of 2010.

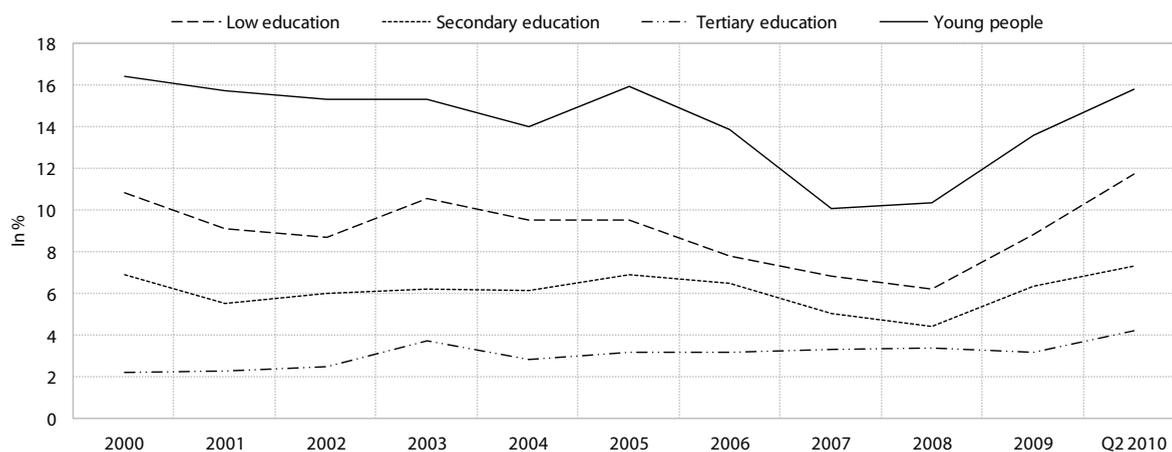
<sup>3</sup> IMAD calculations based on quarterly data by SORS.

Table: Survey unemployment rates in Slovenia and EU Member States in 1995–2010, %

|                 | 1995       | 2000       | 2005       | 2006       | 2007       | 2008       | 2009       | 2010       |
|-----------------|------------|------------|------------|------------|------------|------------|------------|------------|
| <b>EU</b>       | <b>N/A</b> | <b>8.7</b> | <b>8.9</b> | <b>8.2</b> | <b>7.2</b> | <b>7.0</b> | <b>8.9</b> | <b>N/A</b> |
| Austria         | 3.9        | 3.6        | 5.2        | 4.8        | 4.4        | 3.8        | 4.8        | 4.4        |
| Belgium         | 9.7        | 6.9        | 8.5        | 8.3        | 7.5        | 7.0        | 7.9        | 8.4        |
| Bulgaria        | N/A        | 16.4       | 10.1       | 9.0        | 6.9        | 5.6        | 6.8        | 9.9        |
| Cyprus          | N/A        | 4.9        | 5.3        | 4.6        | 4.0        | 3.6        | 5.3        | 6.8        |
| Czech Rep.      | N/A        | 8.7        | 7.9        | 7.2        | 5.3        | 4.4        | 6.7        | N/A        |
| Denmark         | 6.7        | 4.3        | 4.8        | 3.9        | 3.8        | 3.3        | 6.0        | 7.4        |
| Estonia         | N/A        | 13.6       | 7.9        | 5.9        | 4.7        | 5.5        | 13.8       | 16.9       |
| Finland         | 15.4       | 9.8        | 8.4        | 7.7        | 6.9        | 6.4        | 8.2        | 8.4        |
| France          | 11         | 9.0        | 9.3        | 9.2        | 8.4        | 7.8        | 9.5        | 9.7        |
| Greece          | N/A        | 11.2       | 9.9        | 8.9        | 8.3        | 7.7        | 9.5        | N/A        |
| Ireland         | 12.3       | 4.2        | 4.4        | 4.5        | 4.6        | 6.3        | 11.9       | 13.5       |
| Italy           | 11.2       | 10.1       | 7.7        | 6.8        | 6.1        | 6.7        | 7.8        | N/A        |
| Latvia          | N/A        | 13.7       | 8.9        | 6.8        | 6.0        | 7.5        | 17.1       | N/A        |
| Lithuania       | N/A        | 16.4       | 8.3        | 5.6        | 4.3        | 5.8        | 13.7       | N/A        |
| Luxembourg      | 2.9        | 2.2        | 4.6        | 4.6        | 4.2        | 4.9        | 5.1        | 4.7        |
| Hungary         | N/A        | 6.4        | 7.2        | 7.5        | 7.4        | 7.8        | 10.0       | 11.2       |
| Malta           | N/A        | 6.7        | 7.2        | 7.1        | 6.4        | 5.9        | 7.0        | 6.7        |
| Germany         | 8          | 7.5        | 10.7       | 9.8        | 8.4        | 7.3        | 7.5        | 6.8        |
| Netherland      | 6.6        | 3.1        | 5.3        | 4.4        | 3.6        | 3.1        | 3.7        | 4.5        |
| Poland          | N/A        | 16.1       | 17.8       | 13.9       | 9.6        | 7.1        | 8.2        | 9.6        |
| Portugal        | 7.2        | 4.0        | 7.7        | 7.8        | 8.1        | 7.7        | 9.6        | 11.0       |
| Romania         | N/A        | 7.3        | 7.2        | 7.3        | 6.4        | 5.8        | 6.9        | N/A        |
| Slovakia        | N/A        | 18.8       | 16.3       | 13.4       | 11.1       | 9.5        | 12.0       | 14.5       |
| <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>5.9</b> | <b>7.2</b> |
| Spain           | 18.4       | 11.1       | 9.2        | 8.5        | 8.3        | 11.3       | 18.0       | 20.1       |
| Sweden          | 8.8        | 5.6        | 7.6        | 7.0        | 6.1        | 6.2        | 8.3        | 8.4        |
| U.K.            | 8.5        | 5.4        | 4.8        | 5.4        | 5.3        | 5.6        | 7.6        | 7.8        |

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

Figure: Selected specific survey unemployment rates, Slovenia, 2000–2010



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

## Long-term unemployment rate

***The long-term unemployment rate,<sup>1</sup> an indicator of social cohesion and labour-market problems, increased significantly in 2010.*** After a long period of decline (2000–2009), the long-term unemployment rate nearly doubled year-on-year in the second quarter of 2010, increasing to 3.2% (up 1.5 p.p. from 2009). The female long-term unemployment rate was 3.0% (1.3 p.p. more than a year earlier), while the male long-term unemployment rate was 3.3% (1.7 p.p. more than a year earlier). In the second quarter of 2010, the long-term unemployment rate for women was lower than that for men for the first time during the implementation of SDS (2005–2010) (see Figure). In great part, this was a result of the higher inflow of men (with lower education) into unemployment compared with the inflow of women, but also a lower level of male participation<sup>2</sup> in active employment-policy programmes in 2009.

***Although the long-term unemployment rate rose more in Slovenia than in the EU as a whole, it is still lower than in the EU.*** Slovenia's long-term unemployment rate has been below the EU average since 2005. Although the rate increased more in Slovenia than in the EU over the last year, it was still lower in the second quarter of 2010 than for the EU, where it averaged 3.8%, 1 p.p. more than in the same period of 2009. The long-term unemployment rate in the EU as a whole also increased more for men (1.2 p.p.) than for women (0.6 p.p.) over the last year, as in Slovenia.

***The share of long-term unemployed people in total unemployment increased over the last year and returned to the pre-crisis level.*** After contracting significantly in 2009 due to a high inflow of the newly unemployed, the share of long-term unemployed people in Slovenia rose once more, reaching 44.6% in the second quarter of 2010, an increase of 14 p.p. over the second quarter of 2009. In the second quarter of 2010, the share of long-term unemployed persons in total unemployment was again above the EU average (38.5%). Last year's significant increases in the share and number of the long-term unemployed indicate an urgent need for strengthening active employment-policy programmes, which reduce and prevent long-term employment.

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<sup>1</sup> The long-term unemployment rate is the ratio of the long-term number of unemployed (people unemployed for over a year) to the total size of the labour force.

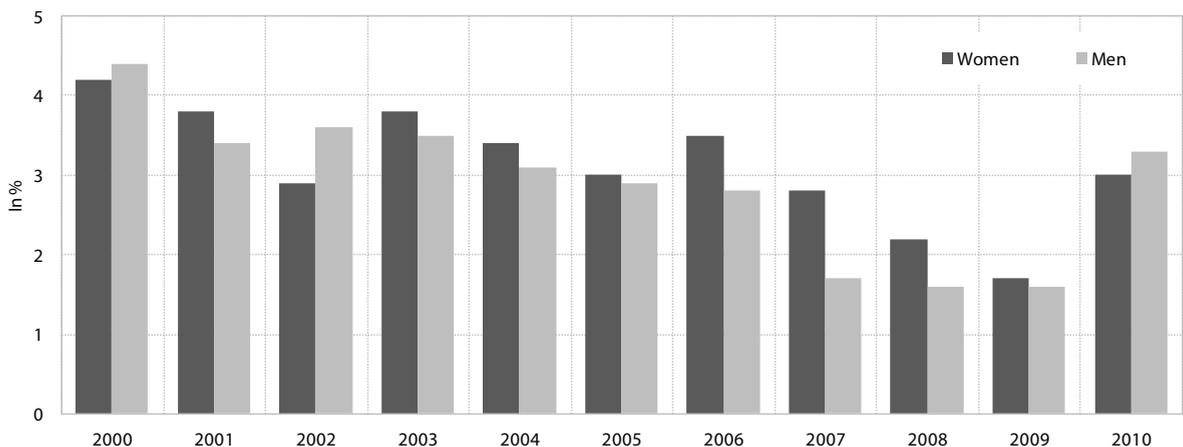
<sup>2</sup> The rate of participation in active employment policy programmes (measured as a share of unemployed persons participating in active employment-policy programmes) for men was 54.4% in 2009, and for women, 65.2%.

Table: Long-term unemployment rates in 2000–2010,<sup>1</sup> EU countries

|                 | 2000       | 2005       | 2006       | 2007       | 2008       | 2009       | 2010       |
|-----------------|------------|------------|------------|------------|------------|------------|------------|
| <b>EU-27</b>    | <b>4.0</b> | <b>N/A</b> | <b>3.8</b> | <b>3.1</b> | <b>2.6</b> | <b>2.8</b> | <b>3.8</b> |
| Austria         | N/A        | 1.2        | 1.3        | 1.2        | 0.8        | 0.9        | 1.2        |
| Belgium         | 3.6        | 4.2        | 4.6        | 3.8        | 3.3        | 3.5        | 4.1        |
| Bulgaria        | 9.6        | 6.0        | 4.8        | 3.9        | 2.9        | 2.8        | 4.3        |
| Cyprus          | 1.2        | 1.3        | 0.9        | 0.7        | 0.4        | 0.4        | 1.2        |
| Czech Rep.      | 4.3        | 4.1        | 4.0        | 2.9        | 2.2        | 1.8        | 3.0        |
| Denmark         | 0.8        | 1.2        | 0.8        | 0.7        | 0.5        | 0.4        | 1.3        |
| Estonia         | 6.2        | 4.3        | 2.8        | 2.4        | 1.4        | 3.2        | 8.5        |
| Finland         | 2.7        | 2.2        | 1.9        | 1.6        | 1.1        | 1.2        | 1.9        |
| France          | N/A        | 3.8        | 4.0        | 3.4        | 3.0        | 3.2        | 3.8        |
| Greece          | 6.3        | 5.2        | 4.9        | 4.1        | 3.6        | 3.7        | 5.4        |
| Ireland         | 1.7        | 1.6        | 1.6        | 1.4        | 1.7        | 2.9        | 6.4        |
| Italy           | 6.4        | 3.9        | 3.5        | 2.8        | 3.2        | 3.3        | 4.1        |
| Latvia          | 8.1        | 4.3        | 2.6        | 1.7        | 1.7        | 4.0        | 8.1        |
| Lithuania       | 8.1        | 4.6        | 2.6        | 1.5        | 0.8        | 2.8        | 7.4        |
| Luxembourg      | 0.5        | 1.2        | 1.3        | 1.3        | 1.8        | 1.3        | 1.5        |
| Hungary         | 3.1        | 3.2        | 3.4        | 3.5        | 3.6        | 3.9        | 5.5        |
| Malta           | 4.0        | 3.3        | 2.9        | 2.3        | 2.3        | 3.2        | 2.9        |
| Germany         | 3.8        | 5.8        | 5.5        | 4.7        | 4.0        | 3.4        | 3.3        |
| Netherlands     | N/A        | 2.2        | 2.0        | 1.5        | 1.1        | 0.9        | 1.3        |
| Poland          | 7.3        | 10.5       | 8.1        | 5.1        | 2.5        | 2.3        | 2.9        |
| Portugal        | 1.7        | 3.6        | 3.8        | 3.8        | 3.6        | 4.0        | 5.7        |
| Romania         | 3.5        | 4.0        | 4.0        | 3.3        | 2.3        | 2.3        | 2.4        |
| Slovakia        | 10.4       | 11.7       | 10.5       | 8.4        | 7.3        | 5.9        | 9.1        |
| <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> | <b>3.2</b> |
| Sweden          | 1.4        | N/A        | 1.1        | 0.9        | 0.7        | 1.0        | 1.5        |
| Spain           | 4.7        | 2.3        | 1.9        | 1.7        | 1.8        | 3.8        | 7.2        |
| U.K.            | 1.5        | 1.0        | 1.2        | 1.3        | 1.3        | 1.7        | 2.6        |

Source: Eurostat Portal Page – Labour Market – Employment and Unemployment, 2010.  
Note: <sup>1</sup> Data refer to the second quarter of the year; N/A – not available.

Figure: Long-term unemployment rate by gender, Slovenia, 2000–2010<sup>1</sup>



Source: Eurostat Portal Page – Labour Market – Employment and Unemployment, 2010.  
Note: <sup>1</sup> Data refer to the second quarter of the year.

## Temporary employment

**Temporary employment is an important component of labour-market flexibility.** The use of temporary employment enables employers to adjust to changes in the structure and volume of demand. In times of the economic crisis, non-extension of fixed-term employment contracts tends to be one of the ways in which employers reduce the number of employees, and this was reflected in a decreased prevalence of temporary employment in 2008 and 2009. The frequency of use of temporary employment is also related to the rigidity of employment-protection regulation, the seasonal nature of production and uncertainty about future demand. With persistent uncertainty about demand in the period of slow economic recovery, the prevalence of temporary employment is likely to increase.

**The share of temporary employment in total employment in Slovenia increased once more in 2010, after decreasing for two years.** The share of temporary employment diminished<sup>1</sup> in 2008 and 2009 amid the slowdown and decline in economic activity, but rose to 17.7% in 2010 (by 1.3 p.p. relative to the second quarter of 2009). The increase in the share of temporary employment in the second quarter of 2010 is related to greater caution by employers during the gradual economic recovery, and to relatively tight employment-protection regulation.<sup>2</sup>

**The share of women on temporary employment contracts in the total number of employed women increased more than the corresponding share of men.** The share of temporarily employed women in the total number of employed women (age group 15–64 years) totalled 19.9% in the second quarter of 2010, increasing by 2.3 p.p. The corresponding share of men amounted to 15.7% in the same period, 0.3 p.p. more than in the second quarter of 2009.

**The prevalence of temporary employment is typically highest among the young (particularly women) and in 2010, the share of young people in this type of employment continued to increase.** Slovenia faced strong age segmentation on the labour market once more in 2010. The increase in the share of young people on temporary employment contracts was mainly due to a significant drop in the total employment of young people,<sup>3</sup> which remained practically unchanged at the

y-o-y level in the area of student work. In the age group 15–24 years, 80% of all employed women were on temporary employment contracts in the second quarter of 2010, 5.8 p.p. more than in the second quarter of 2009. The share of men on temporary employment contracts in the same age group was 57.7% in the second quarter of 2010, which is 0.9 p.p. less than in the second quarter of 2009.

<sup>1</sup> In times of economic crisis, employers tend to decrease the number of workers by non-extension of fixed-term contracts and by reducing student work.

<sup>2</sup> The latest amendment in the Employment Act in the area of severance pay and the notice period was adopted in 2007, but changes towards reducing rigidity were relatively small.

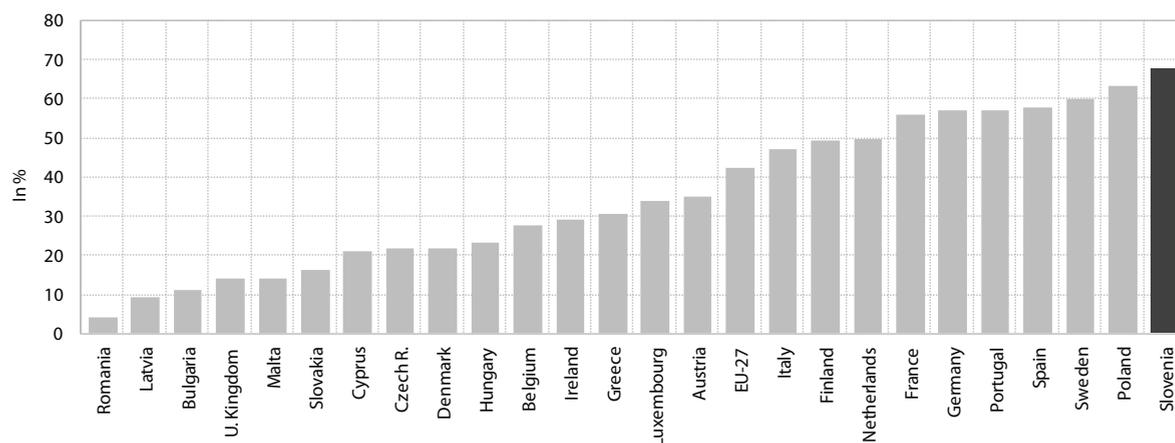
<sup>3</sup> The number of employed young people in the age group

15–24 years declined by 29.6% in the second quarter of 2010 relative to the same period of 2009.

Table: Share of temporary employment in total employment in age group 15–64 years, in %

|                 | 2000        | 2005        | 2006        | 2007        | 2008        | 2009        | 2010        |
|-----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>EU-27</b>    | <b>N/A</b>  | <b>13.9</b> | <b>14.4</b> | <b>14.5</b> | <b>14.1</b> | <b>13.4</b> | <b>14.0</b> |
| Austria         | 8.6         | 8.8         | 8.7         | 8.8         | 8.7         | 8.6         | 8.9         |
| Belgium         | 9.0         | 9.1         | 8.8         | 8.8         | 7.7         | 8.2         | 7.5         |
| Bulgaria        | N/A         | 6.3         | 6.2         | 5.7         | 5.1         | 5.2         | 4.8         |
| Cyprus          | 10.7        | 13.9        | 13.9        | 12.9        | 14.4        | 14.2        | 14.5        |
| Czech Rep.      | 7.2         | 8.0         | 8.1         | 7.9         | 7.4         | 7.4         | 8.2         |
| Denmark         | 10.2        | 9.9         | 9.6         | 9.0         | 8.5         | 9.1         | 8.6         |
| Estonia         | 2.3         | 3.3         | 3.3         | 2.3         | 1.8         | 2.3         | 4.2         |
| Finland         | 17.7        | 18.1        | 18.0        | 17.3        | 16.9        | 15.9        | 16.8        |
| France          | N/A         | 14.3        | 14.4        | 14.4        | 14.3        | 13.6        | 15.3        |
| Greece          | 13.8        | 12.1        | 10.9        | 11.2        | 11.6        | 12.2        | 12.8        |
| Ireland         | 5.3         | 2.5         | 7.5         | 9.2         | 8.0         | 8.1         | 9.2         |
| Italy           | 10.1        | 12.4        | 13.0        | 13.4        | 13.9        | 12.8        | 12.9        |
| Latvia          | 6.7         | 8.4         | 7.1         | 5.3         | 2.8         | 3.7         | 6.7         |
| Lithuania       | 3.8         | 5.1         | 4.7         | 3.7         | 2.7         | 2.7         | 2.6         |
| Luxembourg      | 3.4         | 5.3         | 6.1         | 6.9         | 7.7         | 7.4         | 6.6         |
| Hungary         | 6.8         | 7.2         | 6.7         | 7.5         | 7.8         | 8.2         | 9.7         |
| Malta           | 3.9         | 4.0         | 3.8         | 5.5         | 4.1         | 4.8         | 4.9         |
| Germany         | 12.8        | 13.8        | 14.2        | 14.3        | 14.7        | 14.3        | 14.6        |
| Netherlands     | 13.8        | 15.1        | 16.1        | 17.9        | 18.0        | 17.9        | 18.7        |
| Poland          | 5.6         | 25.4        | 27.1        | 28.1        | 26.9        | 26.5        | 27.0        |
| Portugal        | 19.8        | 19.5        | 20.2        | 22.2        | 23.3        | 21.7        | 23.0        |
| Romania         | 2.9         | 2.6         | 1.9         | 1.6         | 1.3         | 0.9         | 1.1         |
| Slovakia        | 4.0         | 4.9         | 5.0         | 5.3         | 4.0         | 4.1         | 5.7         |
| <b>Slovenia</b> | <b>12.8</b> | <b>16.8</b> | <b>17.9</b> | <b>18.5</b> | <b>16.9</b> | <b>16.4</b> | <b>17.7</b> |
| Spain           | 32.4        | 33.3        | 34.4        | 31.9        | 29.4        | 25.3        | 24.9        |
| Sweden          | 14.3        | 16.0        | 17.3        | 17.7        | 16.4        | 15.5        | 15.8        |
| U.K.            | 6.6         | 5.4         | 5.5         | 5.7         | 5.2         | 5.4         | 6.1         |

Source: Eurostat Portal Page – Labour Market – Employment and Unemployment, 2010.  
 Note: N/A – not available.

 Figure: Share of young people in temporary employment among employed young people (age group 15–24), 2010<sup>1</sup>


Source: Eurostat Portal Page – Labour Market – Employment and Unemployment, 2010.  
 Note: <sup>1</sup> data for second quarter of 2010.

## Part-time employment

***In 2010, the prevalence of part-time employment in Slovenia increased again, as it did in most other EU countries, although less than in 2009.*** Shortening working hours is one way how employers adjusted to decreasing demand during the crisis and it was supported in a number of EU countries by subsidies. Most EU countries recorded a smaller y-o-y increase in the share of part-time employment in total employment in the second quarter of 2010 than in the second quarter of 2009.

***The share of part-time employment in total employment increased in Slovenia in 2010.*** The share of part-time employment in total employment (age group of 15–64 years) was 10.5% in the second quarter of 2010, a 1.9 p.p. increase over the same period of 2009. Part-time employment rose across all age groups of women, but only in certain groups of men. The share of men in part-time employment (7.5%) was 0.7 p.p. less y-o-y in the second quarter of 2010, largely due to a decline (1.4 p.p.) in the 25–49 age group, which was also related to a lower number of men participating in short-time working schemes in 2010. The corresponding share of women was 14.1% in the second quarter of 2010 (a 2.6 p.p. higher figure than in the same period of 2009), in particular due to the increase (7.7 p.p.) in the prevalence of this type of work among young women (15–24 years).

***In Slovenia, the share of part-time employment still lagged behind the EU average in 2010, except for the share of part-time employment among young people.*** The total share of part-time employment in total employment in Slovenia (10.5%) lagged behind the EU average (18.7%) in the second quarter of 2010. Notwithstanding this aggregate lag, Slovenia has a greater prevalence of part-time employment among the young (the 15–24 age group) than the EU as a whole. As with temporary employment, this is mainly attributable to student work. The share of young people working part-time totalled 42.2% in the second quarter of 2010, having increased by 4.7 p.p. relative to the same period of 2009.

***As in other countries, part-time employment is most widespread among people with lower levels of education, but Slovenia has a wider gap in the prevalence of part-time employment with regard to education than the EU average.*** The share of persons in part-time employment tends to decrease the higher the level of education attained. In the second quarter of 2010, part-time workers with lower education accounted for 20.9% of all workers with lower education in Slovenia (a 2.7 p.p. increase over the same period of 2009); the corresponding shares of workers with secondary and higher education were 9.9% and 7.0%, respectively. The gap in the prevalence of part-time employment among

people with lower education and those with higher education in Slovenia is much wider than in the EU as a whole, where 22.5% of people with lower and 15.6% persons with higher education worked shorter hours in the second quarter of 2010.

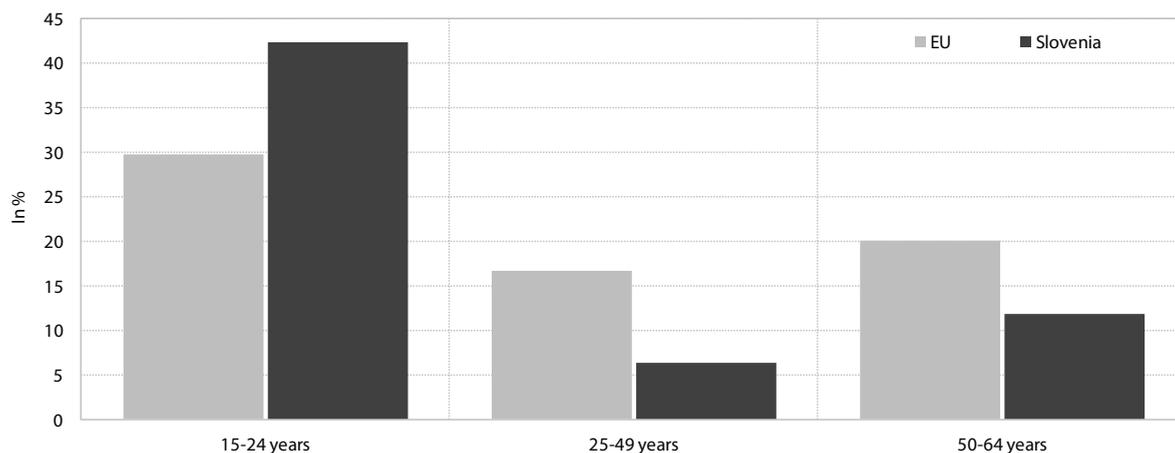
Table: Share of part-time employment in total employment (age group 15–64 years)<sup>1</sup>

|                 | 2000       | 2005        | 2006        | 2007        | 2008        | 2009        | 2010        |
|-----------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>EU-27</b>    | <b>N/A</b> | <b>17.4</b> | <b>17.7</b> | <b>17.7</b> | <b>17.7</b> | <b>18.2</b> | <b>18.7</b> |
| Austria         | 16.0       | 20.4        | 21.5        | 22.0        | 22.7        | 24.1        | 24.5        |
| Belgium         | 20.6       | 21.7        | 22.9        | 22.5        | 22.4        | 23.0        | 24.1        |
| Bulgaria        | N/A        | 2.3         | 1.9         | 1.7         | 1.9         | 2.3         | 2.2         |
| Cyprus          | 7.6        | 7.5         | 6.7         | 6.1         | 6.6         | 7.3         | 7.8         |
| Czech Rep.      | 4.8        | 4.3         | 4.4         | 4.4         | 4.3         | 4.8         | 5.2         |
| Denmark         | 21.4       | 21.5        | 22.9        | 23.6        | 23.9        | 25.1        | 26.3        |
| Estonia         | 6.3        | 6.8         | 7.1         | 7.0         | 5.6         | 10.7        | 10.4        |
| Finland         | 11.9       | 13.2        | 13.0        | 13.0        | 12.3        | 12.7        | 13.6        |
| France          | N/A        | 17.1        | 17.2        | 17.2        | 16.9        | 17.1        | 17.6        |
| Greece          | 4.4        | 4.6         | 5.6         | 5.5         | 5.2         | 5.8         | 6.1         |
| Ireland         | 16.6       | N/A         | 16.9        | 17.6        | 18.0        | 20.4        | 21.6        |
| Italy           | 8.7        | 12.6        | 13.2        | 13.3        | 14.4        | 14.2        | 14.8        |
| Latvia          | 10.5       | 8.9         | 6.0         | 6.4         | 5.7         | 7.6         | 8.9         |
| Lithuania       | 8.9        | 6.3         | 8.6         | 7.9         | 6.3         | 8.2         | 7.7         |
| Luxembourg      | 11.2       | 17.4        | 17.1        | 17.5        | 16.3        | 17.0        | 17.8        |
| Hungary         | 3.4        | 4.1         | 3.9         | 3.8         | 4.1         | 5.2         | 5.3         |
| Malta           | 6.1        | 8.8         | 9.6         | 10.7        | 11.4        | 11.0        | 11.1        |
| Germany         | 19.1       | 23.6        | 25.4        | 25.6        | 25.5        | 25.5        | 25.7        |
| Netherlands     | 41.0       | 45.8        | 45.8        | 46.3        | 46.7        | 47.6        | 48.4        |
| Poland          | 9.3        | 9.7         | 9.0         | 8.5         | 7.6         | 7.8         | 7.8         |
| Portugal        | 8.1        | 8.4         | 8.1         | 8.9         | 8.8         | 8.6         | 8.5         |
| Romania         | 14.0       | 9.6         | 8.6         | 8.6         | 8.8         | 8.6         | 10.5        |
| Slovakia        | 1.8        | 2.3         | 2.7         | 2.6         | 2.1         | 3.8         | 4.0         |
| <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>  | <b>10.5</b> |
| Spain           | 8.0        | 12.6        | 12.1        | 11.8        | 11.9        | 12.8        | 13.4        |
| Sweden          | 21.8       | 24.3        | 24.3        | 24.3        | 26.1        | 26.0        | 25.4        |
| U.K.            | 24.4       | 24.6        | 24.3        | 24.2        | 24.2        | 25.0        | 25.7        |

Source: Eurostat Portal Page – Labour Market – Employment and Unemployment, 2010.

 Notes: <sup>1</sup> data for the second quarter; N/A – not available.

Figure: Share of persons in part-time employment by age group, Slovenia and EU, 2010



Source: Eurostat Portal Page – Labour Market – Employment and Unemployment, 2010.

## Social-protection expenditure

**Slovenia allocated EUR 8,010 m<sup>1</sup> for benefits and services of social-protection programmes in 2008 (21.6% of GDP), which is just above 8% more in nominal and almost 3% more in real terms than in 2007, and represents an increase of 0.2 p.p. as a share of GDP.** Social-protection expenditure grew by an average of 3% per year in 1996–2008. After falling since 2000, social-protection expenditure as a share of GDP expanded slightly in 2008, as in other EU countries. In view of the decline or modest growth of GDP in 2009 and 2010, its share increased further, according to our estimates.

**In terms of social-protection expenditure in purchasing power standards per capita, Slovenia reached 75% of the EU average in 2008.** A comparison of expenditure measured by purchasing power standards (PPS) per capita shows that Slovenia has reached approximately ¾ of the EU average in the period since 2000 (73% in 2000; 75% in 2008). The lower level of expenditure compared with the EU is also due to the fact that Slovenia is among those EU countries in which social benefits are less burdened by taxes/contributions. In Slovenia, sickness benefits, parental benefits and unemployment benefits in particular are liable to taxes and contributions as, to a lesser extent, are pensions. A pilot study by Eurostat<sup>2</sup> (based on 2005 data) shows that in the EU, more than half of social benefits are subject to taxes and/or contributions. In the EU, net expenditure on social-protection benefits accounts for around 93% of gross expenditure, while in Slovenia, it is around 95%. The difference between gross and net expenditures varies considerably between countries: in certain EU countries (the Czech Republic, Slovakia, Bulgaria and Romania), social benefits are practically not taxed (i.e., subject to social contributions), while in the countries with the greatest tax burden (the Netherlands, Denmark, Sweden, Poland, Finland and Italy), net social-protection expenditure accounts for less than 90% of gross expenditure. Slovenia belongs in the group of countries (along with Austria, Belgium, Luxembourg and Greece) in which the burden of taxes and contributions is below 5%.

**Expenditures on old age and sickness and health-care benefits continue to represent the greatest shares of social-protection expenditure in Slovenia, with social contributions paid by protected persons also the main source of social-protection receipts in 2008.** In 2008, nearly two fifths of social-protection receipts were allocated for old age benefits, and close to one third for sickness and health. Slovenia allocated around 8% of total receipts for support of each of family and children,

disability and survivors. The lowest proportion was spent on unemployment, housing, and social exclusion not elsewhere classified functions. Ranked by expenditure on individual social-protection functions in PPS per capita, Slovenia exceeds the EU average in social exclusion not elsewhere classified<sup>3</sup> (111% of the EU average), reaching 90% of the EU average in the survivors' function, 86% in sickness and health care, 78% in the family and children function and 74% in old-age benefits. However, Slovenia is much below the EU average in expenditure on unemployment (29% of the EU average) and, most notably, expenditure on the housing function (2% of the EU average). Looking at total social-protection receipts by type, the contributions of protected persons are twice as high as in the EU. The major source of social-protection receipts in the EU is general government contributions (38.2%), followed by employers' contributions and contributions paid by protected persons (which account for the smallest share). In Slovenia, contributions of protected persons come first, followed by employers' and general government contributions, which are jointly second (see Figure).

<sup>1</sup> According to the ESSPROS methodology.

<sup>2</sup> Net expenditure on social-protection benefits; Statistics in focus.

<sup>3</sup> In this function, Slovenia classifies data on benefits for the poor that in other countries are probably classified under other functions such as family and children, housing, etc.

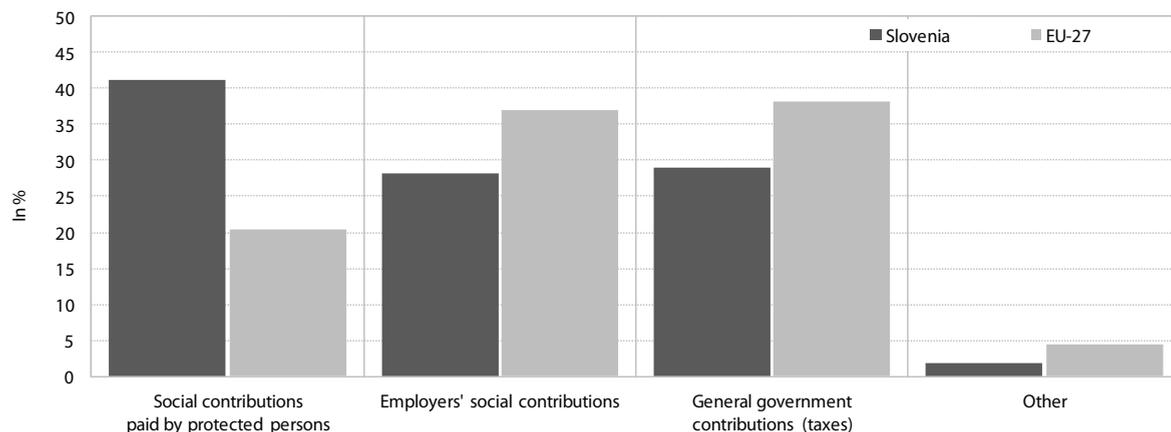
Table: Social protection expenditure in Slovenia and the EU, as % of GDP and in PPS per capita

|                 | % of GDP    |             |                |                |                | Per capita in PPS, EU-15=100 |            |            |            |            |
|-----------------|-------------|-------------|----------------|----------------|----------------|------------------------------|------------|------------|------------|------------|
|                 | 2000        | 2005        | 2006           | 2007           | 2008           | 2000                         | 2005       | 2006       | 2007       | 2008       |
| <b>EU-27</b>    | <b>26.4</b> | <b>27.1</b> | <b>26.9(p)</b> | <b>25.7(p)</b> | <b>26.4(p)</b> | <b>100</b>                   | <b>100</b> | <b>100</b> | <b>100</b> | <b>100</b> |
| <b>EU-25</b>    | <b>26.5</b> | <b>27.2</b> | <b>26.9(p)</b> | <b>25.9(p)</b> | <b>26.5(p)</b> |                              |            |            |            |            |
| Austria         | 28.4        | 28.9        | 28.4           | 27.9           | 28.2           | 141                          | 133        | 133        | 133        | 137        |
| Belgium         | 26.2        | 29.6        | 30.2           | 26.8           | 28.3           | 125                          | 131        | 137        | 120        | 124        |
| Bulgaria        | 10.2        | 15.1        | 14.2           | 14.1           | 15.5           | 11                           | 20         | 20         | 22         | 25         |
| Cyprus          | 14.8        | 18.4        | 18.4           | 18.1           | 18.4           | 50                           | 62         | 62         | 66         | 67         |
| Czech Rep.      | 19.5        | 19.2        | 18.7           | 18.6           | 18.7           | 50                           | 42         | 54         | 58         | 57         |
| Denmark         | 28.9        | 30.2        | 29.2           | 28.8           | 29.7           | 144                          | 138        | 136        | 135        | 135        |
| Estonia         | 13.9        | 12.6        | 12.1           | 12.3           | 15.1           | 24                           | 29         | 30         | 33         | 39         |
| Finland         | 25.1        | 26.7        | 26.4           | 25.4           | 26.3           | 111                          | 113        | 113        | 116        | 117        |
| France          | 29.5        | 31.4        | 30.7           | 30.5           | 30.8           | 129                          | 128        | 125        | 128        | 126        |
| Greece          | 23.5        | 24.6        | 24.6           | 24.5           | 26             | 75                           | 83         | 85         | 88         | 92         |
| Ireland         | 13.9        | 18.1        | 18.4           | 18.9           | 22.1           | 69                           | 96         | 100        | 108        | 113        |
| Italy           | 24.7        | 26.4        | 26.6           | 26.7           | 27.8           | 109                          | 102        | 104        | 107        | 107        |
| Latvia          | 15.4        | 12.7        | 12.6           | 11.2           | 12.6           | 21                           | 23         | 24         | 24         | 27         |
| Lithuania       | 15.8        | 13.3        | 13.4           | 14.5           | 16.2           | 24                           | 26         | 28         | 33         | 38         |
| Luxembourg      | 19.6        | 21.7        | 20.4           | 19.3           | 20.1           | 182                          | 203        | 207        | 206        | 213        |
| Hungary         | 19.5        | 21.9        | 22.4           | 22.4           | 22.7           | 41                           | 51         | 53         | 54         | 56         |
| Malta           | 16.9        | 18.5        | 18.1           | 18             | 18.9           | 55                           | 53         | 52         | 54         | 55         |
| Germany         | 29.3        | 29.7        | 28.7           | 27.7           | 27.8           | 131                          | 128        | 125        | 124        | 121        |
| Netherlands     | 26.4        | 27.9        | 28.8           | 28.3           | 28.4           | 134                          | 134        | 141        | 146        | 145        |
| Poland          | 19.7        | 19.7        | 19.4           | 18.1           | 18.6           | 36                           | 37         | 38         | 38         | 40         |
| Portugal        | 20.7        | 24.6        | 24.6           | 24             | 24.3           | 64                           | 72         | 72         | 73         | 73         |
| Romania         | 13          | 13.4        | 12.8           | 13.6           | 14.3           | 13                           | 17         | 18         | 22         | 26         |
| Slovakia        | 19.4        | 16.5        | 16.3           | 16             | 16             | 37                           | 37         | 39         | 42         | 44         |
| <b>Slovenia</b> | <b>24.2</b> | <b>23</b>   | <b>22.7</b>    | <b>21.4</b>    | <b>21.6</b>    | <b>73</b>                    | <b>74</b>  | <b>74</b>  | <b>73</b>  | <b>75</b>  |
| Spain           | 20.3        | 20.9        | 20.9           | 21             | 22.7           | 75                           | 79         | 81         | 86         | 89         |
| Sweden          | 30          | 31.1        | 30.3           | 29.1           | 29.4           | 145                          | 140        | 139        | 141        | 137        |
| U.K.            | 26.4        | 26.3        | 26             | 23.3           | 23.7           | 119                          | 118        | 117        | 106        | 104        |

Source: Eurostat Portal Page – Total expenditure on social protection (ESSPROS), 2011, and Total expenditure on social protection per head of population, PPS (ESSPROS), 2011; calculations by IMAD.

Notes: PPS – purchasing power standards; p – provisional data; N/A – not available. Except for 2005, 2006 and 2007, data for Slovenia exclude housing data.

Figure: Social protection receipts by type, Slovenia, EU-27, 2008, in %



Source: Eurostat Portal Page – Social protection receipts by type (ESSPROS), 2011

## Expenditure on health

**Total expenditure on health as a share of GDP reached 9.2% in 2009 and 8.9% in 2010.**<sup>1</sup> Public expenditure accounted for 6.6% of GDP in 2009 (having increased by 0.6 p.p. compared with 2008 due to the impact of both a decline in GDP and real growth in expenditure), while private expenditure accounted for 2.6% of GDP. Public expenditure as a share of GDP dropped to 6.4% in 2010, while private expenditure remained at 2.6%. The conditions of public financing have tightened significantly in Slovenia over the last two years owing to weak growth in compulsory health-insurance contributions. In addition to the economic crisis, the problems were compounded by high wage rises in the health sector, which translated into 3.1% real growth in public expenditure on health in 2009, despite measures to ensure the sustainability of Slovenia's compulsory health-insurance system. After the slowdown in wage growth and adoption of additional measures, total public expenditure on health dropped by 3.4% in real terms in 2010,<sup>2</sup> according to preliminary estimates. Private health expenditure, in contrast, continued to grow in 2009 and 2010. In 2010, it already represented 28.8% of total expenditure on health. This significant growth was mainly due to the measure that reduced cost coverage by the compulsory health-insurance system for certain medical services and transferred a portion of costs to complementary health insurance.

**Until 2008, Slovenia was among the EU countries with the lowest growth of health expenditure (in relative terms) compared with GDP growth.** According to OECD calculations, real growth in total health expenditure per capita surpassed real GDP growth per capita in all EU countries except Estonia in 1998–2008, by 1.6 p.p. per year, on average (in Slovenia, by a mere 0.6 p.p.). In most EU countries, public expenditure increased more than private expenditure in that period. In the EU as a whole, public expenditure on health rose from 5.3% of GDP to 6.2% of GDP between 2000 and 2008. Slovenia, in contrast, recorded much stronger growth in private than public expenditure in the same period. Public expenditure as a share of GDP even dropped slightly (see Table), while the share of private expenditure increased.

**The level of public expenditure on health in Slovenia is below average on all internationally comparable indicators.** Slovenia spent 8.3% of GDP on health in 2008, equal to the EU average. Although public expenditure on health in 2008 increased much more than in the previous period (9.7% in real terms), it remained below average

on all indicators, accounting for 6.0% of GDP (EU: 6.2%), 71.9% of total health expenditure (EU: 73.6%) and 13.8% of total public expenditure (EU: 14.4%). Conversely, private expenditure climbed to 2.3% of GDP in 2008 (EU: 2.1%), reaching as much as 28.1% of total expenditure on the back of higher co-payments from complementary health insurance, higher out-of-pocket expenditure by households and strong growth in private investment in health. Expenditure from complementary insurance thus represented 44.0% of private health expenditure in 2008, out-of-pocket expenditure by households 45.2% and health expenditure from other private sources (private companies and entrepreneurs in the health-care sector) as much as 10.7%.

**Over the last few years, out-of-pocket expenditure as a share of total final household consumption has increased most notably for households in the lowest income bracket.** Out-of-pocket expenditure in Slovenia is still relatively low compared with other EU countries, both as a share of total health expenditure (12.7%, compared with the EU average of 20.0%) and share of total household consumption (2.0%, compared with 3.0% for OECD countries). According to the Household Budget Survey, in 2008, households in the lowest income quintile experienced the greatest burden of health expenditure (in relative terms), spending on average 2.8% of their total expenditure on health (1.5% in 2005), while in higher-income households, health expenditure represented 1.5% of total expenditure. Slovenian households allocated the greatest share of out-of-pocket expenditure for medicines (23%), medical devices (20%), various other health services (physiotherapy) and alternative medicine (17%), dental care (14%) and outpatient specialist services (9%). In the period 2003–2008, the greatest increases were recorded for out-of-pocket expenditure on outpatient specialist services, rehabilitative care, long-term nursing care, diagnostic imaging, and primary-care services and diagnostic procedures.

<sup>1</sup> Data for 2009 and 2010 are HHS estimates (HHS Business Report for 2010).

<sup>2</sup> HHS expenditure on health declined by 2.3% in real terms (total HHS expenditure including sick leave compensation, by 1.4%) while 2010 saw a sizeable decline in budgetary expenditure on investment, which nearly halved in real terms.

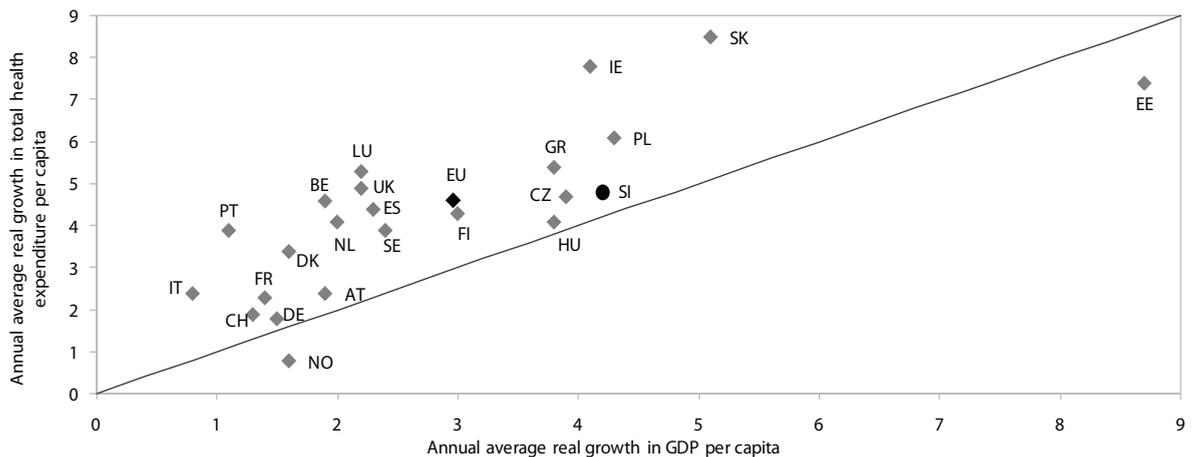
Table: Expenditure on health in the EU-27, 2000 and 2008

|                 | Total health expenditure, as % of GDP <sup>2</sup> |            | Public health expenditure, as % of GDP <sup>2</sup> |            | Private health expenditure as a share of total health expenditure, in % |             | Public health expenditure, as % of general government expenditure |             |
|-----------------|--|------------|---|------------|---|-------------|---|-------------|
|                 | 2000   | 2008       | 2000  | 2008       | 2000  | 2008        | 2000  | 2008        |
| <b>EU-27</b>    | <b>7.3</b>   | <b>8.3</b> | <b>5.3</b>  | <b>6.2</b> | <b>27.1</b>   | <b>26.5</b> | <b>12.0</b>   | <b>13.7</b> |
| Austria         | 9.9  | 10.5       | 7.6   | 8.1        | 23.2  | 23.1        | 15.8  | 15.8        |
| Belgium         | 9.0  | 10.2       | 6.6   | 7.4        | 23.0  | 25.3        | 12.8  | 14.8        |
| Bulgaria        | 6.1  | 7.3        | 3.7   | 4.2        | 39.1  | 42.2        | 7.7   | 12.5        |
| Cyprus          | 5.7  | 5.8        | 2.4   | 2.5        | 58.3  | 57.9        | 7.1   | 7.0         |
| Czech Rep.      | 6.5  | 7.1        | 5.9   | 5.9        | 9.7   | 17.5        | 13.7  | 16.8        |
| Denmark         | 8.3  | 9.9        | 6.8   | 8.4        | 17.6  | 15.5        | 12.3  | 15.0        |
| Estonia         | 5.3  | 6.1        | 4.1   | 4.8        | 22.5  | 20.6        | 11.8  | 13.0        |
| Finland         | 7.2  | 8.4        | 5.1   | 6.2        | 28.9  | 25.8        | 11.9  | 14.3        |
| France          | 10.1   | 11.2       | 8.0   | 8.7        | 20.6  | 22.2        | 13.8  | 14.9        |
| Greece          | 7.9  | 9.7        | 4.7   | 5.9        | 40.0  | 39.7        | 8.4   | 10.6        |
| Ireland         | 6.3  | 8.7        | 4.6   | 6.7        | 24.7  | 23.1        | 16.6  | 18.6        |
| Italy           | 8.1  | 9.1        | 5.8   | 7.0        | 27.5  | 22.8        | 13.0  | 14.6        |
| Latvia          | 6.0  | 6.5        | 3.2   | 3.6        | 45.6  | 40.4        | 10.4  | 12.5        |
| Lithuania       | 6.5  | 6.6        | 4.5   | 4.8        | 30.3  | 27.4        | 10.5  | 13.3        |
| Luxembourg      | 5.8  | 6.8        | 5.2   | 5.7        | 8.4   | 8.6         | 10.9  | 12.0        |
| Hungary         | 7.0  | 7.3        | 5.0   | 5.2        | 29.3  | 29.0        | 10.4  | 9.9         |
| Malta           | 6.8  | 7.5        | 4.9   | 5.8        | 27.5  | 22.6        | 12.0  | 12.4        |
| Germany         | 10.3   | 10.5       | 8.2   | 8.1        | 20.2  | 23.2        | 14.7  | 15.2        |
| Netherlands     | 8.0  | 9.9        | 5.0   | 7.4        | 32.0  | 16.5        | 8.4   | 13.0        |
| Poland          | 5.5  | 7.0        | 3.9   | 5.1        | 30.0  | 27.7        | n.p.  | 11.7        |
| Portugal        | 8.8  | 10.1       | 6.4   | 7.1        | 27.5  | 28.5        | 14.9  | 14.0        |
| Romania         | 5.2  | 5.4        | 3.6   | 4.5        | 32.3  | 18.0        | 11.3  | 11.2        |
| Slovakia        | 5.5  | 7.8        | 4.9   | 5.4        | 10.6  | 30.4        | 10.0  | 19.2        |
| <b>Slovenia</b> | <b>8.3</b>   | <b>8.3</b> | <b>6.1</b>  | <b>6.0</b> | <b>26.0</b>   | <b>28.1</b> | <b>13.8</b>   | <b>13.8</b> |
| Spain           | 7.2  | 9.0        | 5.2   | 6.5        | 28.4  | 27.5        | 13.4  | 14.8        |
| Sweden          | 8.2  | 9.2        | 7.0   | 7.6        | 15.1  | 18.1        | 11.1  | 13.2        |
| U.K.            | 7.0  | 8.7        | 5.6   | 7.2        | 20.7  | 17.4        | 14.5  | 15.7        |

Source: OECD Health Data 2010, Eurostat, WHO HFA-DB; data for Slovenia are for 2008: Health expenditure (SORS) 29 October 2010.

Notes: For the EU-27, arithmetic average according to OECD Health at a glance: Europe 2010. For the EU-27, weighted average according to the European Commission (source: Joint EPC-EC Report on Health Systems; general government expenditure according to COFOG (source: Eurostat) <sup>2</sup> Revision of GDP of September 2010; N/P - not available.

Figure: Annual average real growth in health expenditure and GDP, per capita, 1998–2008



Source: OECD Health at a glance: Europe 2010.

Note: (Estonia (EE): 1999-2007; Luxembourg (LU), Portugal (PT): 1998-2006; Denmark (DK), Greece (GR): 1998-2007.

## Expenditure on long-term care

**Total expenditure on long-term care (LTC)<sup>1</sup> as % of GDP in Slovenia is approximately at the EU average, but Slovenia lags behind the EU in expenditure on long-term care per capita.** Total expenditure on long-term care as a share of GDP rose somewhat in Slovenia in 2008 (the latest available data) – to 1.08% of GDP (1.02% in 2007). Public expenditure was 0.82% and private expenditure was 0.26% of GDP; broken down by function, expenditure on long-term health care represented 63.0% and expenditure on long-term social care<sup>2</sup> 37.0% (see Table). Due to the beginning of the economic crisis and a consequent slowdown in economic growth, total LTC expenditure as a share of GDP rose slightly in 2008 in all EU countries for which data are available, to an average of 1.1% of GDP. It is estimated to have increased further in 2009 and 2010 due to the decline or lower growth of GDP in most EU countries. Slovenia otherwise has a wider gap with developed countries in per capita LTC expenditure than in LTC expenditure as a share of GDP. The former amounted to EUR 197 in 2008 (public expenditure EUR 124; private expenditure EUR 73), or 255 EUR PPS, which is much less than in other, more developed, European countries (see Figure). In addition to the different levels of development, the gaps between the countries also reflect differences in long-term care systems, the influence of demographic factors and life patterns, particularly regarding the role of family and informal care.

**Public expenditure on LTC strengthened significantly in 2008, particularly the share of public expenditure on long-term health care.** Total LTC expenditure grew to

7.2% in real terms in 2008 (2.4% in 2007). Following very low growth in public expenditure and a rapid increase in private expenditure in 2006 and 2007, expenditure from public sources strengthened to 8.2% in real terms in 2008. Expenditure on long-term health services (carried out in old people's homes and covered by compulsory health insurance) recorded the greatest increase in 2008 (by 10.1% in real terms), largely due to a sizeable increase in capacities and, consequently, a higher number of users. The increase in expenditure was also partly due to the process of diminishing wage disparities in the public sector. Relatively high growth was also seen in 2008 in local-government expenditure on long-term social care. The share of public expenditure on long-term social care covered by municipalities is otherwise every year higher (60% in 2008). Growth in private expenditure, in contrast, moderated in 2008 compared with the previous two years (to 4.2% in real terms) and was somewhat lower than the average in the preceding period, both in long-term health- and social-care services. Broken down by sources of finance, the share of public expenditure in total LTC expenditure rose in 2008 (to 76.1%) and broken down by function, the share of expenditure on long-term health care services (to 63.0%). LTC expenditure rose by as much as 29.5% in real terms in 2003–2008 (by 5.3% per year, on average), with public and private expenditures growing at practically the same rates; in terms of function, expenditure on health recorded stronger growth than expenditure on social services.

**Slovenia allocates less than a quarter of total LTC expenditure for long-term care at home, and this share even declined somewhat in 2008.** Slovenia lags behind other European countries especially in provision of help for elderly people living at home, which is also reflected in expenditure. According to the European Commission,<sup>3</sup> most EU countries allocate more than 50% of public expenditure on long-term care; countries with more developed long-term care systems tend to allocate even more, while Slovenia dedicates only one third of expenditure for this purpose. The number of people receiving long-term care at home has otherwise increased somewhat faster in Slovenia over the past few years than the number of institutional long-term care users, but the share of total (public and private) expenditure on long-term care at home nevertheless dropped further in 2006–2008 (2006: 27.1%; 2007: 26.5%; 2008: 26.1%) due to the lower costs associated with this type of care (as a result of a low volume of services per user).

<sup>1</sup> 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 (LTC) is the basis for the single methodology used in monitoring expenditure on LTC. It was proposed by three international institutions (the OECD, Eurostat and theWHO) at the end of 2005.

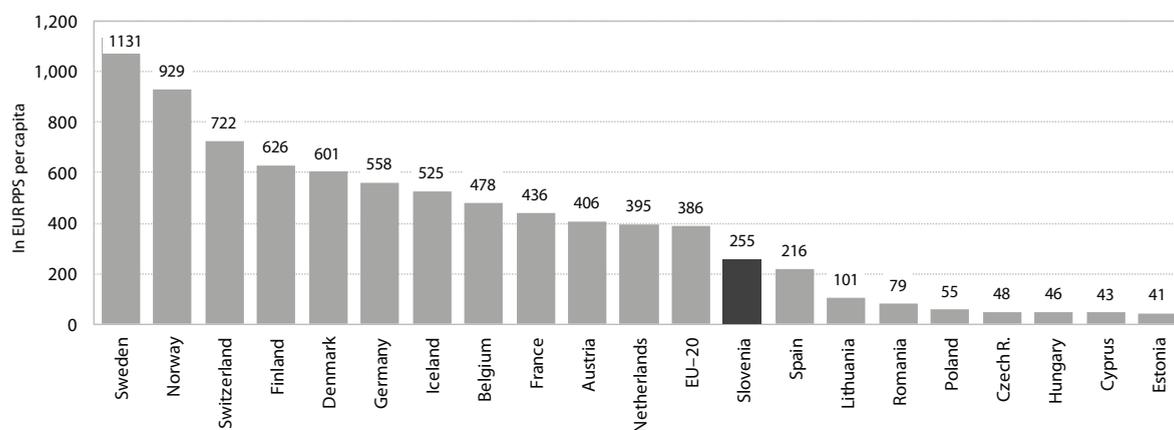
<sup>2</sup> **Long-term health care** is mostly financed from public sources (92.6% in 2008). These are mostly the HIIS funds intended for health care services in residential homes for the elderly and specialised social institutions, extended hospitalisation, and partly the home-nursing service providing long-term health care. Long-term health care also includes funds of the PDII earmarked for 'attendance allowances'. Persons entitled to this allowance are those who are dependent on the assistance with basic activities of daily living (ADL). Close to one half of expenditure on **long-term social care** (48.0% in 2008) is covered by public sources (the state and local budgets) and slightly more than one half by private funds (52.0%). Private funds mostly comprise extra payments for the accommodation and food in residential homes for the elderly and other types of institutional care as well as household expenditure on home assistance.

<sup>3</sup> European Commission (Feb. 2011): Health and long-term care expenditure projections: collection/availability of data. The calculation is based on data from the System of Health Accounts in ESPROSS.

**Table: Expenditure on long-term care by source of financing and by function, Slovenia, 2003–2008**

|                         | EUR m |      |      | Share in GDP, in % |      |      | Structure, in % |       |       | Real growth, in % |       | Average annual growth, in % |
|-------------------------|-------|------|------|--------------------|------|------|-----------------|-------|-------|-------------------|-------|-----------------------------|
|                         | 2003  | 2007 | 2008 | 2003               | 2007 | 2008 | 2003            | 2007  | 2008  | 08/07             | 08/03 | 03–08                       |
| Long-term care          | 260   | 354  | 401  | 1.04               | 1.02 | 1.08 | 100.0           | 100.0 | 100.0 | 7.2               | 29.5  | 5.31                        |
| By source of financing: |       |      |      |                    |      |      |                 |       |       |                   |       |                             |
| Public sources          | 198   | 267  | 305  | 0.79               | 0.77 | 0.82 | 76.1            | 75.4  | 76.1  | 8.2               | 29.6  | 5.32                        |
| Private sources         | 62    | 87   | 96   | 0.25               | 0.25 | 0.26 | 23.9            | 24.6  | 23.9  | 4.2               | 29.3  | 5.27                        |
| By function:            |       |      |      |                    |      |      |                 |       |       |                   |       |                             |
| Health care             | 157   | 218  | 253  | 0.62               | 0.63 | 0.68 | 60.3            | 61.5  | 63.0  | 9.8               | 35.5  | 6.26                        |
| Social care             | 103   | 136  | 148  | 0.41               | 0.39 | 0.40 | 39.7            | 38.5  | 37.0  | 3.1               | 20.5  | 3.79                        |

Source: SORS, 2010.

**Figure: Expenditure on long-term care, Slovenia and selected EU countries, in EUR PPS per capita, 2008**


Source: Eurostat Portal Page, 2011.

Note: Year 2007 for Norway, Switzerland, Finland, Denmark, France and the Netherlands.

# Human development index

**In 2010, the Human Development Index (HDI) for Slovenia was 0.828, which places Slovenia 29<sup>th</sup> among 169 countries.** The HDI is one of the main composite indicators of social well-being, measuring three dimensions of human welfare: health, education and income. As the index underwent a series of changes in 2010, the HDI for 2010 is not comparable with the released values for previous years.<sup>1</sup>

**Slovenia remains in a group of countries with very high human development and the values of the included indicators are also rising gradually.** The value of the health indicator is highest (with life expectancy at birth being 78.8 years, according to the UNDP) while the value of the income indicator is the lowest. The composite index of education comprising mean years of schooling of the population aged 25 and older and expected years of schooling is particularly worth mentioning in 2010. According to the Unesco Institute for Statistics, mean years of schooling in Slovenia of the population aged 25 and older was only 9 years in 2010. However, we find that this data for Slovenia is much lower than the Slovenian estimate.<sup>2</sup> In the EU-27, only Portugal had a lower value of this indicator (8.0 years) than Slovenia, while the OECD average was 11.4 years. Expected years of schooling, another indicator of the education index, shows a different picture, namely that a child of school-entrance age can expect to receive 16.7 years of schooling in Slovenia, on average. Slovenia exceeds the EU average (15.6 years) and the OECD countries (15.9 years) on this indicator. Among the analysed 169 countries, the highest values were recorded in Australia (20.5 years) and New Zealand (19.7 years).<sup>3</sup>

**Although there are inequalities in the distribution of the three basic dimensions of well-being in Slovenia, they are the lowest among the selected 169 countries.**

The value of Slovenia's Inequality-adjusted Human Development Index (IHDI), which measures disparities in the distribution of income, health and education in a

country, totalled 0.771 in 2010, 6.9% less than the value of the HDI.<sup>4</sup>

**The distribution of well-being by gender is relatively favourable in Slovenia.** The value of the new Gender Inequality Index (GII), which measures reproductive health, gender differences in educational attainment and participation in politics and in the labour force,<sup>5</sup> totalled 0.293 in 2010 (data from 2008), which ranks Slovenia 17<sup>th</sup> among the selected 138 countries. The value of the Slovenian GII indicates that there are differences in the distribution of well-being dimensions between women and men, largely on account of poor political representation of women. The share of women in the Slovenian parliament (10% according to the UNDP data for 2008) is below the global average (16.2%) and even below the average of countries with the lowest levels of development (16.6%) and remains significantly lower than in Scandinavian countries (40.7%), which are in the lead in this area. As this is one of the key indicators of equal opportunities in society, rethinking the strategic measures to reach a proportional representation of genders in politics is required.

<sup>1</sup> Several improvements to the methodology for calculating the HDI as well as to income and education indicators were introduced in 2010 (more on this in the Slovenian Economic Mirror, November 2010, 15(11): 30–31). The HDI according to the new indicators and the new methodology is calculated for a period of five years between 1980 and 2010, depending on availability of data.

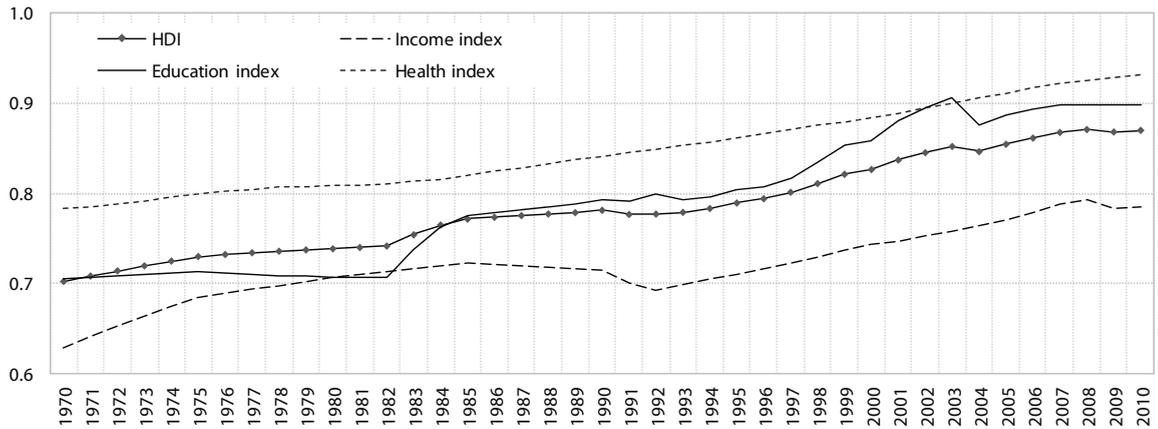
<sup>2</sup> If the HDI is calculated using IMAD's estimate of the average years of schooling (11.5 years), Slovenia's HDI for 2010 amounts to 0.862 (IMAD's calculation), equal to the HDI value in Hong Kong, which is ranked 21<sup>st</sup> among the 169 countries. For details see the indicator *Average years of schooling*.

<sup>3</sup> As these indicators do not take into account the dropout and repetition rates and the quality of education, they should be complemented by other indicators of education and training.

<sup>4</sup> The IHDI takes values between 0 and 1; a higher value denotes lower inequalities in a country. The IHDI should always be viewed alongside the HDI: When there is no inequality in the well-being dimensions in a country, the IHDI will be equal to the HDI; the greater the difference between the two, the greater the inequality in the distribution of development achievements across people in society.

<sup>5</sup> The GII replaced the Gender-related Development Index (GDI) and the Gender Empowerment Measure (GEM). It ranges between 0 and 1, but unlike the HDI, higher values of the GII indicate worse achievements.

Figure: The HDI and its components, Slovenia, 1970–2010



Source: UNDP Human Development, 2010.

Note: The index is calculated according to the new methodology from 2010 for the whole period based on the indicators from previous years (the income index is thus measured by GDP per capita in purchasing power parity terms in US dollars, the education index by the literacy rate and gross enrolment ratio at all three levels of education, and the health index by life expectancy at birth). These values can, therefore, no longer be compared over time.

## Minimum wage

***The new Minimum Wage Act set the minimum wage 22.9% higher in March, but the actual increase was smaller due to the possibility of a gradual transition to the new minimum wage level in the period March–November*** (the minimum wage was up 15.7% in March compared with February, and up 16.5% on average in the March–December period). The Minimum Wage Act allowed for a gradual convergence to the new level until the end of 2011,<sup>1</sup> but around 60% of minimum-wage earners were already receiving the highest level of minimum wage<sup>2</sup> in March. The ratio of the average minimum wage in the private sector (EUR 678) to the average gross wage in the private sector (EUR 1408) therefore rose to 48.2% in 2010 (44.2% in 2009). According to Eurostat, Slovenia was ranked in the upper half of EU countries according to this ratio in 2009, but is set to climb to the top with the new level of minimum wage, according to our estimates.

***The new act brought the policy of setting the minimum wage and the method of its adjustment closer to the system that had been in force until 2005.*** The minimum wage is an amount earned by a person in paid employment for full time work and therefore includes all wage-forming components (seniority pay, performance-related bonuses, etc.). The minimum wage is now adjusted with consumer price growth on January 1 (instead of on August 1 as previously). The method of wage adjustment on the basis of inflation forecasts for the current year was replaced by a method taking account of last year's inflation.<sup>3</sup> In agreement with the social partners, the minimum wage can be additionally raised based on wage growth, economic conditions or economic growth and movements of employment.

***The number of minimum-wage earners increased significantly after the new act took effect.*** Fewer employers than expected took advantage of the gradual increase, as according to the latest available data (December 2010) as many as 73% of minimum wage earners already received the minimum wage in the highest category. The number of all minimum-wage recipients doubled from 19,047 (the 2009 average) to 39,041 (December 2010) while the share of minimum-wage recipients in all employed persons rose from 3% in 2009 as a whole to 6.4% in December 2010. More than 90% of all minimum-wage recipients are in the private sector. By December, their number increased from 18,478

to 34,875 (of whom 70% received minimum wages in the highest category) while their share expanded from 3.9% to 7.7%. In the public sector, the share of minimum-wage recipients was much smaller (2.5%), even though the increase in their number was more than seven times higher (from an average of 551 in 2009 to 4,166 in December).

***The higher minimum wage contributed to wage rises particularly in the private sector.*** Judging by wage movements, more than 3 p.p. of annual wage growth can be attributed to the impact of the higher minimum wage. With the increase in minimum wage being less gradual than anticipated, the bulk of wage growth expected from the increase in minimum wage was already realised in 2010.

<sup>1</sup> A gradual transition to the new minimum wage level is possible if an immediate increase would result in substantial losses threatening the very existence of the enterprise, and only in consent with the representatives of workers.

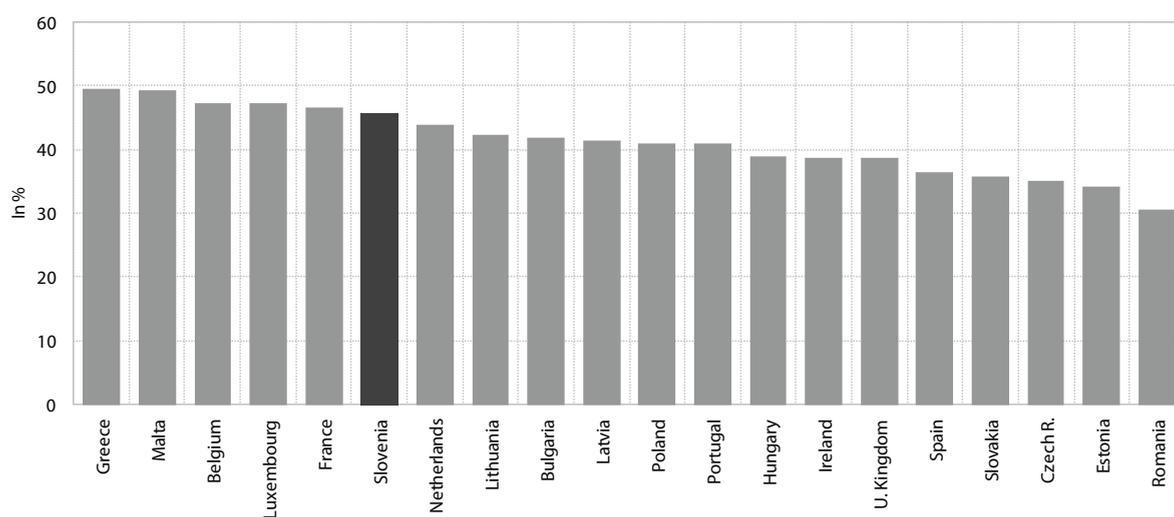
<sup>2</sup> Due to the possibility of different minimum wage levels, AJ PES collects data separately for three ranges of the minimum wage (up to EUR 654, EUR 685 and EUR 734).

<sup>3</sup> Inflation in December of the current year compared with that in December of the previous year.

**Table: Minimum gross wage, average gross wage and minimum gross wage to average gross wage ratio, Slovenia, 2000–2010**

|      | Minimum wage in the private sector since 2010 | 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 in the private sector |
|------|---|--------------------------------|-----------------------------|--|--|---|--|
| 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   |
| 2010 | 678   | 14.5                           | 12.4                        | 1.408                                    | 5.2  | 3.3   | 48.2   |

Source: SORS, SCA 2002 until 2008, SCA 2008 from 2009 onwards. For 2010, different amounts of minimum wage by activity and in both sectors.

**Figure: Ratio of minimum gross wage to average gross wage in the private sector, EU Member States, 2009**


Source: Eurostat.

Note: private sector excluding agriculture and fishery; data for other EU-27 countries not available. For Belgium, Greece, France, Spain, Hungary, the Czech Republic, Romania and Estonia, the figure is for 2008; for Ireland, for 2007; and for Slovakia, for 2006.

## Risk of poverty and material deprivation of the population

**In 2009,<sup>1</sup> the at-risk-of-poverty rate was 1.0 p.p. lower than a year earlier and the situation of certain already highly vulnerable groups worsened.** Altogether 11.3% of the population, or 223,000 persons, lived below the poverty threshold in 2009 (in 2008, 12.3% or 241,000 persons). Slovenia is still characterised by significant differences between the socio-economic categories.<sup>2</sup> The situation of certain vulnerable population groups deteriorated compared with the previous year (unemployed persons, couples with three or more children, jobless households with dependent children and single households). Furthermore, poverty deepened in Slovenia. The relative at-risk-of-poverty gap thus amounted to 20.2% in 2009, increasing by nearly 1 p.p. compared with 2008. Long-term poverty<sup>3</sup> is very low (7.7% in 2008, according to the latest available data), which implies relatively successful social inclusion. The low rate is to a great extent attributable to social transfers reducing the poverty risk by 49% (in the EU-25, only by 36%), particularly for children. Compared with the EU (15.9%), Slovenia remains in the group of countries with the lowest relative poverty rates. The poverty risk has also declined slightly in the EU-25, but Slovenia continues to be among the countries with relatively the best results (see Table). Comparison on the long-term poverty rate is also favourable, as Slovenia is placed among the countries with the lowest long-term poverty rates in the EU-15.

**After increasing notably in 2008, the material deprivation rate remained at approximately the same level in 2009.** In 2009, it was 16.2% (in 2008, 16.8%), which was still somewhat below the EU average (17.2%). In Slovenia, only 40.9% of people with income below the at-risk-of-poverty threshold were also materially deprived, and 13% of those with income exceeding that threshold (see Figure). There are, however, significant gaps between individual Member States, as certain countries with low at-risk-of-poverty rates have high material deprivation rates, while for others the reverse is true.

**Income inequality indicators for 2009 show that income inequality declined.** The Gini coefficient was 22.7% (23.4% in 2008) and the quintile share ratio (S80/S20),

which shows the ratio of total income received by the 20% of the population with the highest income to that received by the 20% of the population with the lowest income, was 3.2 in 2009 (3.4 in 2008). These indicators have, as with the at-risk-of-poverty rate, also been calculated using data for 2008. Income inequality also declined slightly in the EU-25. With both the lowest Gini coefficient and the lowest quintile-share ratio, Slovenia was once again ranked first among the EU countries for income inequality.

**Other data from the EU-SILC also indicate that the living conditions did not change significantly in 2009.** These data are, for example: the degree of ease or difficulty the household had in making ends meet: (28% of households had difficulty or great difficulty in making it through the month); the burden of housing costs and loans (36% of households considered housing costs a heavy burden in 2009); the number of households in arrears with mortgage loans (11%) or payments of rent (23%); the share of households living in poor housing conditions and facing at least one of the following problems: a leaking roof, damp walls/foundations/floors, rot in window frames or floor (31% of Slovenian households in 2009). In 2009, the values of these indicators were practically the same as in 2008.

<sup>1</sup> Based on incomes in 2008.

<sup>2</sup> E.g.: The at-risk-of-poverty rate for people with a lower education (lower than secondary education) was 22.9%, while for those with a higher education (post-secondary and higher education) it was only 2.6%.

<sup>3</sup> The long-term poverty rate indicates the share of the population living below the poverty line for three consecutive years.

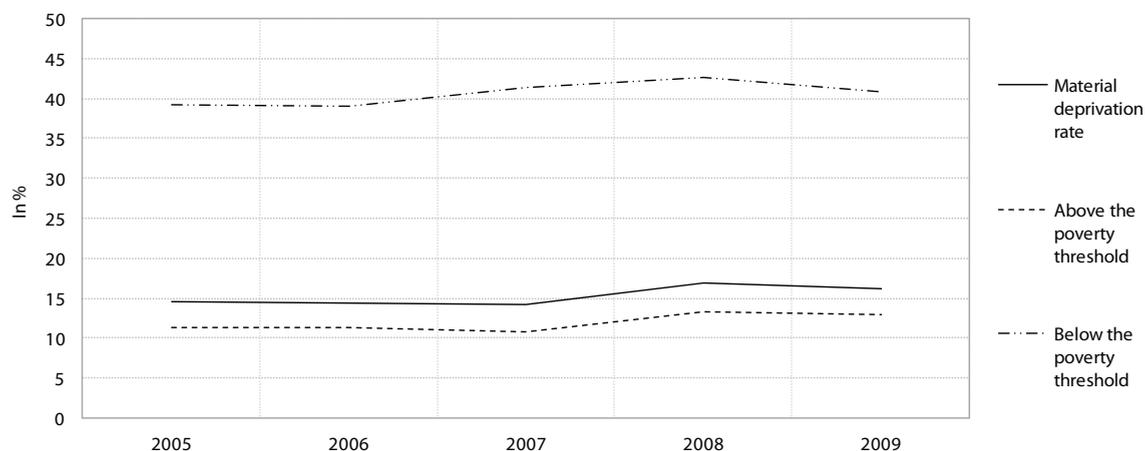
Table: Selected at-risk-of-poverty and income-inequality indicators, Slovenia and EU-25, (excluding income in kind)

| Year   | 2000 |                   | 2005 |       | 2006 |       | 2007 |       | 2008 |       | 2009 |       |
|--|------|-------------------|------|-------|------|-------|------|-------|------|-------|------|-------|
|  | SLO  | EU-25             | SLO  | EU-25 | SLO  | EU-25 | SLO  | EU-25 | SLO  | EU-25 | SLO  | EU-25 |
| <b>At-risk-of-poverty rate, in %</b>                         |      |                   |      |       |      |       |      |       |      |       |      |       |
| total population (after social transfers)                    | 13.0 | 16.0              | 12.2 | 15.9  | 11.6 | 16.1  | 11.5 | 16.2  | 12.3 | 16.1  | 11.3 | 15.9  |
| before social transfers <sup>1</sup>                         | 37.2 | 23.0              | 25.9 | 25.7  | 24.2 | 25.9  | 23.1 | 25.6  | 23.0 | 24.8  | 22.0 | 24.9  |
| women  | 18.0 | 17.0              | 13.6 | 16.6  | 13.0 | 16.8  | 12.9 | 17.1  | 13.6 | 17.0  | 12.8 | 16.7  |
| men  | 12.5 | 15.0              | 10.6 | 15.2  | 10.3 | 15.3  | 10.1 | 15.4  | 11.0 | 15.1  | 9.8  | 15.1  |
| children (aged 0–18)   | N/A  | N/A               | 12.1 | 19.2  | 11.5 | 19.1  | 11.3 | 19.3  | 11.6 | 19.5  | 11.2 | 19.3  |
| young people (aged 18–24)                                    | N/A  | N/A               | 10.0 | 19.0  | 8.9  | 20.0  | 9.1  | 20.0  | 9.7  | 20.0  | 7.7  | 20.0  |
| elderly (aged 65+) <sup>2</sup>                              | 21.0 | 17.0              | 20.4 | 18.4  | 20.0 | 18.5  | 19.4 | 18.9  | 21.3 | 18.4  | 20.0 | 17.3  |
| single-parent families <sup>3</sup>                          | 17.5 | 30.0 <sup>4</sup> | 22.0 | 31.2  | 22.3 | 32.4  | 28.6 | 33.4  | 28.8 | 35.5  | 28.1 | 34.0  |
| couples with three or more dependent children (large family) | 10.0 | N/A               | 16.6 | 24.5  | 15.2 | 24.2  | 15.2 | 24.2  | 11.3 | 24.6  | 15.7 | 24.5  |
| jobless households with dependent children                   | N/A  | N/A               | 54.2 | 60.3  | 59.1 | 62.2  | 54.4 | 63.7  | 57.0 | 61.2  | 60.4 | 56.0  |
| single households  | 36.0 | N/A               | 44.0 | 23.4  | 42.4 | 23.5  | 39.2 | 24.9  | 41.9 | 25.4  | 43.4 | 25.2  |
| unemployed   | 39.5 | N/A               | 24.9 | 39.5  | 32.8 | 40.9  | 35.9 | 42.5  | 37.6 | 44.2  | 43.6 | 45.1  |
| tenants  | 16.6 | 24.0*             | 25.7 | 22.8  | 21.9 | 22.8  | 25.7 | 24.9  | 25.2 | 25.4  | 22.0 | 25.5  |
| <b>Income inequality indicators:</b>                         |      |                   |      |       |      |       |      |       |      |       |      |       |
| 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   | 3.2  | 4.8   |
| Gini coefficient   | 22.0 | 29.0              | 24.1 | 30.3  | 23.8 | 29.9  | 23.3 | 30.2  | 23.4 | 30.4  | 22.7 | 30.2  |

Source: SI-STAT data portal, 2010; Eurostat; SILC, 2010.

 Notes: <sup>1</sup> pensions included in income; <sup>2</sup> poverty of the elderly regardless of what type of household they live in; <sup>3</sup> in terms of statistics, this indicates a single-parent household with at least one dependent child; <sup>4</sup> data for 2001; N/A – not available.

Figure: Material deprivation rates, Slovenia, 2005–2009, in %



Source: SORS, Statistics on Income and Living Conditions (EU-SILC).

## Healthcare resources

**The number of physicians in Slovenia remains low despite a rise in the recent years.** According to the estimates based on the demands reported to the Medical Chamber by the public-health institutes in 2010, Slovenia has a shortage of about 500 physicians. In 2009, the number of practicing physicians rose by 45 (in 2008 by 40) reaching a total of 4915, whereas their number per 100,000 people was 240.7 (in 2008: 238.8). In the EU, the number of practicing physicians per 100,000 people was 323.7 on average in 2008, meaning that Slovenia is still ranked at the bottom end of the EU countries in terms of this indicator (with only Poland and Romania lagging behind). In the period 2000–2008, Slovenia even slightly widened the gap behind the EU average. In 2010, some measures were taken to increase the inflow of foreign physicians<sup>1</sup> and to augment the enrolment at the faculty of medicine,<sup>2</sup> with some positive effects being expected also from a high increase in the salaries of public sector physicians in recent years.

**Slovenia lags behind the most by the number of general practitioners.** In 2009, the indicator of the number of general practitioners per 100,000 people increased more than in previous years, reaching 54.3 (in 2008: 50.0), whereas the EU average was 85.6. There is still a shortage of general practitioners in Slovenia; the regional coverage and provision of certain services are the main problems. In the last three years, the minimum standards have been met thanks to priority funding of extra teams of general practitioners and children/school out-patient centres in the regions with below-average capacities. The importance of providing adequate number of general practitioners in the healthcare system has been increasingly in the forefront, not only because it provides equal access to healthcare but also because it leads to greater cost-efficiency of the healthcare system. Namely, certain services have already been transferred from the secondary to the primary level with the aim of lowering the costs; better access to a general practitioner could reduce emergency admissions, which are much more expensive to treat; general practitioners have been increasingly seen as gatekeepers who could reduce the cases of costlier treatment at specialised health care. Besides, the workload of general practitioners has

been rising because of an increasing number of chronic patients, demographic changes and higher expectations of patients. One of the indicators showing the capacity of the primary level to take on this greater workload is the proportion of general practitioners to specialists. Also on this indicator Slovenia lags behind the EU average, with a 20.8% share of general practitioners in the total number of physicians, whilst in the EU this figure is 25.0%. In almost all EU countries, the number of specialists has been generally rising faster and the number of general practitioners has been on the decline over the last decade. Most countries have, in turn, taken measures to address the shortage of general practitioners, trying to attract medical graduates to become general practitioners (changes in financing, non-financial incentives); at the same time, registered nurses have also taken on more responsibility at the primary level. In 2010, Slovenia also took measures to strengthen primary healthcare and take some burden off the general practitioners: (i) introduction of 40 new training primary health care offices, where doctors specialising in general medicine will already be able (under tutorship) to register their patients; (ii) introduction of 40 reference primary health care offices, where registered nurses will assume greater responsibilities (in particular in managing patients with chronic illnesses); (iii) additional funds for expansions at the primary level.<sup>3</sup>

<sup>1</sup> A new Act on recognition of professional qualifications of medical doctor, specialist doctor, doctor of dental medicine and dental medicine specialist has been adopted (Ur.l. RS, No. 107/2010), which shortens the procedures for recognition of qualifications obtained in one of the non-EU, EEA or Swiss confederation members.

<sup>2</sup> An increase by 30 additional posts was agreed upon at the Faculty of Medicine in Ljubljana and Maribor for the academic year 2011/2012. Slovenia lags behind the OECD average in terms of the number of medical graduates per 100,000 people. 162 doctors graduated in 2009, i.e. 7.9 graduates per 100,000 people. The OECD average was 9.9 in 2007; in some countries, it is much higher (Denmark 21.7; Austria 19.4; Ireland 16.5).

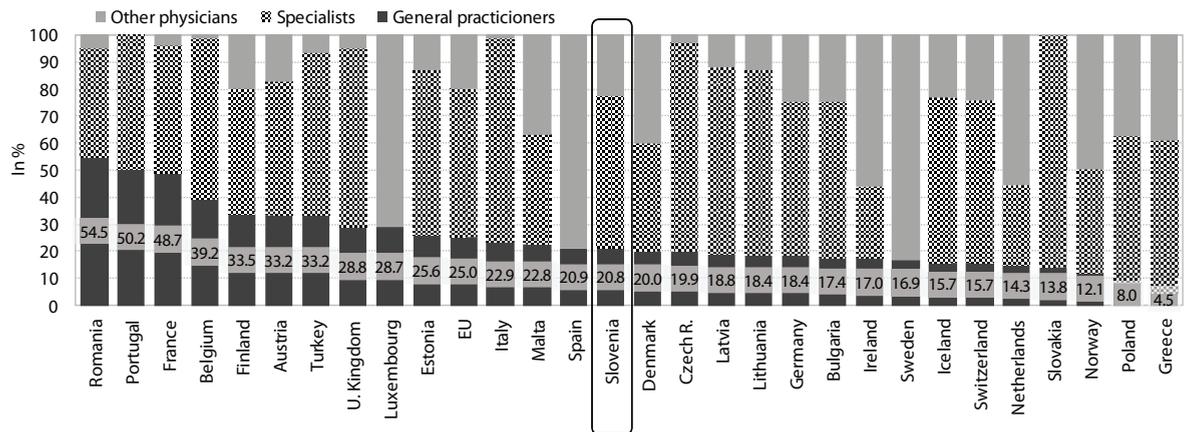
<sup>3</sup> Additional EUR 5.2 million per year was provided in total in 2011 for these measures.

Table: Human resources in the healthcare system in Slovenia<sup>1</sup> and EU countries

|                             | Practicing physicians per 100,000 people |              |              | General practitioners per 100,000 people |                   | Practicing dentists per 100,000 people | Practicing nurses per 100,000 people |              | Nurses to physicians ratio |
|-----------------------------|--|--------------|--------------|--|-------------------|--|--------------------------------------|--------------|----------------------------|
|                             | 2000                                     | 2007         | 2008         | 2000                                     | <sup>2</sup> 2008 | <sup>3</sup> 2008                      | <sup>4</sup> 2000                    | 2008         | <sup>5</sup> 2008          |
| <b>EU-27</b>                | <b>293.6</b>                             | <b>323.5</b> | <b>323.7</b> | <b>83.4</b>                              | <b>85.6</b>       | <b>62.6</b>                            | <b>695.3</b>                         | <b>775.2</b> | <b>2.6</b>                 |
| Austria                     | 384.9                                    | 452.5        | 458.5        | 134.6                                    | 153.0             | 54.4                                   | 728.6                                | 774.0        | 2.0                        |
| Belgium                     | 385.0                                    | 401.6        | 293.2        | 175.1                                    | 117.0             | 71.9                                   | 583.8                                | 659.5        | 2.2                        |
| Bulgaria                    | 337.8                                    | 365.3        | 361.3        | N/A                                      | 65.2              | 82.7                                   | 437.0                                | 466.5        | 1.3                        |
| Cyprus                      | 258.0                                    | 271.5        | 285.6        | 37.4                                     | N/A               | 93.2                                   | 422.5                                | 436.0        | 1.5                        |
| Czech Rep.                  | 337.1                                    | 354.6        | 352.7        | 51.2                                     | 71.0              | 66.6                                   | 805.7                                | 774.0        | 2.2                        |
| Denmark                     | 290.5                                    | 341.0        | N/A          | 71.9                                     | 68.4              | 83.8                                   | 1257.0                               | 1459.3       | 4.6                        |
| Estonia                     | 327.0                                    | 326.7        | 335.0        | 88.2                                     | 105.3             | 92.3                                   | 623.1                                | 670.0        | 2.0                        |
| Finland                     | 249.7                                    | 268.3        | 271.4        | 37.7                                     | 103.0             | 78.0                                   | 1436.0                               | 1547.0       | 5.7                        |
| France                      | 327.2                                    | 335.0        | 334.0        | 161.1                                    | 163.0             | 67.8                                   | 688.6                                | 798.9        | 2.4                        |
| Greece                      | 432.3                                    | 556.0        | 602.0        | 27.7                                     | 27.2              | 130.8                                  | 309.0                                | 364.0        | 0.6                        |
| Ireland                     | 222.7                                    | 302.8        | 311.2        | 48.0                                     | 54.2              | 61.37                                  | 1400.5                               | 1615.0       | 5.0                        |
| Italy                       | 416.3                                    | 363.5        | 412.5        | 83.0                                     | 79.0              | 47.7                                   | N/A                                  | 700.4        | 1.9                        |
| Latvia                      | 288.4                                    | 304.5        | 311.3        | 40.6                                     | 58.0              | 67.0                                   | 479.0                                | 553.2        | 1.8                        |
| Lithuania                   | 364.0                                    | 372.8        | 370.6        | 51.9                                     | 68.3              | 65.9                                   | 805.3                                | 735.2        | 2.0                        |
| Luxembourg                  | 213.7                                    | 282.1        | N/A          | 74.3                                     | 82.0              | 78.8                                   | 863.8                                | 1571.5       | 4.5                        |
| Hungary                     | 268.5                                    | 280.6        | 309.3        | 66.0                                     | 65.4              | 50.5                                   | 579.2                                | 632.0        | 2.0                        |
| Malta                       | N/A                                      | N/A          | 303.9        | N/A                                      | 77.7              | 43.8                                   | N/A                                  | 678.3        | 2.0                        |
| Germany                     | 325.8                                    | 350.5        | 356.2        | 106.6                                    | 99.2              | 77.4                                   | 939.7                                | 781.2        | 3.1                        |
| Netherland                  | N/A                                      | N/A          | N/A          | 45.5                                     | 54.0              | 50.0                                   | N/A                                  | N/A          | N/A                        |
| Poland                      | 222.3                                    | 219.1        | 216.1        | 8.0                                      | 17.4              | 34.2                                   | 553.2                                | 577.0        | 2.7                        |
| Portugal                    | 263.5                                    | N/A          | N/A          | 44.2                                     | N/A               | 66.8                                   | 353.2                                | N/A          | 1.4                        |
| Romania                     | 192.8                                    | 212.3        | 221.5        | N/A                                      | 80.6              | 55.1                                   | 530.1                                | 639.6        | 2.9                        |
| Slovakia                    | 323.9                                    | 300.0        | N/A          | 43.2                                     | 36.3              | 49.9                                   | 750.7                                | 631.6        | 2.0                        |
| <b>Slovenia<sup>1</sup></b> | <b>215.0</b>                             | <b>239.5</b> | <b>238.8</b> | <b>45.7</b>                              | <b>50.0</b>       | <b>59.8</b>                            | <b>685.0</b>                         | <b>794.0</b> | <b>3.3</b>                 |
| Spain                       | 331.8                                    | 368.3        | 352.2        | N/A                                      | 84.0              | 56.4                                   | 658.2                                | 815.8        | 2.3                        |
| Sweden                      | 307.8                                    | 356.6        | 360.0        | 52.8                                     | 60.2              | 82.7                                   | 1031.0                               | 1155.0       | 3.2                        |
| U.K.                        | 196.2                                    | 249.5        | 257.7        | 71.1                                     | 78.8              | 50.9                                   | 916.0                                | 1005.0       | 3.9                        |

Sources: Eurostat; OECD Health Data 2010, WHO HFA-DB. Source for EU-27 average for physicians, general practitioners, dentists and nurses is WHO HFA-DB (the methodologies of data reporting for these categories were standardized in 2007 for Eurostat, WHO and OECD). Source for the EU average for the nurses to physicians' ratio is OECD.  
Notes: <sup>1</sup> Indicators for Slovenia in the text are for 2009, whereas in the table the data is for 2008, as these were the latest available data for the EU countries; <sup>2</sup> 2007: BG, DK, EE, LU, ES and 2006: DE, RO, SK, SE. <sup>3</sup> 2007: DK, FI, LU, SK, SE; <sup>4</sup> 2007: BG, DK, ES, LU, ES. <sup>5</sup> 2007: AT, BG, DK, IT, LT, LV, LU, MT, DE, PT, SK, SE.

Figure: General practitioners, specialists and other physicians, as a % of total number of physicians, 2008



Source: OECD Health at a glance: Europe 2010.

## Life satisfaction

### ***Life satisfaction is a synthetic and multi-dimensional indicator of the quality of life and personal well-being.***

It shows people's estimation of the living conditions and has become an increasingly important indicator in policy-making in recent years. It is measured by a number of surveys asking people how satisfied they are with their lives. Longitudinal analysis of life satisfaction in Slovenia is conducted through the Slovenian Public Opinion Polls and Politbarometer carried out by the Public Opinion and Mass Communication Centre (CJMMK), while internationally comparable data are drawn from the European Social Survey and the surveys of the European Foundation for the Improvement of Living and Working Conditions (Eurofound) and the European Commission (Eurobarometer). Since the European surveys differ with regard to the countries covered and the sets of possible responses, direct comparisons are not possible. We can only compare trends and positioning. Moreover, most international surveys are carried out over longer time periods, unlike the Eurobarometer surveys, which include this indicator twice a year.<sup>1</sup> As data from other international surveys are not available for 2009 and 2010, we present life-satisfaction trends based on data from the Eurobarometer survey.

***According to Eurobarometer data, Slovenia was ranked 10<sup>th</sup> among the EU countries in June 2010, with 85% satisfied with life (very satisfied and satisfied combined).*** Life satisfaction declined by 1 p.p. compared with 2009. In June 2010, the share of satisfied people in Slovenia was both below the seven-year average<sup>2</sup> (88%) and below the share of satisfied people in 2004 (90%), the year for which first data are available. Although still relatively high, this is the lowest share in Slovenia since 2004 with the exception of that in October 2008. A more detailed analysis shows that the number of very satisfied people has been falling in Slovenia since 2004, while the number of dissatisfied people is growing, which has been, with minor fluctuations over the past few years, typical, particularly for the period since October 2008. The shares of satisfied and very dissatisfied people have been relatively stable throughout the period of measurement.

***Slovenia has the largest proportion of satisfied people among the new EU Member States and a higher proportion than some old EU Member States*** (Germany, France, Spain, Portugal and Greece), which was also

confirmed by other international surveys. The highest satisfaction levels were recorded in Scandinavian and northern EU countries (the Netherlands, Belgium, the United Kingdom, Ireland), and in Austria, which is just ahead of Slovenia. After 2007, all EU countries except Finland recorded declines in the share of satisfied people, but these negative trends have turned positive in all but a few countries after 2007 (the last year before the economic crisis). In some of these countries, the share of satisfied people already exceeded the seven-year average in June 2010.

<sup>1</sup> The Eurobarometer life satisfaction question reads: All things considered, how satisfied would you say you are with your life these days? and the possible answers are: very satisfied, satisfied, dissatisfied and very dissatisfied (for all Member States since accession to the EU onwards). Data for Slovenia have thus been available since 2004.

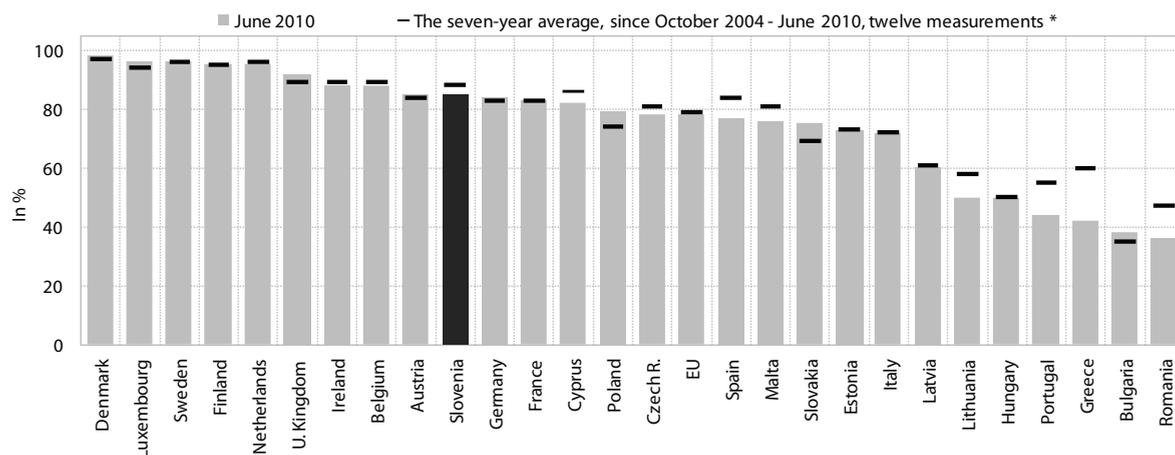
<sup>2</sup> The seven-year average is calculated using twelve measurements from the last seven years (since October 2004, when Slovenia joined the EU).

Table: Life satisfaction in Slovenia, share of people in %

|        | Very satisfied | Satisfied | Dissatisfied | Very dissatisfied | Don't know |
|--------|----------------|-----------|--------------|-------------------|------------|
| Oct.04 | 27             | 63        | 8            | 1                 | 0          |
| Jun.05 | 22             | 68        | 8            | 2                 | 0          |
| Oct.05 | 25             | 62        | 13           | 1                 | 0          |
| Apr.06 | 23             | 64        | 12           | 1                 | 0          |
| Sep.06 | 27             | 62        | 9            | 1                 | 0          |
| May 07 | 24             | 67        | 9            | 0                 | 0          |
| Oct.07 | 27             | 60        | 11           | 2                 | 0          |
| Apr.08 | 24             | 65        | 9            | 2                 | 0          |
| Oct.08 | 27             | 58        | 12           | 3                 | 0          |
| Jun.09 | 22             | 64        | 12           | 2                 | 0          |
| Nov.09 | 21             | 65        | 12           | 2                 | 0          |
| Jun.10 | 21             | 64        | 13           | 2                 | 0          |

Source: Eurobarometer, 2010.

Figure: Life satisfaction («very satisfied» and «satisfied combined»), June 2010, and 2004–2010 average



Source: Eurobarometer, 2010; calculations by IMAD.

Note: The seven-year average is calculated based on 12 measurements in the last 7 years (from October 2004, when Slovenia joined the EU).



## **THE FIFTH PRIORITY:**

### **Integration of measures to achieve sustainable development**

- Greenhouse gas emissions
- Emission-intensive industries
- Energy intensity
- Renewable energy sources
- Share of road transport in total freight transport
- Environmental taxes and implicit tax rate on energy consumption
- Agricultural intensity
- Intensity of tree felling
- Age-dependency ratio
- Life expectancy and infant mortality
- Fertility rate
- Migration ratio
- Regional disparities in GDP per capita
- Regional disparities in the registered unemployment rate
- Book production and public libraries

## Greenhouse gas emissions

***In 2008, greenhouse-gas emissions in Slovenia were much higher than the Kyoto Protocol targets; only five EU Member States were further from their respective targets than Slovenia.*** By ratifying the Kyoto Protocol, Slovenia committed to reduce greenhouse-gas (GHG) emissions in the 2008–2012 period on average by 8%<sup>1</sup> compared with baseline emissions in 1986. In 2008, GHG emissions in Slovenia were 5.2% higher than in the base year and only five EU Member States were less successful in achieving their targets.<sup>2</sup> With the exception of Slovenia, in this period emissions were reduced most by new Member States, which is mostly the result of more extensive economic restructuring in the early 1990s. Slovenia generated 13.3% more emissions per unit of GDP in PPS than the EU average in 2000 and 16.7% more in 2008.

***In 2009, there was a reduction in emissions, mostly as a result of a drop in economic activity, while the decline in the emission intensity of the Slovenian economy has slowed significantly in the past two years.*** After GHG emissions in Slovenia reached their peak in 2008, according to data from the Environmental Agency of the Republic of Slovenia they decreased in 2009 by 9.1% and were 4.4% lower than in the base year.<sup>3</sup> The reduction was the contribution of all categories except agriculture,<sup>4</sup> the greatest contribution being that of lower emissions due to lower fuel consumption in transport, which decreased by 13.3%, mostly as a result of a significant decline in external trade, and consequently freight transport. Another factor was a significant increase in excise duties on fuel in 2009. Despite the marked decline in 2009, transport emissions were as much as 162% higher than in the base year and represented 27.6% of total emissions in Slovenia. Only the share of emissions of the energy sector, which are predominantly the result of thermal power plants, was higher (31.5%). With lower production in thermal power plants, energy-sector emissions decreased in 2009 by 4.7%, while, compared

with the base year, they were almost 10% lower. Due to a large drop in production in manufacturing, industrial emissions also decreased significantly (emissions due to fuel use by 16.8% and emissions from production processes by 29.9%). The reduction of emissions in 2009 was thus mostly the result of lower economic activity, while the reduction in the emissions intensity of the economy was again low (1.1%). This means that in the 2007–2009 period, there was no significant decoupling between emissions growth and economic growth, which is one of the main objectives of sustainable development.

***To meet the EU 2020 targets, it will be necessary to reduce emission intensity and especially emissions from diffuse sources.*** Within the Climate and Energy Package, the EU set a goal of at least 20% reduction in GHG emissions by 2020, which is also part of the EU 2020 Strategy. For those who are involved in the EU Emissions Trading System (EU ETS), the target is determined for the EU as a whole (a 21% reduction by 2020 compared with 2005) and will be moved from the jurisdiction of individual Member States in 2013.<sup>5</sup> The EU ETS scheme includes especially larger installations from the energy and manufacturing sectors, the emissions of which represented about 40% of total emissions in Slovenia in 2009, and which according to our calculations reduced emissions by 7.5% compared with 2005. For emissions by sectors that are not included in the emission-trading system (transport, buildings, agriculture and waste), targets are set for each country separately; for Slovenia a 4% increase is allowed. In 2008, these emissions were still much higher than the permitted increase, while in 2009, particularly due to the economic crisis, they were below the permitted increase (2.5% below the 2005 level). In the future, more attention will have to be paid to measures in these areas and their effectiveness will to a large extent depend on successful reduction of transport emissions.

<sup>1</sup> If Slovenia demonstrates proper forest management, in reaching the Kyoto commitment we could also include sinks in the amount of 1.32 Mt CO<sub>2</sub> equivalent from the increase in the growing stock, which represents 6.5% of total emissions in the base year. In addition, countries have the option of purchasing part of the required reduction that they can not achieve at home from other Member States via so-called flexible mechanisms.

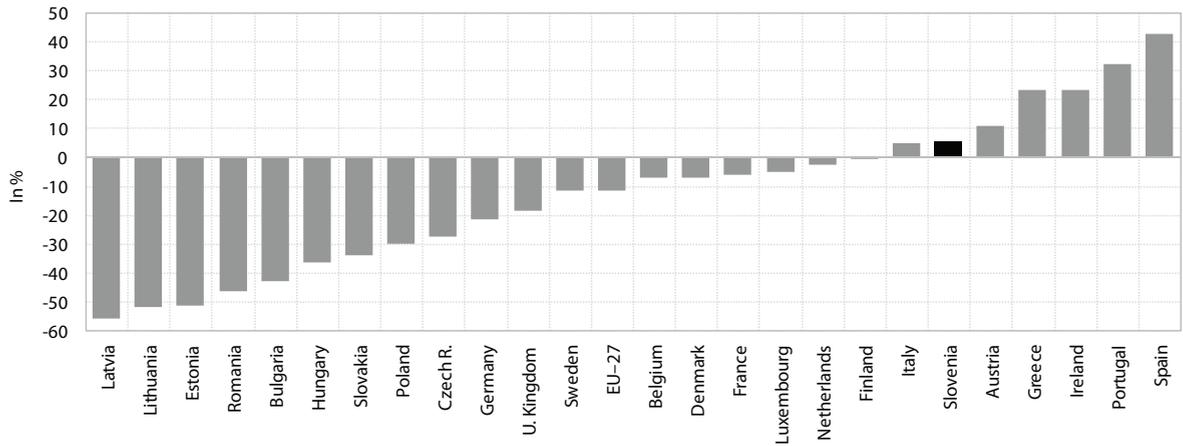
<sup>2</sup> According to EEA data, only five EU Member States were further from the Kyoto targets – which differ among countries – than Slovenia. Taking into account the planned flexible mechanisms and sinks, in 2008, six EU Member States were ranked lower than Slovenia.

<sup>3</sup> In the 2008–2009 average, emissions were 0.8% higher than the base year of the Kyoto Protocol (excluding sinks).

<sup>4</sup> Emissions from agriculture depend less on the economic cycle. See also Chapter 5.1 – Integrating environmental criteria with sectoral policies.

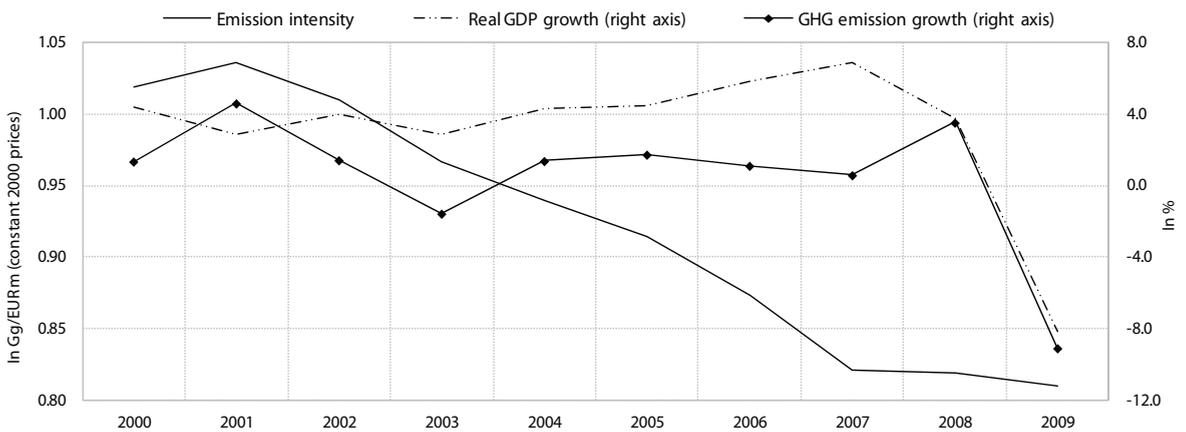
<sup>5</sup> Emission allowances are currently distributed on the basis of national allocation plans, which must reflect the Kyoto targets of Member States. At the moment, the second trading period (2008–2012) is being implemented; with the start of the third period (2013–2020) some changes will be enforced; e.g. the emission limit will be determined at the EU level and no longer via the allocation plans of individual Member States.

Figure 1: Greenhouse-gas emissions<sup>1</sup> compared with the base year of the Kyoto Protocol, 2008



Source: UNFCCC, 2010.  
Note: <sup>1</sup> Excluding emissions due to land use and sinks, and emissions in air and maritime transport.

Figure 2: Emission intensity,<sup>1</sup> Slovenia



Source: UNFCCC, ARSO, SI-STAT Data Portal – National accounts, 2011.  
Note: <sup>1</sup> Excluding emissions due to land use and sinks, and emissions in air and maritime transport.

## Emission-intensive industries

**Influenced by the economic crisis, the output of emission-intensive industries declined in 2009 by as much as 18.6% and in 2010 grew by 10.2%, after two years once more exceeding the growth in other industries (6.4%).** The total output of emission-intensive industries in Slovenia grew faster than the output of other manufacturing industries from 1999 to the outbreak of the economic crisis. In 2008, the overtaking stopped since the output of emission-intensive industries – particularly due to lower aluminium production – declined, while output in other industries increased. The reduction in output of emission-intensive industries in 2009 intensified, as did the decline in other industries. The share of value added (VA) of emission-intensive industries in total manufacturing did not change significantly compared with 2008; it stood at 22.8%. In Slovenia the share of emission-intensive industries in VA generated in manufacturing is among the highest in the EU (see Figure). Therefore, the importance of these industries in Slovenia is higher than in most other EU Member States both in terms of generating value added and in terms of the export competitiveness of the economy.<sup>1</sup> With a general increase in output volume in 2010, after two years, output volume in emission-intensive industries once more increased more quickly.<sup>2</sup>

**Energy intensity in manufacturing continued to decline in 2009; after three years of intensive decline, the fall was slightly smaller.** Decomposition<sup>3</sup> analysis of energy consumption shows that the decline in 2009 was mostly (around 94%) the result of lower output. In a year of low production activity, the negative contribution of this factor was expected (in the 2004–2008 period, it was positive). As in 2007 and 2008, the decline in energy consumption in 2009 was partly caused by structural effects. The share of the VA of industries that consume more energy per unit of value added decreased and was in the 2007–2009 period mostly the result of low production activity in manufacture of other non-

metallic mineral products. In the 2004–2008 period, except in 2005, the decline in energy consumption was partly also the result of lower energy intensity within individual industries, which is the main indicator of quality changes. In 2009, positive trends stopped, since the decline in energy intensity in some subsectors (especially in manufacture of basic metals and fabricated metal products) was too low to offset the increase in energy intensity in other subsectors.<sup>4</sup> Since the decline in energy intensity in manufacturing is in most cases linked to the replacement of old by more efficient technology, which requires investments, trends in 2009 are also linked with the declining possibilities of such investments in times of financial and economic crisis; in addition, it is necessary to take into account that part of energy consumption is fixed. Final energy consumption<sup>5</sup> (energy consumption in TJ) per unit of value added – which at the total level of manufacturing combines both the effect of energy intensity of individual industries and the effect of the structure – was, except in 2005, declining. The improvement was larger mostly in 2007 and 2008, while in 2009 it remained at the level of the previous period (1.3%).

<sup>1</sup> In 2008, these industries in Slovenia generated 22.5% (in the EU 18.6%) of total gross value added of manufacturing; in addition, the share of manufacturing in total value added of the economy was also higher. Compared with the EU average, Slovenia has an especially high share from the chemical industry and manufacture of non-metallic products.

<sup>2</sup> The exception is manufacture of other non-metallic mineral products (lime, cement, etc.), where modest production activity continues due to low demand from the construction sector.

<sup>3</sup> GHG emissions in industry are generated in the production process (i.e. process emissions) or as a result of fuel combustion. This part focuses on the latter, which represent the larger part of emissions from industry. The change in final energy consumption (energy consumption in TJ) in manufacturing was broken down into three sets of factors: change in level of output, change in structure of output and change in energy intensity within individual industries.

<sup>4</sup> Among 14 manufacturing industries, in 2009 energy intensity declined in 5, in 2008 in 9, in 2007 in 13, etc.

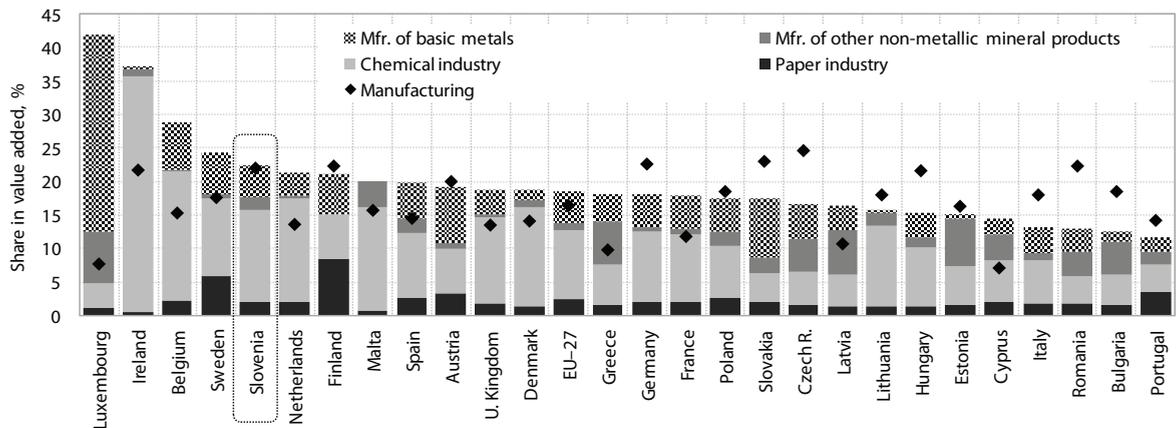
<sup>5</sup> Energy consumption by industries, in TJ (SORS).

Table: Indices of growth in production and value added in manufacturing and emission-intensive industries

| Real growth indices  | 2000  | 2005  | 2006  | 2007  | 2008  | 2009 | 2010  |
|--|-------|-------|-------|-------|-------|------|-------|
| Value added in manufacturing   | 109.7 | 104.3 | 107.3 | 107.8 | 100.1 | 83.3 | 108   |
| Production volume in manufacturing   | 107.1 | 104   | 106.2 | 108.5 | 102.6 | 81.8 | 107.1 |
| Production volume in emission-intensive industries                         | 108.2 | 104.2 | 112.1 | 114.3 | 97.6  | 81.4 | 110.2 |
| Pulp, paper and paper products   | 105.1 | 102.5 | 99    | 98.5  | 89.8  | 90.5 | 101.7 |
| Chemicals, chemical products, man-made fibres                              | 110.4 | 107.6 | 113   | 121.7 | 107.9 | 85.7 | 114.7 |
| Other non-metallic mineral products  | 96.4  | 93.1  | 106.2 | 105.8 | 102.5 | 74.3 | 98.6  |
| Metals   | 111.9 | 103.2 | 119.6 | 106.7 | 68.6  | 70.1 | 109.5 |
| Production volume in manufacturing excluding emission-intensive industries | 106.8 | 103.9 | 104.8 | 107.1 | 103.8 | 81.9 | 106.4 |

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 emission-intensive industries in manufacturing and share of manufacturing in total value added of the economy, EU Member States, 2008



Source: Eurostat; calculations by IMAD.

## Energy intensity

**As regards energy intensity, in 2008 Slovenia ranked worse than most of the EU Member States; trends in 2009 were slightly more favourable.** As regards energy

intensity calculated as energy consumption per unit of GDP in PPS,<sup>1</sup> in 2000 Slovenia was ranked 15<sup>th</sup> among EU Member States and in 2008 three places lower. According to this indicator, Slovenia's energy intensity in 2008 was 16.4% higher than the EU average (in 2000 13.3%). Differences among countries are on the one hand the result of the structure of the economy (depending on the share of service activities or energy-intensive industries) and on the other hand of different levels of energy efficiency within the same industries. Generally, new Member States are more energy intensive than old Member States, but the difference to the EU average has been decreasing as has been true in the past for Slovenia. In most EU Member States, the decline in energy intensity continued<sup>2</sup> in 2008 (on average by 1.2%), while in Slovenia energy intensity increased by 2.0% (a higher increase was registered only in Ireland). In the main crisis-affected year, 2009, economic activity in Slovenia dropped by 8.1% and energy consumption by even more (by 9.8%). Energy intensity thus decreased by 1.8%, reaching the 2007 level. Estimates for 2010 show no major changes in energy intensity, since both GDP and energy consumption increased by about 1%.

**In the 2000–2008 period, above-average growth in energy consumption, especially in road transport, was observed in Slovenia.** Total energy consumption in Slovenia increased by 2.4% per year, while the average annual growth in energy consumption in the EU was much lower, at 0.5%.<sup>3</sup> In the EU as a whole, the pressure to consume more energy also came from road transport, but this was much less pronounced than in Slovenia. In the observed period, final energy consumption in road transport in the EU was increasing on average by 1.1% per year and in Slovenia by as much as 5.9% per year. This was to a large extent caused by the relatively low prices of automotive fuel in this period, which were lower than in neighbouring countries, so the growing road transit in Slovenia led to filling vehicles up with fuel in Slovenia.

**In the main crisis-affected year, 2009, the consumption of all energy products, except hydro-energy, decreased.**

Due to the lower volume of road transport (especially freight transport), the decline in total primary energy consumption was to the largest extent (49%) contributed by liquid fuels. Due to the regular annual overhaul in the nuclear power plant,<sup>4</sup> the decline was also a result of lower consumption of nuclear energy, by 18%. Net electricity export, which was to a large extent the result of larger hydro-energy production and the reduction in total electricity consumption, contributed 17%, while 14% was contributed by solid fuels.

**In addition to high energy consumption in road transport, the high energy intensity in Slovenia is caused by the industrial structure of the economy.**

Slovenia is among the EU Member States with high shares of manufacturing in total value added of the economy (22.1% compared with 16.5% in the EU in 2008; in the main crisis year, 2009, the share in Slovenia declined to 19.6% and in the EU to 14.8%). As regards total energy consumption per capita, Slovenia is slightly above the EU average (in 2008 by 6.1%), whereas as regards general development (GDP per capita), Slovenia lags behind the EU by over 30% (in 2008 by 30.9%, in 2009 by 34.1%). The increase in the share of less energy-intensive service industries goes hand in hand with the development of the economy, so that the downward trend in energy intensity is expected to continue in the future. The extent of changes will, however, depend on the speed of technological development and a wide range of measures stimulating energy efficiency.

<sup>1</sup> Due to improved methodology, in this year's Development Report, GDP in PPS was taken into account in the calculation of the international comparison of energy intensity.

<sup>2</sup> P In the time comparison, the indicator of primary energy consumption per unit of GDP at constant prices is taken into account. To provide international comparability, the source of data up to 2008 (latest available data) is Eurostat; calculations for Slovenia for 2009 are based on SORS's data, which slightly differ from Eurostat data.

<sup>3</sup> It should be noted that in the 2000–2008 period, GDP (at constant 2000 prices and exchange rates) in the EU on average was increasing by 2.0% per year, while in Slovenia it was increasing much more, by 4.4%.

<sup>4</sup> Every third year there is no regular refit of the nuclear power plant.

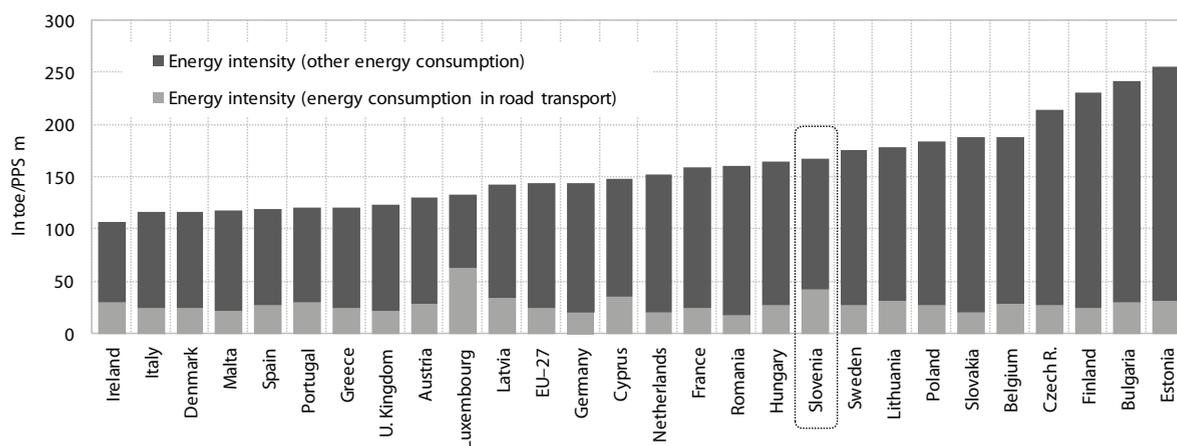
Table: Energy intensity (primary energy consumption per unit of GDP), in toe/EUR m, 2000 prices, <sup>2000 exchange rate</sup>

|                 | 1995         | 2000         | 2005         | 2006         | 2007         | 2008         |
|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>EU</b>       | <b>208.5</b> | <b>187.3</b> | <b>181.3</b> | <b>175.7</b> | <b>169.1</b> | <b>167.1</b> |
| Austria         | 151.1        | 140.3        | 154.0        | 147.6        | 140.8        | 138.1        |
| Belgium         | 250.8        | 243.7        | 224.1        | 215.5        | 198.7        | 199.8        |
| Bulgaria        | 1633.4       | 1362.4       | 1129.3       | 1091.0       | 1011.7       | 944.2        |
| Cyprus          | 236.1        | 237.1        | 208.9        | 212.1        | 210.7        | 213.4        |
| Czech Rep.      | 727.4        | 659.1        | 601.2        | 587.6        | 552.4        | 525.3        |
| Denmark         | 134.5        | 112.5        | 106.5        | 110.1        | 105.7        | 103.1        |
| Estonia         | 1237.2       | 812.7        | 617.0        | 548.4        | 571.2        | 570.5        |
| Finland         | 278.3        | 246.3        | 231.4        | 241.3        | 228.1        | 217.8        |
| France          | 191.6        | 179.1        | 176.5        | 170.7        | 165.0        | 166.7        |
| Greece          | 208.1        | 204.6        | 186.1        | 179.0        | 171.4        | 170.0        |
| Ireland         | 164.0        | 137.0        | 110.6        | 107.7        | 103.9        | 106.5        |
| Italy           | 150.0        | 146.6        | 151.4        | 147.3        | 143.8        | 142.6        |
| Latvia          | 706.7        | 441.0        | 356.7        | 327.3        | 306.5        | 308.7        |
| Lithuania       | 870.7        | 571.2        | 478.3        | 434.0        | 428.1        | 417.5        |
| Luxembourg      | 204.5        | 165.3        | 179.6        | 170.1        | 157.8        | 154.6        |
| Hungary         | 611.5        | 487.5        | 443.9        | 424.0        | 407.5        | 401.4        |
| Malta           | 267.0        | 191.3        | 212.1        | 194.8        | 197.8        | 194.9        |
| Germany         | 182.3        | 166.0        | 163.4        | 159.2        | 152.0        | 151.1        |
| Netherlands     | 218.1        | 184.8        | 184.8        | 174.6        | 178.9        | 171.6        |
| Poland          | 700.3        | 488.7        | 432.1        | 427.0        | 398.8        | 383.5        |
| Portugal        | 198.1        | 197.5        | 204.5        | 188.9        | 189.2        | 181.5        |
| Romania         | 1095.8       | 913.4        | 730.9        | 703.4        | 657.3        | 614.6        |
| Slovakia        | 951.4        | 796.4        | 680.7        | 620.1        | 538.2        | 519.7        |
| <b>Slovenia</b> | <b>352.5</b> | <b>299.2</b> | <b>283.5</b> | <b>269.6</b> | <b>252.4</b> | <b>257.5</b> |
| Spain           | 199.7        | 196.2        | 195.4        | 187.1        | 183.9        | 176.4        |
| Sweden          | 222.9        | 177.4        | 168.7        | 157.7        | 152.1        | 152.1        |
| U.K.            | 161.4        | 144.5        | 128.4        | 122.9        | 115.2        | 113.7        |

Source: Eurostat Portal Page – Structural indicators, 2011.

Note: N/A – not available.

Figure: Energy intensity (calculated from GDP in PPS) in EU Member States in 2008



Source: Eurostat Portal Page – Environment and Energy, 2011; calculations by IMAD.

## Renewable energy sources

**Contrary to the trend in the EU, in recent years Slovenia has not been continually increasing its share of use of renewable energy sources (RES); there was a larger increase in 2009, when, due to the crisis, the consumption of all types of energy except hydro-energy fell.** Although the share of RES in total energy consumption in Slovenia is still higher than in the EU, the difference is decreasing. In the EU, the share is growing, while in Slovenia it is fluctuating due to slow construction of new power plants and changes in the quantity of water in rivers. According to Eurostat data, in 2008, the share of RES in Slovenia was 11.0% and in the EU 8.4%. According to SORS data, in 2009 the above-average water quantity in rivers increased the production and thus also the consumption of hydro-energy by 17.4% and despite 3.7% lower use of biomass the use of RES increased by 4.7%. With total energy consumption having declined by 9.8% due to the crisis, the share of RES increased to 12.9%. We estimate that with the slow economic growth in 2010, energy consumption in Slovenia slightly increased, and because the use of hydro-energy remained very high, the share of RES declined, but was still higher than the target value of 12%.<sup>1</sup>

**The greatest contribution (over 80%) to the growth in RES use in Slovenia has come from traditional sources, wood and hydro-energy, while in the EU it has come from biofuels.** The use of individual RES varies across the EU depending on natural conditions in individual Member States. Slovenia's 40.6% share of hydro-energy was in 2008<sup>2</sup> the highest among EU Member States. Wood (and wood waste) is the most important RES in twenty Member States (including Slovenia), while the highest shares are recorded in the Baltic States (in Estonia 97.7%). High shares of "non-traditional" RES are mostly recorded in countries where the proportion of RES in total energy consumption is low.<sup>3</sup> In 2008, use of RES in Slovenia increased by 15.6%. This growth was mostly the result of hydro-energy (55.7%), followed by wood and

wood waste (34.8%), biofuels (7.8%) and biogas (1.7%).<sup>4</sup> In the EU as a whole, use of RES increased by 5.6% in 2008, with the largest contribution (29.7%) coming from the increase in the use of biofuels.<sup>5</sup>

**Due to favourable hydrological conditions and lower consumption, the share of RES significantly increased in 2009 also in use of electricity, while for 2010 we estimate that the share was very close to the target value of 33.6%.** In 2008, electricity from RES accounted for 16.7% of electricity consumption in the EU and 29.1% of electricity consumption in Slovenia. In 2009, the share in Slovenia increased to 36.8% (electricity consumption -11.8%, hydro-energy 17.4%). According to ELES data, in 2010 production in hydroelectric power plants decreased by 0.7%, while electricity consumption increased by 8.1%. The share of RES thus decreased by a few percentage points and did not deviate greatly from the target value of 33.6% (Resolution on the National Energy Programme, 2004).

**Within the EU targets Slovenia must achieve at least a 25% share of RES in gross final energy consumption by 2020 (EU-27: 20%).<sup>6</sup>** In July 2010, the Government thus adopted the National Action Plan for Renewable Energy Sources 2010–2020, which specifies sectoral targets and measures to achieve them. Given that the share of RES in Slovenia in 2008 was 15.1% and that the calculation takes into account normalised hydrology (the share is not higher when water level rises above average), it will be difficult to achieve this target without a large increase in incentives for efficient use of energy and RES. The scheme promoting electricity generation from RES adopted in 2010 should contribute to greater use, since the contribution for implementation of this scheme in the electricity price almost doubled.

<sup>1</sup> The 1997 White Paper on Renewable Energy Sources (COM(1997) 599 "Energy for the future: renewable sources of energy" determined the mentioned target for 2010 for EU Member States; Slovenia adopted the target during the accession process and is stated in the 2004 Resolution on the National Energy Programme.

<sup>2</sup> The latest internationally comparable data are available for 2008.

<sup>3</sup> The Benelux countries and Denmark (the exception with the high share of total RES) use a large amount of solid municipal waste for energy purposes (the Netherlands uses the most), Luxembourg has a high share of biofuels and the United Kingdom has a high share of biogas. As regards wind energy, the highest shares are recorded in Ireland and Spain, geothermal energy is an important energy source only in Italy, while Cyprus and Greece have the highest shares of solar energy.

<sup>4</sup> SORS does not cover other RES; according to estimates by the Ministry of the Environment and Spatial Planning, the share of geothermal energy is 2.4% and of solar thermal energy 0.9% of total RES.

<sup>5</sup> Wood and wood waste 20.4%, hydro-energy 18.6%, wind energy 15.0% and solar energy 5.8%; the remaining tenth includes solid municipal waste, biogas and geothermal energy. Within solar energy, the use of photovoltaics increased most (by 96.9%), and within biofuels, the use of bioethanol (by 53.5%); however, the shares of these two energy sources in RES are still very low.

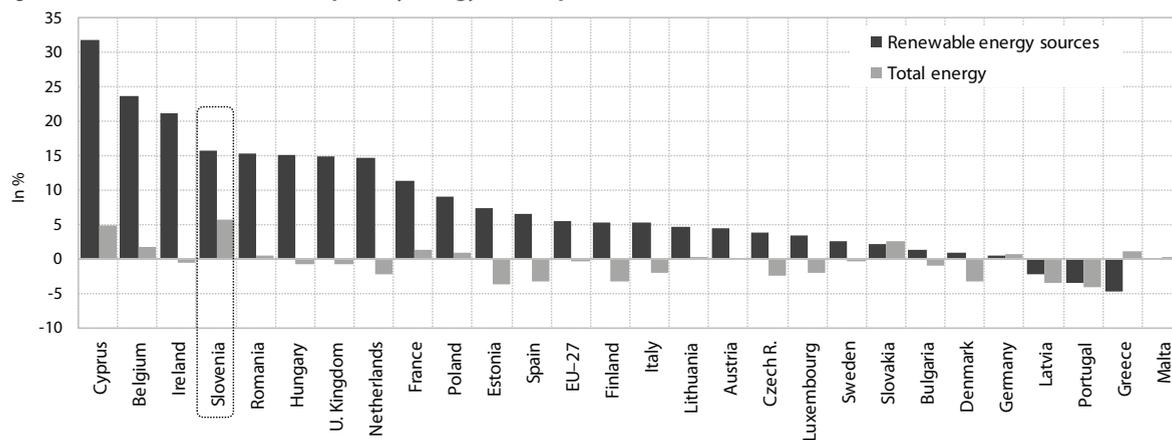
<sup>6</sup> Directive/28/ES. Contrary to the criteria for appropriate allocation and consideration of different positions and potentials of Member States, the Directive stipulates a mandatory 10% share of RES in transport in every Member State.

Table: Share of renewable energy sources in total primary energy consumption, in %

|                 | 1995       |  | 2000        | 2005        | 2006        | 2007        |
|-----------------|------------|--|-------------|-------------|-------------|-------------|
| <b>EU</b>       | <b>5.1</b> |  | <b>5.7</b>  | <b>6.6</b>  | <b>7.1</b>  | <b>8.4</b>  |
| Austria         | 21.8       |  | 22.8        | 21.1        | 22.2        | 25.3        |
| Belgium         | 1.3        |  | 1.3         | 2.4         | 2.9         | 3.7         |
| Bulgaria        | 1.6        |  | 4.2         | 5.6         | 5.5         | 4.9         |
| Cyprus          | 2.1        |  | 1.8         | 1.9         | 1.9         | 3.0         |
| Czech Rep.      | 1.4        |  | 1.5         | 4.1         | 4.3         | 5.0         |
| Denmark         | 7.6        |  | 10.9        | 16.4        | 15.6        | 18.1        |
| Estonia         | 8.7        |  | 10.2        | 10.6        | 9.8         | 11.0        |
| Finland         | 21.1       |  | 23.8        | 23.4        | 23.0        | 25.2        |
| France          | 7.5        |  | 6.5         | 5.9         | 6.2         | 7.4         |
| Greece          | 5.3        |  | 5.0         | 5.2         | 5.7         | 5.0         |
| Ireland         | 1.4        |  | 1.6         | 2.4         | 2.7         | 3.6         |
| Italy           | 4.8        |  | 5.2         | 6.4         | 7.0         | 7.8         |
| Latvia          | 27.2       |  | 31.8        | 33.0        | 31.0        | 30.1        |
| Lithuania       | 5.7        |  | 9.2         | 8.8         | 9.3         | 9.3         |
| Luxembourg      | 1.4        |  | 1.6         | 1.6         | 1.7         | 2.7         |
| Hungary         | 2.4        |  | 2.1         | 4.4         | 4.8         | 6.1         |
| Germany         | 1.9        |  | 2.8         | 5.1         | 6.0         | 8.6         |
| Netherland      | 1.5        |  | 2.4         | 3.4         | 3.6         | 4.2         |
| Poland          | 3.9        |  | 4.2         | 4.8         | 5.1         | 5.7         |
| Portugal        | 16.2       |  | 15.3        | 13.2        | 17.1        | 17.8        |
| Romania         | 5.9        |  | 10.9        | 12.6        | 11.7        | 13.5        |
| Slovakia        | 2.8        |  | 2.8         | 4.3         | 4.6         | 5.5         |
| <b>Slovenia</b> | <b>9.4</b> |  | <b>12.3</b> | <b>10.6</b> | <b>10.5</b> | <b>11.0</b> |
| Spain           | 5.4        |  | 5.7         | 6.0         | 6.5         | 7.7         |
| Sweden          | 26.0       |  | 31.6        | 29.5        | 29.5        | 32.1        |
| U.K.            | 0.9        |  | 1.1         | 1.8         | 1.9         | 2.6         |

Source: Eurostat Portal Page – Environment and Energy, 2011.  
Note: N/A – not available. No data for Malta.

Figure: Growth of RES use and total primary energy consumption in EU Member States in 2008



Source: Eurostat Portal Page – Environment and Energy, 2011; calculations by IMAD.

## Share of road transport in total freight transport

**The share of road freight transport in Slovenia is growing faster and has for several years been higher than in the EU; it also increased in the most crisis-affected year, 2009.** In 2000, the share of road freight transport<sup>1</sup> in total freight transport (roads, railways and inland waterways, in tonne kilometres) was slightly lower in Slovenia than in the EU, but in subsequent years it increased and in 2005 it exceeded the EU average. In 2008, road freight transport in Slovenia grew fastest among all EU Member States, by 18.4% (in the EU it decreased by 1.8%), while in 2009 it decreased less than in most EU Member States, by 9.2% (in the EU by 10.1%). The share of road freight transport in total freight transport in Slovenia thus increased from 82.2% in 2008 to a relatively high 84.0% in 2009 (in the EU from 76.2% to 77.5%).<sup>2</sup> The increase across the EU was mostly the result of rapid growth of road freight transport in most Eastern European countries (see Figure).

**Due to its favourable location, the volume of road freight transport per capita in Slovenia is among the highest in the EU; railway freight transport is also above the EU average.** In 2003, transport operators registered in Slovenia accounted for about as many tonne kilometres per capita as the EU average, while in 2009 they accounted for more than twice as many tonne kilometres (114% more; only transport operators registered in Luxembourg accounted for more tonne kilometres). This rapid growth is mostly attributed to the favourable location of Slovenia at the crossing of European corridors V and X, where transport has increased significantly with the two most recent EU enlargements. Administrative obstacles for Slovenian transport operators with regard to transport in EU Member States (permits, permission for cabotage<sup>3</sup>) were also reduced after Slovenia joined the EU. In that period, Slovenia also had relatively low prices of motor fuels and motorway tolls for freight vehicles. As a small Central European country, Slovenia has a high share of international freight transport and a lower share of national freight transport (in 2009, 85% and 15%, respectively). This means that Slovenian transport operators perform a large share of their services in other countries. In addition to the above-average volume of

road freight transport, Slovenia also has a high volume of railway freight transport per capita (in 2009, it was 89% higher than the EU average).

**As regards sustainable transport policy, unfavourable trends have been present for many years, and there has not been any visible progress in the modernisation of the railway infrastructure.** In 2009, the volume of road freight transport in Slovenia was more than a fifth higher than in 2006,<sup>4</sup> while the volume of railway transport was a sixth lower.<sup>5</sup> That was an unfavourable shift of freight transport from railways to roads. The economic crisis in 2009, which significantly decreased external trade, had a much larger impact on the decline in railway freight transport than in road freight transport, both in Slovenia (-20.0% and -9.2%) and the EU (-17.4% and -10.1%). At the EU level, the volume of railway freight transport in 2009 declined compared with 2006 by about the same percentage as in Slovenia (by 17.0%); however, in contrast to Slovenia, the EU also had a lower volume of road freight transport (by 8.5%). Transport of freight by railway (and waterways) is more acceptable from the point of view of sustainable development; therefore, it should be encouraged to stop the upward trend in road freight transport. More rapid modernisation of the railway infrastructure, which is Slovenia's investment priority<sup>6</sup> in this decade, and the related better accessibility of the Port of Koper, would surely increase the attractiveness of railway transport; however, these programmes are behind schedule. Because the liberalisation of the railway freight market has already brought increased competition from foreign transport operators, it is very important to successfully restructure the incumbent Slovenian railway operator and modernise the railway infrastructure.

<sup>1</sup> The data on road freight transport refer to national operators (volume of transport by road freight vehicles registered in Slovenia) performing services in Slovenia and other countries, while the data on railway freight transport refer to transport in Slovenia, irrespective of the origin of the transport operator.

<sup>2</sup> The calculations take into account the data on railway freight transport collected by the detailed and simplified method of data collection, which covers enterprises performing less than 500 million tkm per year.

<sup>3</sup> Transport performed in other countries.

<sup>4</sup> Since that year, data have been available for all EU-27 Member States.

<sup>5</sup> Road freight transport was 21.9% higher while railway freight transport was 16.5% lower.

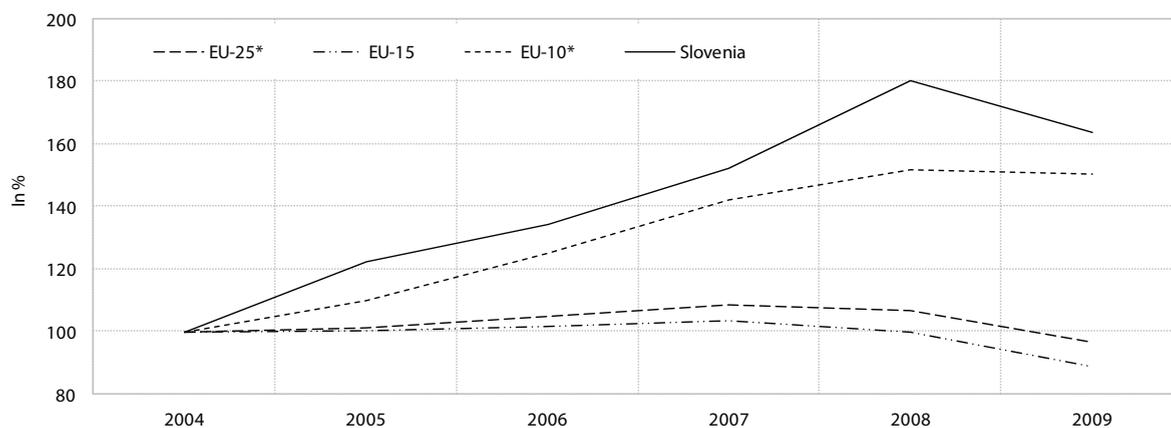
<sup>6</sup> For investments in the railway infrastructure, in the 2007–2013 period, EUR 450 million was earmarked from the Cohesion Fund; however, by the end of 2009, no project had been confirmed in this field (Annual Report on Implementing the Operational Programme of Environmental and Transport Infrastructure Development for the 2007–2013 period).

Table: Share of road transport in total freight transport (tkm), in %

|                 | 2000        | 2005        | 2006        | 2007        | 2008        | 2009        |
|-----------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>EU-27</b>    | <b>73.7</b> | <b>76.4</b> | <b>76.2</b> | <b>76.2</b> | <b>76.2</b> | <b>77.5</b> |
| Austria         | 64.8        | 64.1        | 63.2        | 60.9        | 58.6        | 59.5        |
| Belgium         | 77.4        | 72.4        | 71.1        | 69.7        | 68.5        | 72.9        |
| Bulgaria        | 52.3        | 70.8        | 69.0        | 70.0        | 66.9        | 67.4        |
| Cyprus          | 100.0       | 100.0       | 100.0       | 100.0       | 100.0       | 100.0       |
| Czech Rep.      | 68.0        | 74.4        | 76.1        | 74.7        | 76.7        | 77.8        |
| Denmark         | 92.1        | 92.2        | 91.8        | 92.2        | 91.3        | 90.8        |
| Estonia         | 37.3        | 35.4        | 34.7        | 43.2        | 55.3        | 47.3        |
| Finland         | 75.8        | 76.5        | 72.8        | 73.9        | 73.3        | N/A         |
| France          | 76.0        | 80.5        | 80.9        | 80.9        | 80.7        | 81.0        |
| Greece          | N/A         | 97.5        | 98.1        | 97.1        | 97.3        | 97.8        |
| Ireland         | 96.2        | 98.3        | 98.8        | 99.3        | 99.4        | 99.4        |
| Italy           | 89.0        | 90.3        | 88.5        | 87.6        | 88.3        | 91.0        |
| Latvia          | 26.5        | 29.8        | 39.0        | 41.9        | 38.7        | 30.2        |
| Lithuania       | 46.6        | 56.1        | 58.4        | 58.5        | 58.0        | 59.9        |
| Luxembourg      | 87.8        | 92.3        | 91.5        | 93.8        | 94.2        | 94.6        |
| Hungary         | 68.1        | 69.2        | 71.6        | 74.5        | 74.7        | 78.8        |
| Malta           | 100.0       | 100.0       | 100.0       | 100.0       | 100.0       | 100.0       |
| Germany         | 65.3        | 66.0        | 65.9        | 65.7        | 65.5        | 67.0        |
| Netherlands     | 63.4        | 63.6        | 63.1        | 59.4        | 59.9        | 63.4        |
| Poland          | 56.9        | 69.0        | 70.4        | 73.5        | 75.9        | 80.5        |
| Portugal        | 92.5        | 94.6        | 94.9        | 94.7        | 93.9        | 94.3        |
| Romania         | 42.9        | 67.3        | 70.5        | 71.3        | 70.2        | 60.0        |
| Slovakia        | 53.0        | 70.3        | 68.8        | 71.8        | 73.8        | 77.9        |
| <b>Slovenia</b> | <b>71.9</b> | <b>77.3</b> | <b>78.2</b> | <b>79.2</b> | <b>82.2</b> | <b>84.0</b> |
| Spain           | 92.8        | 95.2        | 95.4        | 95.9        | 95.9        | 96.6        |
| Sweden          | 63.9        | 64.0        | 64.2        | 63.6        | 64.7        | 62.5        |
| U.K.            | 90.0        | 87.8        | 85.8        | 86.6        | 86.5        | 86.7        |

Source: Eurostat Portal Page – Structural indicators, 2010; SI-STAT Data Portal, 2010.  
Note: N/A – not available.

Figure: Share of road freight transport (tkm) in Slovenia and the EU in the 2004–2009 period



Source: Eurostat Portal Page – Transport, 2011.  
Note: \*without Malta.

## Environmental taxes and implicit tax rate on energy consumption

**Slovenia has relatively high revenues from environmental taxes, which is partly the result of higher energy consumption.** In 2008, revenues from environmental taxes in Slovenia represented 3.0% of GDP, while the EU average was 2.4%.<sup>1</sup> In most Member States the bulk of environmental taxes is energy taxes (Slovenia: 78.7%,<sup>2</sup> EU: 72.1%). The share of revenues from environmental taxes in GDP does not necessarily reflect an actual environmental policy. The high share of revenues from energy taxes can reflect greater energy consumption per unit of GDP, which, for example, has an impact on the high revenues in Bulgaria and to some extent also in Slovenia.<sup>3</sup> The indicator that eliminates this deficiency is the implicit tax rate on energy consumption, which in 2008 was EUR 121.7 per toe,<sup>4</sup> slightly below the EU average. Revenues from taxes on pollution are relatively low in the EU, while the share of transport taxes differs significantly among Member States.<sup>5</sup> Despite the above-average volume of transport, which reflects in the level of road-transport activity and the number of passenger cars per capita,<sup>6</sup> transport taxes in Slovenia are relatively low. About half of revenues from these taxes<sup>7</sup> are registration fees on vehicles paid by individuals and slightly less revenues from taxes on sales of new motor vehicles, which according to our estimates were significantly reduced in 2009. In order to promote the purchase of vehicles with low environmental impacts, since March 2010, this tax rate in Slovenia has been linked to CO<sub>2</sub><sup>8</sup> emissions.

**Due to the increase in excise duties, environmental taxes increased substantially in 2009.** Environmental taxes are one of the most important market-based instruments of environmental policy, enabling internalisation of negative external costs of activities that cause them. About three quarters of environmental taxes in Slovenia is represented by excise duties on

motor fuels, which also follow other, non-environmental objectives. The relatively low rates of excise duty in the years of high economic activity were to a large extent the result of mitigating the impact of rising oil prices on inflation. Rates of excise duty on motor fuels decreased in 2008 to the minimum allowed level,<sup>9</sup> but, due to the strong growth in fuel consumption, the related tax revenues increased. With the lower average price of oil on the global market and the increased need for general government revenues, excise duties on petrol and diesel fuel jumped to 30% and 43% over the minimum level in 2009, and increased by an average of EUR 0.466 and 0.431<sup>10</sup> per litre, respectively. Despite the lower quantity of fuel sold, revenues from this increased further, i.e. by more than 20%.<sup>11</sup> This more than offset the reduction in revenues from most other environmental taxes, which, with the simultaneous decrease in GDP, according to our estimates led to an increase in environmental taxes to approximately 3.6% of GDP. Due to the above-mentioned changes in the excise policy in Slovenia, we estimate that the implicit tax rate on energy consumption significantly increased in 2009 to about EUR 159 per toe.

<sup>1</sup> The latest internationally comparable data.

<sup>2</sup> For 2009 we estimate that the share of energy taxes in total environmental taxes in Slovenia increased to 84%.

<sup>3</sup> See the indicator *Energy intensity*.

<sup>4</sup> Thousand tons of oil equivalent.

<sup>5</sup> Transport taxes mostly refer to ownership and use of transport means, and tax rates can have a significant impact on the number of vehicles and the structure of the vehicle fleet in an individual country (OECD, 2010).

<sup>6</sup> In 2009, Slovenia had 521 passenger cars per 1,000 inhabitants, compared with an EU average of 473. More passenger cars per 1,000 inhabitants were registered in Luxembourg, Italy, Cyprus, Malta and Austria (Eurostat).

<sup>7</sup> Funds from the sale of toll stickers are not counted as tax revenue.

<sup>8</sup> Official Journal of the Republic of Slovenia, No. 9/2010.

<sup>9</sup> Directive 2003/96/EC.

<sup>10</sup> Use of diesel fuel has greater negative environmental effects mostly due to higher NOX and solid particle emissions (OECD, 2010); nevertheless, the rate of excise duty on diesel fuel is lower.

<sup>11</sup> IMAD estimate based on SORS data.

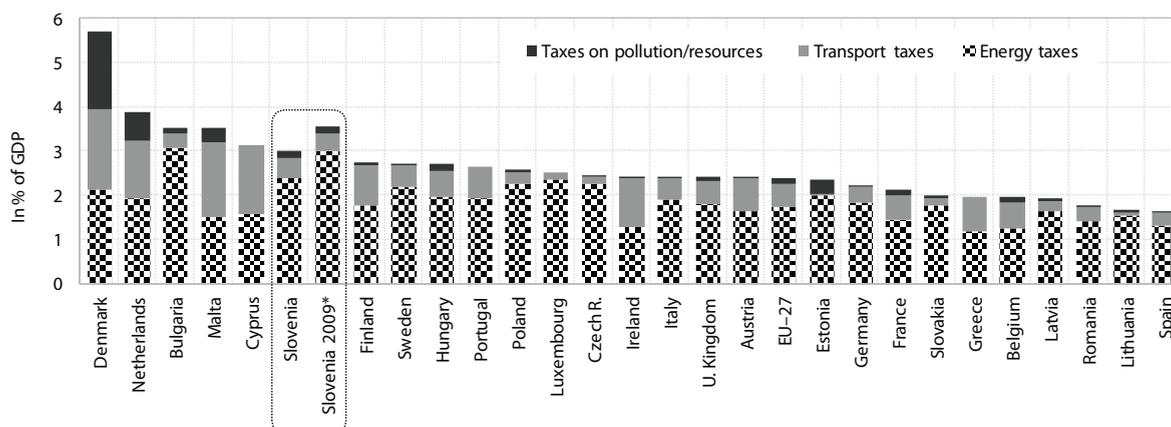
Table: Implicit tax rate on energy consumption,<sup>1</sup> in EUR/toe, 2008

|                 | 2000         | 2005         | 2006         | 2007         | 2008         |
|-----------------|--------------|--------------|--------------|--------------|--------------|
| <b>EU-27</b>    | <b>171.7</b> | <b>165.3</b> | <b>164.3</b> | <b>164.9</b> | <b>158.2</b> |
| Austria         | 141.8        | 149.5        | 141.3        | 150.2        | 150.2        |
| Belgium         | 92.4         | 106.9        | 103          | 112.3        | 97.1         |
| Bulgaria        | 36.4         | 52.6         | 52.8         | 65.2         | 71.7         |
| Czech Rep.      | 55.2         | 93.5         | 99.4         | 108.5        | 127.1        |
| Germany         | 192.7        | 206.6        | 202          | 203.5        | 193.8        |
| Denmark         | 300.8        | 290.3        | 279.8        | 272.6        | 267.8        |
| Estonia         | 32.2         | 65.4         | 68.8         | 70.5         | 71.5         |
| Spain           | 137.8        | 119.3        | 119.8        | 117.7        | 114.6        |
| Finland         | 108.7        | 111.7        | 105.1        | 102.7        | 114.5        |
| France          | 173.2        | 163          | 163.3        | 160.7        | N/A          |
| Greece          | 117.3        | 100.3        | 96.3         | 102          | N/A          |
| Hungary         | 79.7         | 86.8         | 85.6         | 97.8         | 98           |
| Ireland         | 140.5        | 154.7        | 150.7        | 153.2        | 153.1        |
| Italy           | 248.7        | 208          | 210.1        | 200.2        | 187.4        |
| Lithuania       | 58           | 78.3         | 74.5         | 77.4         | 78.5         |
| Luxembourg      | 164.3        | 177.7        | 168.5        | 167.6        | 173.3        |
| Latvia          | 48.3         | 55.1         | 52.9         | 49.8         | 48.4         |
| Netherland      | 154.4        | 182.2        | 193.1        | 177.5        | 189.8        |
| Poland          | 58.9         | 84.2         | 87.6         | 101.3        | 108          |
| Portugal        | 111.8        | 148.8        | 148.1        | 149.1        | 143.4        |
| Romania         | 58.2         | 24.7         | 26.2         | 32.2         | 26.2         |
| <b>Slovenia</b> | <b>118.3</b> | <b>114.5</b> | <b>113.7</b> | <b>123.9</b> | <b>121.7</b> |
| Slovakia        | 42.4         | 65           | 67.8         | 77.3         | 84.6         |
| Sweden          | 182          | 196.9        | 199.6        | 196.6        | 190.1        |
| U.K.            | 249.5        | 212.5        | 210.9        | 218          | 180.2        |

Source: Eurostat Portal Page – Sustainable Development Indicators, 2011.

Note: <sup>1</sup> Revenues from energy taxation (deflated) per unit of final energy consumption; N/A – not available.

Figure: Revenues from environmental taxes, 2008



Source: Eurostat Portal Page – Environment and Energy, 2011.

Note: \* IMAD estimate.

## Agricultural intensity

**The consumption of all mineral fertilisers and thus also NPP fertilisers<sup>1</sup> decreased further in 2009; 11.8% less mineral fertilisers and 14.0% less NPP fertilisers were used in agricultural production than in 2008.** Measured per hectare of utilised agricultural area (UAA), which also decreased in 2009, this was 94.8 kg NPP fertilisers per hectare;<sup>2</sup> 9.6% less than in the previous year and the least in the whole analysed period since 1995. In the analysed period, consumption of NPP fertilisers per unit of UAA decreased by almost 30%; however, according to the latest comparable data for 2007, it was still higher than the EU average and the level in the three neighbouring Member States (Slovenia 115.6 kg/ha, EU 103.9 kg/ha, Italy 98.2 kg/ha, Austria 46.8 kg/ha, Hungary 93.6 kg/ha).<sup>3</sup>

**After the increase in 2008, sales of pesticides fell again in 2009.** The total quantity of active ingredients in pesticides sold decreased by 4.5% in 2009; compared with 2000, it was more than a fifth lower. Direct comparison between countries is not appropriate,<sup>4</sup> but a rough comparison per unit of UAA shows that it is comparable with countries with a similar structure of plant production and similar conditions for agricultural production. In Austria it is lower, while in Hungary – and especially Italy – it is higher.

**Some indicators of the eco-efficiency of agriculture, such as average production per unit of area sown or achieved milk yield per animal, show that it did not improve on average in 2009.** The quantity of the two most important crops per unit of area sown, which to a large extent depends on weather conditions, was for wheat lower (by 11.1%) and for maize higher (by 6.8%). For both crops it was much lower than the EU-15 average, while in terms of land exploitation, the relatively low level of production is not optimal. The environmental burden due to livestock production, measured with the number of animals per unit of area, is relatively high. Despite the downward trend, which is mostly the result of improved efficiency of cattle production,<sup>5</sup> greenhouse-gas emissions are still relatively high. The efficiency of cattle production is too low. The average milk yield per animal, which is much lower than the EU average and lower than in all neighbouring Member States, decreased further in

2009 (by 1.8%). Because greenhouse-gas emissions per unit of milk (or meat) are much higher in conditions of lower milk yield (or slow growth) than of higher, it would be sensible from the point of view of eco-efficiency to intensify production.

**The areas of organic and integrated farming decreased for the first time in 2009.** The areas included in sustainable (integrated and organic) farming decreased by 0.7% in 2009; in integrated farming by 0.2% and in organic farming, which is one of the most efficient methods of sustainable agricultural use of natural resources, by 1.5%. The number of agricultural holdings with organic farming slightly grew in 2009, but the number of agricultural holdings that are in conversion and that represent potential for further development of this type of farming decreased for the first time. After successful development in the early period, the targets from the Rural Development Programme 2007-2013 (64,000 hectares by 2013) and the Action Plan for Organic Farming (20% of UAA by 2015) have already become unattainable. In 2009, fewer than 29,400 hectares of areas were organically farmed, representing only 6.3% of UAA.

<sup>1</sup> NPP fertilisers are mineral fertilisers that contain the three most important plant nutrients: nitrogen, phosphorus and potassium.

<sup>2</sup> Utilised agricultural area decreased by 4.9% in 2009; from 492,424 to 468,496 hectares.

<sup>3</sup> Comparison with neighbouring countries as countries that have similar conditions for agricultural production.

<sup>4</sup> The figure on the quantity is the sum of active ingredients with very different levels of toxicity. 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.

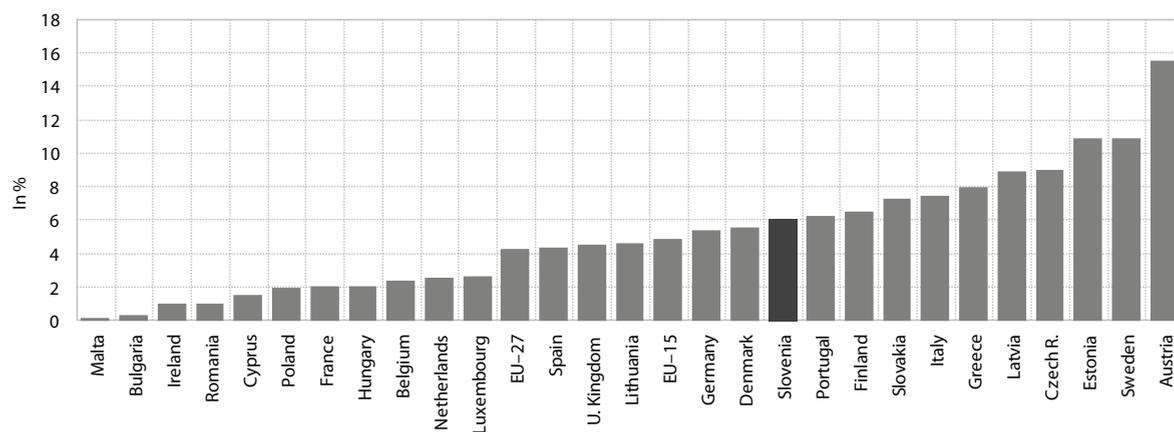
<sup>5</sup> According to Agricultural Institute of Slovenia data.

Table: Selected agricultural intensity indicators for Slovenia in 1995–2008

|   | 1995  | 2000  | 2005  | 2006  | 2007  | 2008  | 2009 |
|---|-------|-------|-------|-------|-------|-------|------|
| <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 | 94.8 |
| <b>Pesticide sales</b>  |       |       |       |       |       |       |      |
| Pesticide sales, total, active ingredients, 1000 t                          | N/A   | 1.47  | 1.38  | 1.28  | 1.16  | 1.22  | 1.16 |
| <b>Production intensity</b>   |       |       |       |       |       |       |      |
| Average yield of wheat, t/ha  | 4.2   | 4.2   | 4.7   | 4.2   | 4.2   | 4.5   | 4.0  |
| Average yield of maize, t/ha  | 6.3   | 5.9   | 8.3   | 6.9   | 7.5   | 7.3   | 7.8  |
| Number of livestock units per hectare of utilised agricultural area, no./ha | N/A   | 1     | 0.9   | N/A   | 0.9   | N/A   | N/A  |
| Average milk yield per animal, t/cow  | N/A   | 4.5   | 4.9   | 5.3   | 5.9   | 5.6   | 5.5  |
| <b>Sustainable production</b>   |       |       |       |       |       |       |      |
| Controlled areas with organic farming, 1000 ha                              | -     | 5.4   | 23.2  | 26.8  | 29.3  | 29.8  | 29.4 |
| Number of controlled organic farms, 1000                                    | -     | 0.6   | 1.7   | 1.9   | 2.0   | 2.1   | 2.1  |
| Controlled areas with integrated farming, 1000 ha                           | -     | -     | 44.6  | 49.9  | 56.9  | 57.6  | 57.5 |
| Number of controlled integrated farms, 1000                                 | -     | -     | 5.5   | 5.8   | 6.0   | 5.9   | 5.6  |

Source: SI-STAT Data Portal – Environment and natural resources – Agriculture and fisheries, 2011; calculations by IMAD.  
Note: N/A – not available.

Figure: Share of organic farming areas in utilised agricultural area in Slovenia and EU Member States, 2008



Source: European Commission. An analysis of the EU organic sector, June 2010.

## Intensity of tree felling

**The expansion of forest area in Slovenia has been slowing in recent years.** At the end of 2009, forests covered 1,186,000 hectares or 0.1% more than in the previous year and almost 60% of the national territory.<sup>1</sup> The forest cover of Slovenia, which increased rapidly in the past century, is behind only Finland and Sweden in Europe. The National Forest Development Programme anticipates that the share of forests in total area will stop growing. With respect to climate, water protection and other ecological conditions, a larger forested area is welcome, but it increases mostly where there is already much forest; meanwhile, in areas with intensive agriculture, and especially in suburban areas, forests are shrinking (Resolution on the National Forest Programme).

**Total tree removal decreased in 2009 due to lower levels of removal for sanitation purposes.** Total tree removal, which had been increasing, decreased in 2009 by 1.6%. Despite the decrease, this was the third highest level of tree removal in the observed period. As usual, most removal was for tree-tending and sanitation purposes, while removal due to forest clearing and removal for infrastructure were relatively low (see Table). Sanitation removal decreased by 17.7%, but was still relatively high. All other types of removal increased. Tree-tending removal, which is vital for forest development and therefore most extensive, increased by 18.8%, but its share in total tree removal was still relatively low (around 65%, compared with around 71% in 2000). Removal due to forest clearing went up by 21% and removal for infrastructure by 5%. Illegal forest operations were previously relatively rare, but in 2009 their number increased significantly; their share in total tree removal increased from 1.4% to 2.2%.

**The intensity of tree felling, which was relatively low in the observed period, decreased further in 2009 and lagged significantly behind the planned level.** With the 1.5% growth in wood increment and the 1.6% decline in removal, the intensity of tree felling declined by 1.3 p.p. to 42.3%. Tree felling in 2009 was again lower than the tree felling possible according to forestry management plans; it decreased from 70% to 66%. As 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 the fragmentation of property.<sup>2</sup> Greater removal of this renewable natural

resource would be appropriate in Slovenia. Due to the growing annual wood increment, the quantity of wood that can be removed is increasing and will continue to do so in the future. A simulation performed by the Slovenian Forest Service shows that the allowed intensity of tree felling could rise to approximately 90% by 2040, i.e. by more than a half. The intensity of tree felling in Slovenia is among the lowest in the EU; in 2005 it was as much as 17 p.p. behind the EU average.<sup>3</sup>

**Appropriate forest exploitation represents useful development potential but remains at a relatively low level.** After the increase in the previous year, the production of raw wood categories decreased by 2.0% in 2009. The structure also worsened; production of saw logs and veneer logs, i.e. wood that is appropriate for achieving high value added, decreased by more than a tenth, while the production of all other types of wood, i.e. pulpwood and stackwood, other industrial wood and fuelwood, increased. Considering the possibilities, the total volume, which decreased only slightly (in the EU by 5.6% on average, see Figure), is too modest, and its structure is also not optimal. In recent years, only about two thirds of wood has been intended for industrial processing in Slovenia (a third has been used for heating), compared with the EU average of four fifths (and a fifth for heating). In addition, the export of wood again increased in 2009, by almost 6% (with export of logs increasing most, by 10.8%); on the other hand, the export of wood products decreased. The export of raw material means less value added and unexploited development potential.

<sup>1</sup> Data of the Slovenian Forest Service and SORS. According to data collected with the project on land use conducted by the Ministry of Agriculture, Forestry and Food in early 2010, the forest area in Slovenia was larger than shown by statistics; compared with the previous year, it decreased (1,214,000 hectares is 0.6% less than in the previous year).

<sup>2</sup> Some analyses (Krajnc, Piškur, 2006) 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 privately-owned forests is higher due to illegal tree removal.

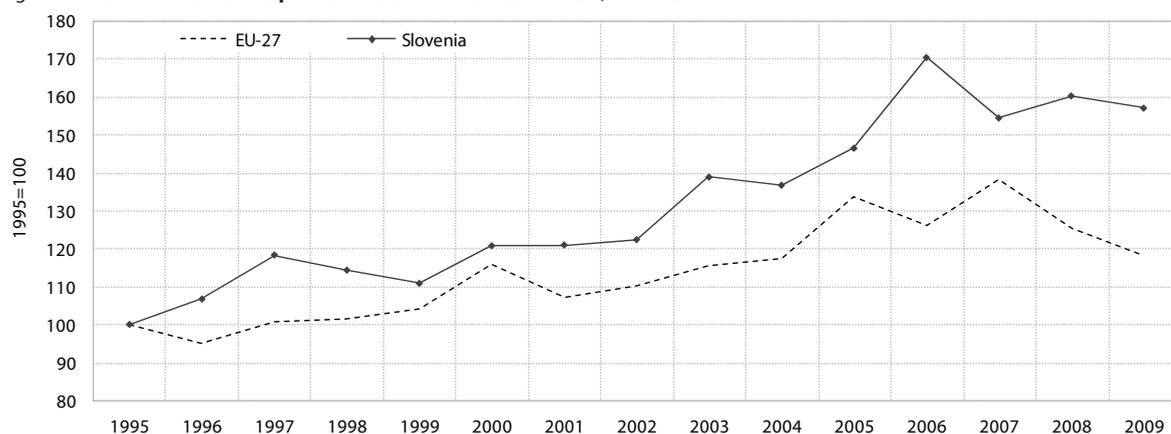
<sup>3</sup> See Development Report 2009.

Table: Forest area, wood increment, growing stock, tree removal and its intensity in Slovenia

|  | 1995    | 2000    | 2005    | 2006    | 2007    | 2008    | 2009    |
|--|---------|---------|---------|---------|---------|---------|---------|
| Forest area, 1000 ha                       | 1,098   | 1,134   | 1,169   | 1,174   | 1,183   | 1,185   | 1,186   |
| Wood increment, 1000 m <sup>3</sup>        | 5,995   | 6,872   | 7,569   | 7,652   | 7,822   | 7,869   | 7,985   |
| Growing stock, 1000 m <sup>3</sup>         | 228,493 | 262,795 | 300,795 | 307,689 | 318,107 | 322,195 | 327,459 |
| Annual removal, 1000 m <sup>3</sup>        | 2,092   | 2,609   | 3,253   | 3,718   | 3,242   | 3,427   | 3,374   |
| tending                                    | 1,325   | 1,849   | 1,873   | 2,288   | 1,966   | 2,100   | 2,196   |
| restoration                                | 12      | 19      | 17      | 18      | 13      | 9       | 12      |
| protection and sanitation                  | 589     | 553     | 1,212   | 1,224   | 1,080   | 1,128   | 929     |
| for infrastructure                         | 15      | 40      | 49      | 50      | 48      | 61      | 64      |
| clearing                                   | 35      | 53      | 65      | 86      | 87      | 68      | 82      |
| no approval                                | 113     | 91      | 35      | 49      | 38      | 48      | 74      |
| other                                      | 2       | 3       | 2       | 1       | 9       | 12      | 16      |
| Intensity of tree felling <sup>1</sup> , % | 34.9    | 38.0    | 43.0    | 48.6    | 41.4    | 43.6    | 42.3    |

Source: Statistical Yearbook of the Republic of Slovenia 2010 (SORS), 2010; report of the Slovenian Forest Service on forests in 2009, 2010.  
Notes: <sup>1</sup>Ratio of annual removal levels to the annual wood increment.

Figure: Growth in roundwood production in Slovenia and the EU, 1995–2009



Source: Eurostat Portal Page – Statistics – Agriculture and Fisheries – Forestry, 2011.

## Age-dependency ratio

**The age-dependency ratio<sup>1</sup> in Slovenia increased further in 2010.** The old-age-dependency ratio rose by a further 0.2 p.p. in 2010 and has been growing in the entire analysed period since 1995. Due to a lower number of children, the total age-dependency ratio was declining until 2004, since then it has been growing. There were thus 23.9 old persons (3.9 more than in 2000) and 20.3 children (0.2 more than in 2009 and 2.4 less than in 2000) per 100 working-age persons in Slovenia in 2010. The total age-dependency ratio was 44.2, i.e. 0.4 higher than in 2009 and 1.6 higher 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.** Due to a higher number of births,<sup>2</sup> the share of children in total population increased for the second consecutive year since 2004, and in 2010 by even more than the share of the old population. The share of the working-age population rose until 2003 (from 69.2% in 1995 to 70.4%); despite the high positive net migration,<sup>3</sup> which increases this population group, it began to decline in 2005 and dropped to 69.3% by 2010.<sup>4</sup> In 1995–2008, the share of children diminished from 18.4% to 13.9%,<sup>5</sup> while it increased to 14.1% by 2010.<sup>6</sup> The share of the old population continued to rise in 2010 (to 16.6% or 2.6 p.p. more than in 2000). In 2003, the number of people aged 65+ 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, the ageing index had risen to 118.0, while in 2010 it even declined slightly (to 117.4) because the number of children increased more than the number of older people.

<sup>1</sup> Age dependency is measured with three ratios: a) the old-age-dependency ratio, which is the ratio of the population aged 65+ to the working-age population (which has an internationally comparable definition as the population aged 15–64), b) the young-age-dependency ratio, which is the ratio of the population aged 0–14 years to the working-age population, and c) the total age-dependency ratio, which is the ratio of the young and old populations to the working-age population.

<sup>2</sup> See the indicator *Fertility rate*.

<sup>3</sup> See the indicator *Migration ratio*.

<sup>4</sup> This decline was 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. However, the impact of the changed definition is not significant. In 2008, which is the last year for which data are available according to 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 include foreigners with temporary residence.

<sup>5</sup> According to the changed definition of population, which does not include foreigners with temporary residence (see previous note), to 13.9%.

<sup>6</sup> According to the changed definition of population, which does not include foreigners with temporary residence.

**The old-age-dependency ratio in Slovenia is still lower than the EU average, but the gap is closing.** Most of the large EU Member States have longer life expectancies than Slovenia<sup>7</sup>; therefore, the share of older people in total population in the EU as a whole is higher than in Slovenia. At the same time, the problems with low shares of children and working-age population (despite positive net migration) are similar. The average old-age-dependency ratio in the EU is therefore higher than in Slovenia, but the gap is closing: in 2009, it was 25.6%, 2.0 p.p. higher than in Slovenia. It continued to be highest in Germany, Italy and Greece, which also have the highest shares of older people in the total population.

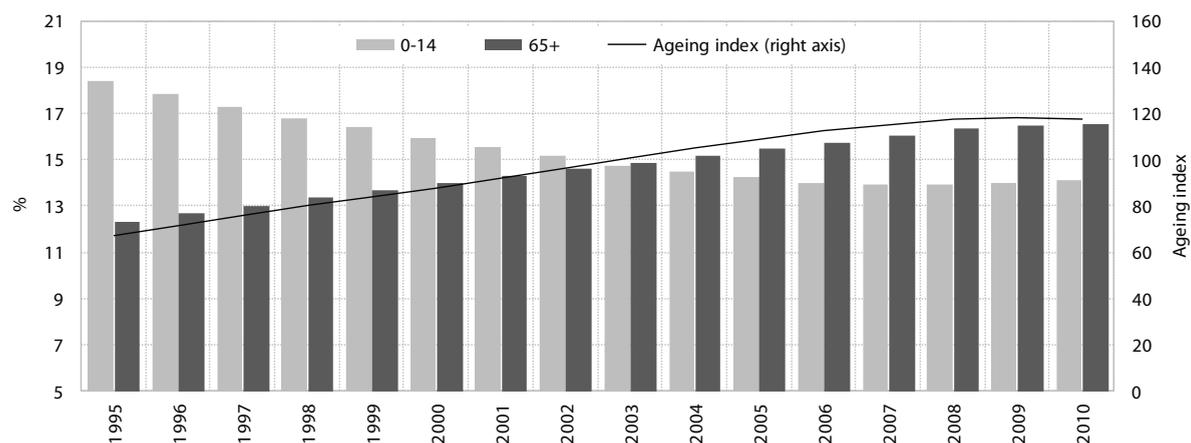
<sup>7</sup> See the indicator *Life expectancy and infant mortality*.

Table: Age-dependency ratio of the population aged 65+ in EU Member States, in %

|                 | 1995        | 2000        | 2005        | 2006        | 2007        | 2008        | 2009        | 2010        |
|-----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>EU-27</b>    | <b>21.9</b> | <b>23.2</b> | <b>24.7</b> | <b>24.9</b> | <b>25.2</b> | <b>25.4</b> | <b>25.6</b> | <b>N/A</b>  |
| Austria         | 22.5        | 22.9        | 23.5        | 24.3        | 25.0        | 25.4        | 25.7        | 26.1        |
| Belgium         | 23.8        | 25.5        | 26.3        | 26.2        | 25.9        | 25.8        | 25.9        | 26.0        |
| Bulgaria        | N/A         | 23.8        | 24.8        | 24.9        | 24.9        | 25.0        | 25.2        | 25.4        |
| Cyprus          | 17.2        | 17.0        | 17.3        | 17.3        | 17.6        | 17.8        | 18.2        | 18.6        |
| Czech Rep.      | 19.3        | 19.8        | 19.8        | 20.0        | 20.2        | 20.5        | 20.9        | 21.6        |
| Denmark         | 22.7        | 22.2        | 22.7        | 22.9        | 23.2        | 23.6        | 24.1        | 24.9        |
| Estonia         | 20.2        | 22.4        | 24.3        | 24.5        | 25.1        | 25.3        | 25.2        | 25.2        |
| Finland         | 21.1        | 22.2        | 23.8        | 24.0        | 24.8        | 24.8        | 25.2        | 25.6        |
| France          | 23.0        | 24.3        | 25.1        | 24.9        | 25.1        | 25.2        | 25.4        | 25.7        |
| Greece          | 22.2        | 24.2        | 26.8        | 27.6        | 27.6        | 27.8        | 27.9        | 28.4        |
| Ireland         | 17.8        | 16.8        | 16.4        | 16.3        | 15.8        | 15.9        | 16.2        | 16.8        |
| Italy           | 24.0        | 26.8        | 29.3        | 29.8        | 30.2        | 30.4        | 30.6        | 30.8        |
| Latvia          | 20.5        | 22.1        | 24.1        | 24.4        | 24.8        | 24.9        | 25.1        | 25.2        |
| Lithuania       | 18.5        | 20.8        | 22.3        | 22.5        | 22.7        | 23.0        | 23.2        | 23.3        |
| Luxembourg      | 20.6        | 21.4        | 20.9        | 20.8        | 20.7        | 20.6        | 20.5        | 20.4        |
| Hungary         | 20.9        | 22.0        | 22.7        | 22.9        | 23.2        | 23.5        | 23.8        | 24.2        |
| Malta           | 16.3        | 17.9        | 19.3        | 19.8        | 19.8        | 19.8        | 20.1        | 21.3        |
| Germany         | 22.5        | 23.9        | 27.8        | 28.9        | 29.9        | 30.4        | 30.9        | 31.4        |
| Netherland      | 19.3        | 20.0        | 20.8        | 21.1        | 21.5        | 21.8        | 22.3        | 22.8        |
| Poland          | 16.6        | 17.6        | 18.7        | 18.9        | 19.0        | 18.9        | 18.9        | 19.0        |
| Portugal        | 21.9        | 23.7        | 25.2        | 25.4        | 25.6        | 25.9        | 26.3        | 26.7        |
| Romania         | 18.0        | 19.3        | 21.1        | 21.2        | 21.3        | 21.3        | 21.3        | 21.4        |
| Slovakia        | 16.3        | 16.6        | 16.3        | 16.4        | 16.5        | 16.6        | 16.7        | 16.9        |
| <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> | <b>23.6</b> | <b>23.8</b> |
| Spain           | 22.2        | 24.5        | 24.4        | 24.3        | 24.2        | 24.1        | 24.3        | 24.7        |
| Sweden          | 27.4        | 26.9        | 26.5        | 26.4        | 26.4        | 26.7        | 27.1        | 27.7        |
| U.K.            | 24.5        | 24.3        | 24.3        | 24.2        | 24.1        | 24.3        | 24.6        | N/A         |

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

Figure: Old (65+) and young (0-14) population as a percentage of total population and ratio between them, (ageing index), Slovenia



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

## Life expectancy and infant mortality

***Life expectancy<sup>1</sup> for men continued to increase in Slovenia in 2009, while life expectancy for women remained almost unchanged.***

After brief stagnation in the early period of transition, life expectancy in Slovenia has been constantly increasing since 1994. In 2009, life expectancy at birth was 75.8 years for men (0.4 years more than in the previous year and 3.9 years more than in 2000), while life expectancy for women remained almost the same as in the previous year, 82.3 years (0.05 years more than in 2008 and 3.2 years more than in 2000). The gender gap has been decreasing since 2004 and amounted to 6.5 years in 2009. Over the last few years, mortality of men has thus been decreasing faster than mortality of women. In 2009, mortality of men decreased in most of the five-year age groups, increasing only in the age groups 25–34 and 65–69 years, while mortality of women decreased more significantly only for children and in the age group 25–34 years. Life expectancy continues to rise in most of the EU Member States. In 2009, life expectancy in Slovenia was lower (on average by gender) than in most of the old Member States (except Denmark) and higher than in most of the new Member States (except Cyprus and Malta). For men, higher life expectancy than in Slovenia was recorded in 17 Member States and for women in only 11.

***In 2009, infant mortality in Slovenia remained on the level of the previous year, when it reached the lowest value ever.<sup>2</sup>***

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 2009, the infant mortality rate was 2.4 infants per 1,000 live births, which is the same as in the previous year. As regards this indicator, Slovenia had the lowest rate among all EU Member States (see Figure). Specific preventive measures in the field of prenatal and neonatal health care, which in more developed countries help to reduce infant mortality, alongside general well-being, continue to remain at a high level in Slovenia.

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<sup>1</sup> Life expectancy is a synthetic indicator of mortality, which indicates how many years a person of a certain age in an individual calendar year can expect to live if by the end of his/her life the age-sex-specific mortality rates remain the same as in the observed calendar year. In conditions of declining mortality rates, the actual life is generally longer than expected (and vice versa).

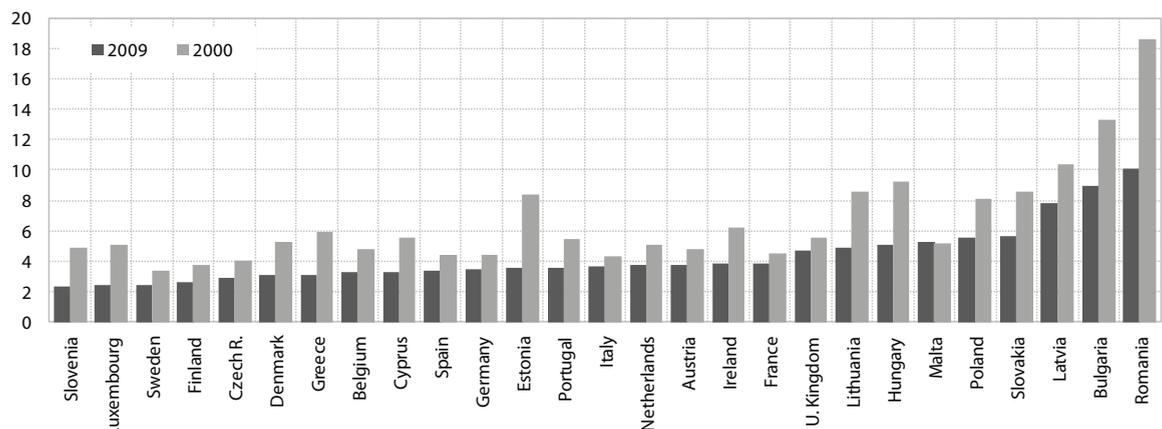
<sup>2</sup> SORS published a new figure on infant mortality in 2008, which, because of the changed definition of population, is 0.4 lower than the figure published a year before.

Table: Life expectancy in Slovenia and EU Member States, 1995–2009

|                 | 1995        | 2000        | 2005        | 2006         | 2007         | 2008        | 2009        |
|-----------------|-------------|-------------|-------------|--------------|--------------|-------------|-------------|
| <b>EU-27</b>    | <b>N/A</b>  | <b>N/A</b>  | <b>77.9</b> | <b>78.34</b> | <b>78.54</b> | <b>N/A</b>  | <b>N/A</b>  |
| Austria         | 76.9        | 78.4        | 79.6        | 80.1         | 80.4         | 80.6        | 80.5        |
| Belgium         | 77.0        | 77.9        | 79.1        | 79.5         | 79.9         | N/A         | N/A         |
| Bulgaria        | 71.0        | 71.6        | 72.5        | 72.7         | 73.0         | 73.3        | 73.7        |
| Cyprus          | N/A         | 77.7        | 78.9        | 80.3         | 80.1         | 80.8        | 81.1        |
| Czech Rep.      | 73.3        | 75.1        | 76.1        | 76.8         | 77.0         | 77.3        | 77.4        |
| Denmark         | 75.3        | 76.9        | 78.3        | 78.4         | 78.4         | 78.8        | 79.0        |
| Estonia         | 67.8        | 70.8        | 72.8        | 73.1         | 73.1         | 74.3        | 75.2        |
| Finland         | 76.7        | 77.8        | 79.1        | 79.6         | 79.6         | 79.9        | 80.1        |
| France          | 78.1        | 79.2        | 80.3        | 80.9         | 81.3         | 81.4        | 81.6        |
| Greece          | 77.5        | 78.0        | 79.2        | 79.6         | 79.4         | 80.0        | 80.2        |
| Ireland         | 75.5        | 76.6        | 79.6        | 79.8         | 79.8         | 79.9        | 79.9        |
| Italy           | 78.4        | 79.9        | 80.9        | 81.5         | 81.6         | N/A         | N/A         |
| Latvia          | N/A         | N/A         | 71.0        | 70.9         | 71.2         | 72.5        | 73.3        |
| Lithuania       | 69.1        | 72.2        | 71.3        | 71.1         | 70.9         | 72.0        | 73.2        |
| Luxembourg      | 76.8        | 78.0        | 79.6        | 79.4         | 79.5         | 80.7        | 80.8        |
| Hungary         | 70.0        | 71.9        | 73.0        | 73.5         | 73.6         | 74.2        | 74.4        |
| Malta           | 77.2        | 78.4        | 79.4        | 79.5         | 79.9         | 79.7        | 80.3        |
| Germany         | 76.7        | 78.3        | 79.4        | 79.9         | 80.1         | 80.2        | 80.3        |
| Netherlands     | 77.6        | 78.2        | 79.6        | 80.0         | 80.4         | 80.5        | 80.9        |
| Poland          | 72.0        | 73.8        | 75.1        | 75.3         | 75.4         | 75.6        | 75.9        |
| Portugal        | 75.4        | 76.7        | 78.2        | 78.9         | 79.1         | 79.4        | 79.6        |
| Romania         | 69.3        | 71.2        | 72.1        | 72.7         | 73.2         | 73.4        | 73.6        |
| Slovakia        | 72.4        | 73.3        | 74.1        | 74.5         | 74.6         | 74.9        | 75.3        |
| <b>Slovenia</b> | <b>74.7</b> | <b>76.2</b> | <b>77.5</b> | <b>78.3</b>  | <b>78.4</b>  | <b>79.1</b> | <b>79.4</b> |
| Spain           | 78.1        | 79.4        | 80.3        | 81.1         | 81.1         | 81.4        | 81.8        |
| Sweden          | 79.0        | 79.8        | 80.7        | 81.0         | 81.1         | 81.3        | 81.5        |
| U.K.            | 76.7        | 78.0        | 79.3        | 79.6         | 79.8         | 79.9        | N/A         |

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

Figure: Infant mortality per 1,000 live births in Slovenia and the EU, 2000 and 2009



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

## Fertility rate

**The number of births in Slovenia slightly increased again in 2009, while the total fertility rate remained unchanged.** A total of 21,856 children were born, 39 more than in the previous year, while the total fertility rate<sup>1</sup> was 1.53, the same as a year before. The number of second, third and higher births slightly increased, while the number of first births decreased by 66 over the previous year. As shown by available data, the number of births in Slovenia in the first three quarters of 2010 remained at the same level as a year before. Except for 2000, the total fertility rate in Slovenia was continually falling between 1980, when it totalled 2.11 and was for the last time above the population replacement level, and 2003. It reached the lowest level in 2003 (1.20), when it started to gradually increase.

**In 2009, the fertility rate in Slovenia was already close to the EU average.** Fertility is slowly increasing in the EU as a whole, but in recent years it has been increasing in Slovenia even more. In 2009, similar fertility rates to those in Slovenia (between 1.5 and 1.6) were recorded in six Member States. The number of Member States with fertility rates below 1.5 is falling; in 2009, the lowest rates were recorded in Latvia, Hungary and Portugal. For several years, around nine Member States have had total fertility rates above 1.6; the highest (already at the population replacement level) rates were recorded in Ireland and France.

**In Slovenia the mean age of women at birth did not increase in 2009; it remained the same as in the previous year, 30.1 years.** On the other hand, the mean age of first-time mothers rose by 0.1 of a year to 28.5 years. The decline in fertility rates of women under 26 years of age, which has continued for over 25 years but has been slowing, mostly continued in 2009. However, fertility rates of women aged 28–31 dropped significantly in 2009. Fertility of women over 27 years of age (especially those aged 31–36) has been showing an upward trend since 1990, which led to a continuous rise in the mean age of women at birth and the mean age of women at first birth. Slovenia is thus already among those countries in which the mean ages of women at birth are high.

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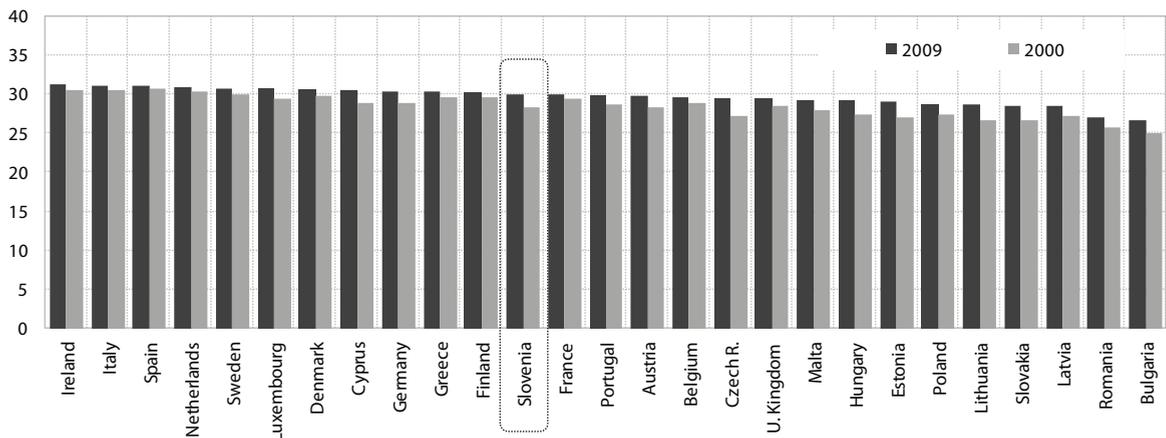
<sup>1</sup> Total fertility rate is the sum of age-specific fertility rates in the calendar year. It shows the number of live births per woman if during her entire childbearing age age-specific fertility rates remained the same as in the observed calendar year.

Table: Total fertility rate in EU Member States, 1995–2009

|                 | 1995        | 2000        | 2005        | 2006        | 2007        | 2008        | 2009        |
|-----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>EU-27</b>    | <b>N/A</b>  | <b>N/A</b>  | <b>1.51</b> | <b>1.54</b> | <b>1.56</b> | <b>1.60</b> | <b>N/A</b>  |
| Austria         | 1.42        | 1.36        | 1.41        | 1.41        | 1.38        | 1.41        | 1.39        |
| Belgium         | 1.56        | 1.67        | 1.76        | 1.80        | 1.82        | 1.86        | 1.84        |
| Bulgaria        | 1.23        | 1.26        | 1.32        | 1.38        | 1.42        | 1.48        | 1.57        |
| Cyprus          | 2.03        | 1.64        | 1.42        | 1.45        | 1.39        | 1.46        | 1.51        |
| Czech Rep.      | 1.28        | 1.14        | 1.28        | 1.33        | 1.44        | 1.50        | 1.49        |
| Denmark         | 1.8         | 1.77        | 1.80        | 1.85        | 1.84        | 1.89        | 1.84        |
| Estonia         | 1.38        | 1.38        | 1.50        | 1.55        | 1.63        | 1.65        | 1.62        |
| Finland         | 1.81        | 1.73        | 1.80        | 1.84        | 1.83        | 1.85        | 1.86        |
| France          | 1.71        | 1.89        | 1.94        | 2.00        | 1.98        | 2.01        | 2.00        |
| Greece          | 1.31        | 1.26        | 1.33        | 1.40        | 1.41        | 1.51        | 1.52        |
| Ireland         | 1.84        | 1.89        | 1.87        | 1.93        | 2.01        | 2.10        | 2.07        |
| Italy           | 1.19        | 1.26        | 1.32        | 1.35        | 1.37        | 1.42        | N/A         |
| Latvia          | 1.27        | N/A         | 1.31        | 1.35        | 1.41        | 1.44        | 1.31        |
| Lithuania       | 1.55        | 1.39        | 1.27        | 1.31        | 1.35        | 1.47        | 1.55        |
| Luxembourg      | 1.7         | 1.76        | 1.63        | 1.65        | 1.61        | 1.61        | 1.59        |
| Hungary         | 1.57        | 1.32        | 1.31        | 1.34        | 1.32        | 1.35        | 1.32        |
| Malta           | N/A         | 1.70        | 1.38        | 1.39        | 1.37        | 1.44        | 1.44        |
| Germany         | 1.25        | 1.38        | 1.34        | 1.33        | 1.37        | 1.38        | 1.36        |
| Netherland      | 1.53        | 1.72        | 1.71        | 1.72        | 1.72        | 1.77        | 1.79        |
| Poland          | 1.62        | 1.35        | 1.24        | 1.27        | 1.31        | 1.39        | 1.40        |
| Portugal        | 1.41        | 1.55        | 1.40        | 1.36        | 1.33        | 1.37        | 1.32        |
| Romania         | 1.41        | 1.31        | 1.32        | 1.32        | 1.30        | 1.35        | 1.38        |
| Slovakia        | 1.52        | 1.30        | 1.25        | 1.24        | 1.25        | 1.32        | 1.41        |
| <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> | <b>1.53</b> |
| Spain           | 1.17        | 1.23        | 1.35        | 1.38        | 1.40        | 1.46        | 1.40        |
| Sweden          | 1.73        | 1.54        | 1.77        | 1.85        | 1.88        | 1.91        | 1.94        |
| U.K.            | 1.71        | 1.64        | 1.78        | 1.84        | 1.90        | 1.96        | 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, 2000<sup>1</sup> and 2009<sup>2</sup>



Source: Eurostat Portal Page – Population and Social Conditions – Population, 2010.  
Notes: <sup>1</sup> Lithuania: 2002; <sup>2</sup> Italy and the United Kingdom: 2008, Belgium: 2007.

## Migration ratio

**The migration ratio<sup>1</sup> in Slovenia decreased in 2009, but it remained among the highest in the EU.** In the first three quarters of 2010 it was negative. After reaching the highest level in 2008 (9.2 per 1,000 inhabitants<sup>2</sup>), in 2009 the migration ratio in Slovenia decreased to 5.6 per 1,000 inhabitants, which was still among the highest ratios in the EU (third behind Luxembourg and Sweden). In the 1995–2004 period the ratio was low, but after Slovenia joined the EU, it increased considerably (see table). 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 had already exceeded 10,000 people (together with seasonal migrants), and increased to 43,815 people by 2008 (of whom 13,115 were seasonal migrants). In 2009, the number of immigrants (excluding seasonal migrants) decreased only by 397, while the number of emigrants increased much more. The number of emigrants had been around 4,100 per year on average in 1995–2000, while by 2009 it increased to 18,788.<sup>3</sup> Net migration, which has been increasing since 1995 and reached the highest level in 2008, decreased to 11,508 in 2009 (excluding seasonal migrants); in the first three quarters of 2010, it was negative (-427), according to provisional data, meaning that the migration ratio was also negative. Fewer people emigrated from Slovenia than in the previous year, but immigration declined much more.

**The lower migration ratio in 2009 and 2010 is the result of the economic crisis and tighter conditions for obtaining residence permits.** Accelerated immigration in 2004–2008 was to a large extent the result of economic growth after Slovenia's accession to the EU. Enterprises were increasingly hiring foreign workers, especially construction workers, so that the number of foreigners employed in Slovenia doubled in that period. In 2008, immigration also increased due to Slovenia's accession to the Schengen agreement. In 2008, numerous abuses were noted, as foreigners with residence permits in the Republic of Slovenia went to other countries that are parties to the Schengen agreement to work, to apply for asylum or to register as job seekers. The reasons for the decrease in net migration, which started in the second quarter of 2009 and accelerated in 2010, were therefore, besides the worsening of economic conditions, which reduced employment of foreigners, also the tighter

conditions for obtaining residence permits for foreigners living in Slovenia that were adopted at that time by the Government of the Republic of Slovenia.

**Most immigrants continue to come from the countries of the former Yugoslavia; their educational attainment reflects the structure of demand for the foreign labour force.** 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>4</sup> The majority of immigrants come from Bosnia and Herzegovina, while immigrants from other EU countries are few in number. In 2007–2009, around 70% of foreign immigrants were persons in employment, of whom more than half worked in construction. Many (in 2009 49.2%) had a lower level of education, but their share is declining in favour of those with a secondary education. Less than 4% of immigrants (in 2009, 3.2%) had a tertiary 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> According to the new definition of migration; 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 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 inhabitants.

<sup>3</sup> According to the new definition.

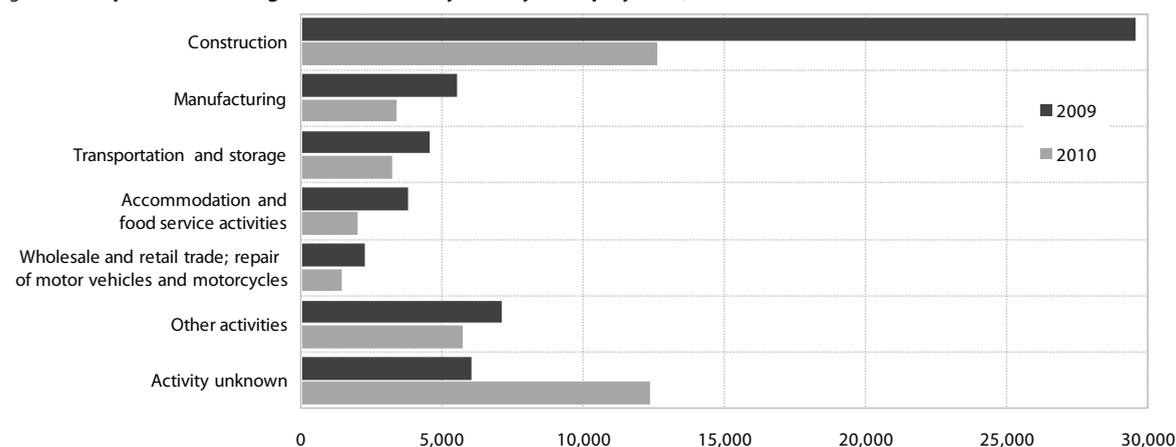
<sup>4</sup> The average migration ratio of citizens of the Republic of Slovenia in the 2000–2009 period was -0.4 per 1,000 inhabitants.

Table: Net migration (with statistical corrections), per 1,000 inhabitants

|                 | 1995       | 2000       | 2005       | 2006       | 2007       | 2008       | 2009       |
|-----------------|------------|------------|------------|------------|------------|------------|------------|
| <b>EU-27</b>    | <b>1.4</b> | <b>1.5</b> | <b>3.1</b> | <b>3.7</b> | <b>3.9</b> | <b>2.9</b> | <b>1.7</b> |
| Austria         | 0.3        | 2.2        | 6.1        | 3          | 4.1        | 4.1        | 2.5        |
| Belgium         | 0.2        | 1.3        | 4.7        | 4.9        | 5.5        | 5.6        | 5.1        |
| Bulgaria        | 0.0        | 0.0        | 0.0        | 0.0        | -0.2       | -0.1       | -2.1       |
| Cyprus          | 9.2        | 5.7        | 19         | 11.2       | 9.4        | 4.5        | 2.3        |
| Czech Rep.      | 1.0        | 0.6        | 3.5        | 3.4        | 8.1        | 6.9        | 2.7        |
| Denmark         | 5.5        | 1.9        | 1.2        | 1.9        | 3.7        | 4.6        | 2.8        |
| Estonia         | -10.8      | 0.2        | 0.1        | 0.1        | 0.1        | 0.1        | 0.0        |
| Finland         | 0.8        | 0.5        | 1.7        | 2          | 2.6        | 2.9        | 2.7        |
| France          | N/A        | 2.7        | -0.7       | 5.4        | 1.1        | 1.2        | 1.1        |
| Greece          | 7.3        | 2.7        | 3.6        | 3.6        | 3.6        | 3.2        | 3.1        |
| Ireland         | 1.6        | 8.4        | 15.8       | 15.4       | 10.6       | 0.4        | -6.2       |
| Italy           | 0.5        | 0.9        | 5.2        | 6.4        | 8.4        | 7.3        | 5.3        |
| Latvia          | -5.5       | -2.3       | -0.2       | -1.1       | -0.3       | -1.1       | -2.1       |
| Lithuania       | -6.5       | -5.8       | -2.6       | -1.4       | -1.6       | -2.3       | -4.6       |
| Luxembourg      | 10.6       | 7.9        | 13.1       | 11.3       | 12.5       | 15.8       | 13.2       |
| Hungary         | 1.7        | 1.6        | 1.7        | 2.1        | 1.4        | 1.6        | 1.7        |
| Malta           | 0.2        | 2.3        | 4.0        | 5.3        | 4.2        | 5.9        | -3.8       |
| Germany         | 4.9        | 2.0        | 1.0        | 0.3        | 0.5        | -0.7       | -0.1       |
| Netherland      | 1.0        | 3.6        | -1.4       | -1.6       | -0.1       | 1.9        | 2.3        |
| Poland          | -0.5       | -10.7      | -0.3       | -0.9       | -0.5       | -0.4       | 0.0        |
| Portugal        | 2.2        | 4.6        | 3.6        | 2.5        | 1.8        | 0.9        | 1.4        |
| Romania         | -0.9       | -0.2       | -0.3       | -0.3       | 0.0        | 0.1        | -0.1       |
| Slovakia        | 0.5        | -4.1       | 0.6        | 0.7        | 1.3        | 1.3        | 0.8        |
| <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> | <b>5.6</b> |
| Spain           | 1.8        | 9.7        | 14.8       | 13.7       | 15.6       | 9.2        | 1.1        |
| Sweden          | 1.3        | 2.7        | 3.0        | 5.6        | 5.9        | 6.0        | 6.7        |
| U.K.            | 1.1        | 2.4        | 3.8        | 3.2        | 3.5        | 3.1        | 3.0        |

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

Figure: Work permits for foreigners in Slovenia by activity of employment, 2009 and 2010


 Source: Employment Service of Slovenia, Labour market in figures, 2010; available at <http://www.ess.gov>.

## Regional disparities in GDP per capita

**In 2008, the main contributor to the decreasing gap to the national average GDP per capita was the Spodnje-posavska region, while the lag of other economically weaker regions behind the national average continues.** In 2008 (latest available data), GDP per capita was still highest in the Osrednjeslovenska region (which exceeds the national average by about 40%) and lowest in the Pomurska (65% of the national average) and Zasavska (65.3% of the national average) regions. The only other region to exceed the national average for a number of years is Obalno-kraška (by 6% in 2008). Compared with 2007, the lag behind the national average was reduced most by the Spodnje-posavska region (by 2.2 p.p.). In most regions GDP per capita decreased compared with the national average, and most in Osrednjeslovenska (by -2.1 p.p.). The gap to the national average continued to increase in economically weaker regions, particularly in Notranjsko-kraška and Zasavska. Compared with 2000, Zasavska also lagged the most behind the national average (by 14 p.p.) and lost most jobs (12.3%) in that period.

**In 2008, all regions continued to narrow their gaps to the European average.** In contrast to the lag behind the national average, all regions decreased their gaps to the European average in 2008. After 2000, the most dynamic growth was recorded by the Osrednjeslovenska region, which increased its GDP per capita relative to the European average by as much as 18.4 p.p. in 2008, compared with 2000. Only Zasavska widened its lag behind the European average in that period (by 3.8 p.p.). Osrednjeslovenska is also the only statistical region at the NUTS 3 level to exceed the EU average in all years after 2000 (according to our calculations, by 28.6% in 2008). The average GDP per capita in cohesion regions (NUTS 2) in the last three years is very important from the point of view of cohesion policy. In Vzhodna Slovenija, it reached 73.4% of the European average in 2006–2008, which is below the limit of eligibility for cohesion funds.

**The ratio between the regions with extreme values of GDP per capita was relatively low and on the same level as in 2007.** The GDP per capita of the Osrednjeslovenska region exceeded that of the economically weakest Pomurska region by a factor of 2.2 in 2008, i.e. by the same amount as in the previous year and slightly more than in 2000, when the former value had been twice as high as the latter. In view of the different purchasing power in regions, the actual ratio is probably even smaller. The ratio between the two regions with extreme values at the NUTS 3 level is among the more moderate in Slovenia. In most of the EU Member States, this ratio is much higher; in 2007, it was highest in the United Kingdom (9.1) and lowest in Malta (1.3). To a large extent, this is the result of

more dynamic growth in regions in which state capitals are located, which is also true for Slovenia.

**Regional disparities in GDP per capita decreased slightly in 2008.** In terms of the relative dispersion of GDP per capita,<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). In 2007, the lowest dispersion rates were recorded in Nordic countries and the highest in new EU Member States, among which Slovenia has the lowest dispersion. According to our calculations, the dispersion of GDP per capita in Slovenia decreased by 0.5 p.p. to 21.9% in 2008. Compared with 2000, there was no convergence between regions in GDP per capita, as dispersion was 2.4 p.p. higher.<sup>2</sup> In the EU as a whole, the differences between NUTS 3 regions are decreasing; a closer look shows that convergence is mostly recorded within the EU-15 countries, while in new Member States the differences are mostly increasing.

$$^1 RD_{Rt} = 100 \sum_r \left( \frac{P_{rt}}{P_R} \right) \left| \left( \frac{BDP_{rt}}{BDP_R} \right) - 1 \right| \quad \text{whereby}$$

t = year,

$P_r$  = population of the region,

$P_R$  = population of Slovenia,

$BDP_r$  = GDP per capita of the region,

$BDP_R$  = GDP per capita of Slovenia, expressed in percent.

<sup>2</sup> If the economically most powerful region, Osrednjeslovenska, is excluded from the calculation, regional differences are almost 9 p.p. lower, while trends between years are similar.

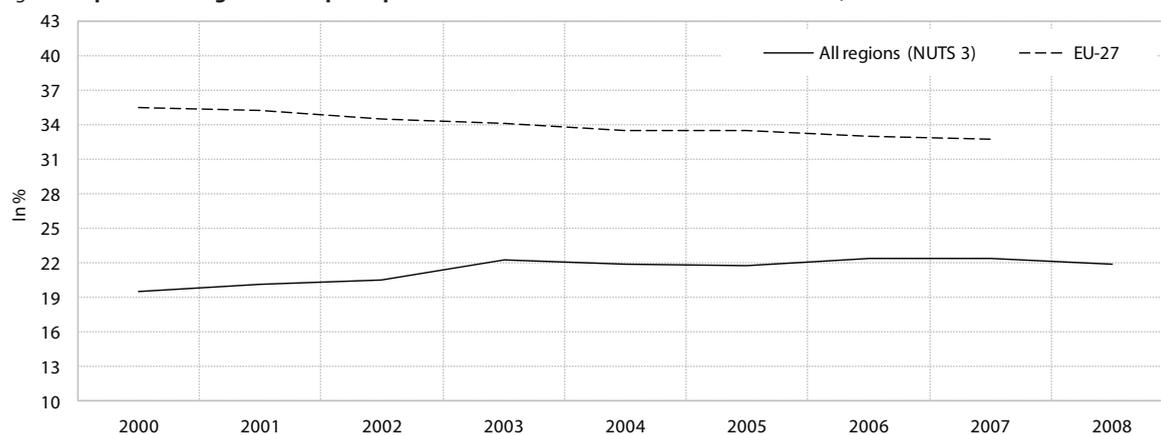
Table: Gross domestic product per capita, indices, Slovenia = 100

| Cohesion region / Statistical region | 1995         | 2000         | 2005         | 2006         | 2007         | 2008         | GDV structure 2008, % |
|--------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|-----------------------|
| <b>Slovenia</b>                      | <b>100.0</b>          |
| <b>Zahodna Slovenja</b>              | <b>118.9</b> | <b>118.5</b> | <b>120.0</b> | <b>120.4</b> | <b>120.4</b> | <b>119.5</b> | <b>55.7</b>           |
| Obalno-kraška                        | 108.5        | 105.4        | 101.8        | 102.3        | 104.0        | 106.0        | 5.6                   |
| Goriška                              | 99.3         | 99.0         | 96.3         | 96.3         | 96.4         | 95.9         | 5.6                   |
| Gorenjska                            | 89.2         | 87.6         | 85.3         | 84.3         | 84.7         | 84.0         | 8.3                   |
| Osrednjeslovenska                    | 138.0        | 138.5        | 143.4        | 144.3        | 143.7        | 141.6        | 36.1                  |
| <b>Vzhodna Slovenja</b>              | <b>84.2</b>  | <b>84.4</b>  | <b>82.9</b>  | <b>82.5</b>  | <b>82.4</b>  | <b>82.9</b>  | <b>44.3</b>           |
| Notranjsko-kraška                    | 78.7         | 80.5         | 76.0         | 74.8         | 75.4         | 74.1         | 1.9                   |
| Jugovzhodna Slovenija                | 88.7         | 91.7         | 92.7         | 92.9         | 93.1         | 92.9         | 6.4                   |
| Spodnjeposavska                      | 80.9         | 85.0         | 82.5         | 80.8         | 80.2         | 82.4         | 2.8                   |
| Zasavska                             | 84.8         | 79.3         | 69.7         | 68.1         | 66.1         | 65.3         | 1.4                   |
| Savinjska                            | 93.0         | 90.6         | 89.6         | 88.9         | 87.9         | 89.7         | 11.5                  |
| Koroška                              | 79.6         | 82.7         | 78.7         | 76.7         | 76.9         | 76.5         | 2.8                   |
| Podravska                            | 81.6         | 83.7         | 83.5         | 84.2         | 85.1         | 85.3         | 13.5                  |
| Pomurska                             | 74.9         | 69.6         | 66.8         | 65.7         | 65.2         | 65.0         | 3.9                   |

Source: SI – STAT Data Portal – Economy – National accounts – Regional gross domestic product, 2010.

Note: GVA – gross value added.

Figure: Dispersion of regional GDP per capita in PPS at NUTS 3 level in EU-27 and Slovenia, %



Source: SI – STAT Data Portal, 2010.

## Regional disparities in the registered unemployment rate

**The number of unemployed increased in 2010 mostly in regions with below-average registered unemployment rates.** The average number of the unemployed in 2010 was 16.4% (14,151 persons) higher than the 2009 average. The number increased most in Osrednjeslovenska (by 25.2%) and least in Zasavska (by 5.6%). During the economic crisis, the number of unemployed persons increased by an above-average level in Goriška, Gorenjska, Osrednjeslovenska and Notranjsko-kraška regions (regions with below-average registered unemployment rates) and in the Koroška region, which has had an above-average rate since 2002.

**In 2010, the registered unemployment rate increased in all regions, and most in Pomurska.** As in the previous years, in 2010 above-average rates were recorded by regions in Vzhodna Slovenija<sup>1</sup>, with the highest in Pomurska (19%). The lowest rate was recorded in the Obalno-kraška region (9%) in the Zahodna Slovenija cohesion region. The rate increased most in Pomurska and Koroška regions (by 3.1 and 2.2 p.p., respectively). After 2000 and up to October 2008, the registered unemployment rate in regions decreased, so despite the rise in unemployment due to the financial and economic crisis, in 2010, most of the regions still had lower registered unemployment rates than at the beginning of the decade (in 2000).

**After 2008, regional disparities in the registered unemployment rate increased.** The measure of absolute dispersion,<sup>2</sup> with which regional disparities are measured, was 2.4 in 2010 (0.5 higher than in 2008 – see Figure). The

highest regional disparities were recorded in 2003; after 2003, they fell until 2008. In 2009 and 2010, regional disparities increased once more, with the registered unemployment rates rising in all regions. The increase was higher (measured in percentage points) in the regions with above average registered unemployment rates, which led to larger regional disparities. Similarly, the ratio between the region with the highest registered unemployment rate and the region with the lowest registered unemployment rate slightly increased to 2.4 (in 2009 2.3 and in 2000 3.1).

**The numbers of long-term unemployed persons, unemployed persons with higher education and those who had become unemployed due to bankruptcy of enterprises increased most sharply in 2010.** While the first year of the crisis had been hardest on men, young people and job seekers with low levels of education, in 2010 the numbers of long-term unemployed persons, unemployed persons with higher education and persons who had lost jobs due to bankruptcy of enterprises increased most. The number of long-term unemployed persons rose significantly in all regions; the highest share – about half of all unemployed persons in the region – was recorded in Jugovzhodna Slovenija. Gorenjska saw the largest increase (almost 40%) in the share of unemployed persons with higher education, who accounted for about 12% of all unemployed persons. The largest increase in the number of unemployed persons due to bankruptcy of enterprises was recorded in the Jugovzhodna Slovenija, Koroška and Pomurska regions.

<sup>1</sup> Cohesion region Vzhodna Slovenija.

<sup>2</sup> For greater methodological harmonisation, in analysing regional variation in unemployment in this year's Development Report we used for the first time the measure of absolute dispersion:

$$AD_{Rt} = \sum_r \left( \frac{A_{rt}}{A_{Rt}} \right) | SB_{rt} - SB_{Rt} |,$$

instead of relative dispersion:

$$RD_{Rt} = \sum_r \left( \frac{A_{rt}}{A_{Rt}} \right) \left| \left( \frac{SB_{rt}}{SB_{Rt}} \right) - 1 \right|,$$

whereby

t = year,

$A_r$  = active population in the region,

$A_R$  = active population in Slovenia,

$SB_r$  = registered unemployment rate in the region,

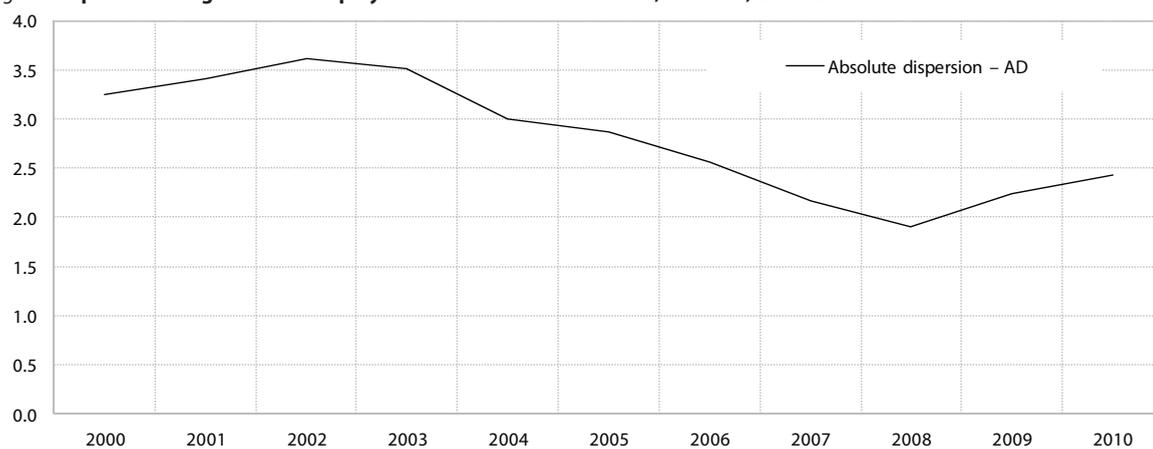
$SB_R$  = registered unemployment rate in Slovenia.

Table: Registered unemployment rate by regions, %

|                       | 2000 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|-----------------------|------|------|------|------|------|------|------|
| SLOVENIA              | 11.8 | 10.2 | 9.4  | 7.7  | 6.7  | 9.1  | 10.7 |
| Osrednjeslovenska     | 8.8  | 7.6  | 7.2  | 5.9  | 5.0  | 6.8  | 8.5  |
| Obalno-kraška         | 8.8  | 7.5  | 7.2  | 6.3  | 5.2  | 6.9  | 7.9  |
| Gorenjska             | 9.7  | 7.3  | 6.4  | 4.9  | 4.4  | 6.9  | 8.1  |
| Goriška               | 5.9  | 6.5  | 6.2  | 4.9  | 4.3  | 7.1  | 8.6  |
| Savinjska             | 13.1 | 12.7 | 11.6 | 9.4  | 8.0  | 10.3 | 11.8 |
| Jugovzhodna Slovenija | 10.4 | 8.8  | 8.6  | 7.0  | 6.3  | 8.9  | 10.0 |
| Pomurska              | 16.7 | 17.1 | 15.7 | 13.4 | 12.2 | 15.9 | 19.0 |
| Notranjsko-kraška     | 10.4 | 7.9  | 7.0  | 5.4  | 4.9  | 7.1  | 8.5  |
| Podravska             | 18.1 | 13.5 | 12.7 | 10.4 | 9.1  | 11.9 | 13.5 |
| Koroška               | 9.9  | 10.6 | 10.1 | 8.1  | 7.3  | 10.9 | 13.1 |
| Spodnjeposavska       | 13.4 | 11.5 | 10.5 | 8.9  | 7.7  | 10.2 | 12.2 |
| Zasavska              | 14.9 | 13.8 | 12.0 | 9.7  | 8.2  | 11.0 | 11.9 |

Source: SORS, 2011.

Figure: Dispersion of registered unemployment rate at the NUTS 3 level, Slovenia, 2000–2010



Source: SORS, 2011, calculations by IMAD.

## Book production and public libraries

***Favourable trends in book production came to an end in 2009; the number of issued titles of literature still continues to increase.*** After several years of growth, the number of books and brochures<sup>1</sup> issued in 2009 fell by 3.4% to 6,139. However, compared with 2000, the number was much higher (by 56.7%). Within books and brochures, the number of titles of literature continued to grow in 2009; 1,473 titles of literature were issued, which is more than twice as many as in 2000. As regards literature, in 2009, the greatest increase in relative terms was recorded in the number of short stories for children and young people, while in absolute terms the number of novels grew most. As regards the country of origin, the number of titles of foreign literature rose, but by less than the number of titles of Slovenian literature.

***In the 2000–2008 period, the number of units of library material<sup>2</sup> in public libraries grew the most in 2008.*** The number of units of library material in public libraries is an indicator of the range of products and services offered by libraries and the availability of books and audiovisual, pictorial, etc., material. The range on offer in public libraries has been increasing in recent years. The number of units of library material in public libraries grew by 8.9% in 2008 to 10,249 million. The growth of library material even accelerated slightly compared with previous years. More units of library material means a higher number of units per capita;<sup>3</sup> in 2008, their number was 5.1, or 0.4 more than in 2007.

***More and more people are visiting public libraries, so that the favourable trends have continued from previous years.*** In 2008, 25.0% of the population were members of public libraries, which is 1.0 p.p. less than a year before. Library membership declined for the second consecutive year, but was still above the 2000 level. As in previous years, the number of public-library visits is growing. In 2008, it rose by 4.7%, while the average number of visits per capita was 5.0 per year.<sup>4</sup> The average number of borrowed units of library material per capita in 2008 remained at the previous year's level, which is the

highest number in the 2000–2008 period. The growth in the number of borrowed units of library material per capita in 2000–2008 is linked to the increased range of library materials offered by public libraries.

<sup>1</sup> A brochure has between 5 and 48 pages, a book has 49 pages or more.

<sup>2</sup> Library material is all material that is professionally processed (inventoried, catalogued, classified) and is available to users. Library material includes book material (books and brochures, serial publications), non-book material (audiovisual material, microforms, cartographic material, images, etc.), standard and patents. In the 2000–2008 period, library material in public libraries did not include standards and patents.

<sup>3</sup> Population as of 30 June or 1 July.

<sup>4</sup> With the reduction in library membership, the increase in the average number of library visits per capita is linked to the increase in the frequency of visits by library members (average number of visits per library member).

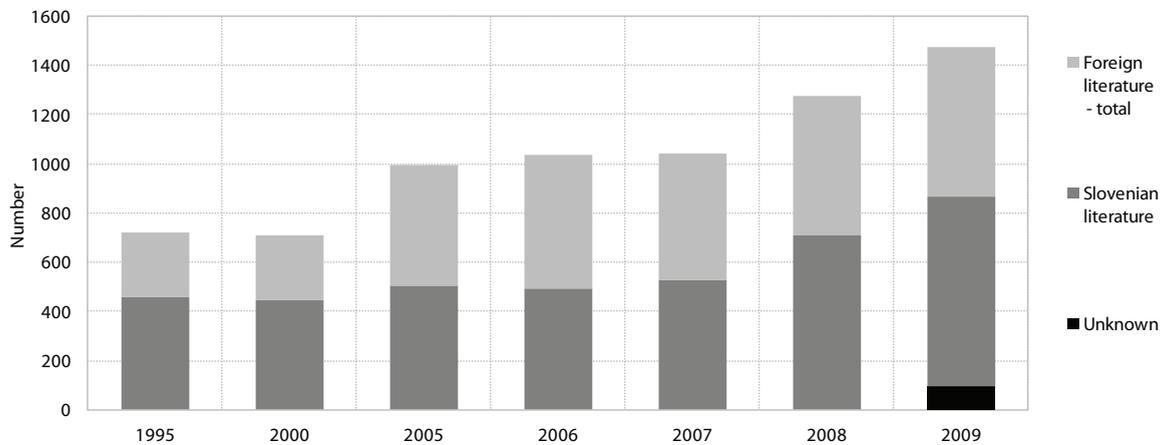
Table: Library material,<sup>1</sup> membership and lending in public libraries, Slovenia, 1995–2008

|   | 1995  | 2000  | 2005  | 2006  | 2007  | 2008   |
|---|-------|-------|-------|-------|-------|--------|
| Number of units of library material, in 1000                    | 6,323 | 7,383 | 8,588 | 9,054 | 9,415 | 10,249 |
| Library members as % of population <sup>2</sup>                 | 21.5  | 24.7  | 25.7  | 26.8  | 26.0  | 25.0   |
| Average number of borrowed units of library material per capita | 6.4   | 9.7   | 10.4  | 12.4  | 12.7  | 12.7   |

Source: National and University Library, 2010.

Note: <sup>1</sup> Library material is all material that is professionally processed (inventoried, catalogued, classified) and is available to users. Library material includes book material (books and brochures, serial publications), non-book material (audiovisual material, microforms, cartographic material, images, etc.), standard and patents. <sup>2</sup> Population as of 30 June or 1 July.

Figure: Number of published titles<sup>1</sup> of literature by country of origin, 1995, 2000, 2005–2009



Source: IZUM, National and University Library, SORS, 2010..

Note: <sup>1</sup> Books and brochures.

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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 value of the considered indicator is standardised by the mean<sup>2</sup> and standardised 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 2004–2009<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> Expressed as 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 2010 are not available for all EU countries.

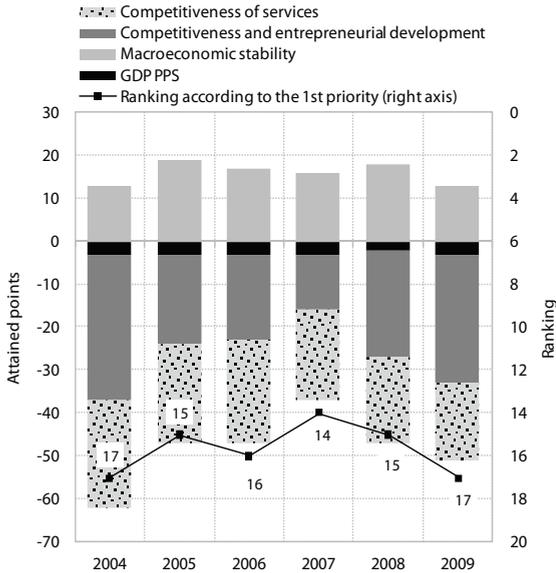
<sup>4</sup> To cover as broad a dimension of development as possible, we also used some indicators that may not necessarily show a priority's development, but come closest to this from among the available sets of data.

Table: Synthetic estimate of development by priorities and problem sets within each priority, and the number of points assigned to individual indicators, Slovenia, 2004–2009

| Indicator  | 2004       | 2005       | 2006       | 2007       | 2008       | 2009       |
|--|------------|------------|------------|------------|------------|------------|
| <b>1<sup>st</sup> priority</b>   | <b>-49</b> | <b>-28</b> | <b>-30</b> | <b>-21</b> | <b>-29</b> | <b>-38</b> |
| <b>BDP pps</b>   | <b>-3</b>  | <b>-3</b>  | <b>-3</b>  | <b>-3</b>  | <b>-2</b>  | <b>-3</b>  |
| 1 GDP per capita in PPS  | -3         | -3         | -3         | -3         | -2         | -3         |
| <b>Macroeconomic stability</b>   | <b>13</b>  | <b>19</b>  | <b>17</b>  | <b>16</b>  | <b>18</b>  | <b>13</b>  |
| 2 Real GDP growth  | 2          | 2          | 3          | 8          | 11         | -5         |
| 3 Inflation  | -5         | 0          | 2          | -2         | -1         | 2          |
| 4 General government balance   | 0          | 1          | -1         | 1          | 2          | 3          |
| 5 General government debt  | 9          | 8          | 8          | 8          | 10         | 9          |
| 6 Balance of payments  | -1         | 1          | 1          | -1         | -4         | -3         |
| 7 Cyclically adjusted general government balance   | 1          | 1          | -2         | -3         | -5         | 2          |
| 8 Gross external debt  | 7          | 6          | 6          | 5          | 5          | 5          |
| <b>Competitiveness and entrepreneurial development</b>   | <b>-34</b> | <b>-21</b> | <b>-20</b> | <b>-13</b> | <b>-25</b> | <b>-30</b> |
| 9 Labour productivity  | -4         | -4         | -4         | -4         | -4         | -5         |
| 10 Market share  | 1          | 2          | 3          | 8          | -4         | -1         |
| 11 Unit labour costs   | -9         | 4          | 3          | 8          | 2          | -8         |
| 12 Share of high-tech products in total goods exports  | -5         | -6         | -6         | -5         | -4         | -3         |
| 13 Exports and imports as a share of GDP   | 5          | 6          | 7          | 8          | 7          | 5          |
| 14a Outward foreign direct investment  | -7         | -7         | -7         | -8         | -7         | -8         |
| 14b Inward foreign direct investment   | -8         | -10        | -10        | -7         | -6         | -7         |
| 15a Market shares in network industries – mobile telephony   | -30        | -30        | -30        | -30        | -30        | -19        |
| 15b Market shares in network industries – electricity  | 1          | 2          | 1          | -11        | 0          | -1         |
| <b>Competitiveness of services</b>   | <b>-25</b> | <b>-23</b> | <b>-24</b> | <b>-21</b> | <b>-20</b> | <b>-18</b> |
| 16 Non-financial market services as a share of GDP   | -10        | -9         | -10        | -8         | -8         | -7         |
| 17a Total assets of banks  | -9         | -9         | -9         | -8         | -8         | -8         |
| 17b Insurance premiums   | -2         | -3         | -3         | -3         | -3         | -2         |
| 18 Share of other services in exports of goods and services  | -9         | -8         | -8         | -7         | -6         | -6*        |
| <b>2<sup>nd</sup> priority</b>   | <b>-29</b> | <b>-24</b> | <b>-28</b> | <b>-42</b> | <b>-40</b> | <b>-37</b> |
| <b>Education and training</b>  | <b>-5</b>  | <b>-2</b>  | <b>-5</b>  | <b>-14</b> | <b>-17</b> | <b>-17</b> |
| 19 Share of population with a tertiary education   | -5         | -5         | -4         | -2         | -5         | -5         |
| 20 Total public expenditure on education   | 4          | 4          | 5          | 0          | 0          | 0          |
| 21 Expenditure on educational institutions per student   | -4         | -1         | -6         | -12        | -12*       | -12*       |
| <b>Research and Development, innovation and use of ICT</b>   | <b>-24</b> | <b>-22</b> | <b>-23</b> | <b>-28</b> | <b>-23</b> | <b>-20</b> |
| 22 Gross domestic expenditure on R&D   | -1         | -1         | 0          | -2         | 0          | 1          |
| 23 Science and technology graduates  | -6         | -6         | -8         | -8         | -7         | -7*        |
| 24 Number of patent applications (EPO)   | -4         | -4         | -5         | -5         | -4         | -4*        |
| 25 ICT expenditure   | -9         | -9         | -9         | -9         | -7         | -6         |
| 26 Internet use  | -4         | -2         | -1         | -4         | -5         | -4         |
| <b>3<sup>rd</sup> priority</b>   | <b>-48</b> | <b>-37</b> | <b>-18</b> | <b>-12</b> | <b>-8</b>  | <b>-3</b>  |
| <b>General government sector expenditure</b>   | <b>1</b>   | <b>-1</b>  | <b>1</b>   | <b>4</b>   | <b>5</b>   | <b>5</b>   |
| 22a General government sector expenditure according to economic classification – general government        | -2         | -1         | 0          | 2          | 2          | 2          |
| 27b General government expenditure according to economic classification – capital transfers and investment | 4          | 0          | 1          | 6          | 8          | 7          |
| <b>Taxes and contributions</b>   | <b>-3</b>  | <b>-3</b>  | <b>-2</b>  | <b>-1</b>  | <b>0</b>   | <b>-1</b>  |
| 28a Economic structure of taxes and contributions – total burden of taxes and contributions                | -1         | -1         | 0          | 1          | 1          | -1         |
| 28b Economic structure of taxes and contributions – tax burden on labour                                   | -5         | -4         | -4         | -2         | -1         | -1*        |
| <b>Aid and subsidies</b>   | <b>-32</b> | <b>-17</b> | <b>-4</b>  | <b>-2</b>  | <b>-3</b>  | <b>-1</b>  |
| 29a State aid – total  | -30        | 1          | 2          | 2          | 4          | 6          |
| 29b State aid for horizontal objectives as a % of state aid  | -22        | -25        | 1          | 5          | 1          | 2          |
| 30 General government subsidies  | -6         | -5         | -5         | -5         | -5         | -5*        |
| <b>Institutional competitiveness</b>   | <b>-10</b> | <b>-10</b> | <b>-8</b>  | <b>-7</b>  | <b>-5</b>  | <b>-3</b>  |
| 30 Institutional competitiveness   | -10        | -10        | -8         | -7         | -5         | -3         |
| <b>Efficiency of the judiciary</b>   | <b>-4</b>  | <b>-6</b>  | <b>-5</b>  | <b>-6</b>  | <b>-5</b>  | <b>-3</b>  |
| 31 Rule of law   | -4         | -6         | -5         | -6         | -5         | -3         |
| <b>4<sup>th</sup> priority</b>   | <b>2</b>   | <b>2</b>   | <b>-4</b>  | <b>9</b>   | <b>2</b>   | <b>8</b>   |
| <b>Labour market</b>   | <b>10</b>  | <b>8</b>   | <b>5</b>   | <b>11</b>  | <b>13</b>  | <b>19</b>  |
| 32 Employment rate   | 2          | 2          | 1          | 2          | 2          | 4          |
| 33 Unemployment rate   | 7          | 6          | 5          | 8          | 11         | 10         |
| 34 Long-term unemployment rate   | 3          | 3          | 1          | 3          | 3          | 7          |
| 35a Part-time employment   | -6         | -7         | -6         | -6         | -6         | -6         |
| 35b Temporary employment   | 8          | 6          | 7          | 7          | 6          | 7          |
| 35c Share of self-employed people  | -8         | -8         | -7         | -7         | -8         | -6         |
| <b>Social protection</b>   | <b>0</b>   | <b>-1</b>  | <b>-2</b>  | <b>3</b>   | <b>-7</b>  | <b>-7</b>  |
| 36 Social protection expenditure   | 0          | -1         | -1         | -2         | -4         | -4*        |
| 37 Public and private expenditure on health  | 0          | 0          | -1         | 5          | -3         | -3*        |
| <b>Living conditions</b>   | <b>-8</b>  | <b>-5</b>  | <b>-7</b>  | <b>-5</b>  | <b>-4</b>  | <b>-4</b>  |
| 38 Number of doctors and nurses  | -15        | -14        | -14        | -14        | -13        | -13*       |
| 39 Participation in education  | -1         | -1         | 1          | 0          | 0          | 0*         |
| 40 Population in jobless households  | 8          | 10         | 6          | 9          | 9          | 9          |
| <b>5<sup>th</sup> priority</b>   | <b>-7</b>  | <b>-10</b> | <b>-11</b> | <b>1</b>   | <b>12</b>  | <b>4</b>   |
| <b>Environmental criteria</b>  | <b>-9</b>  | <b>-14</b> | <b>-17</b> | <b>-14</b> | <b>-17</b> | <b>-17</b> |
| 41 Share of road transport in total goods transport  | -1         | -2         | -2         | -3         | -4         | -5         |
| 42 Energy intensity  | 1          | 0          | 0          | 0          | -2         | -2*        |
| 43 Renewable energy sources  | 2          | 1          | 0          | -1         | -1         | -1*        |
| 44 Share of municipal waste that is not landfilled   | -7         | -9         | -10        | -8         | -8         | -7         |
| 45a Agricultural intensity – share of controlled areas with organic farming                                | -2*        | -1         | -1*        | 0          | 0          | 0*         |
| 45b Agricultural intensity – NPP fertiliser use  | -6         | -3         | -5         | -4         | -2         | -2*        |
| 45c Agricultural intensity – average yield of wheat  | 4          | 2          | 3          | 4          | 5          | 5          |
| 45d Agricultural intensity – number of livestock units per ha  | 0*         | 1          | 1*         | 1          | 1*         | 1*         |
| 46 Implicit tax rate on energy consumption   | -3         | -4         | -4         | -2         | -3         | -3*        |
| <b>Sustained population growth</b>   | <b>-6</b>  | <b>-4</b>  | <b>-1</b>  | <b>10</b>  | <b>26</b>  | <b>19</b>  |
| 47 Migration coefficient   | -5         | 0          | 0          | 8          | 19         | 13         |
| 48 Fertility rate  | -9         | -10        | -9         | -7         | -3         | -3         |
| 49 Old-age dependency ratio  | 5          | 4          | 4          | 3          | 2          | 2          |
| 50a Life expectancy  | 0          | 0          | 1          | 1          | 2          | 2          |
| 50b Infant mortality   | 7          | 4          | 7          | 10         | 13         | 12         |
| <b>Culture</b>   | <b>8</b>   | <b>8</b>   | <b>7</b>   | <b>5</b>   | <b>3</b>   | <b>2</b>   |
| 51 Household expenditure on culture  | 8          | 8          | 7          | 5          | 3          | 2          |

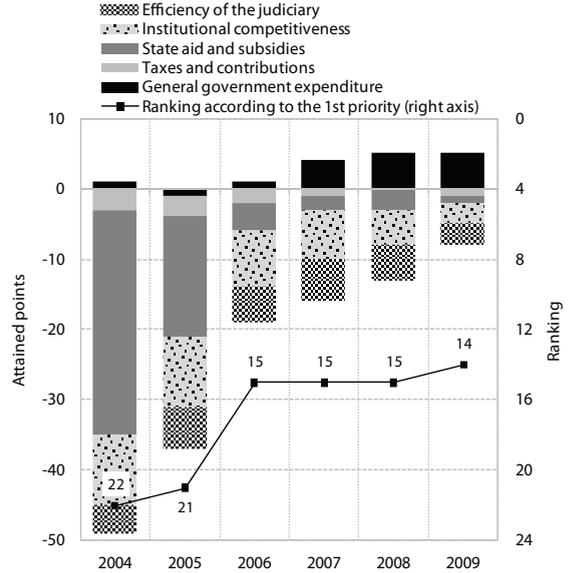
Source: calculations by IMAD. Note: Values marked with an asterisk are calculations according to IMAD estimates based on data from previous years.

**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, 2004–2009**



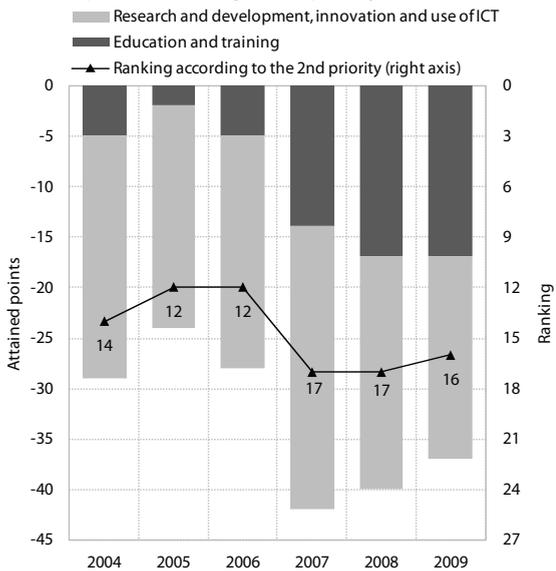
Source: Calculations by IMAD.  
Notes: The columns show the points (development estimate) attained according to individual components, where a positive value represents above-average development relative to the EU countries included in the analysis. Zero points for a component would therefore mean that 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, 2004–2009**



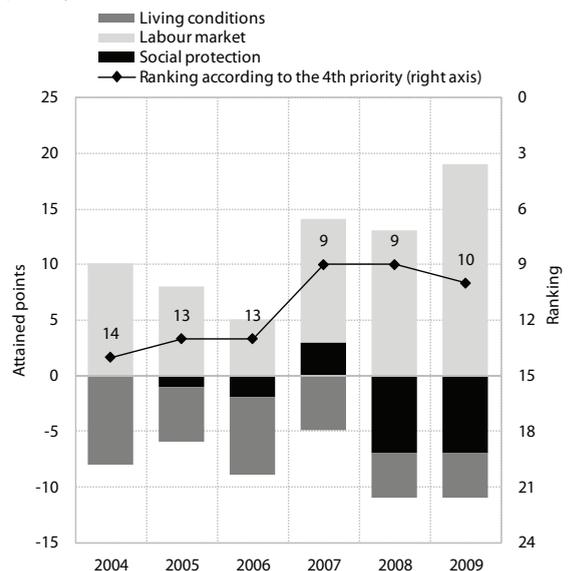
Source: Calculations by IMAD.  
Notes: See Figure 1.

**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, 2004–2009**



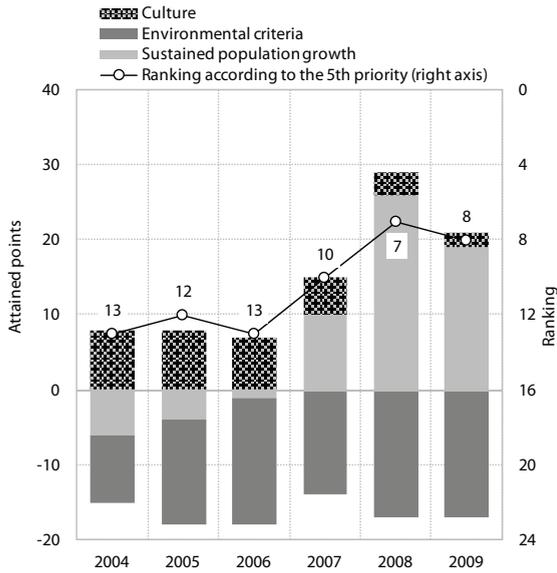
Source: Calculations by IMAD.  
Notes: See Figure 1.

**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, 2004–2009**



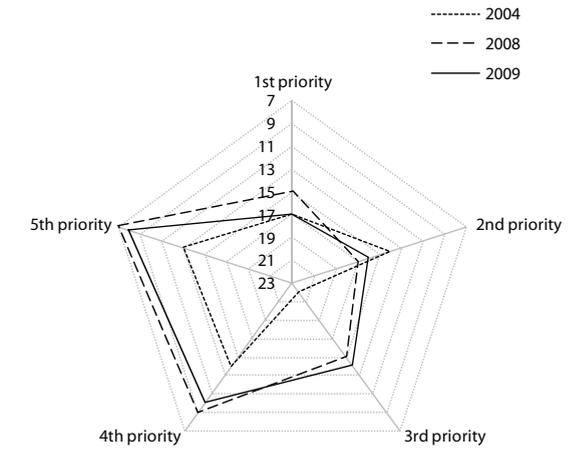
Source: Calculations by IMAD.  
Notes: See Figure 1.

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



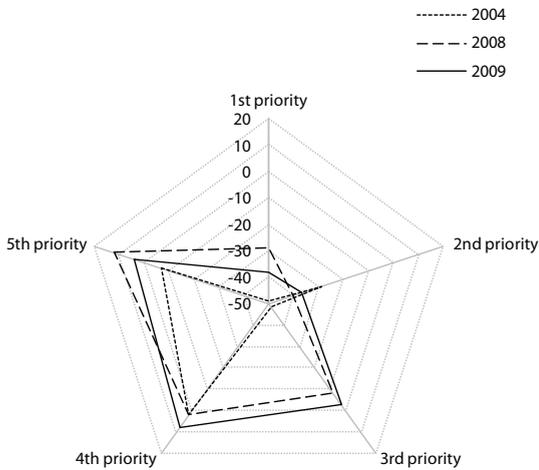
Source: Calculations by IMAD.  
Notes: See Figure 1.

Figure 7: Slovenia's ranking among 22 EU Member States according to the five priorities of Slovenia's Development Strategy, 2004, 2008, 2009



Source: Calculations by IMAD.

Figure 6: Synthetic development estimate according to SDS priorities, 2004, 2008, 2009



Source: Calculations by IMAD.

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