



Analysis, Research and Development  
ISSN 1581-6907

DEVELOPMENT REPORT 2006

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<http://www.gov.si/umar/>

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Printed by: SOLOS, Ljubljana  
Circulation: 250

Ljubljana, 2006

# ***Development Report 2006***

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# Foreword

*The first Development Report (hereinafter the Report) was drawn up in 2001, following the adoption of the Strategy for the Economic Development of Slovenia (SEDS). The primary purpose of this Report was to monitor the implementation of the SEDS.* The Report evaluated whether Slovenia's development contributed to a steady improvement in people's welfare and whether the development-supporting factors and mechanisms set out in the SEDS were being strengthened. So far the IMAD has issued four Reports which have become recognised within the government and the professional public. *In 2005 the SEDS was replaced by Slovenia's Development Strategy (SDS) whose implementation will continue to be monitored by the Report.* In this context, the methodological layout of the Report has not changed while its contents have generally been extended and partly modified to include the new topics covered by the SDS.

- 1** *The Report presents the development level and developmental trends in four target areas and five priorities set out in the SDS. It does not, however, evaluate the implementation of the adopted two-year measures defined in the SDS and other measures defined in back-up documents* (the Reform Programme for Achieving the Lisbon Strategy Goals of October 2005 and the Framework of Economic and Social Reforms to Increase Welfare in Slovenia of November 2005). The areas analysed so far (competitiveness of the economy, knowledge-based society, government, social and environmental development) have been extended by additional chapters within these areas as well as new topics classified under the SDS' fifth priority (sustained population growth, health, culture). The end-phase of the transition-period reform is no longer analysed in a separate chapter. The problems that remain due to unfinished transition are discussed in the text where they still exist.
- 2** *The Report is largely based on a set of indicators designed to monitor development* that were first compiled during the preparation of the SEDS and extended after the SDS was adopted. The selection of indicators was primarily based on the SDS as well as data provided by the national Statistical Office (SORS) and other national sources. Almost all indicators also include official statistical data for EU countries released by international institutions (the Eurostat, OECD, United Nations) to ensure the international comparability of data for Slovenia and other EU member states. As the SORS is providing increasingly more internationally comparable data and due to new topics in the Report, the number of indicators has ballooned to 69 this year (44 in 2005).
- 3** *The Report also draws on recent research.* The assessment of Slovenia's development also draws on the findings of recent studies. Their findings have mainly been used in those chapters that are not sufficiently covered by indicators and represent a qualitative complement to the findings in the indicators.
- 4** *The analysis of some areas is less thorough due to new topics or incomplete raw data.* The analysis of new topics in the Report (e.g. health, culture) is somewhat less exhaustive due to insufficient coverage with indicators or internationally comparable data. An indicator measuring Slovenia's international

distinctiveness does not exist yet at all. Nevertheless, the evaluation of Slovenia's development has been more complete and hence more credible every year thanks to the swift advance in methodologies applied by international institutions (OECD, UN, EBRD, World Bank etc.) to monitor the progress of countries using indicators and other analytical and aggregate criteria, and thanks to internationally comparable databases (Eurostat, and recently the SORS' modernised database). We plan to flesh out the weaker themes in this report next year by using improved assessment methodologies and the required data.

- 5 ***Aggregate ranking of countries according to indicators.*** The growing mass of indicators is making it more difficult to capture a clear picture of where Slovenia stands in development terms compared to other EU countries. We have started tackling this problem this year in two ways. First, using a simple method of ranking countries, we look at the development level and trends of EU members for each development priority according to the SDS in 2000-2004. Second, we have developed a model that similarly ranks EU countries according to their levels achieved in the analysed areas. Both methods have their advantages and disadvantages and require further elaboration but they have already enabled us to compile the rough country rankings presented at the end of the analytical appendix.

***This year's Report differs both from that compiled last year and the one that will be published next year.*** Since a new national development strategy (SDS) was adopted in 2005, it would not be reasonable for this year's Report to primarily evaluate the implementation of the former strategy (SEDS). However, this would not be impossible since the indicators in the analytical appendix span the period 1995 (1996) - 2000, while data covering the years beyond then are given annually for as long as they are available. As the SDS was adopted in June 2005 and most data in the Report cover 2004, it is still too early to assess how the new strategy is being implemented. This year's Report therefore mainly records the initial level and trends that will serve as a benchmark for evaluating the implementation of the SDS and the achievement of its goals in the following years.

***The Report is based on the latest official data,*** which are not equally recent for all analysed areas (they mostly cover 2003 and 2004). Therefore, the Report is not a snapshot picture of the situation at a given moment. The Report (and the appendix) uses the latest available data, including international comparisons as at 31 March 2006. The Report alone was additionally augmented by newer data for Slovenia published by various institutions (mostly the SORS) which cannot be compared internationally yet (Eurostat's data for EU members are released later). The period covered by the Report is therefore determined by the data which were available on 31 March 2006.

***The Report consists of two parts.*** The first, shorter part presents a synthesis of Slovenia's development and the initial position for the implementation of the SDS. At the same time it provides a summary of the Report. The second part analyses the implementation of the strategic priorities that underpin Slovenia's development objectives.





***Development Report***



# 1. Aggregate assessment of development

*SLOVENIA'S DEVELOPMENT STRATEGY OBJECTIVES: The objective in the area of economic development is to exceed the average level of the EU's economic development level (measured by GDP per capita in PPP) by 2013 and to increase employment in accordance with the Lisbon Strategy goals. The objective in the area of social development is to improve the quality of living and the welfare of all individuals, measured by indicators of human development, social risks and social cohesion. The objective in the area of cross-generational and sustainable development is to enforce the sustainability principle as the fundamental quality measure in all areas of development, including the goal of sustainable population renewal. Slovenia's development objective in the international environment is to use its own development pattern, cultural identity and active engagement in the international community to evolve into a globally recognisable and established country.*

*THE REPORT'S FINDINGS: Slovenia has narrowed the gap vis-à-vis the average development level in the European Union, but the catching up has been too slow with regard to the objectives set by the SDS. If the present trends continue, Slovenia will not be able to achieve its goals. The situation therefore calls for economic reform aimed primarily at boosting the economy's competitiveness (where development gaps are largest). In the area of social development, Slovenia has achieved very good results as regards both the modern welfare state and higher employment. Trends that help reduce the persisting weaknesses, mainly in the labour market (long-term unemployment, labour market flexibility), have been favourable as well. Sustainable environmental development has enjoyed a visible improvement in the integration of environmental objectives into economic development. The key remaining weaknesses are high energy intensity, which is being reduced, and the rapid growth of road transport within goods transport. Much poorer results in the area of sustainable development have been recorded in demographic developments and trends.*

*Slovenia's development in 2000-2004 was unbalanced. Economic development was slower than social and environmental development. Other EU countries with rapid GDP growth do not exhibit such a pattern of development. It is clear that Slovenia did not manage to actually change its developmental concept in this period even though the Strategy of Economic Development of Slovenia, adopted in 2001, prioritised economic development.*

*Development trends are partly directed by the government. Given its institutional structure, however, the state has not been able to meet the demanding tasks of executing its developmental function. With its complicated administrative procedures, high share of state ownership and state control in firms, slow liberalisation of network industries and high general government expenditure coupled with high overall taxation and particularly high taxes on labour and consumption, Slovenia created an environment that did not stimulate faster development and even hampered it in the areas of enterprise and investment.*

*If Slovenia does not reform its developmental pattern it will not achieve the SDS' objectives. Moreover, it may be overtaken by some currently less developed EU members (notably the Baltic states) that already achieve robust economic growth rates and have much more supportive frameworks for brisk development in the long run.*

*ANALYSIS:* Slovenia's development is evaluated against the benchmark of the SDS' strategic objectives and from the viewpoint of the state's developmental role in the process.

## **1.1. Development trends against the benchmark of strategic objectives**

Slovenia's Development Strategy (SDS) defines four core national development objectives: (i) the economic development objective – to exceed the average level of economic development in the EU in the first decade of EU membership, i.e. by 2013; (ii) the social development objective – to improve the quality of living and welfare of the population; (iii) the cross-generational and sustainable development objective – to apply the sustainability principle in all areas of development, including sustained population growth; and (iv) Slovenia's development objective in the international environment – to become an internationally recognisable and established country. Although raw data are only available for 2004 and partly for 2005, we give an assessment of development according to these core objectives. This approach provides the best basis to monitor development in future years and also allows us to evaluate development between 2000 and 2004 since the main development objectives of the previous strategy (the SEDS, 2001) remained essentially the same. Having no appropriate indicators to measure the country's international distinctiveness at our disposal, we cannot provide an objective assessment of Slovenia's performance in the fourth development objective.

### *The objective regarding economic development*

*Slovenia has narrowed its developmental gap relative to the EU but the catching up has been too slow in view of the set objectives.* In 2004 Slovenia achieved 79% of the average GDP per capita in PPS in the EU (81% according to the Eurostat's estimate for 2005). This result ranks Slovenia 16<sup>th</sup> in the EU, one place higher than in 2000. However, if we compare EU countries according to the speed of their economic development in 2000-2004, Slovenia was only mediocre and ranked 8<sup>th</sup> to 10<sup>th</sup>.<sup>1</sup> If Slovenia continues to develop at such a pace it will only achieve 94% of the European average in 2013 instead of exceeding the average development level of the EU as set by the SDS. The comparison of real GDP growth rates leads to a

<sup>1</sup> Slovenia narrowed its development gap vis-à-vis the EU-25, measured as GDP per capita in PPS, by 4 p.p. in 1996-2000 and by 6 p.p. in 2000-2004. The pace of development also accelerated in other less developed EU countries in this period. Among these (13) countries, Slovenia was ranked between 6<sup>th</sup> and 8<sup>th</sup>. Countries that recorded faster development were Estonia and Lithuania (by 10 p.p.), Greece (9 p.p.), Latvia (8 p.p.) and Hungary (7 p.p.).

similar conclusion. In 2000-2005, Slovenia's average economic growth exceeded the average growth in the EU-15 by 1.6 p.p., while calculations indicate that it should have exceeded it by almost double this rate if the set strategic objective is to be met. These results show that Slovenia should bring about some radical changes in order to achieve the SDS goals.

*Slovenia's performance in the area of ensuring macroeconomic stability and employment was more favourable than the results regarding the competitiveness of the economy.* Macroeconomic stability provided satisfactory conditions for development. According to macroeconomic indicators (except inflation), Slovenia was ranked in the upper half of EU countries, scoring highest in public debt which was only lower in four countries (the Baltic states and Ireland). Inflation continued to decrease in 2005 and converged with the Maastricht price stability criterion at the end of the year. The adoption of the euro in 2007 will additionally stabilise the national macroeconomic environment.

*Economic growth also enabled a rise in employment.* The employment rate is rising steadily and has been above the EU average since 2004. The unemployment rate is slightly below the EU average, as is Slovenia's long-term unemployment, although the share of long-term unemployed is still high. The low employment rate of the elderly and high youth unemployment are a particular cause for concern. The situation in the labour market is still not satisfactory as regards employment although some progress has been made. Part-time employment represents the biggest unused potential where flexibility and employment could be enhanced.

*Much poorer results were recorded in the area of competitiveness and promoting entrepreneurial development.* In 2004, Slovenia was ranked in the last third among EU countries according to the competitiveness of its economy. Slovenia is still struggling with low productivity linked to the relatively unfavourable economic structure involving a high proportion of manufacturing, composed of high shares of labour-intensive and medium-tech industries that make up the bulk of Slovenia's exporters. The entrepreneurial sector that could gradually replace the old low-tech industry and boost the development of those most dynamic, knowledge-based services by creating new firms and stimulating their growth is still underdeveloped. In addition, Slovenia's FDI inflow is among the lowest in the EU. Knowledge-based market and non-market services have been strengthening gradually since 2000. Market services began to grow more intensively in 2004. The banking sector, which could play an important role in supporting dynamic entrepreneurial development, similarly remains poorly developed. Analyses made by international institutions (WEF, IMD, EBRD, World Bank) identify Slovenia's weaknesses regarding competitiveness and entrepreneurship particularly in the following areas: efficiency of firms, infrastructure, competition, quality of the national business environment, state ownership in the corporate sector, legal certainty and tax burden (notably labour costs).

*The competitiveness of the economy also importantly depends on the efficient use of knowledge for economic development.* Compared to other EU countries, Slovenia scores high in indicators measuring developmental investment (public and private expenditure on education was ranked in the top third among EU countries,

expenditure on R&D was ranked in the upper half while the situation in investment in ICT has deteriorated). On the other hand, Slovenia scores much less favourably in indicators measuring the effects of developmental investment in the development of a knowledge-based society (the population with a tertiary education, number of patents, share of researchers in the corporate sector, number of science and technology graduates, links between the public R&D sector and enterprises). Changes in this area in Slovenia were among the slowest in the EU (23<sup>rd</sup> place); somewhat more optimistic trends were only observed in the increase in expenditure on R&D. Slovenia's ranking according to the technology index (WEF) for 2005 is thus unflattering as well, placing Slovenia in the last third of EU countries.

*EU countries with rapidly growing economies rank<sup>2</sup> relatively high in the EU according to macroeconomic indicators of competitiveness and indicators of knowledge (particularly when comparing the achieved level of development).<sup>3</sup> Slovenia's performance is roughly level with Lithuania's, the former exhibiting slightly lower values in macroeconomic indicators and slightly higher values in indicators of competitiveness and knowledge. According to the pace of improvement in all three groups of indicators in 2000-2004, Ireland is in the lead among countries with rapidly growing economies, followed by Estonia and Lithuania. Slovenia is ranked in the middle, which confirms the correlation between all three groups of indicators and economic growth, where Slovenia also records a median score.*

### ***The objective regarding social development***

***Slovenia has recorded very positive developmental results in the areas of a modern welfare state and higher employment.*** According to the indicators measuring the situation in these areas, Slovenia belongs to countries with favourable balances in the labour market and the social protection system. It has also performed relatively well in the areas of living standards, risk of poverty and income inequality. Slovenia's poorest result in social development (12<sup>th</sup> place) was recorded in the indicator of long-term unemployment. These positive results in social development were achieved despite the lowering of expenditure on social protection as a share of GDP as a result of the pension reform that cut expenditure on pensions. Slovenia scores relatively high in the human development index and has small differences between male and female income. Slovenia's at-risk-of-poverty rate is the lowest in the European Union when measured before social transfers and second lowest after social transfers. Despite these optimistic results, the low trust of people in institutions could present a developmental problem.

<sup>2</sup> In the EU-15, the UK ranks in the top third in the EU according to all three groups of indicators; Ireland and Luxembourg lag behind slightly in knowledge indicators but they compensate for this weakness by their very high inward foreign direct investment. In the EU-10, Estonia scores highest, recording slightly poorer results only in macroeconomic indicators.

<sup>3</sup> EU countries with rapidly growing economies were defined on the basis of GDP per capita in PPS and average real growth of GDP in 2000-2004. According to these indicators, the following countries have rapidly growing economies: Ireland, Greece, Luxembourg, Spain, the United Kingdom (EU-15) and Estonia, Latvia, Lithuania, Hungary, Slovakia and Slovenia among the new member states (EU-10).

*The EU member states with rapidly growing economies generally record lower scores in indicators of modern welfare state and employment<sup>4</sup>.* International comparisons show that the level of social development in Slovenia is above the average relative to the achieved level of economic development.

***Health care and health insurance are relatively good in Slovenia,*** while the conditions for development (in terms of public and private funds) relative to GDP are better than generally in the EU. Access to public services is relatively good as well. The main weaknesses are non-participation of part of the population in insurance schemes and long waiting periods. The latter is also the result of the deterioration of the ratio between the number of doctors and the population, which is below the EU average. This also affects the quality of health services.

### ***The objective regarding cross-generational and sustainable development***

***Slovenia scores around the EU average in terms of the integration of environmental components into economic development.*** The biggest burdens for the environment are energy intensity and the high consumption of nitrate fertilisers per unit of agricultural land. Other indicators in this area rank Slovenia in the highest third or the top of the middle third of EU countries. From 2000 to 2004, the integration of environmental issues into economic development in Slovenia increased more than in the EU on average (Slovenia was ranked 9<sup>th</sup>). An unfavourable result was only recorded in the share of road transport in total goods transport (19<sup>th</sup> place)<sup>5</sup>.

***Demographic trends in Slovenia are not sustainable.*** Slovenia was ranked 22<sup>nd</sup> in the EU according to the situation in 2000 and 24<sup>th</sup> according to trends in 2000-2004<sup>6</sup>. The critical indicators here are low birth rates and the galloping growth of the proportion of the population aged over 65.

***After the regional disparities measured in GDP per capita narrowed in the last two years they have begun to widen again.*** The main reason for this was the faster development of the capital city region, rather than a decline in Pomurska, the least developed region. Regional variation in Slovenia is small and among the lowest in the EU. The narrowing of cross-regional differences in unemployment that began to show in 2002 has continued, while regional disparities in income (measured as the personal income tax base per capita) have been small and stable since 1995. Similarly as at the national level, regional demographic trends are deteriorating.

<sup>4</sup> Spain and Hungary achieve relatively poor results in the areas of employment and labour market flexibility. Ireland and the United Kingdom lag behind in social development. Modest results in both sets of indicators were observed in Greece, Estonia, Latvia, Lithuania and Slovakia.

<sup>5</sup> Among the EU countries with rapidly growing economies, four countries exhibited much poorer integration of the environment into economic development (Ireland, Luxembourg, Spain and the United Kingdom). Similar levels of environmental integration as in Slovenia were observed in Slovakia and Hungary. Only the UK and Hungary made faster progress in this field than Slovenia in 2000-2004.

<sup>6</sup> Less favourable demographic trends among the countries with rapidly growing economies in the EU-15 were found only in Greece, however they show an improving tendency; in the EU-10, relatively positive developments were recorded only in Slovakia but the trends are improving at a faster pace than in Slovenia in all other new member states.

The population continues to concentrate in Central Slovenia while the number of people living in the peripheral regions is falling.

***We can sum up that Slovenia's development in 2000-2004 was unbalanced.*** The Strategy for the Economic Development of Slovenia (SEDS, adopted in 2001) advocated that the economic, social and environmental components of development should be balanced. Since Slovenia had the biggest gap vis-à-vis the developed countries in the economic area, faster economic development was prioritised in the SEDS in order to strike a better balance of overall development. Despite this strategic goal data show that during the implementation of the SEDS social development has overtaken economic and environmental development, the latter being measured only by the level of environmental protection integration into economic development.

*Such uneven development is not uncommon in the EU countries with rapidly growing economies and partly reflects their different priorities and initial circumstances.* The development mix has varied across the rapidly growing economies; however, in none of the ten other analysed countries did social and environmental development outstrip economic development. The situation in Slovenia is an anomaly that resulted mainly from a policy mix which focused on social development, the integration of environmental policies into economic development and macroeconomic stability while neglecting the competitiveness of the economy.

## 1.2. Role of the state in development

***The institutional framework has not sufficiently supported development so far.*** Slovenia was only ranked 18<sup>th</sup> in the EU according to the IMD's government efficiency index (2005). Slovenia also performs poorly according the WEF's public institutions index (17<sup>th</sup> place in 2005)<sup>7</sup>. This report also points out several problems in different areas related to the efficiency of government bodies and public institutions. They may be divided into three groups: administrative and other barriers to development of enterprise and investment; persistently high ownership shares and management role of the state in the enterprise sector; and the too slow liberalisation of network industries and poor competition protection.

*Cumbersome administrative regulations* are a serious barrier to entrepreneurship (the time needed to obtain permits, costs of registration), investors (application for building permits) and the operation of enterprises (financial indiscipline, court backlogs). Some progress has been made with the programme aimed at reducing the administrative burden and its upgrading into the one-stop-shop programme. Court backlogs are still too long in the area of enforcement, which are very important for enterprises. Another critical area is spatial planning where land use is being restricted by complicated requirements for spatial documentation and a number of other restrictions that further prolong the building permit application procedures

<sup>7</sup> Among the analysed rapidly growing economies, the IMD only gave a poorer mark for government efficiency to Greece in 2005. Lithuania and Latvia were not included in the ranking, while the countries at the top were Ireland, Luxembourg, Estonia and Slovakia. All four countries are ranked in the top third within the EU. The efficiency of public institutions was assessed by the WEF which placed Slovenia in the middle of the analysed countries. Ireland, Luxembourg, the United Kingdom, Estonia and Hungary did better than Slovenia.



and raise their costs by requiring expert analyses. The operation of the land market is also still hindered by real estate registers.

*State control and ownership remains high in the business sector* and weakens entrepreneurial initiative. Although the government has adopted several plans to speed up the state's withdrawal from company ownership, this has not happened so far. Privatisation programmes for the financial sector and network industries similarly remain on paper. The state's large ownership and control share affect business initiatives of firms and consequently their performance, which is usually poorer than in privately owned enterprises. Company performance in Slovenia was also assessed as poor by international institutions (19<sup>th</sup> in the EU according to the IMD). Similarly poor results were identified by the WEF's company operations and strategy index (21<sup>st</sup> place).

*The liberalisation of network industries scored low as well* due to the slow creation of competition and the relatively high market share of the incumbent operator even where competition exists. In telecommunication services, particularly in the mobile telephony sector where competition has already been created, the first positive impacts have been recorded as prices have started to fall. The price cuts seen in industrial electricity can similarly be attributed to the stronger competition. Due to the slow liberalisation of network industries and foreign mergers and takeovers in Slovenia's small market, international institutions (EBRD, WEF) gave Slovenia unfavourable marks for competition. Further reasons were inadequate and insufficient control by the competition protection authority which focuses on concentrations rather than also restraining other kinds of infringement in the market.

*The total tax burden in Slovenia is high, with above-average taxes being levied on both consumption and labour*<sup>8</sup>. The overall tax burden in Slovenia totals 40.1% of GDP. This ranks Slovenia 10<sup>th</sup> among the EU countries, 10.7 p.p. below the leading Sweden and 11.6 p.p. above Lithuania which has the lowest taxes in the EU. Slovenia has particularly high taxes on consumption (4<sup>th</sup> place) and labour (7<sup>th</sup> place). On the other hand, taxes on capital are very low in Slovenia – only the Baltic states have lower ones.

*The high level of general government expenditure as a share of GDP has been reduced over the last two years, but its structure and use are still not sufficiently efficient*<sup>9</sup> Slovenia is ranked around the middle among the EU member states in terms of the level of general government expenditure. However, the high expenditure on 'state-building tasks' in Slovenia (8<sup>th</sup> place) reduces the funds that contribute

<sup>8</sup> Among the countries with rapidly growing economies, Luxembourg is the only one with a higher overall tax burden than Slovenia, while taxes on consumption and labour are the highest in Slovenia.

<sup>9</sup> Within countries with rapidly growing economies, only Luxembourg, Greece and Hungary have higher general government expenditure. Slovenia spends 11.2% of its GDP on public administration, defence, law and order, and security (the 'state-building tasks'). Ireland, by comparison, earmarks about 50% less for these purposes, and the Baltic states around 30% less. Expenditure on social protection in rapidly growing EU countries is higher than in Slovenia only in Greece and Luxembourg. On the other hand, expenditure on economic activities is lower than in Slovenia (3.5% of GDP) only in the UK, Estonia and Latvia, while they range between 4.2% and over 5% of GDP in other countries. Expenditure on health care varies widely, from 2.3% of GDP (Slovakia) to 6.6% and 6.7% of GDP (Slovenia and Ireland, respectively). Although Slovenia's expenditure on education (5.8% of GDP) exceeds the EU-15 average (5.4%), the Baltic states and Hungary allocate even more to this sector.

more to economic growth. Particularly the expenditure on economic activities, residential and spatial development are below the EU average in Slovenia. On the other hand, expenditure on education and health care places Slovenia in the upper half of EU countries. Low spending on economic activities in Slovenia is partly the result of inappropriate budgeting. Since this is generally the most flexible category of expenditure, the government cuts these funds (subsidies and investment transfers) when it needs to reduce the overall budget expenditure. High general government expenditure and its distribution have a negative impact on economic growth and development. The total expenditure should therefore be reduced and its distribution adequately restructured in Slovenia (these observations are not based solely on international comparisons but also on the recommendations of international institutions).

***The efficiency of public finance in Slovenia is not optimal.*** The level of general government expenditure and other instruments (tax relief, state guarantees, loans, debt takeovers, etc.) alone does not warrant the successful achievement of goals financed by these funds and other instruments. It is evident that public funds in Slovenia are inadequately distributed and inefficiently spent in a number of areas (education, health care, research and development, state aid, social transfers). As a result, they also do not produce the desired outcomes. There are several reasons for this situation. The most important ones include the poor co-ordination of policies at the national level, budgeting that does not ensure quality control over financed programmes, and lacking records and post-evaluation of programmes and their impact on the recipients.

***The government responded to the described deficiencies by adopting the SDS and subsequently the more detailed Reform Programme for Achieving the Lisbon Strategy Goals, thus joining in in the structural policies of the EU.*** In order to carry out radical changes in its economy and social policy, Slovenia further adopted the Framework of Economic and Social Reform to Increase Welfare in Slovenia, which is primarily aimed at boosting the competitiveness and growth of the economy. This aim must be backed by knowledge, quality jobs and an efficient and cheaper government. The reform addresses all key structural problems of Slovenia (business environment and administrative burden, privatisation, taxation, general government expenditure and its efficiency, and the spending of structural funds, both national and those acquired from the EU budget). The implementation of the reform has only been launched this year, hence the effects will become measurable next year when we can also begin monitoring the achievement of the objectives and priorities of Slovenia's Development Strategy.

## ***2. Development in line with the development priorities of the SDS***

The SDS defines five development priorities: (1) a competitive economy and faster economic growth; (2) efficient use of knowledge for economic development and quality jobs; (3) an efficient and less costly state; (4) a modern welfare state and higher employment; and (5) the integration of measures to achieve sustainable development.

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

*The SDS OBJECTIVES: A competitive economy and faster economic growth are the first development priority of Slovenia's Development Strategy (SDS), which encompasses: promoting entrepreneurial development and increasing competitiveness, increasing inflows of development-promoting domestic and foreign investment, supporting the economy's internationalisation, increasing the competitiveness of services, along with successful participation in the ERM II and adoption of the euro.*

*The Report deals with these sets of objectives in three sections. In the first section, participation in the European exchange rate mechanism ERM II and adoption of the euro, the SDS focuses on three basic objectives: to increase the adaptability of fiscal and income policies, ensure the long-term sustainability of public finances, and maintain price stability. In the second section, increasing competitiveness and promoting entrepreneurial development, the SDS emphasises the development of areas where Slovenia has a competitive advantage; entrepreneurship and the development of SMEs; the promotion and development of an innovative environment and innovativeness; internationalisation and competition in the market of network activities. In the third section, increasing the competitiveness of services, the SDS priority is defined as the need to boost the efficiency of services, the simplification of the administrative environment for their provision, and special emphasis is placed on those services most closely linked to business operations (business, financial, distributive, infrastructural services) because they have the greatest impact on an increase in the economy's productivity and competitiveness.*

*FINDINGS: Following three years of relatively modest economic growth, economic activity rebounded in 2004 and recorded the highest growth in the last five years, slightly exceeding the average of the entire 1996-2004 period. Above-average growth, though slightly lower, continued in 2005. After Slovenia joined the exchange rate mechanism ERM II in June 2004, the economic policy mix provided a stable macroeconomic environment and enabled compliance with the Maastricht criteria for adoption of the euro at the beginning of 2007, including the price stability criterion, which Slovenia first met in November 2005. In spite of complying with the nominal fiscal criteria for adoption of the euro, the structure of government expenditure and fiscal policy challenges in the period following adoption of the euro call for further restructuring and greater flexibility. After 2001, when it exceeded productivity growth*

*for the last time, wage growth has been within sustainable macroeconomic limits.*

*The competitiveness of Slovenia's economy is increasing, but faster convergence with the EU is not possible without structural reforms. The key indicators of competitiveness show continued gradual improvement in labour productivity, market shares, and variations in cost competitiveness, where in particular other income and the terms of trade have a negative impact. The changes in the structure of value added, employment and exports have been favourable in the last five-year period but, compared with the European average, substantial structural imbalances persist. The structure of investment shows increased investment in machinery and equipment and in market activities, but investment in software lags behind in international comparisons. To increase competitiveness, advanced entrepreneurship is of crucial importance given that, despite its progress in international comparisons in the last year, Slovenia is ranked very low on the scale of entrepreneurial activity, as well as in terms of access to financing sources. The internationalisation of Slovenia's economy mainly occurs through foreign trade flows and much less through foreign direct investment (FDI). In particular, the modest inward FDI levels reveal Slovenia's low competitiveness as an investment location and its underexploitation of the development options provided by inward FDI. In most network activities (electronic communications, the energy sector) competition is progressing slowly and, where it has been introduced, the market share of the dominant operator is relatively high.*

*The service sector has seen more intensive development in the recent period and has contributed to narrowing the gap behind the EU structures in the share of services in value added and employment, in particular the share of knowledge-based services, which have the greatest impact on the economy's increased productivity and competitiveness. In spite of positive shifts, Slovenia's growth potential in business services is largely unexploited. The biggest remaining problems are the weak competitiveness of Slovenia's services in foreign markets and the insufficient innovativeness of the service industry. In spite of steady progress, Slovenia is still far behind in the development of financial services. Of particular concern is the financial sector's meagre share in support of the entrepreneurial sector. This is shown in the low share of bank loans to enterprises, as well as in the undeveloped primary capital market.*

*ANALYSIS:* The analytical part addresses the subjects in three sections. The first section presents the condition and trends of participation in the European exchange rate mechanism ERM II and adoption of the euro, the second section examines the strengthening of competitiveness and the promotion of entrepreneurial development, while the third section deals with the competitiveness of services.

### **2.1.1. Participation in the European exchange rate mechanism ERM II and adoption of the euro**

*Following three years of relatively modest **economic growth**, growth rebounded in 2004, continued in 2005, and was slightly above the average of several years. The economic growth in 2004 (4.2%) was stimulated by the continuing relatively high growth of domestic consumption and especially by the increased foreign demand*

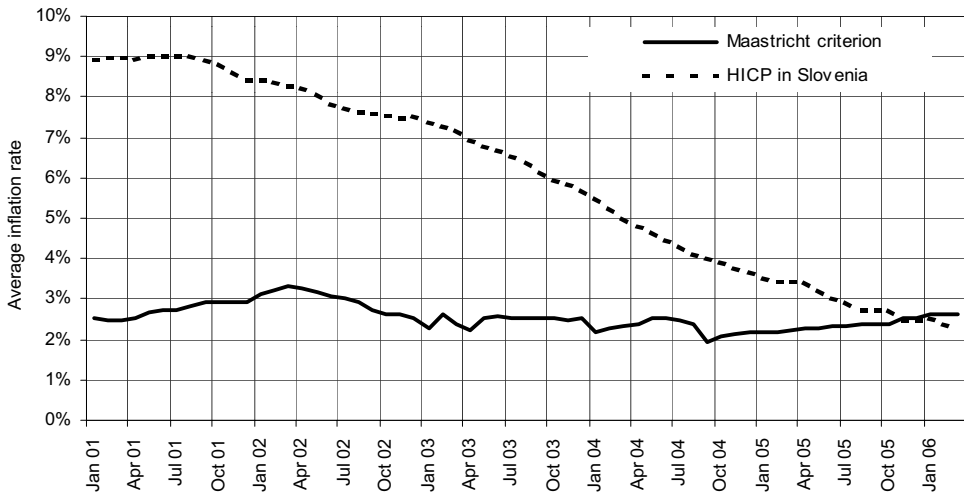
resulting from the rebound in economic activity in the main trading partners and the positive effects of Slovenia's accession to the EU. The contribution of foreign demand to economic growth strengthened in relative terms in 2005, and the lower contribution of domestic demand mainly resulted from the slowdown in investment activity and the smaller increase in inventories compared to the year before. An important factor of the economic growth in 2005 (3.9%) was the increase of road vehicles, which contributed around 40% to the total growth of goods exports (8.7%). The significant drop in investment was due to the slowdown of investment in machinery and equipment, but investment recovered towards the end of the year. The improvement was probably stimulated by the less favourable tax relief regime for investment coming into effect in 2006. Following the high growth rates of the preceding years, the volume of investment in road infrastructure was at a stable and high level while only investment in residential building saw a major increase, thus continuing a trend started in 2004. The real growth of private consumption in 2005 was in line with trends in wages and employment and on average remained at a similar level as in 2004. Despite the increased household borrowing, household consumption increased moderately and within macroeconomic limits because the high growth of bank loans taken out by households, which continued for the third year in a row, was largely the result of long-term household borrowing which was only partly spent on final consumption. Similarly, other indicators do not show any deterioration of show of macroeconomic stability. Favourable export trends and low import growth, as well as the higher surplus in services, reduced the deficit of the current account from 2004 in spite of the stabilised exchange rate and substantial deterioration of the terms of trade in 2005 due to the higher prices of energy products and primary commodities. The higher gross external debt, which more than tripled in the 1995-2004 period, largely resulted from private sector borrowing, and from 2003 onwards from banks borrowing abroad, providing them with cheaper sources for their boosted lending activity. In spite of the higher gross external debt in the entire 1995-2004 period, the dynamic debt indicator, which compares total foreign currency reserves with short-term debt by maturity, indicates that Slovenia's short-term liquidity is satisfactory.

*Since Slovenia joined the exchange rate mechanism ERM II in June 2004, the economic policy mix applied has ensured a stable macroeconomic environment and enabled compliance with the Maastricht criteria for the adoption of the euro. At the end of 2005, Slovenia met four of the five nominal convergence criteria required for the adoption of the euro: both criteria referring to fiscal conditions (government budget deficit and general government debt compared to the gross domestic product), as well as both monetary policy criteria (interest and inflation rates). Formally, however, Slovenia has not been able to meet the exchange rate criterion, which requires a stable exchange rate for at least two years of participation in the exchange rate mechanism ERM II. During its 21-month participation in the exchange rate mechanism, the tolar's exchange rate has not fluctuated by more than 0.15% from the central parity (permitted fluctuation:  $\pm 15\%$ ), indicating that this convergence criterion will also be met in the reference period.<sup>10</sup>*

<sup>10</sup> The adoption of the euro is planned for the beginning of 2007, meaning that the criterion of nominal convergence will have to be met by mid-2006 at the latest. The motives and procedures for adopting the euro as soon as possible are explained in detail in the Programme for Entering the ERM II and Adopting the Euro, adopted in November 2003 by the government and the Bank of Slovenia.

*Slovenia first met the Maastricht criterion of price stability in November 2005. The gradual and sustainable reduction of inflation over the past three years has been achieved by changes to the stance of economic policies, which were earlier not primarily aimed at reducing inflation, and for this reason inflation remained at rates between 7% and 10% in the 1995-2002 period. The measures presented in the Programme for Entering ERM II and Adopting of the Euro led to a slowdown of price growth immediately after Slovenia joined the exchange rate mechanism. One-off factors, especially changes in trade regimes, additionally slowed growth down. 2005 was marked by the further implementation of these policies. The Bank of Slovenia maintained the exchange rate of the tolar and the government continued its implementation of restrictive regulation of administered prices, alleviating the fluctuations in oil prices, and carrying out incomes policy in accordance with the Social Agreement. The year-on-year growth of consumer prices fell to 2.3% by the end of the year, and average inflation to 2.5%. Based on the available clarifications concerning the calculation of the Maastricht inflation criterion, its value stood at 2.5% in November and December, meaning that Slovenia's compliance with this criterion included the last two months of 2005. Further disinflation after the euro is adopted will above all require the implementation of structural reforms aimed at eliminating the structural imbalances that persist in Slovenia's economy<sup>11</sup>.*

**Figure 1: The average inflation rate in Slovenia and the Maastricht criterion**



Source: SI-Stat Data Portal – Economy – Prices (SORS), 2006; Eurostat Portal Page – Structural Indicators – General Economic Background – Inflation rate, 2006.

*Slovenia has met the fiscal criterion for the government budget deficit since 2002, and government debt has constantly been well below the Maastricht criterion. Slovenia has complied with the fiscal criterion for government debt, set at 3% of*

<sup>11</sup> Structural imbalances are explained in detail in Chapter 2.1.2. ‘Increasing competitiveness and promoting entrepreneurial development’.

GDP, since 2002<sup>12</sup>. In 2000 and 2001, government debt amounted to 3.9% and 4.3% of GDP, respectively, but dropped to 2.7% of GDP in 2002, and to 1.8% in 2005. The reduction of government debt resulted from both higher revenues and slower expenditure growth. The faster growth of revenues, whose share relative to GDP rose from 44.3% in 2000 to 45.5% in 2005, was caused by trends in macroeconomic aggregates but also by the higher tax rates on value added in 2003, higher excise duties on tobacco and tobacco products, the introduction of environmental taxes, and the faster growth of revenues from payroll and corporate income taxes. Revenues from customs duties decreased due to the free-trade agreements, the Association Agreement, and the abolition of custom duties between Slovenia and the EU in May 2004. The share of expenditure compared to GDP decreased from 48.1% in 2000 to 47.3% in 2005. This decrease was entirely achieved in 2004 and 2005 partly through government rationalisation measures and partly through the pension reform and reduced investment.<sup>13</sup> Government debt, which is largely long-term<sup>14</sup> and mainly generated at the central government level, increased from 27.6% to 29.5% of GDP in the 2000-2004 period but remained among the lowest in the EU and far below the upper ceiling of 60% of GDP. In 2005, public finances improved, the government deficit amounted to 1.8% of GDP and government debt to 29.1% of GDP<sup>15</sup>.

*Despite meeting the nominal fiscal criteria for adoption of the euro, the relatively high structural deficit of the last few years calls for **urgent changes to the stance of fiscal policy**.* In 2004, when relatively high economic growth was achieved, the cyclically adjusted or structural deficit persisted at a relatively high level and amounted to 1.9% of GDP<sup>16</sup>. The relatively high structural deficit, estimated in the Convergence Programme 2005-2008 to have fallen only slightly last year means that, given the restrictions of the stability and growth pact, fiscal policy has limited options in the event of deteriorating economic conditions. This means there is a risk of approaching the ceiling of the government debt; if exceeded, this would trigger the excessive deficit procedure in accordance with the provisions of the stability and growth pact. Government expenditure<sup>17</sup> must therefore be reduced and restructured in order to increase its flexibility, and this will enable fiscal policy to strengthen its stabilising function after the euro is adopted.

*The **incomes policy** measures had a positive impact on maintaining macroeconomic stability and compliance with the Maastricht criteria.* The social partners entered into a Social Agreement for the 2003-2005 period in 2003 in which they set the

<sup>12</sup> The revision of data on the government deficit and debt in accordance with the ESA-95 methodology (the European System of Accounts, which is the methodological standard for all member states of the European Union) showed that the government deficit exceeded the upper ceiling of 3% of GDP in 2000 and 2001, mainly because the war damages (for which the government later issued bonds) were entered into the accounts at the time the claims were registered in the courts.

<sup>13</sup> Public expenditure is described in detail under 2.3.1. (Quality of public finance).

<sup>14</sup> Long-term debt amounted to 94.6% of government debt in 2004.

<sup>15</sup> In June 2005 the government settled SIT 80.9 billion (1.2% of GDP) of the debt with inflows from the sale of its share in Nova Ljubljanska banka in 2002. This transaction is shown as a negative adjustment of the debt in 2005.

<sup>16</sup> Convergence programme 2005-2008.

<sup>17</sup> The structure of general government expenditure is shown under 2.3.1. (Quality of public finance).

objective to have real growth wage per employee lag behind productivity growth by one percentage point in order to prevent excessive wage growth, which would boost inflation pressures, affect cost competitiveness, and cause the excessive growth of public finance expenditure on wages. After 2001, when wage growth exceeded productivity growth for the last time, it has remained well within sustainable macroeconomic limits<sup>18</sup>. In view of the positive contribution of this restrictive wage policy to maintaining macroeconomic stability and achieving the targeted inflation rate in the period of participating in the ERM II, the starting points for the Social Agreement propose preserving the objective of real gross wage per employee rising one percentage point less than labour productivity growth in 2006, and enhancing wage flexibility.

## 2.1.2. Increasing competitiveness and promoting entrepreneurial development

**Labour productivity**<sup>19</sup>, *an indicator of the corporate sector's competitiveness, continues to gradually narrow the gap relative to average productivity in the EU.* Following the relatively high growth seen in the second half of the 1990s (4.8% average annual rate in real terms), labour productivity growth gradually slowed down (3.1% in 2000-2005), but due to the much lower labour productivity growth in the developed member states of the EU, Slovenia's gap behind the European average is narrowing. In 2004, labour productivity in Slovenia, expressed in current prices, was 50.1% of the EU-15 average, and 75.7% in terms of purchasing power. Slovenia still has the second highest labour productivity among the new EU member states (behind Malta) and ranks sixth among the EU member states (behind the Baltic states, Poland, Ireland and Hungary) in terms of average productivity growth in the 1995-2004 period.

*Two other important indicators of the corporate sector's competitiveness show a sustained gradual improvement in **market shares** and declining **cost competitiveness**.* After shrinking in the 1996-2000 period, Slovenia's *aggregate market share*<sup>20</sup> in its main trading partners has been increasing since 2000, signifying the greater export competitiveness of Slovenia's economy. In the 2001-2004 period, the average annual growth of Slovenia's share was higher than in most member states of the euro area, but was far behind the growth seen in some new EU member states. The position of Slovenia's exporters strongly improved in the markets outside the EU up until 2003, but in the past two years their share has increased fastest in the EU markets, although primarily in machinery and transport equipment (mainly road vehicles) while the competitiveness of other sectors of industrial products has failed to improve noticeably. Following the strong improvement in the second half of the 1990s and slower growth in 2002-2003, the cost competitiveness of Slovenia's

<sup>18</sup> After meeting the objective of the Social Agreement in 2003, 2004 saw an increase in the gap between wage growth and productivity growth to 2.1 p.p., resulting from the bigger gap between wage growth in individual sectors. While wage growth was one p.p. lower than productivity growth in the private sector, wages in the public sector dropped by 0.8%, lagging 4.9 p.p. behind total labour productivity.

<sup>19</sup> Productivity calculated as gross domestic product per employee according to the national accounts methodology.

<sup>20</sup> In goods exports.



economy compared to the EU slightly worsened in 2004<sup>21</sup>. Over the past five years, unit labour costs have fluctuated above the level achieved in the late 1990s. In 2004, labour costs per unit of value added saw a stronger increase in manufacturing than in the rest of the economy but remained below the level of the 1990s because of their considerable drop in previous years.

Competitiveness is influenced by a range of factors and the analysis below focuses on the economy's structure and structural changes, entrepreneurship, internationalisation and the competitiveness of network activities.

**(1) Structural changes:** *in the past ten years, Slovenia's economy has been marked by relatively slow restructuring towards the strengthening and expanding of service activities accompanied by a fast decline in agriculture's importance and a minor reduction of industry's share.* In the 1995-2004 period, the share of agriculture in the structure of gross value added fell by 1.7 structural points to 2.5%, and the share of services increased by 1.8 structural points to 62.3% of total value added. The decrease of industry's share (29.5% in 2004) was minimal (0.4 of a structural point), meaning that the structural gap against the European average in this area widened.<sup>22</sup> Other important structural differences from the European average persist in business services<sup>23</sup>.

**The restructuring of manufacturing towards high-technology and above-average productive activities is too slow.** Following the relatively slow restructuring observed in the 1995-2002 period and the boost in 2003, the process of structural transformation again slowed down in 2004<sup>24</sup>. In this ten-year period, value added and employment recorded higher shares of high and medium-high-tech activities and a lower share of low-tech activities, but the share of medium-low-tech activities nevertheless continues to rise – a discouraging trend in terms of development. The biggest increase in the high-tech activities was recorded by the chemical industry, while the biggest decrease in low-tech activities was contributed by the textile industry. That restructuring is moving ahead slowly is shown by data on Slovenia's gap relative to the EU average<sup>25</sup> in the share of the most high-tech activities and the small impact of structural changes on productivity growth in manufacturing<sup>26</sup>.

<sup>21</sup> In the total economy, the deterioration largely resulted from the gap between the implicit GDP deflator or value added and the inflation rate due to the worsened terms of trade, but this was the exclusive cause in manufacturing.

<sup>22</sup> In 1995, industry's share in Slovenia was 6.3 structural points higher than in the European Union, and in 2004 the difference had risen to 9 structural points.

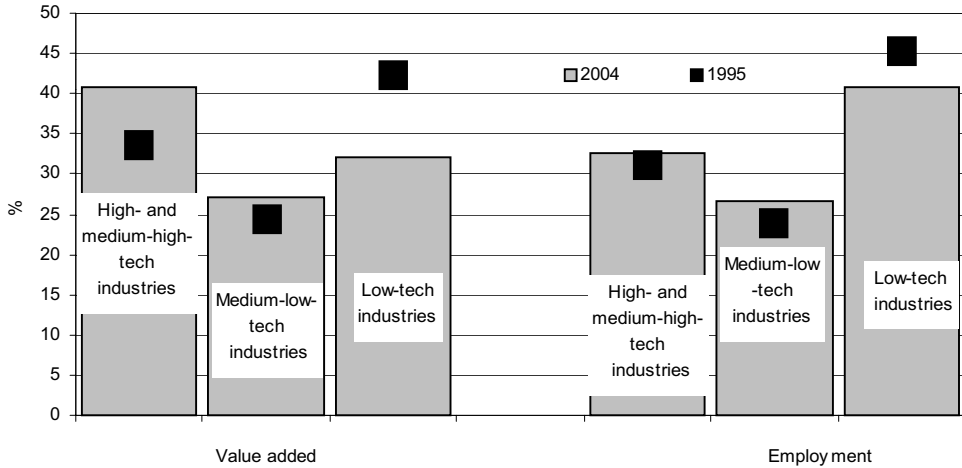
<sup>23</sup> Business services are analysed in detail under 2.1.3. (Increasing the competitiveness of services).

<sup>24</sup> The intensity of restructuring in manufacturing, calculated by changes in the structure of value added, was at a high level in 2003 (the value of the indicator of the intensity of structural changes reached 1.02), but dropped again in 2004 (0.52), and was close to the average of the second half of the 1990s. The intensity of restructuring, measured by the changes in the structure of employment, did not change essentially and remained at a low level in 2004 (0.29) (Kovačič, Kmet Zupančič, Kušar, 2003).

<sup>25</sup> The share of medium-high and high-tech activities in value added in manufacturing amounted to 40.8% in Slovenia in 2004 against 43% in the EU-25 according to data for 2003, but it was far higher in the countries which achieved a major shift in this area in the past (Germany 56.1%, Ireland 59.4%, Finland 46.1%, Hungary 49.3%).

<sup>26</sup> In the 1995-2004 period, total productivity growth mainly resulted from productivity growth within individual sectors, and the contribution of structural changes was less than 10%.

Figure 2: Changes in the structure of value added and employment in manufacturing in the 1995-2004 period



Source: National accounts (SORS), September 2005; IMAD's calculations.

**The changes in the structure of goods exports tend to strengthen the share of high-technology goods exports, but the structural discrepancies from the European average and the new EU member states are still substantial.** A strengthening of the share of high-tech exports is indicated by changes in the structure of exports by branches as well as by products. The trend was particularly encouraging in the 2000-2004 period when the share of high-tech products in the structure of goods exports increased more than the EU average, and more than in the group of the new EU member states. In spite of these favourable trends, Slovenia's gap behind the European average remains substantial<sup>27</sup>. Slovenia is, however, reducing the share of low-technology-intensive products and branches, labour-intensive products, and products requiring the intensive use of natural resources but, in comparison with the EU average, its share of labour-intensive products remains relatively high.

**From the point of view of increasing the economy's' competitiveness the changes in the structure of investment show a relatively favourable pattern in investment in machinery and equipment and investment in market activities, but a gap in investment in software in international comparisons.**<sup>28</sup> Following its relatively high growth as a share in GDP in the second half of the 1990s, investment activity slowed down after 2000, while the analysis of the technical structure of investment reveals a relatively high real growth level for investment in software and in machinery and equipment. Compared with the relatively low growth of the prices of machinery and equipment, the latter trend is not reflected in a similarly bigger share of these

<sup>27</sup> Using the UNCTAD methodology, which is based on a three-digit product classification, high-tech products had a 17.5% share in Slovenia's goods exports in 2004, but the EU-25 average was 23.2%. Using the methodology of the European Commission, which is based on a five-digit classification and as such only includes the technologically most advanced products, the share of these products in Slovenia's exports was just 5.8% against the EU-25 average of 17.8% (EIS, 2005).

<sup>28</sup> Investment in information-communication technologies is treated in detail under 2.2.2. Research, development and use of information-communication technologies.

investments in the structure of investment or as a share in GDP<sup>29</sup>. In international comparisons, Slovenia achieves a higher share of investment in machinery and equipment as a share of GDP than the EU-25 average, and a higher share than in most new member states. This is a favourable starting point for increasing Slovenia's competitiveness but attention must be drawn to the fact that Slovenia has a higher share of industry in the economy's value added than most of these countries. The trends in investment in software are less favourable. In spite of the increase in recent years, Slovenia still considerably lags behind the EU. The changes in the structure of investment by purpose, where the share of investment in market activities recorded the strongest growth, show a relatively favourable pattern from the point of view of increasing the economy's competitiveness.

**(2) Promotion and development of entrepreneurship:** *Slovenia has a low level of entrepreneurial activity.* In the 1999-2004 period, the number of enterprises in the business sector<sup>30</sup> increased by a meagre 2.6%; the level of early-stage entrepreneurial activity<sup>31</sup> dropped from 4.6% (2002) to 2.6% (2004), but rose again to 4.4% in 2005, but this is still the fourth lowest level among the member states of the EU<sup>32</sup> (Minniti et al., 2006). Slovenia also has a relatively high failure rate of nascent enterprises. The mortality rate index rose from 2.1 in 2002 to 2.7 in 2004, and dropped back to the 2002 level one year later. Higher mortality rates among EU member states were recorded in France, Greece and Belgium. These figures are indicative of the low success rate of the entrepreneurial process and are critical in terms of the entrepreneurs' lost funds and invested time, as well as in terms of the opportunity costs of unrealised profits.

*Among the main factors impacting on entrepreneurial activity, Slovenia's weak points are access to financial resources and the regulatory environment for the operation of companies.* Beside bank resources, informal investors are the most important factor in establishing new companies (Bygrave et al., 2004). In 2004, investment by informal investors in Slovenia amounted to 0.61% of GDP, ranking Slovenia 13<sup>th</sup> among sixteen evaluated member states of the EU. Because of the negative connection between the volume of informal investment and the tax burden on individuals (Bygrave and Hunt, 2005), entrepreneurial activity also depends on the taxation system. Another alternative form of financing is venture capital, which is not particularly important to the establishment process but more for boosting growth in established companies (SME Access to finance, 2005 and Bygrave et al., 2004). Venture capital in Slovenia is negligible in international comparisons. According to data from the GEM (Global Entrepreneurship Monitor), investments of venture capital in Slovenia in 2004 reached only 0.009% of GDP, ranking Slovenia last

<sup>29</sup> In the past ten years, the share of investment in buildings has seen the highest growth amidst much lower real growth levels in the structure of investment.

<sup>30</sup> Activities C to K in the Standard Classification of Activities.

<sup>31</sup> Early-stage entrepreneurial activity is calculated as the share of the population (aged 18 to 64), which plans to establish a company or manages a company that is younger than 42 months (Rebernik et al., 2005).

<sup>32</sup> The average for the EU (2004: 5.40) is estimated and based on data for 16 member states: Poland, Ireland, United Kingdom, France, Greece, Denmark, Spain, Netherlands, Germany, Finland, Italy, Hungary, Portugal, Sweden, Belgium and Slovenia (Acs et al., 2005). In 2005, research of the Global Entrepreneurship Monitor (GEM) included Austria and Latvia instead of Poland and Portugal.

among the EU member states (16 countries). The regulatory framework is equally business-unfriendly to the operation of companies but this is, however, improving gradually.<sup>33</sup>

**(3) Internationalisation of the economy:** *internationalisation of Slovenia's economy progressed in 2004 and 2005.* In foreign trade, the shares of exports and imports in GDP<sup>34</sup> rose substantially. This increase, which ended the stagnation or even slight drop in the intensity of Slovenia's exports and imports in the 2000-2003 period, resulted from the recovery of demand in the trading partners and Slovenia's accession to the EU. In 2004 and 2005, the trend of increased direct investment by Slovenian companies abroad continued, especially investment in the markets of former Yugoslavia. Inflows and penetration of FDI in the Slovenian economy increased in 2004, only to drop again in 2005. Inward FDI thus remains modest and its inflows fluctuate considerably from year to year. In 2005, Slovenia was a net exporter of FDI (outflows were higher than inflows), an exception among the new member states.

*Slovenia's economy is chiefly becoming internationalised through foreign trade and much less through foreign direct investment.* A comparison with other member states of the EU-25, where FDI plays on average a much more important role in internationalisation than in Slovenia, clearly confirms this. In 2004, the ratio between the share of foreign trade in GDP and the share of FDI in GDP in the EU-25 was 1.5, in Slovenia however it was 4.1. The difference in the intensity of Slovenia's foreign trade and the average of the EU-25 has been increasing steadily from 2000 to the benefit of Slovenia. In 2000, the average share of foreign trade in GDP was only 0.9 of a percentage point higher, but 6.3 p.p. in 2004. FDI is a different story as the gap behind the EU-25 is quite big and is failing to narrow. In the 2000-2004 period, the share of FDI in GDP constantly lagged behind the average of the EU-25 by over 10 p.p. in inward FDI, and over 30 p.p. in outward FDI. In view of Slovenia's development level, this situation may be expected with outward FDI, but certainly not with inward FDI.

The increased intensity of Slovenia's exports and imports certainly confirms the economy's higher competitiveness and has a positive impact on economic growth. The positive macroeconomic results (Burger, Jaklič and Rojec, 2005) confirm the rationality of encouraging outward internationalisation at the macroeconomic level. The modest inward FDI in Slovenia, on the other hand, points to the country's low competitiveness as an investment location<sup>35</sup> and its underexploitation of development opportunities. Foreign ownership influences productivity growth (Damijan, Jaklič

<sup>33</sup> The regulatory environment for the operation of companies is analysed under 2.3.2. (Institutional competitiveness of the state).

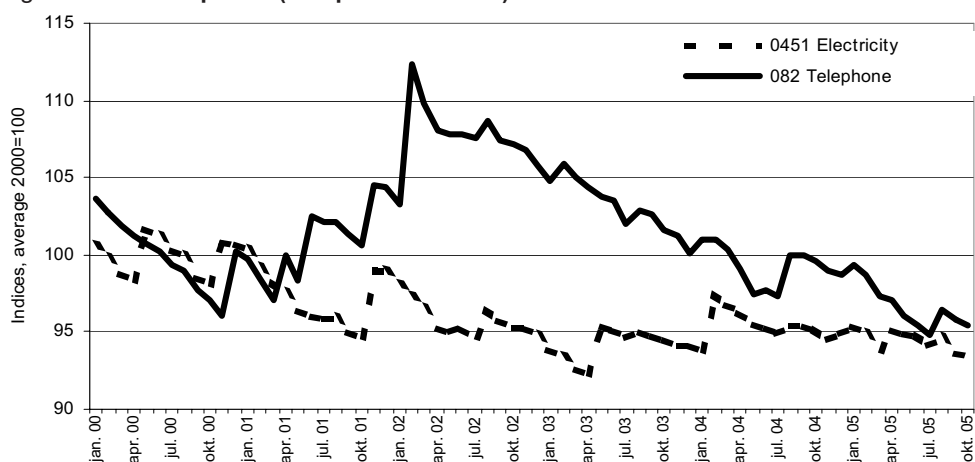
<sup>34</sup> Most foreign trade concerns goods. In 2005, 55 p.p. of the 65.1% average share of foreign trade in GDP involved products and 10.1 p.p. involved services. The corresponding share of services in the EU-25 was much higher (15.1%) in 2004.

<sup>35</sup> The success with which a country attracts FDI can be measured by the degree to which it exploits its potential for attracting FDI. In 2004, Slovenia's rank according to its potential for attracting FDI was a high 28<sup>th</sup> place but, according to its actual success in attracting FDI, the country's rank was much lower – 60<sup>th</sup> place (definition of both indexes: *World Investment Report 2005*, 2005). These figures are indicative of the poor investment climate in Slovenia and the meagre success of Slovenia's policies of attracting FDI. Slovenia performs much better in the index of successful investment abroad, where it was ranked 28<sup>th</sup> in 2004 (compared to 61<sup>st</sup> in 2000).

and Rojec, 2005) in two ways: it strengthens the innovation potential of a company and simultaneously contributes to productivity growth through better organisational techniques.

*(4) The structure and openness of the markets in network activities: in most network activities, competition is being established slowly and, where it already exists, the market share of the dominant operator is relatively high. In electronic communications, the biggest problems are with fixed telephony where competition has yet to be introduced and in the market of third-generation mobile telephony, where just one provider has been granted an operating licence. Competition has been established in the markets of international calls in fixed telephony, broadband and narrowband access to the Internet, and mobile telephony, but the biggest providers have relatively high shares<sup>36</sup> in all of these markets, except in narrowband access to the Internet. In the energy sector, the production and wholesale markets of electric energy continue to show a high concentration of providers (Report on the condition of the energy sector in Slovenia in 2004, 2005). In 2004, the share of the biggest provider – in terms of installed capacity – of electric energy to eligible customers was nearly 70%<sup>37</sup>. In the retail market of electric energy, the concentration of providers is more dispersed and only at a medium-high level. The share of the biggest provider in terms of supplied energy (in GWh) was 26%, and the total share of the three biggest providers a little over 60%<sup>38</sup>. Any evaluation of the degree of concentration in this market should take into account that all distribution companies in Slovenia are*

Figure 3: Relative prices (compared with CPI) in some network activities



Source: SI-STAT Data Portal – Economy – Prices (SORS), 2005.

<sup>36</sup> In the mobile telephony market, Eurostat data record a 78% share (2004) of the dominant operator against a less than 50% share as the average in the EU-15. The market of broadband access is dominated by ADSL technology with a share of over 60%, while the market share of the biggest provider was over 95% in 2004 (Hrovatin, 2005), but conditions have been improving gradually in this market since September 2005 after the introduction of the local loop unbundling of ISDN-ADSL. In the market of international calls, the market share of the dominant operator is over 95% and shows a slowly falling trend (Analyses of relevant markets 2005, APEK 2005).

<sup>37</sup> The calculation includes only half of the nuclear power plant's production that is sold in Slovenia.

<sup>38</sup> Including suppliers from abroad.

majority-owned by the state. In natural gas, no competition amongst suppliers existed in 2004 as a single company supplied gas to the distribution companies as well as to the eligible customers in the transmission system.

*The price trends of services in network activities largely reflect the price formation methods of the past and the impact of other factors, but only partly reflect the liberalisation processes and the establishment of a competitive market structure. The relative prices of telecommunication services (compared with the consumer price index – CPI) have been falling since 2002, following the fast growth seen in the 1990s. The prices of services in mobile telephony are falling due to increased competition, while the prices of services in fixed telephony, balanced in the 2001-2002 period as a result of the elimination of cross-subsidising, have been at a level of 70% to 80% of the EU average in the last few years. The retail prices of electric energy for households are controlled by the government. In the early 1990s, at the time of the highest inflation, the relative prices of electric energy (compared with the CPI) fell considerably, but they increased again and faster than the inflation rate by the end of the 1990s. From 1994, when the prices of electric energy for households were half those of the EU-15 (Electricity prices – households, 2005), the difference relative to the European prices dropped to less than 20% in 1998 and remained at between 15% and 20% until 2005<sup>39</sup>. Due to the slight decrease of the average European price, the relative price of electricity in Slovenia generally decreased after 2000<sup>40</sup>. Similar trends were recorded in the price of electricity for industrial consumers<sup>41</sup> but the Slovenian price already exceeded the average EU-15 price in 1998 (Electricity prices – industrial consumers, 2005) and lagged behind the average prices in the EU-15 by 3% to 10% in the 2000-2005 period. The 10% lower price of electricity for industrial consumers than in the EU in 2005 may be attributed in part to the increased competition, in particular because of the expanded international trade in electricity<sup>42</sup>.*

### 2.1.3. Increasing the competitiveness of services<sup>43</sup>

Services generate the highest share of value added in developed economies and the productivity and competitiveness of the services sector are therefore key determinants

<sup>39</sup> In early 2005 the Slovenian price of electric energy (excluding tax) for a typical household consumer with an annual consumption of 3500 kWh lagged behind the average weighted price in the EU-15 by 19.8%, by 17.7% behind the average weighted price in the EU-25, and by 7.7% behind the average non-weighted price in the countries of the EU-25.

<sup>40</sup> The regulation of the prices of electricity takes account of the costs of production companies as well as the trends in electricity prices in Europe.

<sup>41</sup> The price comparison (excluding tax) refers to a medium-big industrial consumer with an annual consumption of 2000 MWh.

<sup>42</sup> Electricity is mainly imported from Austria where the price of electricity for such an industrial consumer was 9.2% lower than in Slovenia in 2004, but 1.6% higher in 2005.

<sup>43</sup> Our analysis of the competitiveness of the service sector is limited to monitoring structural shifts in the sector and the trends of its market shares. The emphasis is on the analysis of mainly market-oriented services and, from the point of view of the economy's competitiveness, we are particularly interested in knowledge-based services as these contribute most to productivity; the other, mainly public services (e.g. in education, health, public administration) are dealt with in other sections of the Report.

of economic growth. In addition to their direct impact, services also have an indirect impact on efficiency and competitiveness through the intermediate consumption of services in the production of products and other services (e.g. business, information, communications, and financial services) (European Competitiveness Report, 2002).

*The share of the services sector is gradually expanding in Slovenia, although it lags considerably behind the average of the European Union.* In 2004, service activities generated 62.3% of value added in Slovenia's economy and employed 53.8% of all employed persons, and this was much less than the EU-25 average. In ten years (1995-2004), their share in value added increased by only 1.8 structural points, and by 7.9 structural points in employment. Until 2003, Slovenia's gap against the EU in the share of services in value added constantly widened and it narrowed for the first time in 2004. The other new member states of the EU on average strengthened these activities with greater intensity and, having overtaken Slovenia in the share of services in value added, they still lag behind Slovenia in the share of business and financial services but the gap has narrowed (Table 1).

**The increase of productivity in the services sector**<sup>44</sup> is estimated to have been higher than the EU-25 average in the past decade. The productivity of service activities (calculated as value added per employee) increased by 19.4% in real terms in the 1995-2004 period, accompanied by a 17.5% rise in the number of employees; as expected, the increase is much lower than in manufacturing (82.2% increase in productivity combined with a 14% reduction of employment), which is more exposed to competition in foreign markets. Comparisons with the EU by individual service activities show that the average value added per employee in the EU-25 grew less in most service activities than in Slovenia, suggesting that the gap relative to the European average has narrowed.

*The shifts in the structure of value added and employment in the services sector are favourable because the fastest growth is recorded by knowledge-based services, which have the greatest impact on increasing the economy's productivity and competitiveness.* The share of knowledge-based services<sup>45</sup> in the economy's total value added amounted to 26.3% in 2004, and in total employment to 25%, that is 2.0 and 5.9 structural points higher than in 1995. Most of the growth was generated by market services (business services, post and telecommunications, financial intermediation), led by business services, which expanded their share in value added by 2.6 structural points and in employment by 3.6 structural points in 1995-2004. Computer and information services saw the strongest rise in the first half of the period, and other business services in the last years<sup>46</sup>. The share of post and telecommunication services also increased, especially in 2001-2003, in connection

<sup>44</sup> Measuring the productivity of services poses many problems (Wölfl, 2003) and here we only provide an estimate based on the selected criterion.

<sup>45</sup> According to the OECD's definition (2001), the following activities from the Standard Classification of Activities are knowledge-based services: post and telecommunication services (64), financial intermediation (65-67), business services (71-74), education (80), health care and social work (85).

<sup>46</sup> Data on the number of persons in employment and revenues indicate that the following services from group 74.1 strengthened: accounting, book-keeping and auditing activities, tax consultancy, market research and public opinion polling, business and management consultancy.

with the effects of the gradual liberalisation of the telecommunications market and the significant expansion of mobile telephony. The share of financial intermediation in value added slightly decreased, but increased in employment<sup>47</sup>.

*Although business services are growing fast, Slovenia's gap relative to the European average is the widest in these services, but it has narrowed in the last few years.* In the late 1990s, Slovenia's gap in business services increased yet it decreased from 4.1 to 3.1 structural points in 2000-2002, a development that may be almost entirely attributed to the breakthrough in other business services. The fast growth of services continued in 2003 and 2004, and a further narrowing of the gap against the developed countries may therefore be expected.

*Data on corporate demography confirm the growing importance of the most productive service activities.* In the 1999-2004 period, the number of companies increased most in financial intermediation (by 93%) and real estate, renting and business services (by 26%) among the mainly-market oriented services (G-K). Both groups of activities (according to data for 2002) also recorded the highest birth rate (14.6% in financial intermediation, 10.8% in business services).

Table 1: Differences between Slovenia and the EU by shares of activity in total value added in structural points in the 1995-2004 period

|   | Differences between Slovenia and the EU-25 <sup>1</sup> |      |      |      |      | Differences between Slovenia and the new member-states EU-10 |      |      |      |      |
|---|---|------|------|------|------|--|------|------|------|------|
|   | 1995  | 2000 | 2002 | 2003 | 2004 | 1995   | 2000 | 2002 | 2003 | 2004 |
| SERVICES  | -7.1  | -9.2 | -9.7 | -9.7 | -9.3 | 4.1  | -2.0 | -3.7 | -3.3 | -2.0 |
| Trade, hotels and restaurants, transport (G-I)          | 0.1   | -1.3 | -0.7 | -0.2 | -0.4 | -4.2   | -3.1 | -6.4 | -5.4 | -5.3 |
| Business and financial services (J-K)                   | -4.8  | -6.5 | -7.1 | -7.6 | -7.0 | 6.0  | 2.6  | 2.4  | 2.1  | 2.4  |
| Public services (L-P)                                   | -2.4  | -1.5 | -1.9 | -2.0 | -2.0 | 2.3  | 1.4  | 0.3  | -0.1 | 0.8  |
| Knowledge-based services (I64+J+K71+K72+K73+K74+M+N)    | N/A   | -5.1 | -4.5 | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  |
| Knowledge-based market services (I64+J+K71+K72+K73+K74) | N/A   | -4.6 | -3.9 | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  |

Sources: SORS, Statistical reports - National Accounts (2005), OECD Science Technology and Industry Scoreboard 2005 (2005), OECD Science Technology and Industry Scoreboard 2005 (2003).

Note: <sup>1</sup>The data on knowledge-based services refer exclusively to the old EU member states (EU-15).

**The competitiveness of Slovenia's services in foreign markets is weak and shows no signs of improvement.** The analysis of the shares of Slovenia's export services in the markets of the main EU partners<sup>48</sup> shows very modest growth of Slovenia's shares in the 2000-2004 period. The highest increase was recorded in transport services, the lowest in other services (various business services). Other new members of the EU, especially the Czech Republic, Poland, and Slovakia achieved much higher growth of their shares in export services.

<sup>47</sup> The development of financial intermediation and its role in the development of the corporate sector are analysed in detail in Box 1.

<sup>48</sup> In view of the lack of relevant data on the EU-15, the analysis focuses on the most important export markets for Slovenia's services in 2004, with Germany being ranked first, followed by Italy, Austria and the United Kingdom.



*In spite of the faster development of services in Slovenia in recent years, the sector continues to be hampered by many shortcomings and weaknesses. These derive from insufficient competition, inadequate specialisation in some services, low levels of innovativeness of service companies (even in the sense of using more advanced forms of e-commerce), unsuitable training, lack of special skills and competences required for the development and marketing of the services offered to customers and, last but not least, the limited internationalisation of service companies (Stare, 2005).*

**Box 1: Development of financial services**

*Financial services are poorly developed in Slovenia and the gap against the developed member states of the European Union is rather large. The smallest gap is recorded by the insurance sector, where the volume of insurance premiums compared to GDP exceeded half the average value in the European Union in 2004 and exceeded the average of the new members of the EU. In structural terms, the share of non-life insurance was slightly higher than that of life insurance; in spite of progress seen in the last few years, the latter's share is still substantially lower than the EU-25 average. The total assets of banks, which equal 60% of the financial system's total assets and are therefore an important indicator of the sector's development, have been growing fast in the last few years but Slovenia has been losing its advantage over the new EU member states in the last two years and is far behind the EU-25 average, as well as behind some of the old member states comparable to Slovenia in development terms (e.g. Portugal and Greece). That the sector's progress is too slow is also evident from the capital market where the level of market capitalisation compared to GDP is much lower than the EU-25 average and slightly lower than the average of the new member states.*

*The role of Slovenia's financial sector in supporting the growth of the business sector is relatively weak and the sector has only seen gradual shifts in recent years. In international comparisons, Slovenia has a relatively low share of loans to the business sector of its gross domestic product (Jazbec, Masten, 2004, p. 91): one of the reasons is the significant involvement of commercial banks in the operations of the central bank that have ensured a stable exchange rate over the past years. A gradual reduction of the volume of central bank securities in the total assets of the commercial banks, due to preparations for entering the EMU, has only occurred recently. Part of the thus generated surplus liquidity is used for banks' lending activities. The latter are expanding as interest rates are falling fast, and fast growth is recorded particularly in the volume of foreign currency loans, which are an increasingly important debt source for financing companies. In connection with the reduced interest rates, positive shifts have recently occurred in the development of other forms of business operations. The falling interest rates have indeed forced the banks to gradually introduce other financial service to compensate for the loss of interest income with non-interest income. With these changes the banks are gradually adapting to the conditions in the EU's common financial market. From the point of view of the financial sector's support for the development of entrepreneurship, another important factor is the development of the primary capital market which is underdeveloped in Slovenia: public offerings*

of primary equity securities are very rare while the primary market of debt securities is slightly better developed, but is dominated by state and financial institutions.

*The diversification of Slovenia's financial market is also evolving through the development of financial institutions offering supplementary pension insurance. Mutual pension funds, pension companies and insurance companies are becoming increasingly important financial intermediaries since the pension reform was introduced in 2000. Because of the regulations indicating the minimal returns to be achieved, these institutions tend toward highly conservative investment policies. Due to Slovenia's small and undeveloped financial markets they face limited investment opportunities and increasingly have to look for them in foreign capital markets. Other opportunities for their investment operations will be provided by mortgage banking, which is well developed in some European countries, while the legal basis for it is now being prepared in Slovenia.*

*Besides reducing the development gap in the financial sector, another development that is of crucial importance to Slovenia's financial system is the continuing establishment of a common European financial market. Further integration processes will greatly contribute to the higher efficiency of the European financial market, reduce the barriers to the free flow of financial services and capital, establish the efficient implementation of legal regulations and strengthen co-operation between the supervising bodies, and this will boost the efficiency of the financial system's supervision<sup>49</sup>.*

<sup>49</sup> Green Paper on Financial Services Policy (2005-2010), 2005.

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

*OBJECTIVES OF SLOVENIA'S DEVELOPMENT STRATEGY (SDS): To ensure the effective generation, two-way flow and application of the knowledge for economic development and quality jobs, it is the SDS' priority to improve the quality of tertiary education, encourage lifelong learning and increase the efficiency and level of investment in research and technological development.*

*FINDINGS: Slovenia continues to strengthen the factors that make up a knowledge-based society, yet the factors are developing unevenly. The educational structure of the population is improving and slowly approaching the average EU share of the employed with a tertiary education. Moreover, the employment rate of highly educated population in Slovenia is even above the EU average. Although the overall education expenditure is high, Slovenia is lagging behind the EU in tertiary education expenditure per student. The ratio between the number of students and teachers is also well behind developed countries.*

*Noticeable progress has been made in investment in research and development and Internet access, whereas the innovation potential to improve the competitiveness of the economy has not been sufficiently used (there is a low share of innovating companies, poor marketing of new products and services, insufficient co-operation between companies and research institutions, a small number of patents, a relative drop in the number of science and engineering graduates, and insufficient investment in information and communication technologies). The greatest challenge for policies is to quickly address these drawbacks through co-ordinated policies and instruments from different fields, an objective which has already been set in development documents.*

*ANALYSIS: Investment in knowledge, research and development (R&D), innovation and information and communication technology is the basic leverage to increase the efficiency and strengthen the long-term competitiveness of a country, so it is obvious why a number of analyses by the European Commission and the OECD deal with these factors. In analysing and comparing different indicators, these institutions have identified considerable differences in how effectively different countries transform the investment in knowledge into economic performance and development (Key Figures, 2005, EIS, 2005, OECD, 2005). The summary indicator of investment in knowledge (investment in tertiary education, research and development and software)<sup>50</sup> shows that Slovenia lagged behind the EU-15 average in 2002 (Slovenia's share of investment in knowledge was 3.0% of GDP, with the EU-15's being 3.8%). The country lags particularly behind Scandinavian countries, but is doing better than the Mediterranean EU member states and most of the new EU nations.*

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<sup>50</sup> The Investment in Knowledge indicator shows that Slovenia lags behind the EU average most in investment in software as a relative share of GDP.

### 2.2.1. Education and training

**The educational structure of adults (25-64 years) is improving in Slovenia.** Econometric analyses of how different factors affect economic growth highlight the role of the share of tertiary education graduates in the total population/employment, an area where Slovenia is still considerably behind the most advanced countries. Even with a rise in the share of tertiary education graduates in the population to 20.0% in 2005, Slovenia is only slowly catching up with the EU-25 average (22.8%), particularly with Scandinavian countries and even with Estonia and Latvia<sup>51</sup>.

Slovenia's gap in the share of tertiary education graduates is fairly evenly spread by age groups – while the 35 to 39-year group has the narrowest gap relative to the EU-25 average, the 25 to 29-year group has the widest one, which indicates that people decide to study relatively late in Slovenia and also that it takes them a long time to complete their studies. But just like in other countries, the share of tertiary education graduates in the population in Slovenia drops with age. The average gap between the 25 to 34- and 55 to 64-year groups in OECD countries is 12 percentage points. The Slovenian figure is similar.

*Lagging behind in the share of tertiary education graduates in the population* also translates into data on the average years of schooling attained by people in employment that is constantly increasing yet still remains well below the level recorded in the majority of more developed countries (11.5 for men and 11.8 for women; whereas the OECD average is 12.4 for men and 12.5 for women). Greece, Italy and Portugal are the only EU countries where people in employment have fewer years of schooling than in Slovenia. The employment of workers with higher levels of education (particularly tertiary) is critical to encouraging innovation and has a positive impact on productivity and economic growth, which is also corroborated by analyses of OECD countries (Gemmell, 1996). Better education usually increases a job-seeker's employability, meaning that tertiary education job-seekers usually have better chances of finding a job than those with a primary and secondary education. The employment rate of tertiary education graduates in Slovenia is slightly above the EU average, while the employment rate of those with lower levels of education is lagging well behind the EU average, revealing a relatively great problem of structural unemployment in Slovenia.<sup>52</sup> Education also affects the probability of getting into the labour market (participation rate) and earnings or the rate of return to education<sup>53</sup>. The rate of return to education for an individual increases with education. Vodopivec (2004) established that with the transition tertiary education saw the greatest rise in the rate of return<sup>54</sup>.

<sup>51</sup> Sweden (33%) and Denmark (32%) have the largest shares of tertiary education graduates in the EU, which however have been greatly outpaced by the USA (38%) (Education at a Glance, 2005).

<sup>52</sup> The employment rate of tertiary education graduates in Slovenia in the second quarter of 2005 was 86.5% (EU-25: 82.5%), 70.7% for secondary education graduates (EU-25: 68.7%) and 40.7% for those with lower levels of education (EU-25: 46.4%).

<sup>53</sup> The rate of return to education of an individual is usually measured with Mincer's earnings function, which shows the impact of the attained level of education on one's earnings.

<sup>54</sup> Calculated per year, the 2001 annual rate of return to education was 2% for workers with a primary school education, 3% for workers with a secondary vocational education, 8% for workers with a secondary education, 15% for workers with higher vocational education and as much as 20% for those who had completed 4-year higher education studies.

Some studies in other countries suggest that increasing the average number of years of schooling by one year increases aggregate productivity by an average 0.45 of a percentage point. However, Dessus (1999) claims that the actual impact of an additional year of schooling on productivity also depends on the quality of education. His analysis backs the contention that the impact of human capital on productivity differs from country to country. These differences are said to have to do with the volume of education expenditure as well as the ratio of teachers and pupils at the primary education level (de la Fuente in Ciccone, 2002). Education expenditure is relatively high in Slovenia, with public spending on education amounting to 6% of GDP, which is more than the EU average of 5.2 %. The ratio between teachers and pupils at the primary and lower secondary levels of education is also better than the EU average<sup>55</sup>. However, some studies<sup>56</sup> have pointed to the problem of the quality of education in Slovenia so, given the large investments involved, ways of improving teaching and increasing the efficiency of the invested funds should be addressed.

Table 2: **Selected indicators from education and training**

|   | Slovenia | EU-25 | EU-15 | Finland |
|---|----------|-------|-------|---------|
| Share of tertiary education graduates in the population (25-64 years) in % (2nd quarter 2005) | 20.0     | 22.8  | 24.0  | 34.5    |
| Public expenditure on education, in % of GDP (2002)   | 5.98     | 5.22  | 5.22  | 6.39    |
| Private expenditure on tertiary education institutions in % (2002)                            | 23.3     | 17.2  | 12.8  | 3.7     |
| Annual expenditure on tertiary education institutions per student, in EUR PPS (2002)          | 6,138    | 7,946 | 8,562 | 10,160  |
| Number of students per 1,000 people (2003)  | 50.9     | 37.0  | 35.6  | 56.0    |
| Number of graduates aged 20 to 29 per 1,000 population (2003)                                 | 46.6     | 52.9  | 51.2  | 59.8    |

Sources: SORS, Eurostat, OECD, IMAD calculations.

Note: Indicators, sources and footnotes are specified in more detail in the Appendix.

Teaching staff is also an indicator of the quality of education. The ratio of students to higher education teachers in Slovenia has been worsening as a result of the rapid annual growth in the number of students<sup>57</sup>, and stood at 22.6 in the 2004/2005 academic year, much worse than the OECD average of 14.9 in 2003. Still, Slovenia has been successfully catching up with the most developed countries in terms of the number of students per 1,000 population, and has a high gross coefficient of enrolment in tertiary education in the 20-24 age group. In the 2002/2003 academic year the coefficient nearly reached 68% (around 56% in the EU). Nevertheless, there are many dropouts and a small number of graduates (46.6 persons aged 20-29 per 1,000 population in 2003; 52.9 persons in the EU-25), which points to the problem of the quality of tertiary education.

<sup>55</sup> The ratio at the primary level (ISCED 1) in the year 2002/2003 was 12.8 in Slovenia (EU-25: 15.0) and 13.0 (EU 25: 13.3) at the lower secondary level (ISCED 2) (Statistics in Focus, 10/2005).

<sup>56</sup> Studies about the functional literacy of adults and the 2003 Timss study about 15-year-olds' performances in mathematics and science (Development Report 2005, 2005).

<sup>57</sup> The number of tertiary education students increased by 42.7% in the period between 1998 and 2003 in Slovenia, which is more than EUROSTAT's figure of 32.3% for the EU-25 for the same period.

*The high degree of tertiary education enrolment and long duration of studies increase the overall expenditure on tertiary education.* In Slovenia this largely translates into considerable private expenditure, which is higher than in most EU countries. In 2002 it amounted to as much as 23.3% (EU 17.2%) of all public and private expenditure on tertiary education institutions, which is 1.3% of GDP. Meanwhile, direct public expenditure on tertiary education institutions is relatively low (1.0% of GDP), but much more public funding is spent in Slovenia on scholarships and other forms of social benefits for students (0.3% of GDP) than in other European countries. Overall public expenditure on tertiary education in Slovenia is higher than the European average (1.1 %), but also much lower than in Scandinavian countries.

Despite the relatively high overall direct expenditure on tertiary education institutions, Slovenia is lagging behind the majority of more developed EU countries when the annual funds are measured per student. In 2002 they amounted to 6,139 EUR PPS<sup>58</sup> (EU-25: 7,946 EUR PPS), and double the figure in certain Scandinavian countries. This indicator of the quality of tertiary education shows that, except for Cyprus, all new EU member states are lagging behind the European average.

## 2.2.2. Research, development, innovation and use of information and communication technologies (ICT)

*The share of R&D investment in GDP increased in 2004 to 1.61% from 1.53% in 2003,* whereby the gap between Slovenia and the EU-25 average was the narrowest ever, a development which can be partly attributed to the relative drop in R&D investment in the EU-25 which can be witnessed since 2003. A positive development is that since 1996 the R&D investment of the Slovenian business sector has been growing faster than that of the government sector, which helps to narrow the private sector's gap with the EU-25 average. Despite this, Slovenia remains far away from the Barcelona goal whereby the business sector should be investing 2% of GDP in R&D by 2010. The number of researchers per 1,000 active people in Slovenia does not lag much behind the EU-25 average, yet the structure of their employment differs considerably. The share of researchers working for the business sector has been increasing since 2000<sup>59</sup> but, with 38% in 2004, still lags well behind the EU-25 average (49.5%). On the other hand, the share of researchers working for the government sector is much bigger than in the EU-25.

*The ability of a country to introduce new products and technologies* largely depends on the availability of suitable staff and particularly the inflow of science and engineering graduates. The number of science and engineering graduates per 1,000 population dropped in 2003 to 8.7, which further widened the gap with the EU-25 average of 12.3. Moreover, the share of these graduates in the total number of graduates dropped from 23.8% to 18.6% in the period from 1998 to 2003, while

<sup>58</sup> PPS – purchasing power standards.

<sup>59</sup> It should be noted that, despite special tax relief, the number of researchers with a PhD in the business sector is only increasing very slowly. This means that the sector is employing primarily development experts which, however, does not encourage their own research in companies nor co-operation with public research institutions and universities.

it remained almost unchanged at 26% in the EU-15. Slovenia is too slow in adjusting its structure of higher education graduates to the needs dictated by fast technological development. Should this trend continue, it could weaken the ability of Slovenian companies to innovate amidst international competition. Another drawback is that technical and science faculties have not yet begun reforming their curricula in line with the Bologna process and are instead waiting for legislation to force them to reform. On a more positive note, the competent institutions are aware of the shortage of science and engineering graduates so they have already taken measures to increase enrolment levels in these studies.

*Slovenia has made some progress in innovation and innovativeness as well as patent applications.* While new data on innovation in Slovenian companies is not available<sup>60</sup> (Development Report 2005, 2005), the Summary Innovation Index (SII) makes it possible to identify trends in Slovenia and compare them with EU-25 member states to see where Slovenia is doing well and where it has problems. The European Innovation Scoreboard 2005 (EIS) established that in 2005 Slovenia made some progress over 2004 in the value of the summary innovation index<sup>61</sup>, placing it as the second best new EU member, behind Estonia, and the 14<sup>th</sup> EU-25 nation. The country has a good grounding particularly in the generation of knowledge, but does not sufficiently use its innovation potential to boost the competitiveness of the economy. Its SII categories are fairly balanced yet its indicators of intellectual property have a poor rating. Another drawback is the low share of innovating companies, poor marketing of new products and services (the process of transferring inventions into marketable innovations), and the small share of high technology products in exports. Slovenia is seriously lagging behind in the number of patent applications filed with the European Patent Office (EPO) per one million population. In 2003 it had 21.9 patent applications with the EPO (interim data), whereas the EU-25 had 133.6 (2002). The average annual growth rate of patent applications in the EU-25 in the period between 1996 and 2002 was 6.5%. Slovenia posted growth of 10.5%, thus outpacing all the other new EU-25 members as well as Spain, Greece and Portugal.

Slovenia has intensified its efforts over recent years to improve the instruments which strengthen the ability of the economy to innovate, yet as a result of the slow change in the institutional set-up of R&D in 2005 there was no fresh impetus to narrow the gap. The most problematic areas are the poor co-operation between the business sector and public research institutions, financial support to small and medium-sized companies for innovation and no systematic evaluation of the effects of new instruments.

*The possibility of the multiple use of information and communication technologies (ICT) and their influence on innovation make ICT investment a very important determinant of investment in knowledge<sup>62</sup> and for improving the efficiency of the*

<sup>60</sup> The most recent available data is from a statistical survey of innovation activities in manufacturing and some services which the SORS carries out biannually, and refers to the period between 2001 and 2002.

<sup>61</sup> The summary index consists of 26 indicators distributed in five categories which show different segments of innovation: innovation drivers, knowledge creation, innovation & entrepreneurship, application of knowledge and intellectual property.

<sup>62</sup> Investment in ICT consists of investment in software, hardware and telecommunication equipment (ICT).

*economy (Box 2).* Slovenia's ICT investment as a share of GDP has decreased over recent years, and lags behind the EU-25; while it reached as much as 7.3% of GDP in 2000, it amounted to only 5.2% of GDP in 2004 (EU-25: 6.4). Moreover, sufficient investment in ICT and organisational changes at all levels (in companies or institutions) are prerequisites for the efficient exploitation of the effects enabled by ICT networks.

*Trends in use of the Internet in Slovenia improved in 2005 in comparison with 2004.* The share of Internet users soared from 37% to 47%, narrowing the gap with the EU-25, where the figure was 51%. Progress was also made in broadband Internet access, which is a result of both greater demand and greater supply (number of providers). Slovenia had more households with Internet access than the EU-25 in 2004, but the latter grew faster than Slovenia in 2005, so both ended up at 48% in 2005. Since Internet use is widespread especially among young people, it is hardly surprising that the share of Internet access is higher in households with children (64%) than in childless households (41%). Faster expansion of Internet penetration in Slovenian households is hampered by the following reasons: no wish to have it, too expensive hardware and software and too expensive Internet access, and lack of knowledge. Almost all companies have Internet access, most of them through a broadband connection, which is a good basis for using e-services and making their business more efficient. E-banking and e-government services are the most frequently used e-services, while e-shopping/selling is less popular, chiefly due to payment security issues.

#### Box 2: Influence of ICT on economic growth and productivity

Slovenia has made good progress in the development of the ICT sector over the past decade, particularly in raising its share in value added and in employment of the business sector. Little progress has been made in increasing its share of exports. Economic growth is directly encouraged by the volume and pace of the ICT sector's growth. Nevertheless, the sector's growth is not a prerequisite for exploiting the advantages of ICT use. It is therefore very important how much a country invests in ICT and how efficiently it uses ICT.

Using an internationally-compatible methodology, the first analysis of its kind carried out in Slovenia in 2005 showed the importance of ICT investment for economic growth and productivity (Stare, Bučar, 2005). ICT capital on average contributed 16.4% to Slovenia's economic growth in the period between 1995 and 2001, which is almost on a par with the EU-15 average (19.0%) and certain new EU members, but well below the USA (23.3%). The significance of ICT for productivity in Slovenia was revealed by an analysis of ICT producers and ICT users. In the 1995-2002 period, ICT producers and intensive ICT users posted a higher productivity growth rate than sectors which do not use ICT intensively<sup>63</sup> (Kotnik, 2005).

<sup>63</sup> Caution is needed when interpreting the results due to incomplete data and methodological problems.



The importance of intensity of ICT use for benefiting from ICT was further verified by an analysis of sectors and companies. The analysis of the intensity of ICT use by companies in the period between 1996 and 2002 showed that Slovenian services companies use ICT more intensively than manufacturing companies when measured either through a share of ICT investment in overall investment or the level of ICT investment per employee. Regression analysis has confirmed that the use of ICT has a positive impact on productivity of Slovenian companies and that the impact is much stronger in companies that intensively use ICT. This indicates that the greater the use of ICT in a company (in various functions and links) the greater the benefits of its use. This means that in order to capture larger ICT-related effects on productivity, companies should introduce ICT most comprehensively (in all business processes) (Stare, Jaklič, Kotnik, 2005).

The findings show that further investment in ICT is critical to the competitiveness of companies and Slovenia as a whole, provided that ICT potential is used to the largest extent possible and accompanied by changes in organisation, education and training. ICT are the basic infrastructure for new business models, for globalisation and for dispersing the production of value added to multiple locations. ICT enable outsourcing locally or from locations abroad that are attractive for their low labour costs, trained labour force or encouraging business environment. Analyses show that, regardless of the different factors which are a technical and institutional prerequisite for the extensive use of ICT in a country<sup>64</sup>, knowledge and training play a key role in ICT absorption and their effective use at all levels. It is not just about the availability of a highly-trained labour force, but its quality, flexibility and ability for lifelong learning and innovation along with the changing ICT-related requirements.

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<sup>64</sup> ICT equipment, high-capacity telecommunication infrastructure at reasonable cost, effective regulatory framework, competitive markets of goods and services.

## 2.3. An efficient and less costly state

*SDS GUIDELINES: The main SDS guidelines under the third priority can be divided into three areas. The first is the structural reform of public finances comprising the following objectives: to reduce general government expenditure as a share of GDP by at least 2 percentage points; restructure expenditure so as to support the SDS priorities and absorption of EU funds; and carry out a comprehensive tax reform aimed at disburdening labour, stimulating competitiveness and employment, and simplifying the system. The second objective is to increase the state's institutional competitiveness and efficiency. Specific goals in this area are to: reduce state ownership in the economy; improve the quality of regulations and reduce the administrative burden; employ public-private partnerships in infrastructural investment and public utilities; and raise the efficiency of the public administration. The third package aims at improving the judiciary by training judges, increasing the system's efficiency and reducing court backlogs.*

*THE REPORT'S FINDINGS: The general government sector expenditure as a share of GDP has only dropped in the last two years, partly as a result of cutting expenditure on investment. High expenditure on education and health is an important investment in development, however the total share of all categories of general government expenditure that contribute most to GDP growth has shrunk to below the EU average. International comparisons show that the total tax burden in Slovenia is rising and that both consumption and employment are burdened by above-average taxes. The institutional environment in Slovenia is one of the least conducive to economic development and competitiveness. The persistence of high shares of state control and ownership in the corporate sector is adverse to development. The reduction of court backlogs continues while pending enforcement cases remain critical. Regulations make procedures cumbersome and represent a significant barrier to a greater efficiency of courts.*

*ANALYSIS: The analysis covers all three main areas that are also defined by the SDS: the quality of public finance, institutional competitiveness, and efficiency of the judiciary.*

### 2.3.1. Quality of public finance

**Fiscal policy** not only ensures macroeconomic stability<sup>65</sup> but also plays an important part in structural reform. It must make sure that the structure of tax burden and general government expenditure are well-targeted and support the achievement of national developmental goals. However, this does not mean that expenditure should be raised<sup>66</sup>. Many studies have shown that a higher share of general government expenditure depresses economic growth and that a long-term increase in overall

<sup>65</sup> This function is analysed in Chapter 2.1.1. 'Participation in the ERM II and adoption of the euro'.

<sup>66</sup> Tanzi and Schuknecht (2005, p. 7) highlight that the law of diminishing returns also applies to public expenditure because raising public expenditure above a certain limit contributes less and less to the welfare of society. Therefore, the authors estimate that the optimum level of public expenditure is around 35% of GDP.

expenditure results in a cumulative drop in GDP growth.<sup>67</sup> EU documents also increasingly emphasise the quality of public finance besides its mere balance. Quality is defined mainly by the contribution of public finance to economic growth and its long-term sustainability (European Commission, 2005, pp. 1-2).

**General government sector expenditure as a share of GDP has dropped only in the last two years, partly as a result of cutting expenditure on investment<sup>68</sup>.** The lowering of the expenditure share was partly achieved through a more frugal government (lower intermediate consumption and higher property income receivable) and the pension reform (a slight decrease in this expenditure as a share of GDP), and partly by cutting the proportion of expenditure on investment. Expenditure as a share of GDP was cut by a total of 0.8 of a percentage point in 2004 and 2005. Slovenia's general government sector expenditure as a share of GDP is currently approximately at the level of the EU average, where government spending increased in the last few years. However, Slovenia still has above-average public expenditure on intermediate consumption, employees, subsidies and investment. This comparison confirms the need to cut the share of total expenditure, particularly expenditure on intermediate consumption and employees. At the same time, the growth of expenditure on other transfers and subsidies (including state aid) should be arrested and their targeting improved. Public investment must be partly done through public-private partnerships.

*High expenditure on education and health is an important investment in development, however the total share of all those categories of general government expenditure that contribute the most to GDP growth has shrunk to below the EU average. In 2000-2004, Slovenia's share of 'productive government expenditure'<sup>69</sup> in GDP fell behind the comparable share in the EU (in 2003, the respective shares were 16.1% and 16.8% of GDP). The main reason was the low level of expenditure on housing and community amenities utilities and the cuts in expenditure on economic activities. Within that, the bulk of state aid allocated to the corporate sector is still earmarked for sectoral rather than horizontal objectives and for the rescue and restructuring of ailing companies. On the other hand, it is encouraging that Slovenia exceeds the EU average regarding its level of general government expenditure on education and health care and that the shares of this expenditure are not shrinking. If we compare the structure of Slovenia's public finance with the structure that would best support (according to analytical findings) the achievement of the Lisbon Strategy goals, i.e. higher GDP growth and employment, we can see that certain adjustments would be advisable. Slovenia has above-average shares of expenditure on basic functions of the State and social protection while it lags behind in expenditure on economic affairs, housing and public amenities.*

*International comparisons show that the **total tax burden** in Slovenia is rising and that both consumption and labour are burdened by above-average taxes. According to the overall burden of taxes and contributions as a share of GDP, Slovenia was*

<sup>67</sup> Romero and Strauch, 2003, p. 22; Clemens, Veldhuis, 2004, p. 2.

<sup>68</sup> The analysis is based on official SORS' data prepared using a comparable European methodology (ESA-95).

<sup>69</sup> Based on several international analyses, this includes expenditure on education, economic activities, research and development, investment, residential and spatial development and health care.

ranked 9<sup>th</sup> in the EU in 2003, higher than any other new member state. The comparison of implicit tax rates shows that the burden on consumption and labour exceeds the EU average (of both old and new member states). This burden has increased in the last few years in Slovenia, while it has generally fallen in other member states. Between 2000 and 2004, the burden of current taxes on income and property rose from 7.6% to 8.5% of GDP, especially due to the effects of changes in the corporate income tax base and relief. The burden of other taxes on production also increased from 2.4% to 3% of GDP due to the progressive nominal payroll tax<sup>70</sup> and the imposition of new environmental taxes. Among taxes on goods and services, the share of excise duties expanded while the share of revenue from customs duties was lower. The shares of other taxes and contributions remained basically unchanged. The pressures created by international competition call for cuts in the tax burden on employment in the next few years while the high tax burden on consumption is considered less distortive. Taxes on capital, on the other hand, are comparatively low in Slovenia.

### 2.3.2. Institutional competitiveness\*

*According to a number of international studies, the institutional framework in Slovenia is one of the least conducive to economic development and competitiveness. The results of international studies for 2005 restated Slovenia's institutional weaknesses. Admittedly, these international comparisons require a great deal of caution in interpretation because they use different methodological approaches and are largely based on survey data, which is why they strongly depend on factors determined by individual perceptions (cultural norms, the level of political freedom, expectations, general satisfaction etc.). Nevertheless, their message to Slovenia is very clear and unequivocal. Slovenia's main weaknesses are taxes, the business environment and the administrative burden, the liberalisation and regulation of network industries, privatisation, the labour market and the rule of law.*

The value of the EBRD transition index<sup>71</sup>, which measures the achievement of market economy standards in key areas of economic reform, remained unchanged for Slovenia for three years in a row (from 2002 to 2005). At the moment, Slovenia thus already lags behind all transition countries that joined the EU in the same round. The largest gaps were identified in competition policy<sup>72</sup> (notably the sluggish

\* The text was prepared in cooperation with Andrej A. Chiaietta.

<sup>70</sup> A law on the phased abolition of payroll tax was adopted at the end of 2005 and tax code was simplified. This measure represents a significant disburdening of labour costs and an incentive for employment.

<sup>71</sup> The European Bank for Reconstruction and Development (EBRD) has been monitoring the progress of transition reform in 27 countries since 1994, using special transition indices. The transition index is composed of 11 indicators that cover 6 key areas of reform (liberalisation, privatisation, enterprises, infrastructure, financial institutions and legal framework). Each indicator provides a synthesis of estimates made by leading EBRD economists and based on various data, descriptive information on reform and their analysis.

<sup>72</sup> According to the WEF's competitiveness indicators, the level of competition in Slovenia is rising. The indicator measuring domestic competition shows that Slovenia climbed from 74<sup>th</sup> to 50<sup>th</sup> place between 2003 and 2005. However, this ranking is still low. The efficiency of competition policy deteriorated sharply (from 34<sup>th</sup> place in 2003 to 51<sup>st</sup> place in 2005). Competition policy in Slovenia has mainly been preoccupied with merger control. The share of merger control procedures in total procedures totalled 86% in 2003, 91% in 2004 and 90% in the first half of 2005.

liberalisation and the need for a better regulation of network industries, particularly telecommunications and energy), business environment, i.e. reform of the corporate sector (time-consuming and expensive registration procedures, lack of land, long court procedures), reform of non-banking financial institutions and privatisation of large enterprises.

The value of the index measuring the competitiveness of public institutions, which is part of the WEF's analysis of national competitiveness, dropped for Slovenia in 2005. In five years, Slovenia slipped 5 places in this indicator and was ranked 35<sup>th</sup> last year. Slovenia has the lowest scores in the following areas: the level of tax burden and the efficiency of the tax system, the time needed to set up a business, cumbersome regulations, wasteful public spending and an inefficient judiciary. Similar results were observed in government efficiency as measured by the IMD. Slovenia has slipped four places in this index in the last five years and lags behind the average scores of both the EU-25 and the new member states.

A study on the business environment and enterprise performance conducted by the EBRD and the World Bank (BEEPS<sup>73</sup>) showed that Slovenia's institutional competitiveness as estimated by Slovenian enterprises dropped slightly in 2005 compared to the last previous measurement (2002). The BEEPS analyses seven areas of country efficiency that impact on company performance. A comparison of average changes in the values of eight transition countries that have already joined the EU shows that Slovenia lags behind the average with a 0.09 drop in its overall score (the eight countries improved their overall value by 0.05). Slovakia recorded a notable improvement in the perceived institutional support for doing business (scoring 0.59) and was followed by Poland (0.22). On the other hand, the value of this indicator dropped sharply in the Czech Republic (0.49) and considerably in Hungary (0.24). According to a second study by the World Bank (Doing Business 2006) Slovenia was ranked 20<sup>th</sup> among 22 EU members (excluding Luxembourg, Cyprus and Malta) in 2005 in the indicator measuring the ease of doing business (and 63<sup>rd</sup> among the total 155 countries covered in the study). This result was due to the extremely long time needed to set up a business in Slovenia<sup>74</sup>.

*The persistence of the high shares in **direct state control and state ownership** in the corporate sector is adverse to development<sup>75</sup>.* The corporate sector is characterised

<sup>73</sup> In 1999, 2002 and 2005 the EBRD and the World Bank conducted the Business Environment and Enterprise Performance Study (BEEPS) for 26 'transition' countries, Turkey and selected control countries. The BEEPS study is used to monitor the efficiency of countries in two main areas of company efficiency: (i) regulation of enterprises (licensing, taxes, customs duties and regulation of the labour market and trade); and (ii) institutions and property rights (corruption, crime and the legal system). The BEEPS analyses seven basic areas of a country's efficiency, trying to identify the main barriers to the operation of enterprises by means of selected indices.

<sup>74</sup> Setting up a business in Slovenia will take 60 days and 9 administrative procedures (the average in the EU is 27.6 days and 7.5 procedures).

<sup>75</sup> Mueller (2003, pp. 373-380) summarises the findings of 71 comparative analyses of the performance of public and private enterprises providing the same goods or services. According to this study, only five surveys found that public enterprises were more efficient than private ones. Ten studies identified no significant differences in the performance of the two while the remaining 56 studies discovered that state-owned enterprises are much less efficient than those in private ownership. If a product or service is provided by the state administration or a state-owned company, this generally results in lower profits and/or higher costs and lower productivity. Similar results were obtained by Diankov and Murrell (2000) in an analysis of the effects of privatisation on the performance

by a very small share of foreign direct and portfolio investors on one hand and by large shares of state control or ownership<sup>76</sup>. The average share of enterprises in foreign control in manufacturing totals just 20.6% in Slovenia, compared to the average of 39.9% of the small developed countries with which a comparison is reasonable. The corresponding shares in the service sector total 9.1% and 19.6% (Rojec, Šušteršič, 2005, p. 16). Like with FDI (i.e. major control shares) Slovenia also stands out regarding the ownership structure on the stock exchange with a high share of the public sector and by far the lowest share of foreign investors (Rojec, Šušteršič, 2005, p. 18). Further, data on company ownership listed on the official and free markets of the Ljubljana Stock Exchange show that the Republic of Slovenia and the two parastatal funds (KAD and SOD) hold shares higher than 25% in 10 out of 28 listed enterprises, and 20% or more shares in a further six enterprises. Among the enterprises in the free market, the state owns more than 25% of shares in seven out of 110 enterprises and more than 20% in a further 11 enterprises. This situation is unfavourable, particularly if the 20% share of the state is also the largest. In the last five years (1999-2004) Slovenian enterprises witnessed a rapid consolidation of ownership. The average number of shareholders is falling (from 931 to 662) as ownership and voting rights concentrate in the hands of a single owner. Ownership is largely consolidating in domestic non-financial corporations (46.1% of enterprises). The formal successors of investment funds are also commonly the largest shareholders (in 22.7% of enterprises), while the share of foreign control is relatively small (4.7% of firms). Inadequate separation between ownership and managerial functions in enterprises often results in a situation where owners are simultaneously also directly involved in management of the company. This is particularly undesirable in enterprises where the state is the largest owner.

### 2.3.3. Efficiency of the judiciary<sup>77</sup>

*The reduction of court backlogs continues while enforcement cases remain critical.* In 2004 and 2005, the number of pending court cases dropped by 3.4% and 12% respectively. Backlogs in the land registry are still being reduced rapidly, however they remain substantial in the largest two cities (Ljubljana and Maribor) in particular. The situation is critical in the area of enforcement: the amount of pending cases equals triple the amount of cases that are settled annually. Despite some positive steps having been taken, the procedures are still unreasonably long, which was also confirmed by the European Court of Human Rights<sup>78</sup>.

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and restructuring of enterprises. Using a meta-analysis of 31 empirical studies for various transition countries, the authors examined the effects of privatisation on the growth of production/sales levels and on the growth of company productivity. Their results unequivocally show that the positive aggregate results of privatisation on company performance are statistically significant and economically relevant. High state-ownership shares in Slovenia's leading companies therefore do not support development.

<sup>76</sup> A comparison of the ownership structure of enterprises listed on the EU stock exchanges also shows that Slovenia has exceptionally low shares of foreign direct and portfolio investors and strong state control and ownership in the corporate sector (FESE 2002, 2004).

<sup>77</sup> The analysis was prepared by Katarina Zajc and Aco Trampuž.

<sup>78</sup> When assessing the just compensation, the court takes into consideration the total duration of the procedure, the number of instances that the appellant has exhausted within the national judiciary system, the gravity of the right

*Regulations, in addition to the passivity of clients and other parties to court procedures, the court standards and work conditions, prolong the procedures and are a significant barrier to the greater efficiency of courts.* This year we analyse the duration of court procedures and reasons for delays for the first time. The protracted settlement of disputes creates legal and economic uncertainty and negatively affects the welfare of society. There are various reasons for the suspension or procrastination of court procedures. They indicate areas where it is possible to amend regulations or reorganise courts<sup>79</sup>. The collected data show that the two most common reasons for long procedures, except in criminal and bankruptcy cases, was stay of proceedings and passivity of clients (waiting for an expert opinion). The reason for that is the legal provisions on the stay of proceedings<sup>80</sup> that do not motivate parties to press the proceedings and the court to try and avoid halts or to restart the proceedings as soon as possible when halts occur. Experts should be similarly motivated to do their work in a set period of time. Interestingly, delays also arise in cases where the trial is concluded but the judgement has not yet been handed down.

The duration of enforcement cases, which are estimated to account for 53.9% of total pending court cases, is not measured separately by judicial statistics. The monitoring of the duration of enforcement cases would, however, be recommendable as it should be added to the duration of civil matters in order to obtain an objective estimate of the length of civil cases in Slovenian courts. Regarding economic transactions, enforcement is relevant because the creditor is not merely interested in winning the case but especially in actual repayment. This area therefore deserves special attention. In certain cases it is also necessary to aggregate the duration of procedures at the court of first instance (regional and district courts) and the court of second instance. The reason is that many cases tried at first instance are referred to higher courts which, however, tend to refer them back to the courts of first instance rather than making the final decision. This further prolongs the procedures.<sup>81</sup>

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under consideration and the conduct of the appellant during the procedure. The court awards particularly high damages if the case was dealt with by only one or two instances for a long period of time or if the procedure is still in progress. The highest amounts of just compensation are awarded in claims from employment relationships and enforcement procedures. The judgements provided an incentive for the launching of a special project ('Lukenda 2') aimed to reduce court backlogs.

<sup>79</sup> These include problems related to court premises, informatisation, employees and stimulative promotions of judges and judicial staff.

<sup>80</sup> Civil Procedure Act, Official Gazette of the RS No. 26/99 and further amendments.

<sup>81</sup> The total duration of disputes is measured by the World Bank, which ranks Slovenia 140<sup>th</sup> among 144 countries according to the number of days needed to pay off a creditor (1003 days).

## 2.4. A modern welfare state and higher employment

*THE SDS OBJECTIVES: the SDS emphasises that the preservation and improvement of the achieved level of social protection, quality of living, and health are important social values. The transition from a welfare state to a welfare society requires a more efficient welfare state, greater personal responsibility and higher stimulation of the individual's activity, stronger public and private partnerships, a diverse and partly competitive offer of social services; the transition further requires better social cohesion, improved access to the service systems of social protection, health, education, culture, and housing, as well as special care of the most vulnerable groups. The social protection systems must be adapted to the needs of a long-living society and should reduce social risks, poverty and social exclusion. A higher employment rate would greatly contribute to a sustainable increase in welfare and the quality of life. Economic growth and investment in knowledge will contribute most to the raising of the employment rate.*

*FINDINGS: the trends in the labour market are positive: the employment rate is increasing and is close to 66%, the unemployment rate slowly decreased until 2005, the flexibility of the labour market is growing due to the use of the instruments of temporary and part-time employment. Among the remaining problems are structural unemployment, especially of older persons, the still relatively high inflexibility connected with employment protection in the labour legislation, and the insufficient level of lifelong learning.*

*The social protection systems were largely adapted to the existing needs and provided the population with relatively reliable protection and are not an unsustainable public finance burden. They may be adequate for the present demographic structure (the pension system was reformed for long-term purposes), but not quite for the future structure. Appropriate regulations have been adopted to enable the participation, beside public sources and public law operators, of private resources and private operators while the share of private funds and operators is increasing. The standard of living is improving: according to the human development index, Slovenia continues to improve its ranking compared to other countries; gross wages as the principal source of income are increasing in real terms but purchasing power remains behind the European average by around 40 percentage points; the poverty risk rate and income inequality are decreasing and are among the lowest in the EU-25. Access to the benefits and services of the public systems is improving, equal access is negatively influenced by school fees for part-time students, the non-inclusion of part of the population in health insurance, waiting lists in the health service, and the disintegrated system of long-term care and insufficient capacities for it. Satisfaction with life and confidence are relatively low, but they are increasing.*

*ANALYSIS: Three basic sets of development are analysed in the framework of the fourth priority. The first set deals with the labour market, the second with the social protection systems, and the third with the conditions of living and the issues of social exclusion and poverty risk.*



## 2.4.1 Increasing labour market flexibility

**The employment rate of the population aged 15 to 64 is relatively high in Slovenia** (65.3% in 2004 and is estimated to have risen to 65.9% in 2005<sup>82</sup>; both the 2004 and estimated 2005 figures are above the EU average), and shows a slight growth trend, but the employment rate of the older population (aged 55-64) is among the lowest in the EU. The low employment rate of older people largely results from relatively early retirement and high structural unemployment, which particularly affects older unemployed persons, and partly from the early retirement wave seen in the early 1990s.

*The unemployment rate slightly fell in the 2000-2004 period; it was 6.3% in 2004 and, according to unofficial data (IMAD's calculations from quarterly data), it rose to 6.5% in 2005. The rate is lower than the EU average and lower than in most new member states (with the exception of Cyprus). The high unemployment rate among the young and people with a low education level is however a reason for concern.*

**Labour market flexibility**, measured by the share of temporary and part-time employment in total employment, increased in Slovenia in the 1996-2004 period, especially on account of the higher level of temporary employment, however the incidence of part-time employment, while increasing, remains modest. Temporary and part-time employment is more frequent among women but part-time employment as an option to better combine one's career and family life is much less common in Slovenia than in the developed European countries. Sociologists (Ignjatović, 2002) have found age segregation in Slovenia's labour market, which is more flexible when young people are involved.

That labour market flexibility is improving in Slovenia is confirmed by the Employment Protection Legislation Index (EPLI) developed by the OECD (OECD, 1999; OECD, 2004), which enables comparisons of the employment protection provided by labour legislation.<sup>83</sup> In the early 1990s, Slovenia's EPLI was 4.2 but the index dropped to 3.2 after the legalisation of temporary work agencies. After the adoption of the Employment Relationship Act, which came into force in 2003, the index further dropped to 2.7, *but still stands for a comparatively high level of inflexibility* (Vodopivec, 2005)<sup>84</sup>. Denmark, regarded as an example of flexible security ('flexicurity'), had an index of 1.8 in 2003 according to the OECD's estimates (OECD, Employment Outlook 2004). Higher flexibility is usually combined with a more active role of active employment policy and lifelong learning.

Besides **labour market regulation**, other important factors of labour market flexibility are the **workforce's training and education levels** and the **level of lifelong learning**. A survey carried out by the Slovenian Adult Education Centre

<sup>82</sup> According to an unofficial calculation by the IMAD based on the SORS' published surveys of the labour force for the four quarters of 2005.

<sup>83</sup> The Employment Protection Legislation Index, developed by the OECD, has values from 0 to 6, whereby the lower values indicate more flexible legislation.

<sup>84</sup> The Rigidity Employment Index (World Bank), which measures similar factors as the OECD's EPLI, shows the values 64 for Slovenia, 20 for Denmark and 48 for Finland.

on the literacy of adults and their participation in education showed that the share of adults engaged in education increased from 31.9% in 1998 to 37% in 2004. In spite of this increase, the data on participation compared with international surveys on the participation of adults in education show that the *changes in Slovenia are too slow and that the gap against the developed countries is therefore increasing* (Ivančič, Drofenik, 2005). Eurostat's data on the participation of the population aged 25 to 64 at all levels of education and training may show a more favourable picture as they rank Slovenia right behind those countries with the best results (the Scandinavian countries and the United Kingdom), but experts from the European Commission (CEC, 2005, p. 69) have warned that the indicator's methodology is faulty.<sup>85</sup> In spite of its faults, the indicator reveals that adult education is a serious problem because Slovenia is ranked among those countries with the highest gap between low-educated and high-educated people participating in education and training, suggesting that the less educated have difficult access to education and training. Lifelong learning and participation of adults in the education is especially important for the unemployed who have a lower level of education in comparison to employed persons.

## 2.4.2. Modernising the social protection systems

*In 2003, the share of public funds for social protection amounted to 24.8% of GDP, less than the average of the European Union (28% of GDP). The differences between individual countries depend on the perception of social protection as a value connected with the welfare of the population and on the institutional organisation of the systems. Sweden traditionally has the highest share of GDP (33.5%) allocated to social protection, and Estonia and Latvia have the lowest shares (both 13.4% of GDP). Among the new EU member states, Slovenia allocates the highest share to social protection, followed by the Czech Republic, Hungary, and Poland; in all these countries the share of GDP exceeds 20%. Other new member states of the EU allocate shares that are much lower than 20% to social protection. The share of these funds is also decreasing in the Scandinavian states.*

*Financing social protection with public resources is combined with the individual's efforts – through work and earnings, or financial and real property resources – to cover the expenses of health care, long-term care and family protection and to ensure stable and lasting sources of income in the form of pension and disability protection, and protection in the event of unemployment or sick-leave. The share of private expenses on social protection amounts to a little over 2% of GDP in Slovenia or around one-tenth of total expenses. The share is quite high compared to the European Union. The individual's higher contribution was provided for and stimulated by the health insurance system in which the share of private funds has risen to about 15% of total expenditure on health care. This share is quite similar to that of the EU-15 countries. The other new member states do not have regulations on the private funding of health care, but their shares are quite high given the relatively lower total shares of health care (OECD, 2005).*

<sup>85</sup> The survey's approach is questionable because it measures participation in education only in the last four weeks preceding the survey, and the timing of the survey thus has a great impact on the results. Further, the indicator includes no data on the type and duration of education and training (e.g. formal or informal education and training).

Pension security is the second biggest area of social protection where public funds are combined with private means<sup>86</sup>, but the organisation and funding of the system differs even more than in health care. The continental European model and the Scandinavian model are largely funded from public resources, normally through social insurance. The cash benefits are relatively high compared with the average wages in these countries. Their share is over 10% to 15% of GDP (in Italy). The comparable share in Slovenia was 11.2% in 2003 and has been relatively stable or has fallen slightly since 2000, when the system was reformed. In the group of countries including the Baltic countries (Estonia, Latvia, Lithuania) and Slovakia, and in the group of countries (Ireland, Iceland, United Kingdom), which have a largely capital-covered funding system (through private pension funds and voluntary or collective insurance), the share of public funds spent on financing the benefits of the public pension schemes is low (cash benefits are relatively low compared to wages). The countries with relatively high pension incomes (including Slovenia) are reducing the relative level of their benefits, while simultaneously stimulating additional pension insurance schemes. Slovenia introduced these forms in 2000. A little over 50% of all active insured persons are now included in additional pension insurance<sup>87</sup>, but pensions from this scheme have not yet been paid out.

**Social insurance systems and other systems providing social protection** *include incentives for longer periods of activity; these incentives are obviously not attractive enough*, or a comparison of the advantages and benefits on one hand, and disadvantages and marginal income on the other, is not in favour of longer activity because no major changes in behaviour have been recorded. It is still generally and increasingly accepted that activity and the income deriving from it is the primary way of ensuring social security. Activity is not only important as a source of income but also as an element of social inclusion and cohesion<sup>88</sup>.

The present organisation and contents of the social protection systems are largely adequate for the present demographic structure, but not quite for the future structure.

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<sup>86</sup> In the last decade, all member states of the EU (the old member states especially before 2000) ensured adequate pensions through a combination of public and private resources: various forms of long-term contractual savings have been introduced in the form of additional compulsory or voluntary pension schemes. In the new member states of the EU (with the exception of the Czech Republic, the common form is a three-tier pension system in which the compulsory pension contributions are divided into one part which finances current pension expenditures and a second part which is collected in pension funds depending on the individual's decision. At the end of the insurance period, the saved amount including the added return is transformed into one of the forms of lifetime old-age pensions. In the other new member states there is normally no need to lower the level of pensions as they are already at a very low level.

<sup>87</sup> To ensure financing, not only additional private and supplementary means of individuals have been included: special private-law intermediary financial institutions have been established. The combination of traditional public budgets and private financial intermediaries, which share the same objective (ensuring social protection), increased the need for state regulation and control over the activities of financial intermediaries and also accelerated changes to the traditional social insurance providers. Although Slovenia has established the required institutional structure, the institutions are not yet capable of coping with the entire range of combined provisions of social protection.

<sup>88</sup> For a variety of reasons this means that when activity ends there should be other forms of activity, supported by instruments including not only socialising, but also efforts for one's own benefit and that of others. Developed networks of voluntary and civil organisations and activities are therefore a precondition for preserving and developing activity and social inclusion. Support for such activities is typical of the modern operation of social protection systems.

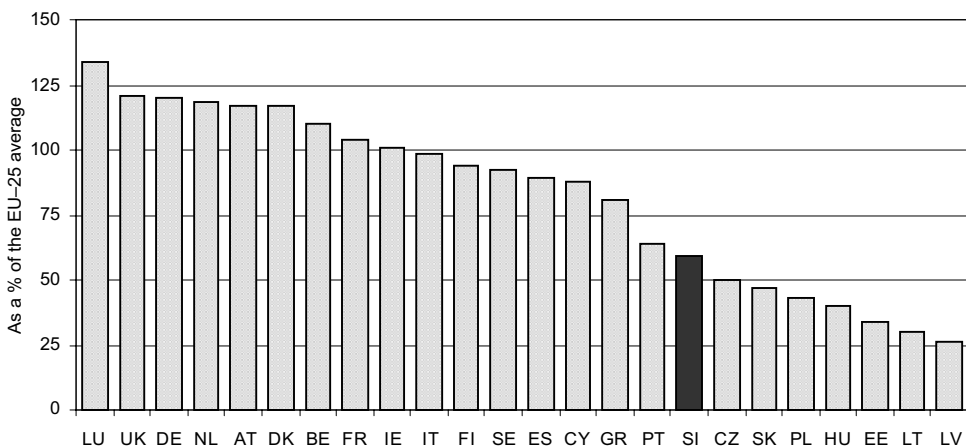
The age dependency ratio (the ratio between the number of people aged 65 and over and persons aged 15-64) is increasing (19.8% in 2004). Projections predict a faster increase in the coming years and faster than in the EU-25 average. The ageing population and the phenomenon of a long-living society change the relative importance of individual systems. The increasing number of very old people creates greater needs for long-term care. The pressures to increase the benefits from pension insurance are alleviated for the present and future active generations by prolonged activity and additional insurance, and this should provide for an adequate income upon retirement.

### 2.4.3. Living conditions, reducing social exclusion and social risks

From 1992 onwards, when the **human development index**<sup>89</sup> was first calculated in Slovenia, the index has been improving slowly but steadily. Of the 177 countries included in the survey, Slovenia was ranked 26<sup>th</sup> in 2003 and exceeded the 0.90 mark for the first time (the HDI was 0.904). The average value of the HDI in the EU-25 is 0.907; the highest values are recorded in Luxemburg and Sweden (0.949). Slovenia is ranked 15<sup>th</sup> among the countries of the EU-25.

In the 1995-2004 period, the **average gross wage per employee** grew by a real 2.8% annually on average and lagged behind productivity growth by 1.1 percentage point. In 2002, its level in the private sector was 16,416 PPS or around 59% of the average gross wage per employee in the private sector of the EU countries (Figure 4). It was around 15 p.p. higher than the gross wage in the new member states of the EU and is closest to the level of the Portuguese gross wage (63.9%).

Figure 4: **Gross wages in the private sector in the member states, compared to the EU-25 average in 2002, by Purchasing Power Standards (PPS)**



Source: EUROSTAT, SES (Survey of Earnings Structure) 2002. Country abbreviations: AT-Austria, BE-Belgium, CY-Cyprus, CZ-Czech Republic, DE-Germany, DK-Denmark, EE-Estonia, ES-Spain, FI-Finland, FR-France, GR-Greece, HU-Hungary, IE-Ireland, IT-Italy, LT-Lithuania, LU-Luxembourg, LV-Latvia MT-Malta, NL-Netherlands, PL-Poland, PT-Portugal, SE-Sweden, SI-Slovenia, SK-Slovakia, UK-United Kingdom.

<sup>89</sup> The Human Development Index (HDI) combines indexes of income (access to resources), education and health.

In the structure of employment in Slovenia in 2004, around 25% of all those employed were employed in the public sector, and the gross wage per employee was 30% higher than in the private sector, mainly because of the higher level of education of the employees<sup>90</sup>. Broken down by level of education, the gross wage per employee in the public sector, compared with the private sector, was slightly lower for employees with a higher education, and the gross wage of employees with lower levels of education was slightly higher, in particular for employees with a secondary education level.

*Women's wages are lower than men's.* The ratio has been improving since 1995 and is among the most favourable ones in comparison with the EU-25 and EU-15 countries. According to the latest data from Eurostat, women's wages in Slovenia were 9% lower than men's in 2002 and, according to preliminary data from the SORS, they were 6.9% lower in 2003. One of the main causes of the difference is women's higher representation in activities which have a lower income position and lower average wages. In the average of the total workforce, there are no significant gender differences in the level of professional education, but such differences exist in individual activities and they have an impact on the difference in wages.

**The inequality of household income distribution**, *measured by the quintile share ratio (which compares the income of the highest 20% with that of the lowest 20%), has been decreasing since 1998 and was among the lowest in the member states of the EU-25 and EU-15 in 2003.* The quintile share ratio was 3.1 (EU-25: 4.6) in Slovenia in 2003, meaning that the income of the richest people was on average 3.1 times higher than that of the poorest. Income inequality measured by the Gini coefficient slightly decreased in Slovenia in the 1998-2003 period and is among the lowest among the member states of the EU.

Inequality is higher in wages as the main source of income (meaning that other sources of income have a greater impact on low inequality), and the distribution slightly differs in the public and private sectors. The distribution of wages in the public sector is more even and inequality has shown a falling trend from 2000 onwards. The private sector has bigger share of higher wages and this means that especially the salaries defined in individual employment contracts are causing the rising inequality trend in the private sector.

**The poverty risk is relatively low in Slovenia.** 10% of the Slovenian population lived below the poverty line in 2003. The poverty rate has been decreasing since 1997 (and dropped by 2.3 p.p. in 1997-2003). Slovenia has one of the lowest poverty rates among the member states of the EU-25 and EU-15; the rate was indeed only lower in the Czech Republic, and Slovenia's rate is similar to that of the Scandinavian countries and some other developed countries – Luxembourg, Finland, Denmark, Sweden and France – as well as Hungary among the new member states.

Similarly as in the other countries, the poverty risk increases most in the event of *unemployment* and this is confirmed by data on the poverty risk rate, which is highest

<sup>90</sup> Compared to the private sector, the public sector employs nearly three times the number of people with tertiary education, and half the number of people with a low education level.

among the unemployed – 39.2%. The biggest problem is *long-term unemployment*. Reducing the rate of long-term unemployment is therefore one of the principal instruments to reduce the poverty risk in Slovenia. In 2004, 3.1% of the total active population were unemployed for more than one year. The rate of long-term unemployment has been falling since 2000 and is lower than the corresponding rate in the EU-25 and EU-15. A problem that remains is the fact that among the unemployed aged 25 and over, more than half are long-term unemployed and that the share of the long-term unemployed increases with the age of the unemployed. Older population, people with a low education level and the disabled are usually more exposed to long-term unemployment.

The decrease in the poverty risk rate was also influenced by the *reduced share of adults living in jobless households*; and this is also a structural indicator of social exclusion. 6.7% of the adult population in Slovenia lives in such a household. Up until 2000 this share increased slightly, but then started to decrease (it decreased by 2.3% in the 2000-2005 period) and is much lower (by over 3 p.p.) than in the EU-25 and EU-15.

*Statistical data on the poverty risk rate before and after social transfers show that the rate would be 6 percentage points higher in Slovenia without the social transfers that the beneficiaries receive from public funds.* From 1997 onwards, the positive effect of these social transfers has increased by one percentage point. The difference in the poverty risk rate before and after social transfers shows that the effect of social transfers on the reduction of poverty is lower in Slovenia than in the EU-25 and EU-15.

*Most Slovenian households live in **dwelling**s they own and spend about one-fifth of their income on housing costs.* In 2002, 84.6% of the population lived in dwellings they owned, 3.3% were tenants of non-profit flats, 0.6% tenants of council (social) flats, and the rest were tenants of commercial or company-owned flats, subtenants or users of dwellings owned by their parents or other relatives. The share of owners is slightly lower in households with an income below the poverty line, but is still relatively high – 80.4%. Comparisons with the EU-15 countries show that the income level has a greater impact on the ratio between owners and tenants in these countries. Differences are also obvious between the Southern European countries and the other countries of the EU-15. In the Southern European countries, the share of owners is very high among low-income households, even higher than in Slovenia (91% in Greece, 84.4% in Spain), and the lowest shares are recorded in Germany (27%) and Sweden (34%). Several surveys carried out in the developed countries show that housing ownership reduces the willingness of owners to move and this reduces their mobility in the labour market. Although no analysis exists on the influence of housing ownership on people's mobility in the labour market in Slovenia, the country's smallness and extensive commuting suggest that residential mobility is largely compensated for by mass commuting, which intensifies traffic flows and environmental pollution. To cover their housing expenses (dwellings, water, electricity, heating), Slovenian households spend on average 19.3% of their income. The share increased between 1995 and 2001 and then slightly dropped. The level of housing expenses is slightly below the European average (EU-25: 21.4%; EU 15: 21.3%).

**Access to public services** which affect the quality of living and provide higher social inclusion is improving. *The participation of the young in education has seen a constant increase.* In 2003, 66.9% of the population aged 15 to 24 was included in education (at any level), a higher share than in the countries of the EU-25 and EU-15. Access to tertiary education is the most important factor in improving the education structure. Access to tertiary education in Slovenia depends on the available capacities; other important factors are the system of school fees, state aid for children in schooling, and the income level of one's parents. School fees are paid for part-time study, not for regular study. Scholarships (of all types and for all levels of education) are slightly more common in poorer households. Surveys (Bevc, 2001) show that there are more students from prosperous households than from poor households, indicating unequal access to tertiary education. While a high share of the young are included in education, the *participation of adults in formal education is still low.* People with a secondary education have better access as they receive most of the financial incentives from employers, but the least educated are largely left to their own financial resources.<sup>91</sup>

*Access to health services is relatively good in Slovenia, but there are weak points:- the non-inclusion of part of the population in health insurance, and waiting periods.* Nearly the entire population of Slovenia (98.9% on 31 December 2004) is included in compulsory health insurance. An exception is a small group of people (22,536 or 1.1% of the population); among them are people without any income, without Slovenian citizenship, or without a permanent residence, and who for these reasons cannot be included in compulsory insurance. Most of the population is also included in voluntary additional insurance, which covers the full value of services. Two groups of people who, due to the lack of financial resources belong to the most vulnerable population (the group of people who cannot be included in compulsory insurance, and the group which has no voluntary additional insurance because they cannot afford the premiums), have limited access to health services compared to others because both groups are only entitled to urgent medical care.

Compared to some European countries, Slovenia's health service has fewer personnel and facilities. In 2004, the country had 229.8 practising doctors per 100,000 inhabitants, ranking it among those countries with a low number of doctors, but there is a trend of a gradual increase. Another comparison, by the number of hospital beds, shows a similar gap in capacities. Slovenia had 508.9 hospital beds per 100,000 inhabitants in 2002; the average in the countries of the EU-25 is 639.1. In recent years, the general trend in Slovenia, as well as in the EU-25 average, has been a reduction of hospital beds. Waiting periods cause inequality among insured persons because the prosperous seek to obtain health services by paying for them using their own means.

*In line with the regulations, access to social care services is granted to most of Slovenia's population; in reality, however, access is limited due to the insufficient network of services and programmes (insufficient capacities and uneven regional coverage), difficulties in their financing, and the poor level of awareness or even stigmatisation of potential users in many places.* The right to these services is granted

<sup>91</sup> The problem is presented in detail under 2.4.1. (Increasing labour market flexibility).

to all citizens with a permanent residence, while only emergency services is available to the others. People without a permanent residence, whose number is not very high, may therefore find themselves in trouble in certain risk situations; especially when they become dependent on the assistance of other people and need institutional care, to which they are not entitled within the public service. Although access to the services of long-term care has greatly improved, longer life expectancy, the increasing numbers of the elderly, and the changed capacity of families to care for the elderly, continue to rapidly increase the scope of required services. In the past, the development of long-term care concentrated on developing capacities for institutional care. According to the number of beds for the institutional care of the elderly, Slovenia is close to 4.7 beds per 1,000 inhabitants over 65 and does not differ much from the developed European countries. Gaps exist in the scope of home care and other non-institutional care, which includes less than 2% of the population aged over 65.

*Access to kindergarten and other forms of care of preschool children has an important influence on the proportion and ways on women's participation in the labour market and on their options for combining a career and family life.* In the 2004/2005 school year, around 75% of children between the age of three and the start of schooling, and one-third of the children aged below three, attended kindergarten. This means that Slovenia is close to the objectives determined by the European Council in Barcelona in 2002 (90% of children between the age of 3 and the start of schooling, and at least 33% of children below three years). In the countries of the EU-15<sup>92</sup>, most preschool children are in full-time care in Denmark, followed by Sweden. In comparison with the EU-15 countries Slovenia would be ranked in the third place.

**People's subjective perception of the living environment** *to some extent contradicts the objective facts. Satisfaction with life has been quite stable in Slovenia but, compared to other European countries, Slovenia is among the group of countries with low levels of average satisfaction.* The results of the analysis show that the relation between socio-economic circumstances and the declared level of satisfaction is very complex; the data do not clarify whether the changes in living conditions have caused the changes in satisfaction. Satisfaction is not always higher in economically developed countries. The findings of a longitudinal analysis carried out in Slovenia (Bernik, 2004) show that, of all the factors of satisfaction with life, the greatest importance is attributed to the self-evaluation of health and marital status, and less to education and social status. An increasingly important determinant of satisfaction is age. Employment (work), its quality and the degree of autonomy at work are increasingly important factors determining satisfaction.

<sup>92</sup> In the countries of the EU-15 the highest number of preschool children in full-time care is recorded in Denmark (92% aged 3 to 5, and 58% aged 2 and less), followed by Sweden (84% and 42%, respectively) and Germany (72% and 7%, respectively). Around 50 % of children aged 3 to 5 are in care in Finland (18% up to two years), Austria (9% up to two years) and 52% of children are included in care in the Netherlands until the age of 4, when they start compulsory education.



**Box 3: Trust as a measure of social capital**

Trust in institutions is low in Slovenia, but it is not equal for all institutions. Throughout the entire period of empirical measuring, the lack of confidence in the institutions of the political system (political parties, National Assembly, government) and the judiciary has been very high. Trust in the Church is extremely low, while the trade unions and the Human Rights Ombudsman are gradually gaining people's confidence following their relatively low levels in the past. Trust in the institutions of welfare state, the education system, and the media is high. Informal institutions like the family and relatives enjoy the highest level of confidence.

Trust in other people is similarly low in Slovenia. An important rise in confidence among all the social classes has been recorded in the last five years, but Slovenia nevertheless remains at the bottom of the European countries. Average trust in Slovenia is ranked in the third lowest place among twenty-one countries included in a sociological survey (ESS). The level of trust in other people is lowest in the countries of the South Mediterranean and the post-socialist countries, and highest in the Scandinavian countries. The answers to the question about people's willingness to help others reveal a relatively egoistic environment lacking solidarity in Slovenia (as well as in East and Southern Europe). The highest degree of solidarity is expressed in the Scandinavian countries and Western Europe, where the expectation that people will generally be willing to help others prevails.

## 2.5. Integration of measures to achieve sustainable development

*SDS's GUIDELINES: Slovenia's Development Strategy's fifth development priority comprises several areas: (i) sustained population growth; (ii) balanced regional development; (iii) ensuring optimal health conditions; (iv) improving spatial management; (v) integrating environmental standards with sectoral policies and consumption patterns; and (vi) developing the national identity and culture. The key objectives in the area of sustained population growth relate to improving conditions for greater inclusion of the working age population, creating suitable working and societal conditions for elderly active citizens and suitable conditions for the creation of families. Balanced regional development is to be achieved through several measures, from establishing regions, strengthening a polycentric system, regional development programming to preserving settlements, providing transport connections and strengthening local economies. The main orientation in the health area is to integrate health protection measures into sectoral policies, reduce differences in health seen across regions and population groups, promote healthy lifestyles and improve the accessibility to and the quality of health care services. The main objectives in the area of spatial management relate to increasing the supply of building land and developing the real-estate market, while prioritising the use of existing populated areas. As regards rural areas (landscape) there are three main objectives, i.e. establishing of the records and protection of the highest-quality agricultural land, expanding the areas of land intended for organic farming and accelerating the merging of agricultural land. Given the limited supplies of goods and services offered by nature, environmental standards need to be incorporated in economic development measures and the use of natural resources. It is therefore an objective of sustainable development to decouple economic growth from the pressures on the environment. This can only be achieved through economic progress leading towards greater energy and material efficiency, the internalisation of environmental costs (externalities) in the prices of products and services and the integration of environmental policy into development policy. In the area of culture, the main orientation is promoting culture in its entirety, in its ethical, social, economic and political dimensions, as well as its opening up to the contemporary world.*

*FINDINGS: In the area of sustained population growth, Slovenia's demographical characteristics reveal a drop in birth rates and a slowdown in mortality, which has been typical for EU countries. In Slovenia, the natural increase has been negative since the second half of the 1990s and net migration has been relatively low. In turn, the age structure of the population has deteriorated and the dependency index of the elderly population has increased.*

*After having decreased over the last two years, regional disparities have widened again lately, mostly because of the strengthening of the central state-capital region. Such trends have been present in all rapidly growing new members of the EU and usually go hand in hand with the periods of accelerated economic growth and catching up with more advanced countries. They, however, become less obvious when a country reaches a certain level of development.*

*In the area of spatial management, there have been several signals of positive developments. But significant barriers still exist in the supply of building land equipped with utilities infrastructure and in the functioning of the real-estate market; such barriers do not exist in developed European countries.*

*Adjustment of the economy and settlement to the expected climate changes, the sustainable use of natural resources, decreasing energy and material intensity and the reducing of waste have been improving relatively slowly, with the environmental policy not sufficiently integrated into the development orientations. This is particularly the case in transport.*

*In the area of health, life expectancy figures remain below the EU average for men and women (by 1.7 years and 0.6 years, respectively), although this margin is narrowing rapidly for both genders. Infant mortality has been among the lowest in the EU, the population's self-assessment of health has improved but remains below the EU average.*

*In Slovenia, culture has been spread among the population similarly as in other EU countries. Public and private funds for culture have been rising and are estimated to be somewhat higher than on average in the EU-25. Since radio and television are ranked the highest in terms of the funds and the time spent on culture, they can importantly affect cultural awareness and contribute to fostering culture. As a consequence of the relatively low participation of the population in culture, the development of amateur culture is important; changes would also be needed in the popularisation of reading habits.*

*ANALYSIS:* The five areas tackled in this chapter are: (i) sustained population growth; (ii) balanced regional development; (iii) improving spatial management; (iv) the integration of environmental standards with sectoral policies and consumption patterns; and (v) the development of the national identity and culture. The issue of ensuring optimal health conditions as regards accessibility were dealt with in the previous chapter, while the analytical appendix contains the indicators on life expectancy, infant mortality and health satisfaction.

## 2.5.1. Sustained population growth

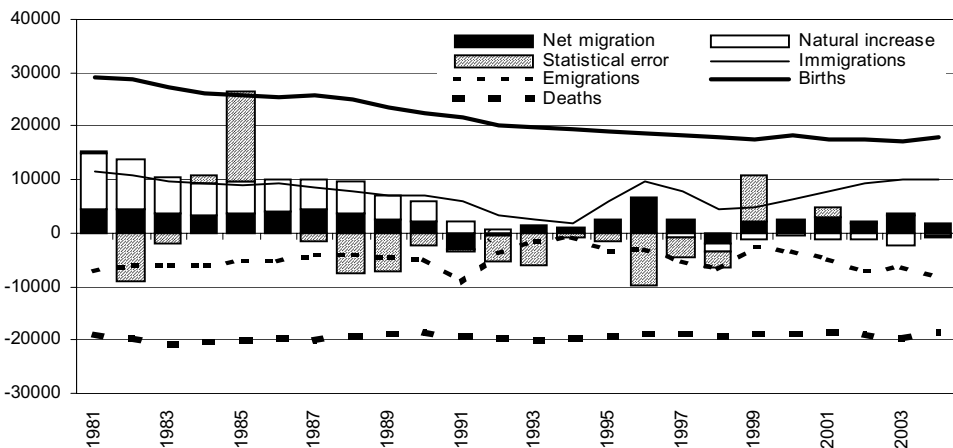
*In the past decade, the long-term trends of a decreasing birth rate and the slowing down of mortality in Slovenia coincided with economic and political changes, which were also a cause for greater oscillations in migrations between Slovenia and foreign countries. Thus, the size of the population, which had risen throughout the post World War II period to above 2 million by 1991 according to register data, dropped to around 1,982,000 by 1998. The birth rate, which first fell to below the levels still ensuring the simple renewal of the population back in the early 1980s, dropped further because of the economic and political transition. On the other hand, the process of slowing down mortality eased at first because of the transition but sped up again after the economic recovery in the second half of the past decade. Net migration was generally lower than in the 1980s, largely because of the political changes and fewer employment opportunities, as well as the high domestic*

unemployment. As a result of slower mortality, the number of deaths exceeded the number of births in the second half of the 1990s, resulting in a negative net natural increase. Such a net natural increase has been decreasing ever since 1979. Despite the positive net migration since 1993 (except in 1998), the size of the population decreased up to 1998 according to population registers<sup>93</sup>, when it started to pick up again. In 2005, the population again exceeded 2 million.

*As a result of the falling number of births and slowing down of mortality, the **age structure of the population** has also changed.* The proportion of children has decreased and the proportion of the working age and old population has widened. So far, this process has been slow because of the relatively huge demographic losses in both world wars (a drop in the number of births during both wars, higher mortality during the second one and increased emigration after World War II), and Slovenia still lags behind the EU average in terms of its share of the old population. This may, however, become critical already in the coming decade and later, when the more numerous generations born after World War II enter the ranks of the old population and the contingents of children and working age population start to shrink (owing to low birth rates in the period after 1980). The ratio between the working age (15-64 years) and old population (65 years and over) is projected to deteriorate from the current 5 : 1 (Kraigher, 2005; Eurostat, 2005) to 4 : 1 by 2013. After 2020, it may drop to below 3 : 1 and after 2040 to below 2 : 1. This increasingly unfavourable ratio will be impossible to reverse even with a higher birth rate or immigration.

*To be able to tackle the challenges of the ageing population and inadequate population renewal, conditions should be created for the greater inclusion of the working age and partly elderly population in economic activity as well as for boosting*

Figure 5: **Components of population growth in Slovenia (according to the population register) in the 1981-2004 period**



Source: SORS.

<sup>93</sup> This also reveals the methodological inconsistencies between the official statistics on population numbers and the statistics on migration.

*births in Slovenia.* The conditions for activation of the elderly population have been insufficient in particular because of non-stimulating conditions and insufficiently flexible forms (e.g. part-time retirement) of employment for the elderly. Besides, the high flexibility of employment of the young (for several years, above 75% of new employment is for a fixed term, with this share further increasing) fails to guarantee the certainty of employment, which could – together with one of the most stimulating family policies in Europe – encourage higher birth rates in Slovenia. Last but not least, housing policy has not yet been properly adjusted to the needs and possibilities of young families.<sup>94</sup>

## 2.5.2. Balanced regional development

*In the period from 2000 to 2003, regional disparities measured by gross domestic product per capita slightly increased, in particular the advantage of the Central Slovenia region over the others.* Regional disparities are typical for most EU countries, where they are mainly even larger than in Slovenia. In Slovenia the ratio between the least and most advanced region in terms of gross domestic product per capita is around 1 : 2 (in 2003, 1 : 2.1), whereas in the United Kingdom this ratio was 1 : 4.3, in Belgium 1 : 3.1 in 2002, and in 12 out of 19<sup>95</sup> EU countries, it was above 1 : 2 (European Commission. Eurostat, 2005). The disparities in the EU have generally been narrowing since 1995. However, disparities between countries are disappearing faster than regional disparities; in many countries internal differences have even increased lately. It is also typical of most EU countries that economic activity is concentrated in the region where the capital is located, and that GDP is rising there above the average. This is particularly true of the new member states. In addition, the Third Progress Report on Economic and Social Cohesion (European Commission, 2005) says that it is not unusual for internal disparities to widen in those countries striving to close the development gap. This is reflected in the initial geographical focusing of economic growth, which is only in later stages followed by a more balanced development pattern. In the EU countries, the development disparities in the 1995-2002 period rose largely in Hungary, the Czech Republic, Slovakia, the United Kingdom and Belgium, while they were the lowest in Greece, Germany, the Netherlands and Sweden. Italy is the only country where disparities significantly decreased, followed by Spain and Austria.

*Regional disparities have been more pronounced in terms of unemployment.* In most regions in Slovenia, the rate of registered unemployment has been falling since 2000, thanks to a better supply of jobs, but also because of the deleting of the unemployed from registers for various reasons. In 2005, it was also down compared to the year before but the difference between regions with the highest and lowest unemployment rates slightly widened, with the registered unemployment rate in

<sup>94</sup> This is also pointed out in Chapter 2.4. (Modern welfare state).

<sup>95</sup> Taking into account the data at the NUTS 2 level of the EU-25, and Bulgaria and Romania. Eight of these countries have no NUTS 2 level (Denmark, Cyprus, Estonia, Latvia, Lithuania, Luxembourg, Malta and Slovenia), therefore a comparison is only possible among 19 countries. This means that regional disparities at the NUTS 3 level in Slovenia are not fully comparable with the regional disparities of other countries at the NUTS 2 level, however, other data is not available. Usually, regional disparities at lower levels are higher.

Pomurska picking up and that in Goriška going down. 2005 saw a continuation of narrowing regional disparities in terms of unemployment, measured by a variation coefficient, which started after 2002. The regions with a highly above-average rate of registered unemployment are notably those in the eastern part of the country (Pomurska, Podravska, Savinjska, Zasavska, Spodnjeposavska, Koroška). All regions, including those with a below-average rate of registered unemployment, however face the challenge of structural unemployment which – although different in each region – in essence reflects the mismatch between the supply and demand for jobs.

*There are also great regional disparities in terms of **demographic movements**. The size of the population has risen largely in regions in the western part of the country, and the concentration of the population continues in the Osrednjeslovenska region. Although population growth in the period from 1995 to 2004 was partly a result of a positive natural increase, it stemmed mostly from positive net migration. Here differences among the regions are negligible. The slowdown in the natural increase and the population living longer (which is more pronounced in the west than in the east of Slovenia) both contributed to changing the population structure in the regions. In turn, the ageing index rose and is above average in the western (Goriška), southern (Obalno-kraška, Notranjsko-kraška), north-eastern regions (Pomurska), as well as in the central part of the state (Zasavska region). In terms of this indicator, regional disparities are becoming less pronounced as the population is ageing everywhere. This also leads to an increasing dependency index of the elderly and to a decreasing dependency index of the young in all regions. A drop in population numbers, in particular in more “marginal” regions, has been problematic not only because it fails to contribute to more a balanced settlement pattern but also because it economically weakens the regions by eroding the human capital potential.*

*The relatively small regional disparities have also been a positive result of **the concept of polycentric development**, which has been more or less successfully pursued for almost four decades. It has focused primarily on establishing the conditions for the more balanced economic and social development of all parts of the country and, through this, on decreasing regional disparities and improving the quality of living conditions with an even distribution of jobs and providing settlement amenities. Such a concept can no longer fully respond to the modern concept of polycentrism based on approximately equal accessibility to services and the social infrastructure for all the inhabitants, on providing the autonomy of decision-making and managing individual parts of the state, as well as on strengthening regional identities. According to this new concept, the selection of regional centres and access to settlements with developed public facilities is essential (Drozg, 2005).*

### 2.5.3. Improving spatial management

*The past system of social planning is causing long deadlines and is thus raising the prices of the rare disposable **building land available for construction**. The system does not solve conflicts at the level of the plan but leaves final decisions to permits that investors have to acquire even for land which according to plan is available for construction. Using as an example certain sample municipalities, the Ministry of*

the Environment<sup>96</sup> found that municipalities indeed have at their disposal large quantities of empty land available for construction, but only a small part of it falls within an adequate size class or is properly municipally developed (equipped with utilities infrastructure)<sup>97</sup>. Only a third<sup>98</sup> of land potentially available for construction (an estimate) is not subject to any additional restrictions (i.e. natural values, protection zones, unstable land, cultural heritage, flood areas etc.), which might have an unpredictable outcome and crucially affect the time schedule of the investment. The conditional restrictions require an investor to acquire the permit of the competent authority in the process of preparing a detailed location plan or during the process of project preparation for obtaining a construction licence. These, in turn, may require investors to conduct expert studies which should have already been prepared in the phase of drafting the spatial planning documents. If the supply of land provided with facilities infrastructure is to be increased in the short term, some instruments should be laid down by law to help overcome the chaotic situation of the inherited spatial plans which are still in force. This is why more radical instruments of the “priority development area” have been proposed<sup>99</sup>. Similar cases may also be found abroad, but they are not directly transferable to Slovenia because in the last 15 years the basic conditions for the functioning of the real-estate market have still not been established.

*In addition to improving the supply of building land, there is also pressure for the development of the land market. The obstacles in this market affect the supply and prices of land.* Real-estate registers remain a huge problem inherited from the period of social ownership and this is so despite the project of modernising the real-estate registers being completed which had a positive effect, in particular in terms of IT modernisation. But the land cadastre and the land register remain insufficiently updated and statistically unclear. This means that legal protection is not assured in the trading of real estate, the market is non-transparent and court backlogs further push up transaction costs and risks<sup>100</sup>. The planned displaying of real-estate data is expected to result in an important improvement of the quality of real-estate registers. The second step aimed at improving the condition of the real-estate market and easing pressures on real-estate prices is mortgage-backed loans<sup>101</sup>, which would

<sup>96</sup> Dekleva. Ukrepi zemljiške politike kot podpora gradnji neprofitnih najemnih stanovanj (Land Policy Measures as Support to Building Non-Profit Flats), Ljubljana: 2005.

<sup>97</sup> In Nova Gorica, for example, only around 40% of plots of land available for construction according to plan are bigger than 10,000 m<sup>2</sup>, a precondition for business or housing development projects. As for the precondition of land being developed in terms of municipal utilities, there is only 8% of land available for construction.

<sup>98</sup> The results for the example of Nova Gorica reveal that only a mere 30% of empty land is not under any conditional protection regime and that almost 40% of land defined as free land available for construction falls under several space protection regimes (at least two).

<sup>99</sup> Dekleva. Teze za pripravo zakona o pridobivanju in opremljanju zemljišč na prednostnih razvojnih območjih za uresničevanje ciljev Strategije razvoja Slovenije (Theses for drafting an act on acquiring and developing land in the priority development areas for implementing the goals of Slovenia’s Development Strategy), Ministry of the Environment and Spatial Planning. Ljubljana: 2006.

<sup>100</sup> But there are many measures and initiatives which allow hope for the improvement of the registers: the projects aimed at reducing court backlogs, introduction of a real-estate market register based on reporting by real-estate agents, the filling in of the building cadastre, initiatives for setting up a real-estate register and continuation of the work on the registers of spatial regimes and plans.

<sup>101</sup> This problem is also defined in Chapter 2.1.3. (Increasing the competitiveness of services).

reduce the interest rates on housing loans. According to the latest data on the European real-estate market (CEPI, 2004), interest rates on housing loans in Slovenia still ran at above 7% in 2004, whereas the EU average was around 4%. Besides, municipal bonds could serve as an alternative or additional source of financing municipal infrastructure, thus reducing the municipal charge that currently excessively burdens land prices, whereas the insufficient sources of finance for municipal infrastructure hinder the supply of developed land. The third important step leading towards the better functioning of the real-estate market would be the introduction of real-estate taxes.

*The more intensive and up-to-date steering of development through spatial plans has borne fruit.* Changes to municipal spatial plans reveal a cyclical nature of spatial planning and do not reflect a stable economic development trend. On the contrary, they were largely affected by the legislation on local self-governance, local elections and above all changes to the national spatial legislation. Thus, meeting the needs of investors and expressing public interest – which is indeed what spatial plans are – peaked for the first time in 1998, when 35% of municipalities with 55% of a Slovenian population changed their spatial plans, and for the second time in 2004 (64% and 76%), when municipalities enforced the last changes before the temporary freezing because of the implementation of the Spatial Planning Act in 2003. Small municipalities have seldom amended their spatial plans, with some even failing to adopt such a plan over the last fifteen years.

As the changing spatial plans do not reveal to what extent the settlement and other strategic spatial development goals are actually being met, progress related to space is measured on the basis of issued building permits. According to these figures, the development function of the country's space has strengthened as the area of buildings for which a building permit has been required has expanded. The area of housing and industrial buildings has increased in particular, whereas the commercial and office area has decreased. At the same time, the Inspectorate of the Ministry for the Environment and Spatial Planning has established that the number of new illegal constructions dropped by one-third over the last three years.<sup>102</sup>

*Most rural areas* are used for agriculture, an activity which has undergone numerous structural changes recently. In turn, the entire Slovenian rural area is subject to changes. The number of farms dropped (over that last five years by -2.2% annually<sup>103</sup>), but their size increased<sup>104</sup>. Although the agricultural land of farms which abandoned production is usually taken over by other agricultural holdings, the total production potential of agriculture continues to fall (the 486,000 ha of cultivated agricultural land in Slovenia in 2000 dropped to 485,000 ha in 2005). There are two reasons behind this: (i) the continued unplanned overgrowing of more distanced and less suitable land for agricultural production; (ii) intensive and spatially wasteful urbanisation which spreads over the best quality agricultural land, in particular in

<sup>102</sup> Report on the work of the Inspectorate for the Environment and Space for 2004, MESP, 2005.

<sup>103</sup> In 2000, a full census of agricultural holdings was carried out, whereas the 2005 census was based on a sample.

<sup>104</sup> An average agricultural holding cultivated 6.3 ha of agricultural land in 2005 (in 2000 5.6 ha) and bred 6.6 livestock units (in 2000 6.2). An increase in the number of farms cultivating above 10 ha of land indicates a favourable development.



suburban rural areas. (Cof, 2005, quoting Perpar and Kovačič, 2005). Although agriculture remains a typical economic activity of rural communities, rural areas have also increasingly become a space where people live and engage in various non-agricultural economic activities (Babič, 2005).

## 2.5.4. Integration of environmental standards with sectoral policies and consumption patterns

*Sectors with the greatest impact on the environment are transport, energy, agriculture, manufacturing and households*<sup>105</sup>. In the transport sector, the share of road transport – causing the greatest pressure on the environment – is speedily increasing. In the energy sector, the process of reducing energy intensity has slowed down significantly recently, while the relatively favourable use of alternative renewable sources is rising only slowly. The pressure on the environment from agriculture has eased, less favourable is the use of forests as one of the country's natural renewable sources, which is only gradually increasing. The faster rising of the volume of production of dirty industries compared to other manufacturing industries has stopped.

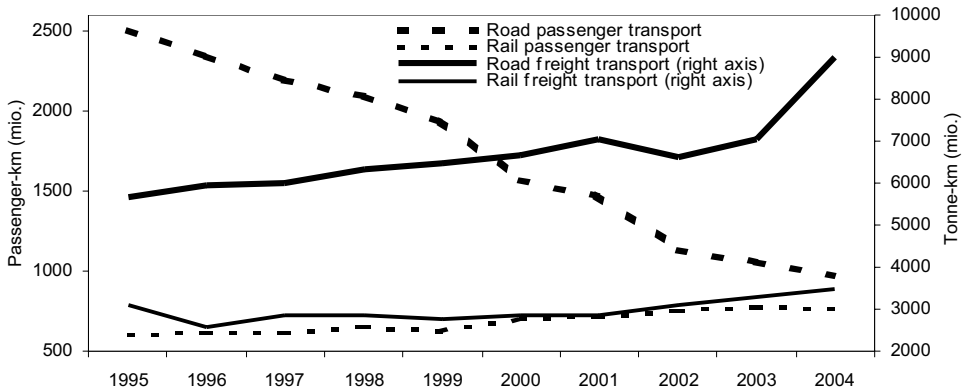
**Transport** has been one of the main environmental policy challenges for Slovenia and the EU as the goal of decoupling economic growth and demand for transport has not been met. With the strengthening of road transport, the structure of transport is also problematic. The fastest rising components are passenger car transport, the road transport of goods as well as air passenger transport, i.e. those forms with the biggest negative impacts on the environment. These trends led the EU to introduce a sustainable transport system whose target is to stabilise the shares of environment-friendly means of transport at the 1989 level (the 'modal split') until 2010.

In Slovenia, the share of road transport *in goods transport* is rising faster than in the EU. Since 1995, road goods transport (excluding transit) in the EU has been rising faster than economic growth and railway transport has been on a slight decline. The proportion of road transport in total goods transport picked up to 79% in 2002 (EU-15). Also in Slovenia, road goods transport rose faster than economic growth in the 1995-2004 period, while the growth in railway transport lagged behind it significantly. Thus, the share of road goods transport soared from 64.9% to 72.2% and was, according to data for the first three quarters of 2005, already close to the EU average (76.2%). In *passenger transport*, passenger car transport is rising the fastest. These trends are present everywhere in the EU, but they are more pronounced in Slovenia. The number of cars rose from 351 (per 1000 inhabitants) in 1995 to 457 in 2004 (EU-25 2002: 463). A rise in the share of cars in passenger transport has been among the highest in the EU and is also reflected in the drop in public road passenger transport (in the 1995-2004 period: 60.9%) and the only modest rise in railway passenger transport (1995-2004: 28.4%).

The data on greenhouse gas emissions also reveal great pressures on the environment from transport. Although total greenhouse gas emissions have not changed much

<sup>105</sup> The report only assesses pressures on the environment related to economic development. The state of the environment is analysed by the Agency for the Environment in its reports »Indicators of the Environment«.

Figure: Road and railways, goods and public passenger transport



Sources: SORS.

Note: the road transport data are based on data on registrations of trucks in Slovenia. Passenger transport does not cover private transport involving taxis, buses or cars.

compared to the base year (1986<sup>106</sup>), the emissions from transport rose by more than 100% largely owing to personal transport. Greenhouse gas emissions from transport represent around 20% of total emissions, of which a solid three-quarters comes from personal transport. Transport is also the fastest rising sector in the final energy consumption in both the EU and Slovenia, where it already accounts for almost a third of total final energy consumption.

**The energy sector** has an important impact on the environment (greenhouse gas emissions, air pollution, impact on water ecosystems and space), contributing to around a third of total greenhouse gas emissions and a third of air polluting emissions. Apart from reducing the energy intensity, pressures on the environment may also be eased by replacing solid fuels by liquid fuels and fossil fuels by renewable sources. However, the positive impacts of these replacements have been diminished because of the aggregate increase in energy use. In 2004, Slovenia used 322 toe of primary energy per GDP unit, which was 50% more than in the EU. The intensity of primary energy consumption eased considerably in the 1995-1999 period, but this process has slowed down in the last four years.

Apart from energy intensity, the structure of primary energy sources should also be considered. Fossil fuels retained the dominant share, but the structure changed with an increasing share of liquid fuels and a decreasing share of solid fuels<sup>107</sup>. In the EU-15, the environmental legislation and liberalisation of the electricity market since 1990 (which promoted the co-production of heat and electricity – CHP) led to the increasing use of natural gas. In Slovenia, the share of natural gas has not changed in recent years (2002: 11.3%) and has been much lower than in the EU (2002: EU-15 23.6%). On the contrary, in Slovenia the share of renewable energy sources

<sup>106</sup> By acceding to the Kyoto Protocol, Slovenia committed itself to an 8% reduction of greenhouse gas emissions from the 1986 levels until the 2008-2012 period.

<sup>107</sup> Fossil fuels are the most important source of greenhouse gases, of which solid fuels are the most intensive and natural gas the least intensive.

(2004: 11.7%) was almost double the EU average, largely because of a high share of hydro-energy. As the use of other alternative energy sources has risen only slowly, the share of renewable energy sources in total energy depends predominantly on the water levels of Slovenian rivers.

*Slovenia preserved a high share of energy intensive manufacturing industries.* By closing down unprofitable obsolete manufacturing production and increasing productivity, the energy intensity of manufacturing has fallen since 1994, but this process slowed down recently. In turn, greenhouse gas emissions also decreased the most in industry in the last ten years compared to 1986, particularly the emissions from fuels (almost by a half), as well as process emissions. However, energy intensity remains high, including as a consequence of the high share of manufacturing in value added, of which almost half is generated by high-energy-intensive industries (metal, non-metal, paper and chemical). These are at the same time industries with the highest environmentally harmful emissions per unit of production. In the 1999-2004 period, the annual production volume of these activities was rising more than twice as fast as that of other manufacturing activities. This growing trend, which was present till 2003, stopped last year.

The data on issued environmental certificates also reveal certain progress in reducing negative impacts on the environment in companies. The ISO 14001 certificate is an internationally acknowledged business standard and takes into account all environmental aspects of handling raw materials, energy, processes and products. More than 300<sup>108</sup> companies were granted this certificate (in 2000: 88 companies), whereas the EMAS certificate (Environmental Management and Audit Scheme) has so far been granted to only one company. No Slovenian product has been given an EU 'daisy' — a sign of an environmentally friendly product, although they do meet the criteria.

**The intensification and specialisation of agriculture are closely related to environmental burdens<sup>109</sup>.** Agricultural production measured by average yields per ha is lower in Slovenia compared to the EU average. Crop production per unit of sown area is slightly rising (including the oscillations due to weather conditions), but it was still almost a tenth (for maize) and a quarter (for wheat) lower than EU average in 2004. Similar are the indicators for milk yield (quantity of milk per livestock unit). The lower production intensity is also a consequence of the strained natural conditions and the modest size of most farms. Although agricultural production remains relatively low from the point of view of the use of natural resources and the pressures on the environment are on average not problematic, excessive burdens on the environment do appear in areas of intensive production. The best quality agricultural land is located in the areas of underground water, which has an extremely important water supply function, thus hindering possibilities for

<sup>108</sup> In Latvia, the most comparable country by population size, this figure was around 100 and in Ireland 300.

<sup>109</sup> Agriculture affects the environment through greenhouse gas emissions, acidification, pollution of water with the use of chemicals, degradation of the natural environment and use of water for irrigation. The impacts of agriculture on the environment may be measured by numerous agricultural-environmental indicators. In its IRENA, Indicator Reporting on the Integration of Environmental Concerns into Agricultural Policy, the EU foresees 38 agri-environmental indicators. This Report only covers some of the most basic ones.

the intensification of agriculture. Of all the observed agricultural indicators, the most negative is the use of nitrate fertilisers, which is being reduced but is still exceeds the average in the EU considerably (in 2002 by 42%). Only highly agriculturally intensive countries (the Netherlands, Belgium, Germany) used more nitrate fertilisers than Slovenia, whereas in new member states their use is much lower. The use of pesticides rose in 2004 (the indicator is not internationally comparable). With its fragmented, mosaic-like and environmentally sensitive landscape pattern, Slovenia should orient itself towards organic and integrated farming<sup>110</sup>, whose share in the total area of agricultural land continues to rise and is higher than the EU and the EU-15 average. Land used for organic and integrated production represents 13.4% of total agricultural land (organic 4.7% and integrated 8.7%).

*The intensity of tree felling<sup>111</sup>, which is the main indicator of the economic use of forests, is relatively low in Slovenia despite wood being one of the nation's few natural resources. After a rise in 2003, the intensity of tree felling dropped again in 2004, particularly the urgent tree tending. Felling increased in privately owned forests, which is encouraging. From the point of view of sustainable development, the low volume of tree felling has considerable negative consequences not only because of the insufficient use of this renewable natural source but also because of the deterioration in the structure of raw woods categories.*

*The growing number of households and the rising consumption, within which transport and tourism stand out, as well as the **generation of waste** are exerting great pressures on soil, water, air and habitats. This is also confirmed by data on greenhouse gas emissions whose main source, apart from transport, is the use of fuels by households and commercial sectors, and waste.*

In Slovenia, waste management is poorly developed from the aspect of sustainable development. Sustainable development – according to which economic growth should be decoupled from pressures on the environment – in the area of waste foresees in the first place the reduction of waste. Among waste management methods, the most important is the prevention of waste and the re-use of waste (recycling, composting). This is followed by waste recovery (incineration by energy production) and, finally, the removal of waste (incineration, disposal). Both waste disposal and incineration cause environmental damage (use of land, air pollution caused by emissions of dangerous substances, water and soil pollution) and are at the same time an example of the inefficient use of limited natural resources. The separate collection of waste allows the re-use of household waste, but thus is still relatively inefficient in Slovenia. The collection of biological wastes is only just being introduced. Most municipal waste is still landfilled.

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<sup>110</sup> Organic farming prohibits the use of any chemical or synthetic preparations, whereas in integrated farming their use is selected and reduced to the minimum, in line with economic acceptability.

<sup>111</sup> The intensity of tree felling is the ratio between the annual felling and wood increment.

### 2.5.5. Production and consumption of cultural goods<sup>112</sup>

*The specific nature of culture is confirmed by the different notions it involves in various countries. The areas of culture as part of the public administration are quite diverse, sometimes they include education, sports, also tourism and even the environment; in some countries the media falls within culture and in others it does not.*

*There are also various patterns in the financing of culture. **The public financing of culture** in Slovenia is stable, in 2002 it even slightly rose. Unlike in some other countries<sup>113</sup> there were no great shocks during the transition. Due to methodological problems<sup>114</sup> international comparisons have been rare but the estimates show that public expenditure on culture per inhabitant in Slovenia is higher than in other new members of the EU (except Estonia) and somewhat lower than in the EU-15 countries.*

***Household expenditure on culture** is also relatively high, 60% of total households funds for cultural goods and services are spent on the media, i.e. printed media, radio and television. The rise in the share of private funds for radio and television in 2003 compared to 2002 stems from the greater coverage of subscribers (a rise by 7 p.p.). On the other hand, the share of funds used for purchasing books (literature) dropped.*

*International comparisons cover all private expenditure on recreation and culture. In 2003, Slovenia had a similar share of household expenditure on recreation and culture (9.5%) than the EU-25 average (9.6%), in 2004 it exceeded the EU-25 average by 0.3 of a structural point and caught up with those countries where households spend the most on recreation and culture, i.e. the United Kingdom (12.7%), Sweden (11.9%), the Czech Republic (11.8%) while leaving the countries where households spend the least on recreation and culture (Greece, Portugal, Estonia – around 6%) even more behind. In the EU, the average share of funds spent on recreation and culture has declined since 2000, whereas in Slovenia and the new member states it has risen.*

*The citizens of Slovenia (like other citizens in the EU) spent most of their **spare time** watching television; here, men spend 80% of their time and women 78%. In the 2000-2001 period, 87% of surveyed men (83% of women) regularly watched television. This leisure activity was followed by reading periodicals (men more than women) and books (women 7% of their spare time, men 3%). Men spent a greater proportion of their time on the creation of arts<sup>115</sup> (music, painting, photography*

<sup>112</sup> This chapter is based on the findings of Brigita Lipovšek, Ministry of Culture.

<sup>113</sup> New EU member states and the Balkan states.

<sup>114</sup> Recently, Eurostat made some efforts to unify the statistical coverage of public expenditure on culture but so far they have led to no concrete results. Some efforts have also been made within the Council of Europe, which supports the project called Compendium: Cultural Policies and Trends in Europe (carried out by an authorised institution, Eric Arts). Data on financing culture are also collected within this project.

<sup>115</sup> The following activities fall within the arts: arts (unspecified); visual arts (activities related to the creation of paintings, photos, statues, ceramic products, engravings, pottery etc. at home or in a club; including visual art created using computers); theatre and music art (singing, acting, playing solo or in a group; music production; including theatre and music created using computers); literary art (writing novels, poetry, diaries etc.; including literary art created using computers) and other (specified) art.

and similar), while both genders spent on average the same amount of time on the consumption of culture<sup>116</sup> (visiting concerts, theatres etc. – 1% of total spare time). One percent of their spare time (men and women) was spent going to the cinema.

*A similar picture emerged in EU countries.* In EU countries (like in Slovenia) people spend most of their spare time watching television (women from 29% to 56%, men from 34% to 51%). Men watch television at least two hours a day (the most: Hungarians – almost 3 hours, the least: Swedes and Germans), and women roughly one hour and 45 minutes. As regards engagement in culture and entertainment activities, Slovenia is ranked the last but one among the observed countries although, except for Germany and Belgium, there are no substantial differences among the countries. Europeans spend around 10% of their spare time reading periodicals and books, on average from 23 to 46 minutes a day. Finns spend by far the most time reading whereas women in Hungary read the least. In all countries women prefer to read books while men favour periodicals. In terms of the time spent on reading, Slovenia is ranked last but one, which is not very promising.

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<sup>116</sup> The following activities fall within culture: theatre and concerts (including opera, musical, light opera, ballet, dance shows, live concerts, street theatre etc.); art exhibitions, museums, libraries.

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***Indicators of Slovenia's  
Development***

***(Analytical Appendix)***



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The first priority:

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

### **1. Economic development**

- Gross domestic product per capita in purchasing power standards

### **2. Participation in the European exchange rate mechanism ERM II and adoption of euro**

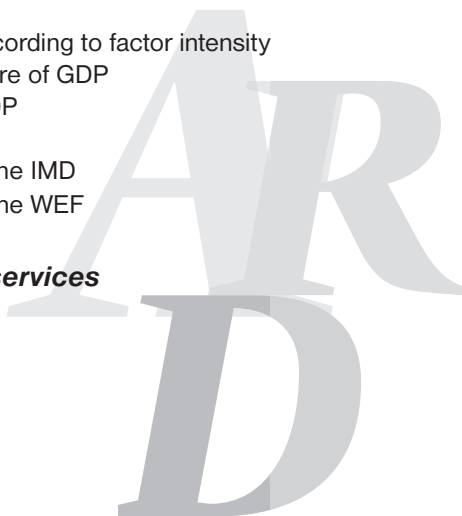
- Real growth of gross domestic product
- Inflation
- General government sector balance
- General government debt
- Balance of payments
- Gross external debt

### **3. Increasing competitiveness and promoting entrepreneurial development**

- Labour productivity
- Market share
- Unit labour costs
- Structure of merchandise exports according to factor intensity
- Gross fixed capital formation as a share of GDP
- Exports and imports as a share of GDP
- Foreign direct investment
- Slovenia's world competitiveness by the IMD
- Slovenia's world competitiveness by the WEF

### **4. Increasing the competitiveness of services**

- Total assets of banks
- Insurance premiums
- Market capitalisation



## ***Gross domestic product per capita in purchasing power standards***

*In January 2006 Eurostat released data on the levels of gross domestic product per capita expressed in purchasing power standards (GDP in PPS) for 2003 and 2004.* The results for 2003 are based on the final calculations of purchasing power standards (PPS)<sup>1</sup> used as conversion rates for GDP in national currencies, whereas the results for 2004 are based on preliminary PPS estimates.

*Slovenia achieved 79% of the average GDP per capita recorded in the EU in 2004, which is three percentage points more than in 2003.* The bulk of this difference can be explained by the considerably faster real growth of the Slovenian GDP per capita compared to the average growth in the EU-25 in 2004 (4.1% in Slovenia and 1.9% in the EU-25).

*Among the new EU member states, only Cyprus still had higher GDP per capita in PPS in 2004 (83%). In comparison to the old members, Slovenia approached Greece, reducing its gap vis-à-vis this country to three percentage points.* In 2003, Slovenia still lagged behind Greece by 4 p.p. according to GDP per capita. Slovenia outstripped Portugal (72%) already in 2003. Otherwise Portugal, France, Italy and Malta belong to the group of member states whose GDP per capita fell in 2004 over 2003 – in Portugal by 1 p.p., in the others by 2 p.p. Among the new members, the Czech Republic (70% of the EU average) was the second best country after Slovenia.

*According to GDP per capita in PPS, EU countries achieved between 43% and 226% of the EU-25 average in 2004.* Luxembourg<sup>2</sup> remains the most affluent country with GDP per capita in PPS twice higher than the European average (226%). Ireland outstripped the EU average by 37% in 2004. The Netherlands, Austria, Denmark, Belgium, Sweden and the UK were 20% above the average. Finland, France and Germany surpassed the average by 10%, while Italy and Spain were level with the European average. Cyprus, Greece and Slovenia hover around 20% below the EU average; Portugal, the Czech Republic and Malta fell 30% short of the average, while Hungary lagged behind by 40%. The lowest GDP per capita in PPS in the EU was recorded in Latvia (43%) and Lithuania (48%). Poland also achieved less than 50% of the EU average, while Estonia and Slovakia are just above this value.

*Eurostat calls attention to the fact that the published data are still not final for either of the two years, and that they are not entirely comparable across countries.* Namely, all EU member states had to enforce a major methodological change in the calculation of GDP in 2005 regarding the method of calculating financial intermediation services indirectly measured (FISIM). Most EU countries (except Czech Republic, Greece, Italy, Cyprus, Luxembourg, Malta, Slovakia and the UK), made a revision of the longer GDP time series due to FISIM by the end of November 2005. In those countries that made the revision, GDP increased between 0.5% and 2.0% after the allocation of FISIM. The fact that not all countries have revised their calculations as yet has two implications. First, the data on GDP in PPS are not fully comparable between countries; and second, the changes in GDP of these countries are also expected to affect the PPS and the levels of GDP in PPS of other countries. The reason is that changes in input data for the calculation on GDP in PPS of one or more countries also affect the results of other compared countries due to the interdependence of the obtained results on GDP in PPS between the countries.

<sup>1</sup> PPS is a unit of artificial value reflecting differences in the national price rates that are not accounted for in exchange rates. This unit allows international comparisons of economic indicators.

<sup>2</sup> The exceptionally high GDP per capita in Luxembourg is largely attributable to the high proportion of foreign employees in the country, who are not counted as residents.

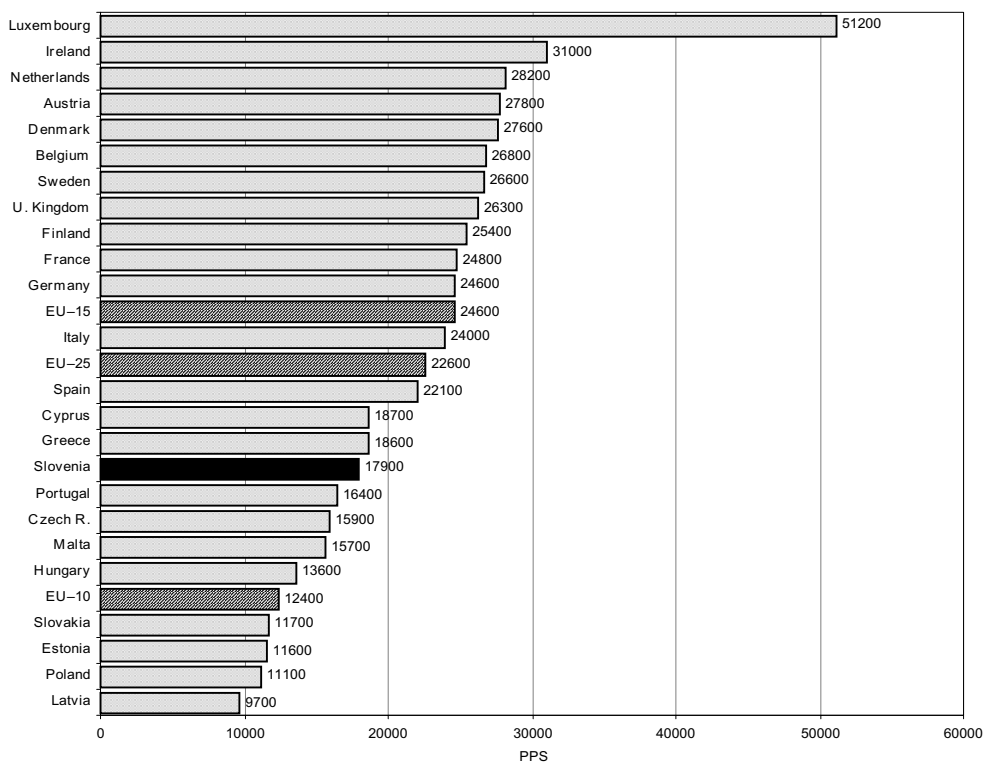
Table: GDP per capita in PPS, level indices, EU-25 = 100

|                 | 1995       | 2000       | 2001       | 2002       | 2003       | 2004       |
|-----------------|------------|------------|------------|------------|------------|------------|
| <b>EU-15</b>    | <b>110</b> | <b>110</b> | <b>109</b> | <b>109</b> | <b>109</b> | <b>109</b> |
| <b>EU-10</b>    | <b>N/A</b> | <b>50</b>  | <b>51</b>  | <b>52</b>  | <b>53</b>  | <b>55</b>  |
| Austria         | 126        | 126        | 122        | 120        | 121        | 123        |
| Belgium         | 120        | 117        | 117        | 118        | 118        | 118        |
| Cyprus          | 81         | 81         | 83         | 82         | 80         | 83         |
| Czech Republic  | 68         | 64         | 65         | 66         | 68         | 70         |
| Denmark         | 123        | 126        | 125        | 122        | 121        | 122        |
| Estonia         | 33         | 41         | 42         | 45         | 48         | 51         |
| Finland         | 104        | 113        | 113        | 112        | 111        | 112        |
| France          | 114        | 114        | 114        | 112        | 111        | 109        |
| Greece          | 70         | 71         | 73         | 77         | 81         | 82         |
| Ireland         | 98         | 126        | 129        | 133        | 134        | 137        |
| Italy           | 115        | 112        | 109        | 107        | 108        | 106        |
| Latvia          | 29         | 35         | 37         | 38         | 41         | 43         |
| Lithuania       | 33         | 38         | 40         | 42         | 45         | 48         |
| Luxembourg      | 174        | 216        | 210        | 209        | 234        | 239        |
| Hungary         | 49         | 53         | 56         | 58         | 59         | 60         |
| Malta           | N/A        | 76         | 72         | 72         | 73         | 69         |
| Germany         | 119        | 112        | 110        | 109        | 108        | 109        |
| Netherlands     | 117        | 120        | 127        | 125        | 125        | 124        |
| Poland          | 40         | 47         | 46         | 46         | 47         | 49         |
| Portugal        | 75         | 81         | 80         | 79         | 73         | 72         |
| Slovakia        | 44         | 47         | 48         | 50         | 51         | 52         |
| <b>Slovenia</b> | <b>68</b>  | <b>73</b>  | <b>74</b>  | <b>75</b>  | <b>76</b>  | <b>79</b>  |
| Spain           | 87         | 92         | 93         | 95         | 97         | 98         |
| Sweden          | 116        | 119        | 115        | 114        | 116        | 117        |
| United Kingdom  | 108        | 113        | 113        | 116        | 116        | 116        |

Source: Eurostat, New Cronos, 31 March 2006.

Note: N/A - not available.

Figure: GDP per capita in PPS in 2004 by country



Source: SORS; Eurostat, New Cronos, 31 March 2006.

## ***Real growth of gross domestic product***

*According to the revised annual estimates of national accounts released in September 2005, the average real growth rate of Slovenia's gross domestic product (GDP) in 1996-2004 totalled 3.9%. The highest economic growth in this period, 5.4%, was achieved in 1999 when it was strongly boosted by the accelerated growth of private and investment consumption prior to the enforcement of value-added tax on 1 July 1999. The lowest real growth rates of GDP were recorded in 2001 and 2003 (2.7% in both years) when the economic situation in the international environment deteriorated sharply compared to the previous year. The economic slowdown in 2001 was additionally affected by a considerable fall in inventories.*

*After having risen relatively modestly for three years, economic growth strengthened to 4.2% in 2004, achieving the record level in five years. This strengthening was mainly underpinned by the robust growth of exports (12.5% in real terms; 3.1% in 2003), which reduced the negative contribution of international trade by 1.6 p.p., while the real growth of domestic consumption (4.6%) remained at the solid level of the previous year (4.7%). Following Slovenia's accession to the EU on 1 May 2004, when economic activity in the EU was favourable, exports to the old member states rose at a relatively faster pace. This growth was strongly fed by the accelerated growth of exports to France and Italy. Throughout the year, exports to several old member states that were previously not among Slovenia's main trading partners also rose robustly (Greece, Belgium, Denmark, Ireland, Sweden and Portugal). The adoption of the EU's foreign trade regime had a direct negative effect especially on exports to Macedonia and BiH since the free-trade agreements with these two countries were abolished after accession. The expiry of the free-trade agreement with Croatia, on the other hand, had no significant impact on Slovenian exports to Croatia as trade between the EU and Croatia is already liberalised. The lowering of the Bank of Slovenia's key interest rates, which began in 2003 during preparations for accession to the EU, was also reflected in the reduction of bank interest rates which, in turn spurred on the banks' lending activity and, combined with cyclical and economic factors, boosted private consumption. However, the growth of the latter softened slightly in 2004 as a result of the moderate wages policy (from 3.4% in 2003 to 3.1%). The real growth of gross fixed capital formation slowed down even more in 2004 (from 7.1% in 2003 to 5.9%), largely owing to the weaker growth of investment in civil engineering and the slightly weaker growth of investment in machinery and equipment. On the other hand, investment in residential buildings stepped up substantially after the drop in 2003. The real growth of government consumption was higher than in 2003 (2.9% over 1.6%); a slight increase was also recorded in the contribution of the changes in inventories to GDP growth.*

*Real GDP growth totalled 3.9% in 2005, slightly less than in 2004 (4.2%); within the structure of economic growth, the relative contribution of international trade rose strongly (to 2.3 percentage points) as export rates growth remained relatively high and the growth of imports decelerated. The growth of goods exports slowed down in 2005 over 2004 (from 12.8% to 8.7%) although this slowdown was smaller than expected given the weaker GDP growth in the main trading partners within the EU. This development was mainly underpinned by the booming road vehicles exports, notably to France and slightly less to Austria and the UK. In the year as a whole, exports of road vehicles rose a nominal 35% (in EUR) and contributed around 40% to the growth of merchandise exports. Growth of exports to new members increased and was slightly higher than the growth of Slovenia's exports to the old member states. Domestic consumption growth decelerated last year due to the weaker growth of gross capital formation. Investment in machinery and equipment eased off in particular*

<sup>1</sup> The calculations of the averages for the new member states and the EU-25 for 1996 and 1997 do not include Malta's real GDP growth.



and rose substantially only towards the end of 2005. This appears to be related to the investment relief regime that is becoming less favourable this year. In line with expectations, the growth of housing construction accelerated last year while the growth of investment in other buildings was similarly meagre as in 2004. Private consumption grew a real 3.3% last year, i.e. slightly more than in 2004 (3.1%) but it nevertheless remained within sustainable macroeconomic limits. The growth of government consumption (3%) remained at a similar level as in 2004 (2.9%). After the contribution of changes in inventories to GDP growth was positive for three years it turned negative in 2005 (-1.7 p.p.). Against the slower growth of domestic consumption, imports of goods and services rose by 5.3%, much less than the year before (13.2%).

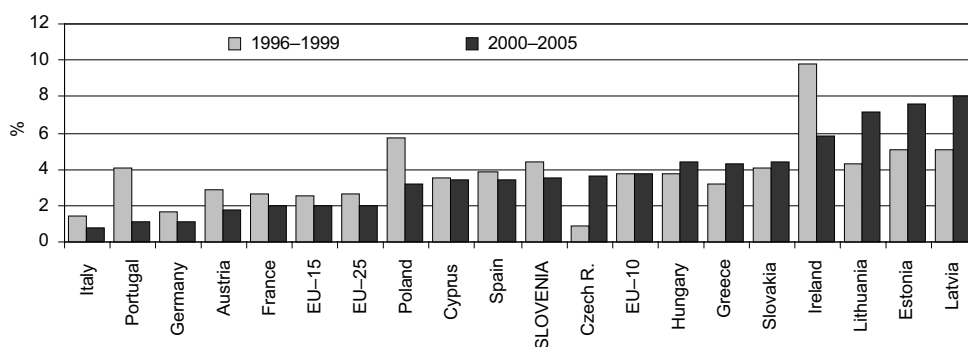
*In 1996-2005, the average real GDP growth in Slovenia (3.9%) exceeded the average rates of the EU-25 by 1.6 p.p., the EU-15 by 1.7 p.p. and the new member states by 0.2 p.p.* In 1996-1999, economic growth in Slovenia (4.5%) exceeded the average of the EU-15 by 2 p.p. and the average of the new member states by 1.2 p.p. Among the old member states, countries that had higher GDP growth than Slovenia in this period were Ireland (9.8%), Luxembourg (6.6%) and Finland (4.6%), while among the new member states only Poland (5.7%) and Cyprus (5.0%) overtook Slovenia. In 2000-2005, GDP growth in the EU-25 slowed down (to 2.0%) as a result of the slower growth in the EU-15, whereas growth in the new members strengthened somewhat (3.8%). Slovenia's GDP growth decelerated by 1 p.p. on average (3.5%) and was 1.5 p.p. higher than the GDP growth of the EU-15, i.e. less than in the previous period and equalling approximately half the level required for Slovenia to achieve the economic objective of the SDS. Among the new member states, only Malta and Poland achieved lower average GDP growth than Slovenia in this period.

Table: Contribution of expenditure components to gross domestic product (GDP) growth in Slovenia in 1996-2003, percentage points

|  | 1997 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
|--|------|------|------|------|------|------|------|
| Real GDP growth, %   | 4.8  | 4.1  | 2.7  | 3.5  | 2.7  | 4.2  | 3.9  |
| Contribution of individual components to GDP growth, percentage points |      |      |      |      |      |      |      |
| Trade balance of goods and services (exports-imports)                  | -0.2 | 2.7  | 1.7  | 1.1  | -2.0 | -0.4 | 2.3  |
| Domestic consumption, total  | 5.0  | 1.5  | 0.9  | 2.4  | 4.6  | 4.6  | 1.6  |
| - private consumption  | 1.6  | 0.4  | 1.3  | 0.8  | 1.9  | 1.7  | 1.8  |
| - government consumption   | 0.6  | 0.5  | 0.7  | 0.6  | 0.3  | 0.6  | 0.6  |
| - gross fixed capital formation  | 3.0  | 0.5  | 0.1  | 0.2  | 1.6  | 1.4  | 0.9  |
| - changes in inventories and valuables                                 | -0.2 | 0.1  | -1.2 | 0.8  | 0.8  | 0.9  | -1.7 |

Source: SORS; calculations by IMAD.

Figure: Average real GDP growth rates in selected EU countries in 1996-1999 and 2000-2005



Source: Eurostat, New Cronos (6 April 2006); SORS.

# Inflation

***Gradual disinflation continued throughout 2005.*** Economic policies that were not primarily aimed at ensuring price stability underlay the persistence of inflation at a level between 7% and 10% in 1995-2002. The gradual disinflation achieved in the last three years has resulted from the changes in economic policy introduced during preparations for Slovenia's accession to the EU and its entry to the EU itself. The year-on-year inflation thus declined to 2.3% by the end of 2005 (it totalled 3.2% in 2004), while average inflation declined to 2.5% (3.6% in 2004).

***Slovenia fulfilled the Maastricht criterion on inflation at the end of 2005.*** According to Eurostat's provisional data and the available explanations regarding its calculation, the Maastricht criterion totalled 2.5% in December 2005. Slovenia thus complied with this criterion at the end of last year. In addition to both fiscal criteria, Slovenia currently also fulfils both monetary policy criteria, i.e. the interest rate criterion and the inflation criterion. However, in order to adopt the euro the exchange rate must be stable for at least two years; for this reason, Slovenia does not yet formally comply with the exchange rate stability criterion although the tolar exchange rate's fluctuations around the central parity have not exceeded 0.15% (the allowed fluctuation rate is  $\pm 15\%$ ) throughout its 19-month participation in the exchange rate mechanism.

***The sustained lowering of inflation has been underpinned by the harmonised measures of the Bank of Slovenia and the government.*** The measures presented in the Programme for Entering the ERM II and Introducing the Euro led to a rapid deceleration in price rises immediately after Slovenia joined the exchange rate mechanism. A further impulse for price deceleration was provided by one-off factors, notably the change in trade regimes. The application of these policies continued in 2005. The Bank of Slovenia ensured the stability of the tolar's exchange rate while the government continued controlling administered prices strictly, cushioning the volatility of oil prices and pursuing the wage policy agreed in the social agreement. As a result, market-determined prices rose by 1.2%, i.e. 0.9 p.p. less than in 2004. The rise in administered prices, excluding petroleum products and revised for the RTV contribution (after the strike in December 2004 resulting in a lowering of this contribution, its amount was raised to the previous level in January 2005 and this was regarded as a price rise by the SORS), totalled 1.3% in 2005 and contributed 0.1 p.p. to inflation. As a result of the sharp rise in oil price (the price of a Brent crude barrel shot up 48% from end-December 2004 to end-December 2005), the prices of liquid fuels for transport and heating contributed a further 0.9 p.p. to inflation. Without the counter-cyclical adjustment of excise duties on liquid fuels for transport and heating and their reduction to the minimum level still compliant with the regulations, the contribution of liquid fuels to inflation would have been a further 0.5 p.p. higher. At the same time, the government continued the harmonisation of excise duties on tobacco and tobacco products with the agreed rates in the EU (which will be completed in early 2008). This pushed inflation up by a further 0.3 p.p. The lagging of wage growth behind production growth determined by the social agreement prevented any potential pressures on price rises from increased household demand or unit labour costs. On the other hand, the slowdown in inflation was supported by the tougher competition in some markets, characteristic of the period after EU entry. Prices fell in December 2005 over December 2004 in the groups clothing and footwear (-2.2%), health (-1.3%) and communications (-0.5%), while the smallest rise was observed in food prices (0.9%).

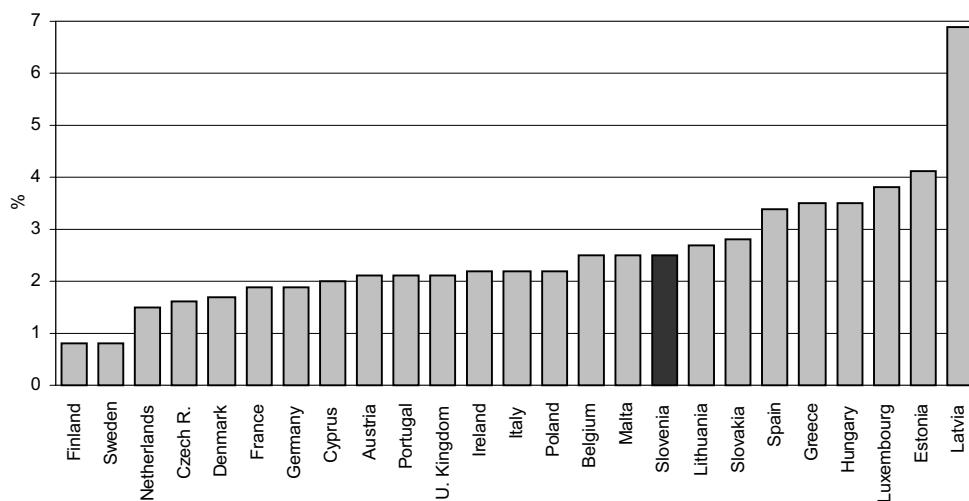
*Further lowering of inflation will largely depend on the implementation of structural reforms.* Prices in Slovenia may rise at a faster pace than in the main trading partners due to the faster productivity growth in the Slovenian economy (the Balassa-Samuelson effect) and the structural imbalances that still persist in it. The continued sustainable lowering of inflation and the consequent prevention of a further deterioration in Slovenia's competitive position therefore call for structural reforms, notably liberalisation and creation of competitive conditions in those sectors that are still state-regulated or monopolised, as well as measures aimed at increasing labour market flexibility.

Table: Rises in consumer prices in Slovenia and the EU

|   | 1995 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
|---|------|------|------|------|------|------|------|
| <b>Slovenia, year-on-year growth rates, in %</b>                |      |      |      |      |      |      |      |
| Consumer prices   | 9.0  | 8.9  | 7.0  | 7.2  | 4.6  | 3.2  | 2.3  |
| Goods   | 7.1  | 8.8  | 6.2  | 6.4  | 3.9  | 2.5  | 2.0  |
| Services  | 15.9 | 9.2  | 9.6  | 9.4  | 6.5  | 4.9  | 3.0  |
| Administered prices   | 10.0 | 16.0 | 10.5 | 9.2  | 4.0  | 9.0  | 7.7  |
| Energy  | 8.2  | 18.9 | 6.7  | 5.5  | 3.5  | 10.3 | 9.8  |
| Other   | 11.4 | 12.0 | 17.0 | 14.7 | 4.8  | 6.1  | 3.0  |
| Core inflation  | N/A  | 6.9  | 7.4  | 6.9  | 4.2  | 2.7  | 0.8  |
| <b>European Union<sup>1</sup>, year-on-year growth rates, %</b> |      |      |      |      |      |      |      |
| Consumer prices   | 2.5  | 2.5  | 2.0  | 2.4  | 2.0  | 2.3  | 2.2  |

Sources: SORS (consumer prices), IMAD's estimate (administered prices, core inflation); Eurostat (consumer prices in the EU).  
Note: <sup>1</sup>Euro area.

Figure: Inflation (harmonised index of consumer prices) in the EU, 2005 (average)



Source: Eurostat.

## ***General government sector balance***

*As a European Union member, Slovenia has to comply with the provisions of the Stability and Growth Pact, according to which the general government sector deficit must not exceed 3% of GDP.* The European Commission's Excessive Deficit Procedure obliges Slovenia to submit the 'Report on Government Debt and Deficit' twice a year, which enables the Commission to monitor Slovenia's fiscal position. The report is drafted in line with the common methodology of the European System of Accounts (ESA-95) that must be strictly observed by all member states. The upper ceiling of the allowed general government sector deficit (3% of GDP), above which the Excessive Deficit Procedure applies, equals the Maastricht convergence criterion, which Slovenia must meet prior to entering the EMU (planned at the beginning of 2007). Slovenia fulfilled this criterion in the 2002-2004 period and, according to preliminary estimates, also in 2005.

*The SORS revises the estimated current general government deficit each year to ensure harmonisation with ESA-95.* The biggest differences in the estimated current deficit were caused by the accounting of war compensations, for which government bonds were issued, during the period when claims were being registered at the court; the exclusion of surpluses generated by company liquidations from current revenues; and the exclusion of the Housing Fund from the institutional general government sector. Other revisions, which were minor and conducted for the entire period, have not caused any significant divergences from the preliminary estimates of the general government sector deficit. The National Statistical Office also revised the deficit estimates for 2000-2004 in its last release (31 March 2006), when guarantees were systematically included, the changes of claims into state ownership shares were regarded as capital transfer and the revisions were made to account for the changed interest of the Slovenian Compensation Corporation.

*In 2000 and 2001 the proportion of the general government sector deficit in GDP totalled 3.9% and 4.3%, respectively. In the three years thereafter it gradually narrowed. This narrowing was underpinned by an increase in total revenue matched by a decrease in total expenditure.* The deficit as a share of GDP narrowed most visibly in 2002, by 1.6 p.p. (from 4.3% achieved in 2001 to 2.7% of GDP in 2002). In 2003, the deficit share rose by 0.1 p.p. over the year before, while in 2004 it contracted by 0.5 p.p. to total 2.3% of GDP. In 2000, the share of revenue in GDP amounted to 44.3% of GDP (according to the ESA-95 methodology), rising by 1 p.p. between 2001 and 2004 to total 45.3% of GDP in 2004. Since 2001, when total expenditure expanded to 49% of GDP, the proportion of total expenditure in GDP gradually decreased, totalling 47.6% of GDP in 2004. The fiscal position improved in 2002 when the share of revenue rose by 0.7 p.p. while the share of expenditure shrank by one percentage point. In 2003, the deficit rose by 0.1 p.p., the share of overall revenue having dropped by 0.2 p.p. and total expenditure going up 0.1 p.p. The general government's fiscal position improved in 2004. The share of total revenue in GDP edged up 0.1 p.p., while the share of total expenditure contracted by 0.5 p.p. The deficit thus narrowed to 2.3% of GDP.

*The general government sector's fiscal position improved slightly further in 2005 over 2004.* According to preliminary estimates, the share of the deficit dropped to 1.8% of GDP against a rise of 0.2 p.p. in the share of total revenue and a decrease of 0.3 p.p. in the share of total expenditure.

*After 2001, the share of the general government sector deficit in GDP has been narrowing in Slovenia while it has generally been rising in the EU.* Compared with other EU countries, Slovenia had one of the highest deficits in 2000. Only two other

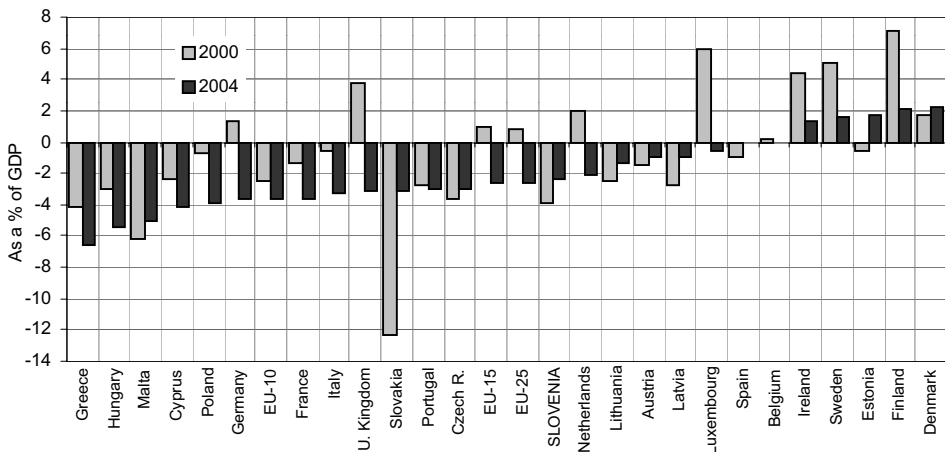
acceding countries (the Czech Republic, Slovakia) recorded an even bigger deficit that year. The EU-15 countries achieved an average surplus totalling 1% of GDP in 2000, and the EU-25 recorded an average surplus of 0.8%. Although Slovenia's deficit share narrowed in 2002 it was still 0.5 p.p. above both the EU-15 average (2.2% of GDP) and 0.4 p.p. above the EU-25 average (2.3% of GDP). Greece, Germany, France and Portugal from the EU-15 and the Czech Republic, Cyprus, Hungary, Malta, Poland and Slovakia among the new member states recorded a higher deficit than Slovenia that year. In 2003, Slovenia's deficit share rose by 0.1 p.p. However, totalling 2.8% of GDP, it was already lower than the average shares of the EU-15 (2.9%) and EU-25 (3.0%). The average deficit as a share of GDP of the European countries increased by 0.7 p.p. in 2003. In the EU-15, Greece, Germany, France, the United Kingdom, Italy, the Netherlands, and Portugal had higher deficits than Slovenia. Among the new member states, all except Estonia, Lithuania and Latvia ran higher deficits. 2004 witnessed a slight narrowing in the deficits of the European countries (by 0.3 p.p. in the EU-15 and by 0.4 p.p. in the EU-25). Slovenia's general government sector deficit was cut by 0.5 p.p. in 2004 and was lower than the averages of the EU-15 (2.6% of GDP) and the EU-25 (2.6% of GDP). In 2004 as many as 12 EU countries recorded a higher deficit than Slovenia. Among them, 10 overshot the reference value stipulated by the Stability and Growth Pact (3.0% of GDP).

Table: General government sector revenue and expenditure by sub-sector (ESA-95 methodology), as a % of GDP

|                                       | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
|---------------------------------------|------|------|------|------|------|------|
| General government sector revenue     | 44.3 | 44.7 | 45.4 | 45.2 | 45.3 | 45.5 |
| General government sector expenditure | 48.1 | 49.0 | 48.0 | 48.1 | 47.6 | 47.3 |
| General government sector deficit     | -3.9 | -4.3 | -2.7 | -2.8 | -2.3 | -1.8 |
| Central government                    | -3.4 | -4.0 | -2.4 | -2.6 | -2.2 | -2.8 |
| Local government                      | 0.0  | 0.0  | -0.2 | -0.1 | -0.1 | 0.2  |
| Social insurance funds                | -0.5 | -0.2 | -0.1 | -0.1 | -0.1 | 0.8  |

Source: SORS, National Accounts, Main aggregates of the general government sector, 2000-2005 (31 March 2006).

Figure: General government sector deficit/surplus in EU countries, 2000 and 2004, as a % of GDP



Source: Eurostat: Eurostat: Euro-indicators, December 2005.

## General government debt

*General government debt as a percentage of GDP grew by 0.4 of a percentage point in 2004<sup>1</sup>, mainly owing to the increase in the relative debt of the central government units, and totalled 29.8% of GDP at the end of the year.* In nominal terms, general government debt increased by SIT 152.1 bn in this period, amounting to SIT 1,842.1 bn at the end of 2004 (Table 1).

*In recent years, general government debt has been largely generated at the central government level.* Central government debt rose by SIT 141.2 bn in 2004 and amounted to SIT 1,765.4 bn at the end of the year, equalling 28.5% of GDP (28.3% of GDP at the end of 2003). The debt of the national budget's direct users increased by SIT 109.0 bn from 1 January 2004 until the end of the year and amounted to SIT 1,600.0 bn on 31 December 2004. The increase was mainly driven by the financing of general government's revenue and expenditure balance and the lending and repayments balance amounting to SIT 103.6 bn. The government borrowed SIT 20.6 bn in 2004 to finance the main development programmes. The government assumed the debt of Slovenian Railways in 2004 totalling SIT 4.6 bn. The increase in the debt of direct national budget users in the amount of SIT 17.2 bn was caused by value-based changes. In line with the financing programme, direct users' debt contracted by SIT 41.5 bn in 2004. Local government units' debt stood at a relatively low level throughout the observed period: in 2001, local government units registered a total debt amounting to 0.3% of GDP, which increased to 0.5% of GDP by 2004. The debt of social insurance funds rose from the 0.5% of GDP seen in 2001 to 0.7% of GDP at the end of 2004 due to the deficit in the health budget.

Table 1: Position of general government debt by sub-sector, SIT m

|          |   | 2001             | 2002             | 2003             | 2004             |
|----------|---|------------------|------------------|------------------|------------------|
| <b>1</b> | <b>GENERAL GOVERNMENT SECTOR, TOTAL</b> | <b>1,352,233</b> | <b>1,583,714</b> | <b>1,689,971</b> | <b>1,842,058</b> |
| 1.1      | Central government units                | 1,313,557        | 1,531,398        | 1,624,242        | 1,765,430        |
| 1.2      | Local government units                  | 15,850           | 21,804           | 25,671           | 30,878           |
| 1.3      | Social insurance funds                  | 22,826           | 30,512           | 40,058           | 45,750           |
| % of GDP |   | 2001             | 2002             | 2003             | 2004             |
| <b>1</b> | <b>GENERAL GOVERNMENT SECTOR, TOTAL</b> | <b>28.4</b>      | <b>29.8</b>      | <b>29.4</b>      | <b>29.8</b>      |
| 1.1      | Central government units                | 27.6             | 28.8             | 28.3             | 28.5             |
| 1.2      | Local government units                  | 0.3              | 0.4              | 0.4              | 0.5              |
| 1.3      | Social insurance funds                  | 0.5              | 0.6              | 0.7              | 0.7              |

Source: Ministry of Finance.

*In terms of maturity, the structure of the general government sector's debt is predominantly long-term.* Long-term debt accounted for 94.6% of the total general government debt (Table 2). 2004 saw a continuation of the established trends in debt structure in terms of debt instruments. The proportion of securities continued to grow and represented 84.8% of the total general government debt at the end of 2004.

<sup>1</sup> On 31 March 2006 the SORS published data on the main aggregates of the general government sector for 2000-2005 (First Release No. 82/2006) where figures on general government debt were slightly revised. However, these data do not show the changes in debt structure across the years. Figures in this indicator are based on the Report on Government Debt and Deficit (Ministry of Finance, September 2005), which provides full data on the structure and changes of debt at individual government levels for the period 2000-2004 and is not fully harmonised with the SORS' latest release.

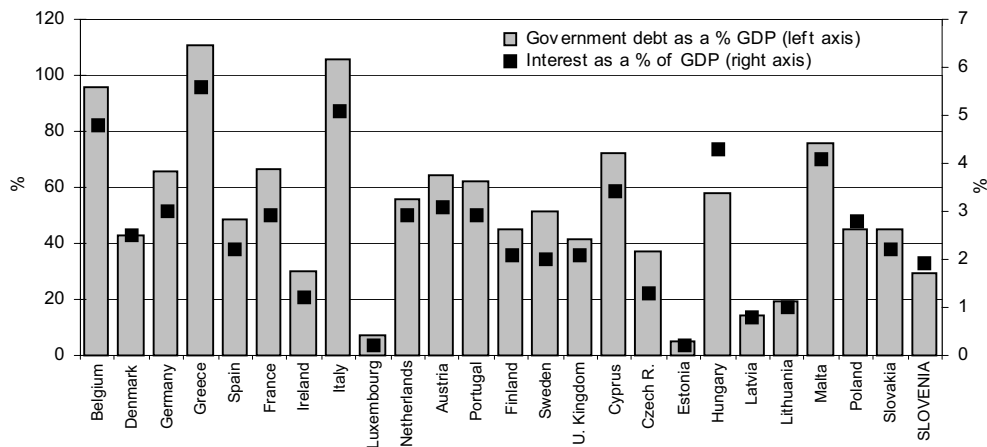
*Compared to other EU countries, Slovenia's levels of debt and interest payments relative to GDP are among the lowest.* The only countries with lower debt levels are Luxembourg, Estonia, Latvia and Lithuania. Slovenia also fulfilled the Maastricht convergence criterion on the general government debt position throughout the period.

Table 2: Position of general government debt by instrument and maturity, SIT m

|   |   | 2001             | 2002             | 2003             | 2004             |
|---|---|------------------|------------------|------------------|------------------|
| 1.                                      | Currency and deposits                                   | 988              | 1,375            | 1,868            | 2,790            |
| 2.                                      | Securities excluding shares, less financial derivatives | 1,076,452        | 1,308,884        | 1,431,057        | 1,562,704        |
| 2.1                                     | short-term  | 54,982           | 86,213           | 77,492           | 77,904           |
| 2.2                                     | long-term   | 1,021,470        | 1,222,671        | 1,353,565        | 1,484,800        |
| 3.                                      | Loans   | 274,793          | 273,455          | 257,046          | 276,564          |
| 3.1                                     | short-term  | 23,655           | 31,565           | 40,870           | 19,018           |
| 3.2                                     | long-term   | 251,138          | 241,890          | 216,176          | 257,546          |
| <b>GENERAL GOVERNMENT SECTOR, TOTAL</b> |   | <b>1,352,233</b> | <b>1,583,714</b> | <b>1,689,971</b> | <b>1,842,058</b> |

Source: Ministry of Finance, Report on Government Debt and Deficit, September 2005.

Figure: General government debt and interest in Slovenia and the EU countries in 2004, as a % of GDP



Sources: EU, ECFIN, AMECO database.

## Balance of payments

*In 1997, the hitherto balanced current account turned into a slight deficit, which ballooned to its record value in 1999. Following the surpluses achieved in 2001 and 2002 the current account has again recorded a deficit since 2003 but that has not been so high as to jeopardise the current account's long-term sustainability.* In 1995-2004 the balance of Slovenia's current account recorded a deficit (0.7% of GDP on average). In 1995-1997, Slovenia had a roughly balanced current account. The three-year period during which Slovenia's current account was in deficit began in 1998. In 1998-2000, the deficit averaged out at 2.3% of GDP and was caused by different factors: i) the Asian and Russian financial crises and the increasing domestic investment activity in 1998; ii) the accelerated imports prior to VAT enforcement in 1999; and iii) the sharply deteriorated terms of merchandise trade in 2000. In 2001, when the deficit in merchandise trade narrowed significantly and the surplus in services trade remained unchanged, the current account turned into a slight surplus (0.2% of GDP) which rose to 1.5% of GDP in 2002 thanks to a further narrowing of the goods trade deficit. In 2003, the current account ran a slight deficit (-0.3% of GDP) which was, given the balanced international trade, largely caused by the deficit in factor incomes. Despite the surge in real export growth in 2004 driven by the stronger economic growth in the EU and partly by the trade creation effect caused by Slovenia's entry to the EU, the current account deficit widened in 2004 chiefly due to the bigger trade deficit since the real growth of imports, propelled by the robust growth of domestic consumption and the bolstered growth of exports, accelerated as well.<sup>1</sup> An additional impulse for this development came from the deteriorated terms of trade (down 1.6 p.p. in the year as a whole), which were on a year-on-year decline from the second quarter onwards, mainly as a result of the higher prices of oil and other primary commodities.

*The current account ran a deficit of EUR 301.1 m in 2005, which narrowed from EUR 543.7 m deficit recorded in 2004.* The lowering in the deficit in current transactions was largely underpinned by the favourable goods and services flows, despite the expected softening in export growth that began in Q3. Although terms of trade deteriorated, the trade balance deficit expanded by just EUR 25.4 m in 2005 over 2004, to EUR 1,034.2 m. This comparatively small increase was chiefly underpinned by the income effect (expressed by the growth of export markets), which more than offset the external price effect (expressed by the terms of trade). Compared to the same period of 2004, exports of goods rose by a nominal 12.2%. The growth of exports to the EU countries (13.9%) contributed nearly 80% to the total growth of goods exports. Among Slovenia's main trading partners, exports to France (42.2%) and Austria (20.3%) rose at the fastest pace mainly owing to the robust exports of road vehicles<sup>2</sup>. Exports to the UK burgeoned as well (23%), while exports to Germany increased modestly (3.3%). In 2005, the year-on-year growth of goods imports (11.5%) lagged behind the growth of goods exports (12.2%). Imports of intermediate goods enjoyed the strongest growth (thanks to the rising prices of oil and other primary commodities and manufacturing's production growth). Imports of consumer goods also picked up, while imports of investment goods still lingered below the level achieved in the comparable period of 2004. Trade in services recorded a 13.8% nominal rise in comparison with 2004 (exports were up 15.9%, imports 10.9%). In both exports and imports, the fastest growth was achieved in other services (all other services, except transport and travel). Within these, exports of merchanting (129.1%) and imports of construction and communication services (29.5%) enjoyed the most

<sup>1</sup> 2004 was characterised by a stronger import component of exports, which totalled 65.3%, i.e. 2.6 p.p. more than in 2003.

<sup>2</sup> The increase in exports of road vehicles contributed around 40% to the total growth of merchandise exports in 2005, year on year.



remarkable rises. The surplus in the services balance (EUR 898.3 m) increased over the comparable period of 2004 (EUR 686.1 m) owing to the favourable results achieved in trade in transport and tourism. The narrowing of the deficit in factor incomes in 2005 over 2004 (by EUR 23.8 m to EUR 225.8 m) was mostly due to the lower net capital expenditure. The surplus in the current transfers balance amounted to EUR 60.6 m in 2005 (up EUR 32 m over 2004). It was created by the surpluses of other sectors totalling EUR 113 m (workers' remittances, insurances and other transfers) and the general government sector deficit amounting to EUR 52.4 m.

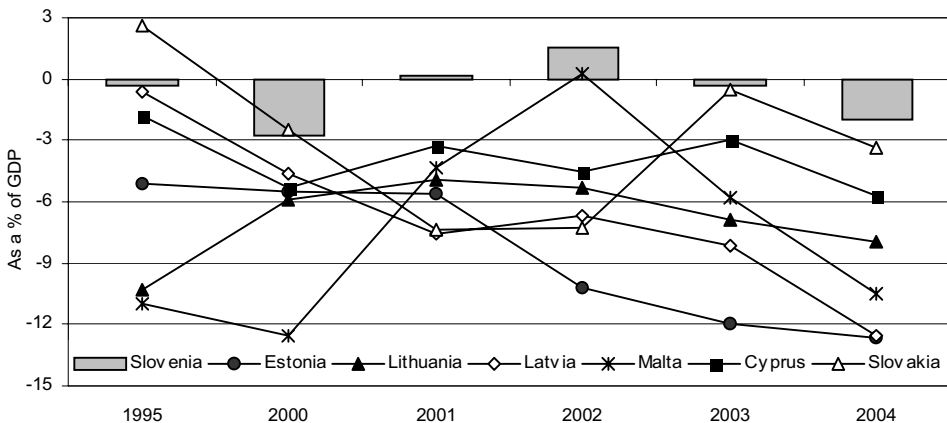
**The aggregate current account of the EU countries was roughly balanced in 1995-2004.** Germany, which registered the biggest surpluses in absolute terms, played the crucial role in determining the EU's current account balance. Without Germany's surpluses, the EU's current account would have run a deficit. Among the new EU members participating in the ERM II, all countries except Slovenia recorded considerable deficits in their current accounts (see graph).

Table: Current account of the balance of payments and real growth rates of trade in goods and services

|  | 1995 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
|--|------|------|------|------|------|------|------|
| <b>Current account, % of GDP</b>                           | -0.3 | -2.8 | 0.2  | 1.5  | -0.3 | -2.0 | -1.1 |
| Trade balance  | -4.7 | -5.9 | -3.1 | -1.1 | -2.2 | -3.9 | -3.8 |
| Services balance   | 2.9  | 2.3  | 2.4  | 2.6  | 2.2  | 2.6  | 3.3  |
| Labour and investment income balance                       | 1.0  | 0.1  | 0.2  | -0.6 | -0.7 | -1.0 | -0.8 |
| Current transfers balance                                  | 0.5  | 0.6  | 0.6  | 0.6  | 0.4  | 0.1  | 0.2  |
| <b>Real growth rates of trade in goods and services, %</b> |      |      |      |      |      |      |      |
| Exports of goods and services                              | N/A  | 13.2 | 6.3  | 6.7  | 3.1  | 12.5 | 9.2  |
| Imports of goods and services                              | N/A  | 7.3  | 3.0  | 4.8  | 6.7  | 13.2 | 5.3  |

Source: Statistical Office of RS, Bank of Slovenia; calculations by IMAD.

Figure: Current account balance in new EU member states participating in the ERM II (as a % of GDP)



Sources: SORS, Eurostat, World Economic Outlook; calculations by IMAD.

## Gross external debt

*Slovenia's gross external debt began rising after 1995, primarily due to the increased borrowing of banks and other sectors. On the other hand, borrowing in the government sector and affiliated entities was lower. In 1995-2004, non-guaranteed private sector debt rose faster than public and publicly-guaranteed debt.* Excluding liabilities to affiliated entities, which are not tracked for maturity and instruments, the total gross external debt was composed of 71.4% of long-term debt and 28.6% of short-term debt on average. After 1995, short-term debt contracted steadily, which was propitious for the liquidity and solvency of the economy. The average nominal annual growth of non-guaranteed private sector debt was faster (15.8%) than the growth of public and publicly-guaranteed debt in the observed period (13.6%; see Table 1). The increases in public and publicly-guaranteed debt were largely due to Slovenia's assumption of 18% of former Yugoslavia's non-allocated debt pursuant to the New Financial Agreement (NFA) of 1996 and 16.39% of Yugoslavia's non-allocated debt following bilateral negotiations with individual Paris Club countries. The total debt assumed from former Yugoslavia amounted to EUR 523 m.

*A breakdown by sectors and debt instruments shows that the bulk of gross external debt in 1995-2004 was incurred in other sectors. Other sectors* (notably the non-financial corporate sector) mainly took out long-term foreign loans. Short-term trade credits, which were tied to the dynamics of economic growth and international trade in goods and services, were another significant debt instrument. The proportion of the *government sector's* gross external debt, which began to decrease after 1999, accounted for 14.8% of the total gross external debt at the end of 2004. Government debt chiefly consisted of Eurobonds issues and partly of long-term loans. The gross external debt of the *banking sector*, whose proportion has been rising steadily since 2001, amounted to almost one-third (31.6%) of the total gross external debt in 2004 and was primarily composed of long-term loans. The strongest rises occurred in 2003 and 2004, when the banking sector's borrowing was driven by the tolar's slower depreciation relative to the euro and the difference between domestic and foreign interest rates. *Affiliated entities*<sup>1</sup> recorded the weakest borrowing among all sectors. The proportion of affiliated entities to total gross external debt, which began to contract in 1997, was 7.4% at the end of 2004. Within that, debt to direct investors rose faster than debt liabilities to affiliated enterprises.

*The position of Slovenia's gross external debt rose in 2005, primarily due to the banking sector's borrowing. The increases in other sectors' borrowing were less pronounced, while the government sector repaid debt.* From the end of 2004 to the end of 2005, Slovenia's gross external debt rose by EUR 4,233 m to EUR 19,511m. The borrowing of the banking sector contributed EUR 3,566 m or 84.2% (69.3% in 2004) to the overall increase in gross external debt. Commercial banks borrowed extensively abroad and foreign banks increased their deposits, which enabled domestic banks to offer more foreign currency loans. The latter appears to have been underpinned by the ownership affiliation between foreign and domestic banks and the fact that domestic interest rates were still higher than interest rates abroad. Enterprises and OFO contributed EUR 711 m or 16.8% to the increase in debt (44.5% in 2004) as a result of the redirection from foreign to domestic banks. The increase in the level of liabilities arising from short-term trade credits in 2005 (EUR 412

<sup>1</sup> Affiliated enterprises are legal entities that are affiliated by equity capital to non-residents and own 10% or more of equity.

<sup>2</sup> In addition to the basic scenario (foreign exchange reserves are compared to short-term debt excluding any international financial transactions), the IMF recommends several extra factors that determine the demand for foreign exchange. The calculation of the dynamic indicator therefore includes the current account balance and the inflow of foreign direct investment. Since foreign exchange sufficed to cover both the one-year liability repayment and the current account deficit, the inflows of foreign direct investment were an additional source for the financing of external debt.

m) than in 2004 (EUR 197 m), which reflected the dynamics of merchandise imports. The government sector reduced its debt for the second consecutive year. This was mainly due to the government's repayment of its Eurobond liabilities in May (EUR 494.2 m). Affiliated entities added EUR 109 m (2.6 %) to the increase in gross domestic debt. Debt liabilities to direct investors continued to predominate in the debt structure.

*Although the proportion of gross domestic debt relative to GDP increased considerably, international monetary reserves still sufficed to cover the short-term debt by the remaining maturity at the end of 2005.* Slovenia's international monetary reserves totalled EUR 6,894.5m at the end of 2005 and sufficed to cover 4.6 months' worth of goods and services imports (4.9 months' worth in 2004). With the reserve position being relatively favourable, Slovenia's gross external debt at the end of October totalled 71.3% of the estimated GDP for 2005. According to the dynamic indicator used to estimate liquidity and solvency, which compares foreign exchange reserves with short-term debt, Slovenia was among those countries that encountered no problems regarding short-term liquidity in 1995-2004. This indicator declined at the end of 1997, when increased debt repayment in 1998 burdened the level of foreign exchange reserves. The indicator also deteriorated in 2000 when debt repayment increased owing to the payment of Eurobonds in August 2001. At the same time, the flow of short-term trade credits strengthened substantially. By adding the current account balance<sup>2</sup>, the indicator also deteriorated significantly in the period of a relatively high deficit, in 1999 and 2000. Despite the increase in gross external debt, the level of foreign exchange reserves was sufficient to cover short-term debt by the remaining maturity along with the current account deficit throughout the observed period.

Table 1: Slovenia's gross external debt position by maturity and by liability to affiliated entities, EUR m

|  | 1995  | 2000  | 2001   | 2002   | 2003   | 2004   | 2005   |
|--|-------|-------|--------|--------|--------|--------|--------|
| <b>Total gross external debt</b>           | 4,275 | 9,491 | 10,403 | 11,483 | 13,259 | 15,278 | 19,511 |
| Short-term debt                            | 1,470 | 2,283 | 2,223  | 2,296  | 2,448  | 2,670  | 3,867  |
| Public and publicly-guaranteed debt        | 0     | 0     | 15     | 66     | 40     | 28     | 39     |
| Private non-guaranteed debt                | 1,470 | 2,283 | 2,208  | 2,230  | 2,409  | 2,642  | 3,828  |
| Long-term debt                             | 2,083 | 5,895 | 7,348  | 8,206  | 9,556  | 11,472 | 14,399 |
| Public and publicly-guaranteed debt        | 1,178 | 2,883 | 3,107  | 3,146  | 3,463  | 3,687  | 3,751  |
| Private non-guaranteed debt                | 905   | 3,012 | 4,241  | 5,060  | 6,092  | 7,785  | 10,648 |
| Liabilities to affiliated entities         | 722   | 1,312 | 832    | 981    | 1,255  | 1,136  | 1,245  |
| Public and publicly-guaranteed debt        | 0     | 0     | 0      | 0      | 0      | 0      | 0      |
| Private non-guaranteed debt                | 722   | 1,312 | 832    | 981    | 1,255  | 1,136  | 1,245  |
| <b>Total gross external debt, % of GDP</b> | 27.2  | 45.3  | 47.1   | 48.5   | 53.3   | 58.4   | 70.3   |

Source: Bulletin, (February 2006). Ljubljana: Bank of Slovenia, 1991-. ISSN 1318-0762.

Table 2: Dynamic debt indicators, year-end position, EUR m

|   | 1995  | 2000  | 2001   | 2002   | 2003   | 2004   | 2005   |
|---|-------|-------|--------|--------|--------|--------|--------|
| A. Short-term debt by the remaining maturity <sup>1</sup>             | 1,866 | 4,382 | 4,569  | 4,484  | 4,590  | 5,358  | 6,581  |
| B. International monetary reserves of the BS                          | 1,421 | 3,436 | 4,984  | 6,781  | 6,879  | 6,542  | 6,894  |
| C. Foreign exchange   | 2,703 | 4,705 | 6,513  | 7,842  | 7,703  | 7,484  | 8,832  |
| D. Gross external assets in debt instruments <sup>2</sup>             | 5,325 | 8,700 | 10,825 | 13,446 | 13,753 | 14,404 | 17,195 |
| E. Gross external debt <sup>3</sup>                                   | 4,275 | 9,491 | 10,403 | 11,484 | 13,259 | 15,278 | 19,511 |
| <b>Debt indicators</b>  |       |       |        |        |        |        |        |
| - international reserves to short-term debt (B/A)                     | 0.76  | 0.78  | 1.09   | 1.52   | 1.50   | 1.22   | 1.05   |
| - foreign exchange to short-term debt (C/A)                           | 1.45  | 1.07  | 1.43   | 1.76   | 1.68   | 1.40   | 1.34   |
| gross external assets in debt instruments / gross external debt (D/E) | 1.25  | 0.92  | 1.04   | 1.17   | 1.04   | 0.94   | 0.88   |

Source: Bulletin, (February 2006). Ljubljana: Bank of Slovenia, 1991-. ISSN 1318-0762.

Notes: <sup>1</sup>Short-term debt includes short-term debt and the long-term debt falling due within one year. <sup>2</sup>Gross external assets in debt instruments include all assets from Slovenia's balance of assets, except equity. <sup>3</sup>Gross external debt includes all debt liabilities from Slovenia's balance of assets.

## ***Labour productivity***

***After the relatively strong growth in the 1990s labour productivity has been easing off.*** According to the latest revised national accounts statistics data, labour productivity in Slovenia (expressed as the GDP per employed person according to the national accounts methodology) grew at an average annual rate of 4.8% (7.3% in manufacturing) in 1995-2000. Since 2001, productivity growth has experienced cyclical swings, largely due to the delayed response of employment dynamics to the dynamics of economic growth. Following the weak growth seen in 2001 and 2003, when GDP growth began to cool off while employment continued to rise, labour productivity growth rebounded in 2004 (to 3.7%), only to moderate again in 2005 (to 3.1%).

***Slovenia's lagging behind the average level of labour productivity in the European Union has continued to narrow; however, faster convergence in this area is not possible without a significant increase in the competitiveness of the Slovenian economy.*** In 2004, the average labour productivity in Slovenia amounted to SIT 6,837 m or EUR 28,624 of GDP per employed person<sup>1</sup>, which equals 50.1% (in current prices) or 75.1% (in purchasing power) of the EU-15 average. Owing to the considerably lower growth of labour productivity in most more advanced EU countries, the gap between Slovenia's productivity and the EU average is closing. This gap narrowed by 8.3 p.p. (current prices) from 1995 to 2004 and by 12.3 p.p. (purchasing power) from 1996 to 2004 (see the table). Slovenia still has the second highest labour productivity among the new EU members (after Malta) and was ranked 7<sup>th</sup> among the current 25 EU members according to average productivity growth in 1995-2004<sup>2</sup> (after the Baltic states, Poland, Ireland and Hungary – see the figure). In order to speed up the closing of the gap between Slovenia and the EU average, and its more advanced members, Slovenia's relatively high productivity growth would have to be even higher in the future. It should be underpinned primarily by production with a higher value added, which would require a more qualified labour force (see the indicator 'average years of schooling attained by persons in employment') and appropriate technological, organisational and market restructuring supported by a more propulsive enterprise sector that would enable faster growth of the competitiveness of the Slovenian economy.

<sup>1</sup> According to IMAD's recalculations, labour productivity in Slovenia in 2005 totalled SIT 7,121 m (EUR 29,707).

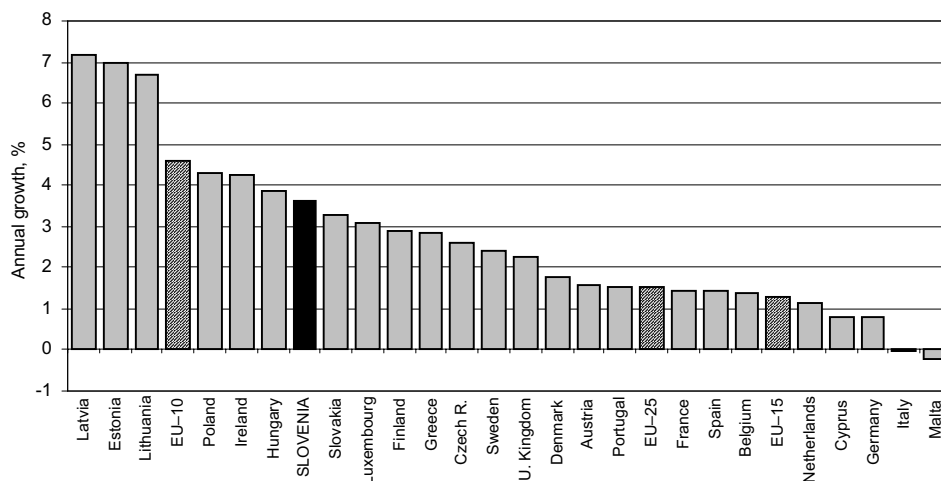
<sup>2</sup> Constant 1995 prices, EUR; IMAD's calculations based on Eurostat's database.

Table: Labour productivity<sup>1</sup> in Slovenia and the EU in 1962-2004, EU-25 = 100

|          | 1996  | 2000  | 2001  | 2002  | 2003  | 2004  |
|----------|-------|-------|-------|-------|-------|-------|
| EU-25    | N/A   | N/A   | N/A   | N/A   | N/A   | N/A   |
| EU-15    | 108.4 | 107.6 | 107.1 | 106.8 | 106.6 | 106.8 |
| EU-10    | N/A   | N/A   | N/A   | N/A   | N/A   | N/A   |
| Slovenia | 63.4* | 70.2  | 71.6  | 71.4  | 72.9  | 75.7  |

Source: Key indicators on EU policy - Economy and Finance - National Accounts (Eurostat) (2005).  
Notes: <sup>1</sup>GDP per employee in purchasing power; <sup>2</sup>Data are available since 1996; \*Eurostat's estimate.

Figure: Labour productivity growth (GDP per employee, EUR, constant 1995 prices) in 1995-2004 in the EU



Source: Key indicators on EU policy - Economy and Finance - National Accounts (Eurostat) (2005); calculations by IMAD.  
Note: The calculation for Malta covers the period between 1998 and 2004.

## Market share

*After having stagnated for one year, Slovenia's aggregate market share continued to grow in 2004.* Following the slightly stronger growth in 2001 and 2002, the resurgent growth of Slovenia's aggregate market share seen in 2004 indicates that the relatively strong rise in Slovenian merchandise exports observed since 2000 (by an average of 7.6% a year in real terms) is still underpinned by the improved export competitiveness of the Slovenian economy<sup>1</sup>. In the year when Slovenia joined the EU, the increase in Slovenia's market share was chiefly based on the strengthening of the Slovenian market position in the euro area (in France, Italy and Austria, along with the previously less significant trading partners such as Belgium and Spain). At the same time, Slovenia's market share contracted in Germany, the most important market (for the second year in a row) and in the EU markets outside the euro area (the Czech Republic, Hungary, Poland and Slovakia, after having increased for three years). Outside the EU, 2004 saw a considerable build-up in Slovenia's market share in Croatia (where drops were recorded for two preceding years), while the market share in the Russian market continued to expand at an accelerated pace. Slovenia's market share in the US market shrank (after a two-year period of growth).

*In 2004, Slovenia was ranked in the upper half of the EU-25 countries in terms of their market share growth in the global market.* Similarly as in 2001-2003, Slovenia's global market share rose more rapidly than in most other member states within the euro area. Compared to other countries, however, particularly some new EU members, Slovenia lagged behind considerably (see the figure). In 2001-2003, the market position of Slovenian goods exporters recorded a more visible improvement in markets outside the EU (in the global market, Slovenia's market share expanded 2.3-times more rapidly than in the EU market in this period). In 2004, Slovenia's market share in the EU market rose at a slightly faster pace.

*Slovenia's aggregate market share continued to grow in 2005.* Like in 2004, this growth was largely driven by the expanding market shares in Slovenia's main trading partners within the EU. Following the strong growth in 2004, Slovenia's market share in France surged at an accelerated pace (by 35%). Similar dynamics were observed in the Austrian and British markets, although on a smaller scale (16%). Slovenia's market share in the Italian market continued to grow slowly, while its share in Spain was still growing rapidly. Among the new EU members, Slovenia expanded its market shares in the Czech Republic, Hungary and Slovakia following the drops seen there in 2004. The contraction of Slovenia's market share in the German market continued (for the third year). Outside the EU, Slovenia's market share in Croatia saw stagnating growth. The market share in the US market fell sharply (for the second year). A drop was also observed in the Russian market (after two years of growth).

*Within the trade classification (SITC), the main contributor to the growth of Slovenia's market share in the EU (4.8%) was the increase in the market share of machinery and transport equipment (up 15%).* While import demand in the EU rose relatively modestly, Slovenian exports of machinery and transport equipment (notably road vehicles) to the EU market rose sharply. Driven by the strongly accelerated exports of road vehicles, Slovenia's market shares in France, Austria as well as the UK rose the most. Other industrial sectors recorded less substantial improvements in the competitiveness of their products within the EU. The increase in chemical products' market share (1.8%) and manufactures classified by

<sup>1</sup> Conversely, the fall in Slovenia's market share from 0.58% in 1996 to 0.48% in 2000 shows that the otherwise vibrant aggregate growth of Slovenian merchandise exports in that period (up by an average of 9.4% a year in real terms) was linked to export markets growth rather than to an improvement in the Slovenian economy's export competitiveness. The drop in Slovenia's market share in 1996-2000 was at least partly caused by the predominantly defensive restructuring of the corporate sector and the related processes of rationalisation, capacity reduction, closures of non-profitable product ranges, and other measures aimed at adjusting production to the changed market and other conditions.

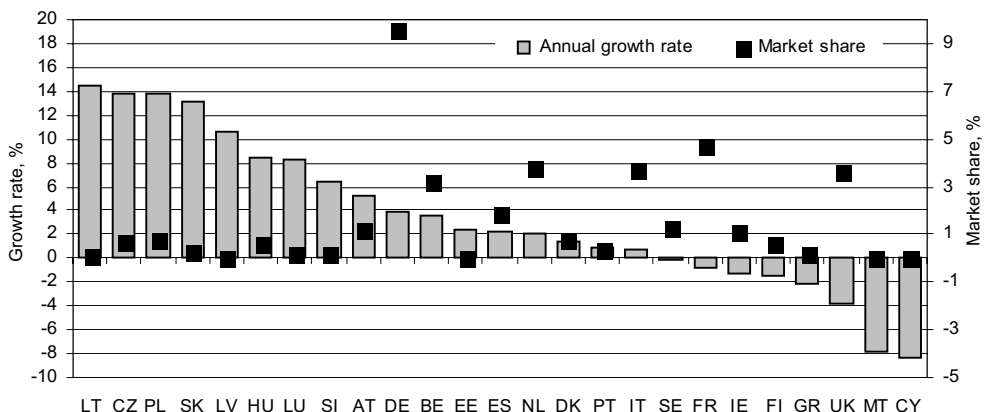
material (4.2%; leather, rubber, paper, wood, textile and metals) was less pronounced. Within that, the increase in exports of chemical products was the main contributor to the resurgent growth of Slovenia's market shares in the Czech Republic and Hungary in 2005. The market share of miscellaneous goods (prefabricated buildings, furniture, clothing, footwear and other finished products) fell slightly (by 5.1%), indicating a drop in their competitiveness. Non-industrial goods, which represent a minor share in Slovenia's exports to the EU (6.3% in 2005) and whose market shares are accordingly much smaller than the shares of industrial goods, recorded an improvement in the competitiveness of food and live animals last year (its market share rose by 77%) and of crude materials except fuels (31%).

Table: Slovenia's market shares<sup>1</sup> in the main trading partners, %

|                             | 1996   | 2000  | 2001  | 2002  | 2003  | 2004  | 2005  |
|-----------------------------|--------|-------|-------|-------|-------|-------|-------|
| <b>Total (15 countries)</b> | 0.583  | 0.478 | 0.500 | 0.528 | 0.528 | 0.542 | 0.563 |
| Austria                     | 0.816  | 0.911 | 0.928 | 0.935 | 0.940 | 0.991 | 1.146 |
| Belgium                     | 0.046  | 0.055 | 0.056 | 0.046 | 0.045 | 0.061 | 0.061 |
| Czech Rep.                  | 0.536  | 0.477 | 0.464 | 0.467 | 0.448 | 0.435 | 0.513 |
| France                      | 0.206  | 0.183 | 0.191 | 0.211 | 0.181 | 0.217 | 0.293 |
| Croatia                     | 10.980 | 8.733 | 8.741 | 8.429 | 8.025 | 8.744 | 8.741 |
| Italy                       | 0.537  | 0.499 | 0.489 | 0.506 | 0.562 | 0.583 | 0.591 |
| Hungary                     | 0.665  | 0.525 | 0.466 | 0.490 | 0.527 | 0.511 | 0.533 |
| Germany                     | 0.562  | 0.478 | 0.500 | 0.523 | 0.488 | 0.480 | 0.458 |
| Netherlands                 | 0.067  | 0.069 | 0.074 | 0.079 | 0.084 | 0.074 | 0.072 |
| Poland                      | 0.386  | 0.462 | 0.484 | 0.521 | 0.515 | 0.477 | 0.448 |
| Russia                      | 0.443  | 0.433 | 0.526 | 0.495 | 0.517 | 0.536 | 0.465 |
| Slovakia                    | 0.621  | 0.550 | 0.565 | 0.753 | 0.813 | 0.733 | 0.745 |
| Spain                       | 0.037  | 0.054 | 0.058 | 0.066 | 0.089 | 0.094 | 0.114 |
| United Kingdom              | 0.057  | 0.055 | 0.078 | 0.073 | 0.073 | 0.076 | 0.088 |
| USA                         | 0.031  | 0.022 | 0.021 | 0.024 | 0.037 | 0.034 | 0.022 |

Sources: SI-Stat data portal - economy (SORS) (December 2005); New Cronos General and Regional Statistics (Eurostat) (December 2005). Countries in Transition (WIW) (2005); The Vienna Institute Monthly Reports (December 2005); Foreign Trade Statistics (US Census Bureau) (December 2005).  
Notes: <sup>1</sup>market shares are calculated as the weighted average of Slovenia's merchandise exports in the imports of its main trading partners determined by the size of their shares in Slovenia's exports. The shares of individual trading partners in Slovenia's merchandise exports are also used as weights in calculating the weighted average (using Fisher's formula).

Figure: Market shares of EU member states in the world market in 2004 and their average annual growth in 2001-2004



Sources: SI-stat data portal - economy (SORS) (December 2005); Statistics Database Time Series (WTO) (December 2005); calculations by IMAD. Country abbreviations: AT-Austria, BE-Belgium, CZ-Czech Republic, CY-Cyprus, DK-Denmark, DE-Germany, ES-Spain, EE-Estonia, GR-Greece, FR-France, FI-Finland, HU-Hungary, IT-Italy, IE-Ireland, LU-Luxembourg, LT-Lithuania, LV-Latvia, NL-Netherlands, MT-Malta, PL-Poland, PT-Portugal, SE-Sweden, SI-Slovenia, SK-Slovakia, UK-United Kingdom.

## Unit labour costs

*In 2004, following the improvement that lasted for two years, the ratio of labour costs to GDP/value added in the Slovenian economy saw a slight deterioration.* After the rapid falling in the second half of the 1990s and the two years of growth that followed the labour costs needed to produce a unit of GDP or value added in the last five years hovered above the level achieved in the late 1990s. The slight worsening seen in 2004 is mainly attributable to the fact that the implicit GDP/value-added deflator lagged behind domestic inflation due to the deteriorated terms of trade. In part, however, the deteriorated ratio of unit labour costs per employee to GDP/value added per employee was also affected by the accelerated growth of other remuneration (work-related reimbursements, other personal income and contract-based payments)<sup>1</sup>.

*The ratio of unit labour costs to value added per employee in Slovenian manufacturing deteriorated slightly more in 2004 than the corresponding ratio for the Slovenian economy as a whole.* However, owing to the smaller growth of manufacturing's unit labour costs in 2000 and their considerable decrease in 2001-2003 compared to the total economy, the unit labour costs relative to value added in manufacturing were still way below the level achieved in the late 1990s. The deteriorated ratio is attributable entirely to the lagging of the value-added deflator behind domestic inflation, while other remuneration in manufacturing also rose considerably in 2004.

*Comparisons with other EU countries show that the competitiveness of the Slovenian economy, measured by the ratio of labour costs to GDP per employee, deteriorated slightly in 2004* after the strong improvement seen in the second half of the 1990s and the slower pick-up recorded in 2002-2003. In 2004, unit labour costs fell by an average of 1% in the EU-25 and by 1.2% in the euro area, while the Slovenian economy registered a 0.6% rise (see the table and the figure below). Among individual EU members, only Greece, Latvia and Ireland recorded higher growth of unit labour costs than Slovenia. In comparison with all other member states, the competitiveness of the Slovenian economy deteriorated (see the figure).

<sup>1</sup> The accelerated growth of these payments in 2004 was prompted by the enforcement of the new Personal Income Tax Act (on 1 January 2005), which expanded the tax base due to disburdening the lowest gross wages, increasing tax relief for children and enforcing the principle of tax neutrality within the personal income tax system. In order to evade higher taxation payments, employers stepped up the disbursement of these payments, notably towards the end of 2004.



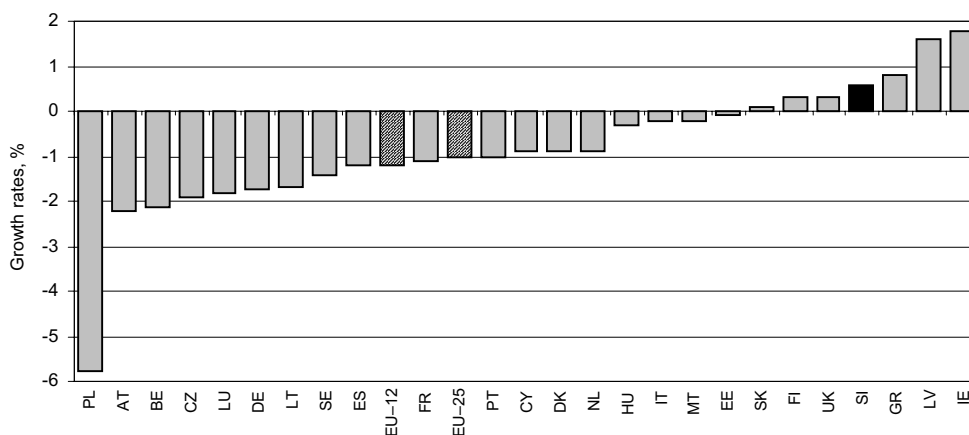
Table: Unit labour costs in Slovenia and the EU

| Growth rates, %  | 1995-1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
|--|-----------|------|------|------|------|------|------|
| <b>Unit labour costs (relative to GDP)<sup>1</sup></b>         |           |      |      |      |      |      |      |
| Slovenian economy  | -2.7      | 3.2  | 0.5  | -1.3 | -0.9 | 0.6  | -0.1 |
| EU-25  | -0.5      | 0.2  | 0.3  | -0.3 | -0.3 | -1.0 | -    |
| EU-12 (euro area)  | -0.8      | -0.2 | 0.0  | -0.2 | -0.2 | -1.2 | -    |
| <b>Unit labour costs (relative to value added)<sup>2</sup></b> |           |      |      |      |      |      |      |
| Slovenian economy  | -2.8      | 1.8  | 0.0  | -0.9 | -1.1 | 0.4  | -0.5 |
| Slovenian manufacturing  | -4.8      | 1.2  | -0.6 | -1.4 | -3.7 | 1.3  | -    |

Sources: SI-stat data portal, economy (SORS) (December 2005); New Cronos Economy and Finance (Eurostat) (December 2005); New Cronos Key Indicators on EU Policy (Eurostat) (December 2005).

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

Figure: Growth of unit labour costs (relative to GDP) in Slovenia and the EU in 2004



Sources: SI-stat data portal, economy (SORS) (December 2005); New Cronos Economy and Finance (Eurostat) (December 2005); New Cronos Key Indicators on EU Policy (Eurostat) (December 2005); calculations by IMAD. **Country abbreviations:** AT-Austria, BE-Belgium, CZ-Czech Republic, CY-Cyprus, DK-Denmark, DE-Germany, ES-Spain, EE-Estonia, GR-Greece, FR-France, FI-Finland, HU-Hungary, IT-Italy, IE-Ireland, LU-Luxembourg, LT-Lithuania, LV-Latvia, NL-Netherlands, MT-Malta, PL-Poland, PT-Portugal, SE-Sweden, SI-Slovenia, SK-Slovakia, UK-United Kingdom.

## ***Structure of merchandise exports according to factor intensity***

***The proportion of medium-tech and high-tech products<sup>1</sup> has seen the biggest increase in the structure of Slovenia's merchandise exports in recent years. Slovenia has thus approached the European average according to its share of these products in the structure of its goods exports.*** The total share of medium- and high-tech products in Slovenia's merchandise exports grew by 4.2 of a structural point (s.p.) in the period between 2000 and 2004. Compared with the second half of the 1990s, growth slowed down slightly but it was still above the EU-25 average where the proportion of these products contracted (by 2.9 s.p.). In 2004, medium- and high-tech products accounted for 55.9% of Slovenian merchandise exports, compared to 56.3% in the EU-25 and 56.1% in new member states (EU-10). It should be emphasised that this group largely consists of medium-high-tech products, whereas the proportion of high-tech product in is relatively modest and is rising slowly. In 2004, it represented 17.7% of Slovenia's exports, much less than in the EU-25 (23.7%) and the EU-10 (20.2%) Although the proportion of high-tech products in Slovenia rose by 2.2 s.p. from 2000 to 2004 (while it rose by 1.3 s.p. in the EU-10 and dropped by 5.9 s.p. in the EU-25), it contracted in 2004 (-0.5 s.p.). This drop was mainly caused by the smaller share of exports of pharmaceutical products. Among the new EU members, Malta, Hungary, Estonia, Cyprus and the Czech Republic had higher shares of high-tech products than Slovenia in 2004.

***The proportion of low-tech and labour-intensive products<sup>2</sup> has been falling steadily since 2000 yet it is still considerably higher than in the EU-25 and EU-10 on average.*** In 2004, these products made up 26.6% of Slovenian merchandise exports (19.8% in the EU-25 and 24.5% in the EU-10). Their share has contracted by 5 s.p. since 2000. Compared to the averages of the EU and the new member states, Slovenia has a comparatively high share of labour-intensive products in exports (see the table) while the proportion of resource-intensive products is lower than in these two groups of countries.

***The proportion of natural-resource-intensive products in the structure of Slovenia's merchandise exports is decreasing as well<sup>3</sup>.*** The downward tendency that started in 1995-2000 has strengthened in the last four years. The proportion of these products in merchandise exports is lower in Slovenia than in the EU, and the difference between the two, which had been narrowing until 2001, has begun to widen again in the last few years (see the table). The available figures for 2004 show a significant contraction in the share of resource-intensive products in total exports (down 1.2 s.p.) largely due to the substantial drops in the export shares of wood manufactures, and non-alcoholic and alcoholic beverages.

<sup>1</sup> Medium-tech and high-tech products comprise export goods with the most dynamic growth of world exports, the highest proportion of R&D expenditure in value added (chemicals, pharmaceutical products, plastic products, machinery and equipment, telecommunications equipment, equipment for medical and scientific purposes and measurements, cameras and photographic equipment, cars, household equipment). The classification into medium-tech and high-tech products is based on the UN methodology (United Nations Conference on Trade and Development: Classification of World Merchandise Exports, Trade and Development Report 2002, Annex 1 to chapter III).

<sup>2</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-rolled iron products, and base metal products.

<sup>3</sup> These include food, beverages, raw materials, mineral fuels, animal and vegetable oils and fats, leather, veneers and other manufactured wood (boards), and ferrous and non-ferrous metals. The main groups of 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.

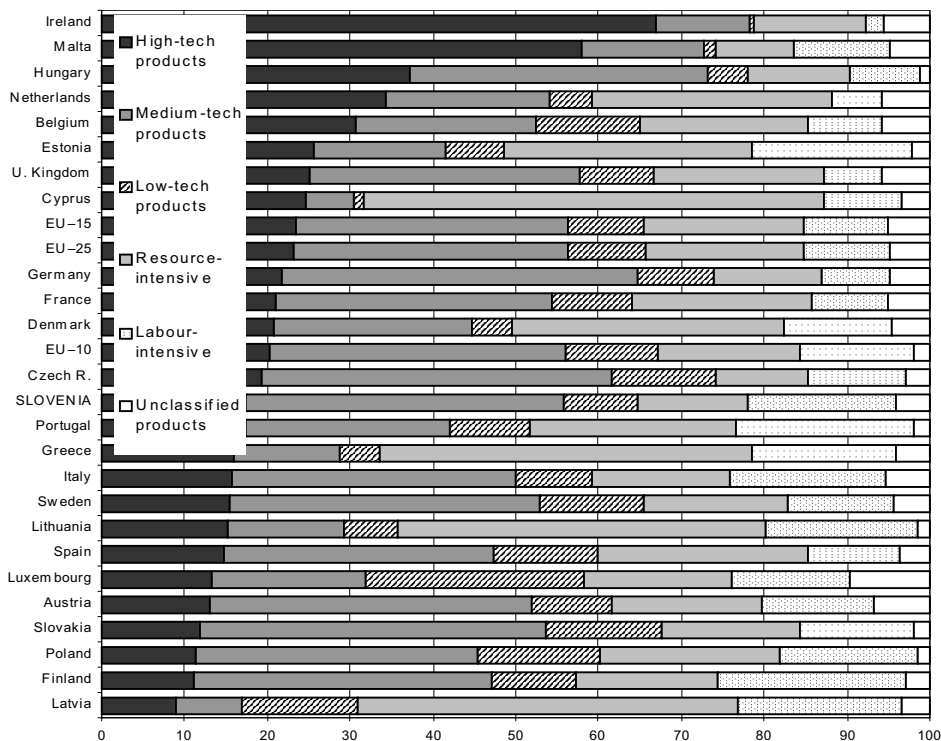
Table: Structure of merchandise exports by factor intensity in Slovenia and the EU

|                    |          | 1995 | 2000 | 2001 | 2002 | 2003 | 2004 |
|--------------------|----------|------|------|------|------|------|------|
| Resource-intensive | EU-25    | 20.1 | 18.2 | 17.9 | 17.9 | 18.3 | 19.0 |
|                    | EU-15    | 19.8 | 18.1 | 17.8 | 17.9 | 18.3 | 19.2 |
|                    | EU-10    | 28.2 | 19.6 | 19.0 | 18.3 | 17.9 | 17.4 |
|                    | Slovenia | 16.6 | 15.3 | 15.1 | 14.6 | 14.5 | 13.3 |
| Labour-intensive   | EU-25    | 12.1 | 10.5 | 10.6 | 10.6 | 10.6 | 10.4 |
|                    | EU-15    | 11.8 | 10.2 | 10.3 | 10.2 | 10.2 | 10.1 |
|                    | EU-10    | 19.7 | 16.7 | 16.6 | 16.0 | 14.6 | 13.6 |
|                    | Slovenia | 25.6 | 21.7 | 21.4 | 20.1 | 18.7 | 17.8 |
| Low-tech           | EU-25    | 8.2  | 6.9  | 7.0  | 7.0  | 8.2  | 9.4  |
|                    | EU-15    | 7.9  | 6.7  | 6.8  | 6.8  | 8.0  | 9.2  |
|                    | EU-10    | 14.1 | 10.4 | 10.9 | 10.3 | 10.6 | 10.9 |
|                    | Slovenia | 9.7  | 9.9  | 9.8  | 9.9  | 9.5  | 8.8  |
| Medium-tech        | EU-25    | 29.7 | 30.1 | 30.9 | 31.1 | 32.0 | 33.1 |
|                    | EU-15    | 30.1 | 30.0 | 30.8 | 30.9 | 31.7 | 32.8 |
|                    | EU-10    | 21.4 | 32.6 | 32.8 | 33.9 | 34.9 | 35.9 |
|                    | Slovenia | 31.9 | 36.4 | 36.4 | 37.5 | 37.3 | 38.4 |
| High-tech          | EU-25    | 24.1 | 29.1 | 29.2 | 29.3 | 27.4 | 23.2 |
|                    | EU-15    | 24.5 | 29.6 | 29.9 | 29.9 | 27.9 | 23.5 |
|                    | EU-10    | 14.6 | 18.9 | 18.2 | 19.7 | 20.0 | 20.2 |
|                    | Slovenia | 14.8 | 15.3 | 15.9 | 16.5 | 17.9 | 17.5 |

Sources: United Nations Conference on Trade and Development; "Handbook of Statistics 2003, Trade structure by product and country group, Classification of world merchandise exports: Trade and Development Report 2002, Annex 1 to chapter III, Report by the secretariat of the United Nations Conference on Trade and Development; IMAD's calculations.

Notes: The classification of products into groups is based on the UN methodology (United Nations Conference on Trade and Development: Classification of World Merchandise Exports, Trade and Development Report 2002, Annex 1 to chapter III); this classification does not comprise all products, therefore the sum of the five product groups does not necessarily equal 100.

Figure: Structure of merchandise exports by factor intensity, 2004



Source: International Trade Statistics by Reporter. (2005). General Trade Data by Country and Product Group. International Trade Centre, UNCTAD/WTO. Classification of world merchandise exports: Trade and Development Report 2002, Annex 1 to chapter III, Report by the secretariat of the United Nations Conference on Trade and Development; IMAD's calculations.

## ***Gross fixed capital formation as a share of GDP***

***The share of gross fixed capital formation in GDP increased in 2005 compared to 2004 but it was lower than in the late 1990s.*** After having increased steadily in the second half of the 1990s (to 26.4% in 1999), the share of investment in total GDP began to decline after 1999 and was the lowest in 2002 (22.6% of GDP). Next year it rose again by 0.7 p.p., in 2004 by 0.8 p.p. and in 2005 by a further 0.7 p.p. to 24.8 % of GDP.

***In terms of the technical structure of investment, the shares of investment in buildings and constructions, and in machinery and equipment, increased in 2005.*** Investment in buildings and constructions accounted for 13.4 % of GDP in 2005 (0.7 p.p. more than the year before). Within that, 3.4% of GDP was housing investment, which enjoyed the highest growth in six years but was still 3.3% lower than in 1999 in real terms. Investment in other buildings and constructions strengthened (its share in GDP rose by 0.3 p.p.). Specifically, investment in non-residential buildings is estimated to have achieved the strongest growth, while investment in civil engineering remained at the 2004 level<sup>1</sup>. The share of investment in machinery and equipment remained at the level of the year before (10.4%). This investment increased by a real 34.4% over the last five years (2000-2005), but its average annual growth during this period (5.1%) was much lower than in 1995-1999 when it totalled 14.4%.

***Slovenia's ratio of gross fixed capital formation to GDP is higher than the corresponding ratios of the more advanced EU countries.*** This is not surprising in view of Slovenia's lower level of physical capital<sup>2</sup>. Slovenia's investment to GDP ratio is also higher in comparison with the weighted average of the new EU members, primarily as a result of the low share of investment in Poland. Among the old member states, Spain, Greece and Ireland have higher shares of gross fixed capital formation than Slovenia. Looking at the technical structure, the proportion of housing investment to GDP is relatively low in Slovenia (2.1 p.p. lower than in the EU-25; the gap has widened by 1.2 p.p. since 1999), while there is more other construction investment (thanks to the intensive building of transport infrastructure) and investment in non-transport equipment and machinery. The share of investment in non-transport equipment and machinery (8.0% of GDP in Slovenia) is only higher in Slovakia (by 3.2 p.p.), Estonia (by 0.8 p.p.) and the Czech Republic (by 0.8 p.p.). Some old member states, which are comparable to Slovenia in terms of their development level, have much lower levels of this investment relative to GDP (4.9% in Greece and Portugal, which is 3.1 p.p. less than Slovenia).

<sup>1</sup> The estimates are based on data on the value of construction put in place released by the SORS (SI-Stat data portal – Value of construction put in place, 2006).

<sup>2</sup> Slovenia's capital to GDP ratio was approximately 2.14 in 2002 (Jongen, 2004, p. 38). The corresponding ratio in the EU-15 is estimated to have totalled around 2.4 (Hall Jones, 1999; quoted from Jongen, 2004, p. 38).

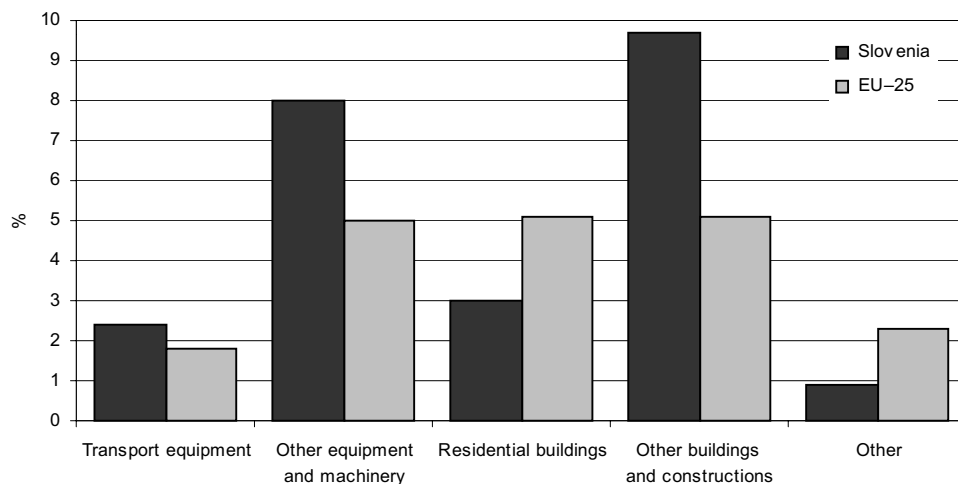
Table: **Gross fixed capital formation as a share of GDP, %**

|                     | 1995 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005              |
|---------------------|------|------|------|------|------|------|-------------------|
| EU-25               | 19.5 | 20.6 | 20.1 | 19.4 | 19.2 | 19.3 | 19.8              |
| EU-15 (old members) | 19.5 | 20.4 | 20.0 | 19.3 | 19.1 | 19.2 | 19.7              |
| EU-10 (new members) | N/A  | 24.2 | 22.9 | 21.9 | 21.7 | 21.9 | 22.0 <sup>1</sup> |
| Slovenia            | 20.9 | 25.6 | 24.1 | 22.6 | 23.3 | 24.1 | 24.8              |

Sources: SI-Stat data portal - National Accounts (SORS), 2006. Economy and Finance - National Accounts data (Eurostat), 2006.

Note: <sup>1</sup>forecast.

Figure: **Technical structure of investment in Slovenia and the EU-25, 2004 (as a % of GDP)**



Source: Economy and Finance – National Accounts data (Eurostat), 2005.

## ***Exports and imports as a share of GDP***

***The rate of internationalisation of the Slovenian economy, measured as the average ratio of exports and imports to GDP, increased from 52.7% to 65.1 % in 1995-2005.***

The average share of international trade relative to GDP varied in individual years depending on the dynamics of the business cycle in Slovenia and its trading partners. Over a longer period, however, the shares of both exports and imports in GDP expanded (see the table). The share of imports in GDP is generally slightly bigger than that of exports, however the difference between them narrowed in the analysed decade as exports grew faster than imports.

***The rate of internationalisation expressed by the above indicator mostly rose thanks to the increased integration of goods trade into international trade flows, whereas the share of services trade in GDP remained comparatively modest.***

The share of merchandise exports in GDP increased by 7.8 p.p. between 1995 and 2004, the share of merchandise imports strengthened by 6.9 p.p., while the increases in the shares of exports and imports of services were less than one percentage point. Within merchandise exports, the strongest growth was seen in exports of high- and medium-high-tech industries<sup>1</sup>, which increased its export share from 44.8% in 1995 to 54.1% of total exports in manufacturing in 2004. Much more modest rises were recorded in medium-low-tech branches (from 18.6% to 20.3%), while the proportion of low-tech industries in manufacturing's total exports contracted (from 34.3% to 23.5%). Although high- and medium-high-tech industries held the highest share in manufacturing's imports, it rose by a mere 0.9 p.p. during the observed period (from 48.1% in 1995 to 49% in 2004). The import share of medium-low-tech industries rose the most, from 21% in 1995 to 26.7% in 2004, largely as a result of the rising prices of oil and other primary commodities. In services exports, the biggest rise was observed in the share of transport that depends on the level of merchandise exports. The shares of other, more knowledge-based services (computer, financial, telecommunication, insurance and other business services) rose as well, while the share of travel shrank. In services imports, other services that depend on economic development enjoyed the strongest gain as a share of GDP. On the other hand, the shares of travel and transport dwindled.

***Slovenia's ratios of goods and services exports and imports to GDP were appreciably higher than the corresponding average ratios in the European Union, which was expected in view of Slovenia's small economy and its relatively high proportion of manufacturing industries.*** In 2004, the measured level of goods and services trade integration in the EU-25 totalled 54.5% of GDP, having increased somewhat less than in Slovenia in the 1995-2004 period (see the table). According to international analyses (European Commission: Benchmark Enterprise Policy, 2004, p. 39), higher levels of trade integration in the EU were found in Slovakia, Estonia, the Czech Republic, Malta and Hungary (among new members), and the Benelux countries and Ireland (among old members).

<sup>1</sup> According to the OECD methodology, the SCA activities are classified in terms of technology intensity as follows: high- and medium-high-technology: DG, DK, DL, DM; medium-low-technology: DF, DH, DI, DJ and low-technology: DA, DB, DC, DD, DE, DN (Hatzichronoglou, 1997). Revision of the High-Technology and Product Classification. STI Working Papers: OECD).

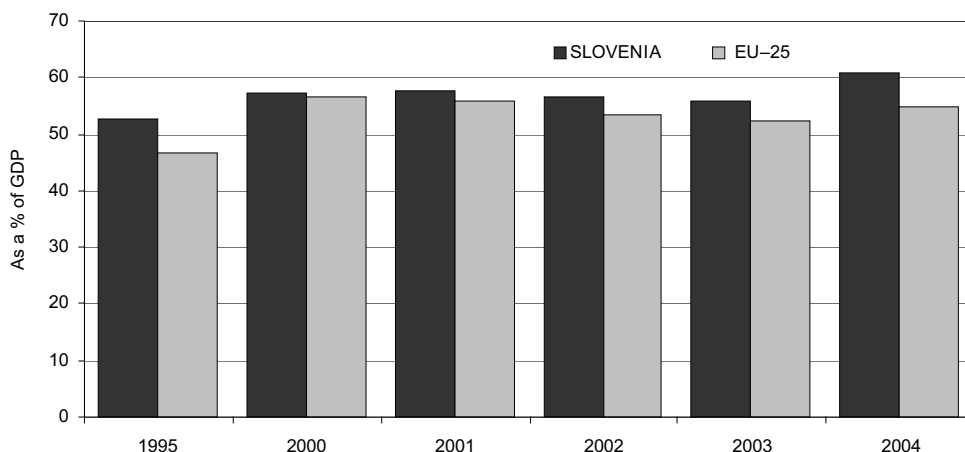
Table: Average trade-to-GDP ratios<sup>1</sup> in Slovenia and the EU, %

|   | 1995        | 2000        | 2001        | 2002        | 2003        | 2004        | 2005        |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Average trade-to-GDP ratio in Slovenia</b> | <b>52.7</b> | <b>57.4</b> | <b>57.6</b> | <b>56.5</b> | <b>55.9</b> | <b>60.8</b> | <b>65.1</b> |
| Goods   | 44.0        | 48.7        | 48.9        | 47.4        | 47.0        | 51.4        | 55.0        |
| Services                                      | 8.7         | 8.7         | 8.7         | 9.1         | 8.9         | 9.4         | 10.1        |
| Exports of goods and services                 | 51.7        | 55.6        | 57.2        | 57.1        | 55.8        | 60.2        | 64.8        |
| Goods   | 41.6        | 45.7        | 47.3        | 46.8        | 45.9        | 49.4        | 53.0        |
| Services                                      | 10.1        | 9.9         | 9.9         | 10.3        | 9.9         | 10.7        | 11.8        |
| Imports of goods and services                 | 53.6        | 59.1        | 57.9        | 55.8        | 55.9        | 61.4        | 65.3        |
| Goods   | 46.4        | 51.6        | 50.4        | 47.9        | 48.1        | 53.3        | 56.8        |
| Services                                      | 7.2         | 7.5         | 7.5         | 7.8         | 7.8         | 8.1         | 8.5         |
| <b>Average trade-to-GDP ratio in EU-25</b>    | <b>46.6</b> | <b>56.5</b> | <b>55.9</b> | <b>53.1</b> | <b>52.3</b> | <b>54.5</b> | <b>N/A</b>  |
| Goods   | 32.9        | 41.1        | 40.1        | 38.3        | 37.7        | 39.4        | N/A         |
| Services                                      | 13.7        | 15.4        | 15.8        | 14.8        | 14.6        | 15.1        | N/A         |

Sources: SI-Stat data portal - National Accounts. (2005). Statistical Office of the RS; OECD Factbook. (2005); Key indicators on EU policy - Structural indicators. (2005). Eurostat; calculations by IMAD.

Notes: <sup>1</sup>The ratio between the average value of total exports and imports according to the balance of payments statistics and GDP in current prices. An increase in the share indicates a higher level of the country's/region's integration into international trade flows.

Figure: Level of trade integration of the EU-25 and Slovenia, as a % of GDP



Sources: SI-Stat data portal – National Accounts. (2005). Statistical Office of the RS; Key indicators on EU policy - Structural indicators. (2005). Eurostat; calculations by IMAD.

## Foreign direct investment

*The share of inward FDI stock in GDP climbed from 9.5% to 21.2% (EUR 5,556.7 m) in the 1995-2004 period while the share of outward FDI in GDP rose from 2.6% to 8.5% (EUR 2,230.8 m).* The current level of FDI in Slovenia is largely the result of the increased inflows recorded since 2000, although they have been highly uneven. Following the record-high level seen in 2002 (totalling EUR 1,700.2 m<sup>1</sup>), the inflows dropped in 2003 to total EUR 300.3 m while they amounted to EUR 662.1 m in 2004. In 2005 the annual FDI inflows were lower again, amounting to EUR 426.6 m. Outward FDI is increasing steadily and rapidly – it rose from the meagre EUR 71.7 m recorded in 2000 to EUR 441.5 m in 2004 and EUR 453.3 in 2005. Slovenia thus registered net FDI outflows of EUR 26.7 m in 2005.

*Slovenia has one of the lowest proportions of inward FDI stock to GDP in the EU.* Among old EU members, only Germany, Italy and Greece had lower ratios of inward FDI to GDP, while among the new members Slovenia had the lowest ratio. The highest FDI/GDP ratios in the new member states group were recorded in Estonia (85.1%), Malta (66.0%), Hungary (60.7%), Cyprus (52.7%) and the Czech Republic (52.7%). The analysed countries generally substantially increased their ratios of FDI stock to GDP in 2000-2004: this ratio rose by 5.3 p.p. in the EU-25 as a whole, by an average of 12 p.p. in the new member states, and by 6.1 p.p. in Slovenia (UNCTAD 2005).

*In outward FDI Slovenia performs better when compared with other new EU members.* According to this indicator, only Estonia outperformed Slovenia in 2004. As expected, however, Slovenia was far behind the old EU member states (except Greece) in terms of its outward FDI as a share of GDP.

*The internationalisation of the Slovenian economy is mostly accomplished through external trade flows and less through FDI.* The analysis of the Slovenian economy's rate of internationalisation also enables a look at Slovenia's shares in various global macroeconomic aggregates which may be of interest. In 2004, these shares were as follows: (i) global FDI inflows (2001-2004): 0.1400% (an increase of 0.0236 over the year before); (ii) global inward FDI stock: 0.0850% (an increase of 0.0081); (iii) global FDI outflows (2002-2004): 0.0585% (an increase of 0.0185); (iv) global outward FDI stock: 0.0312% (an increase of 0.003); (v) global GDP: 0.0799% (an increase of 0.0034); and (vi) global exports: 0.1767% (an increase of 0.0068). Particularly notable is the large differential between Slovenia's high share in exports and its substantially lower share in inward and outward FDI. It should be noted, however, that Slovenia increased its shares in all indicators in 2004 compared to the year before. The rising trend has been steady since 2000.

*Slovenia's performance in attracting FDI is far below its potential.* The performance of a country in attracting FDI is measured by how successfully the country uses its potential to attract FDI. This is seen from a comparison between the FDI potential index and the FDI performance index<sup>2</sup>. In 2004 Slovenia was ranked in a high 28<sup>th</sup> place among 140 countries according to the FDI potential index while it was ranked much lower, 60<sup>th</sup>, according to the FDI performance index. Without the high one-off FDI inflows in 2002 Slovenia's ranking according to actual performance would be even lower. This hints at the poor investment climate in Slovenia and the low efficiency of policies aimed at attracting

<sup>1</sup> The high FDI inflows in 2002 were underpinned by some major foreign acquisitions, primarily that of Lek, a pharmaceuticals company, by the Swiss Novartis, and the purchase of a 34% share in the NLB bank by the Belgian KBC.

<sup>2</sup> For the definition of these indices see UNCTAD, 2004.



FDI. Slovenia does much better according to the outward FDI performance index, where it was ranked 28<sup>th</sup> in 2004, climbing up from the 61<sup>st</sup> place it achieved in 2000. The latter reflects the increasing internationalisation of Slovenian firms through outward investment.

Table 1: Flows and stocks of inward and outward FDI<sup>1</sup> in Slovenia<sup>2</sup>, EUR m

|                             | 1995    | 2000    | 2001    | 2002    | 2003    | 2004    | 2005   |
|-----------------------------|---------|---------|---------|---------|---------|---------|--------|
| <b>Inward FDI</b>           |         |         |         |         |         |         |        |
| Year-end stock              | 1,376.0 | 3,109.8 | 2,952.4 | 3,922.9 | 5,131.0 | 5,556.7 | N/A    |
| Annual inflow <sup>3</sup>  | 117.4   | 149.1   | 412.4   | 1,700.2 | 300.3   | 662.1   | 426.6  |
| Stock as a % of GDP         | 9.5     | 15.1    | 13.5    | 16.6    | 20.6    | 21.2    | N/A    |
| <b>Outward FDI</b>          |         |         |         |         |         |         |        |
| Year-end stock              | 382.3   | 825.3   | 1,139.2 | 1,472.8 | 1,901.5 | 2,230.8 | N/A    |
| Annual outflow <sup>4</sup> | 7.8     | -71.7   | -161.2  | -162.1  | -418.0  | -441.5  | -453.3 |
| Stock as a % of GDP         | 2.6     | 4.0     | 5.2     | 6.2     | 7.6     | 8.5     | N/A    |

Source: Bank of Slovenia. Bulletin (1995-2005). Ljubljana: Bank of Slovenia; various issues and volumes.

Notes: <sup>1</sup>FDI whereby a foreign investor holds a 10% or higher capital share in a company; <sup>2</sup>Since 1996 foreign direct investment of companies in second affiliation are included. <sup>3</sup>Inflows are generally lower than changes in stock because international payment transactions cover only part of the changes in stock. The main difference is that inflows do not cover changes in net liabilities to a foreign investor, and also do not include data on companies in second affiliation. From 1995 onwards data on reinvested earnings are included in inflows and thus in the balance of payments. <sup>4</sup>A minus sign denotes an outflow.

Table 2: Inward and outward FDI stock relative to GDP, %

|                                | Inward FDI  |             |             | Outward FDI |             |             |
|--------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                                | 1995        | 2000        | 2004        | 1995        | 2000        | 2004        |
| <b>World</b>                   | <b>10.2</b> | <b>18.3</b> | <b>21.7</b> | <b>10.0</b> | <b>19.7</b> | <b>24.0</b> |
| <b>EU-15/EU-25<sup>1</sup></b> | <b>13.2</b> | <b>26.4</b> | <b>31.7</b> | <b>15.0</b> | <b>37.0</b> | <b>40.9</b> |
| Austria                        | 7.4         | 16.0        | 21.6        | 5.0         | 13.0        | 23.3        |
| Belgium                        | N/A         | N/A         | 73.5        | N/A         | N/A         | 70.6        |
| Belgium and Luxembourg         | 38.3        | 78.8        | N/A         | 27.4        | 72.5        | N/A         |
| Cyprus                         | 14.5        | 33.0        | 52.7        | 2.4         | 6.4         | 17.4        |
| Czech Rep.                     | 14.1        | 38.9        | 52.7        | 0.7         | 1.3         | 2.9         |
| Denmark                        | 13.2        | 46.4        | 40.5        | 13.7        | 46.1        | 41.1        |
| Estonia                        | 19.3        | 51.4        | 85.1        | 5.0         | 5.0         | 12.5        |
| Finland                        | 6.5         | 20.2        | 30.1        | 11.5        | 43.5        | 43.5        |
| France                         | 12.3        | 19.9        | 26.5        | 13.1        | 34.0        | 38.1        |
| Greece                         | 9.3         | 12.4        | 13.2        | 2.6         | 5.4         | 6.4         |
| Ireland                        | 60.2        | 134.1       | 126.3       | 19.9        | 29.5        | 52.9        |
| Italy                          | 5.8         | 11.3        | 13.1        | 8.8         | 16.8        | 16.7        |
| Latvia                         | 13.9        | 29.1        | 32.9        | 5.2         | 3.4         | 1.7         |
| Lithuania                      | 5.7         | 20.9        | 28.8        | 0           | 0.3         | 1.9         |
| Luxembourg                     | N/A         | N/A         | 575.5       | N/A         | N/A         | 555.3       |
| Hungary                        | 25.3        | 49.0        | 60.7        | 0.6         | 2.7         | 4.5         |
| Malta                          | 17.3        | 67.1        | 66.0        | 1.0         | 5.7         | 6.7         |
| Germany                        | 7.8         | 14.5        | 12.9        | 10.5        | 29.0        | 30.8        |
| Netherlands                    | 28.0        | 65.8        | 74.2        | 41.6        | 82.4        | 94.4        |
| Poland                         | 5.8         | 20.9        | 25.4        | 0.4         | 0.6         | 1.1         |
| Portugal                       | 17.1        | 27.0        | 39.0        | 3.0         | 16.2        | 27.2        |
| Slovakia                       | 4.2         | 18.4        | 35.3        | 0.4         | 1.6         | 1.5         |
| <b>Slovenia</b>                | <b>9.5</b>  | <b>15.1</b> | <b>21.2</b> | <b>2.6</b>  | <b>4.0</b>  | <b>8.5</b>  |
| Spain                          | 18.7        | 27.6        | 34.9        | 6.2         | 29.6        | 33.5        |
| Sweden                         | 12.5        | 39.2        | 47.0        | 29.5        | 51.4        | 58.9        |
| United Kingdom                 | 17.6        | 30.5        | 36.3        | 26.9        | 62.4        | 64.8        |

Sources: (i) For the EU: UNCTAD World Investment Report 2004. (2004). New York and Geneva: United Nations; (ii) for Slovenia: Bank of Slovenia. Bulletin (1995-2005). Ljubljana: Bank of Slovenia, various issues and volumes.

Notes: <sup>1</sup>EU-15 for 1995 and EU-25 for 2000 and 2004.

## ***Slovenia's world competitiveness by the IMD***

***In 2005<sup>1</sup> Slovenia's ranking in IMD's<sup>2</sup> World Competitiveness Index (WCI), composed of four aggregates – economic performance, government efficiency, business efficiency and infrastructure – slipped for the third consecutive year as the index value dropped.***

After the index rose by almost 5 index points in 2004 it dropped sharply in 2005 (by 6.1 points). As a result, Slovenia's ranking deteriorated both relative to the EU<sup>3</sup> as a whole and to the old member states, which recorded a smaller drop in their index values than Slovenia. Slovenia also worsened its position relative to the new EU members<sup>4</sup> whose average WCI rose slightly. Ever since the last improvement in 2002 when Slovenia moved up from 38<sup>th</sup> to 35<sup>th</sup> place its WCI ranking among the 60 analysed economies has been falling. In 2005 it was ranked 52<sup>nd</sup>. Compared to other EU members, Slovenia only outperformed Italy (rank (r.) 53) and Poland (r. 57). After the improvement in three out of four competitiveness factors (all except business competitiveness) of the WCI seen in 2004, the fall in Slovenia's ranking in 2005 is chiefly attributable to its lower ranking in the economic performance index. Slovenia's rankings according to government and business efficiency also declined slightly while its rating in the infrastructure index remained unchanged.

***According to the economic performance index, Slovenia was ranked 39<sup>th</sup>, i.e. 6 places lower than in 2004 and thus approached its 2003 ranking (41<sup>st</sup> place).*** Within economic performance, Slovenia's ranking dropped most markedly in the index of international investment (down 26 places to 59<sup>th</sup> place), which changed from the main national strength to the main national weakness in one year, and in domestic economy (down from r. 41 to r. 52). The most noteworthy improvement was observed in prices and international trade (to r. 15 and to r. 19, respectively), as well as employment, which climbed 5 places (to r. 35). Slovenia's main weaknesses in its economic development were the potential relocation of R&D facilities (r. 60) and services (r. 52) which would be a threat to the future of the economy. Slovenia also scored relatively poorly in inward FDI (stock and flows), level of GDP (in PPS, EUR) and exports (from r. 57 to r. 52).

***According to the aggregate government efficiency index, Slovenia's ranking fell by two places since 2004 (to rank 49).*** The lower score in this field was largely due to the drop in Slovenia's ranking according to the competitiveness of the national business environment (to r. 55). Other components of the government efficiency index improved: by six places according to the public finance sub-index (r. 17), and by two places according to the institutional framework (to r. 47). The ranking in the fiscal policy sub-index remained unchanged (r. 52). The main weaknesses in Slovenia's government efficiency are the following: i) the real personal taxes discourage people from working or seeking advancement (r. 60); ii) investment incentives are not attractive to foreign investors (r. 59); iii) ease of doing business is not a competitive advantage for the economy (r. 59); iv) creation of firms is hindered by legislation in the economy (r. 58); v) unemployment legislation does not provide an incentive to look for work (r. 58); vi) adaptability of government policy to changes in the economy is low (r. 57); vii) protectionism in the economy impairs the conduct of business (r. 56); viii) real corporate taxes discourage entrepreneurial activity (r. 56); and ix) international transactions cannot be freely negotiated with foreign partners (r. 56).

<sup>1</sup> IMD's analysis of world competitiveness was published in spring 2005.

<sup>2</sup> IMD – Institute for Management Development

<sup>3</sup> 21 EU countries are included in the survey. Four new member states (Cyprus, Malta, Lithuania, Latvia) are not included.

<sup>4</sup> The analysis includes six countries (new member states except Cyprus, Malta, Lithuania and Latvia).

*The smallest drop in Slovenia's 2005 rankings was observed in business efficiency where Slovenia slipped one place (to rank 52) compared to the previous year (compared to 2002 it has dropped 20 places).* The dynamics of the productivity and efficiency sub-index, which recorded the highest national ranking (r. 17) two years ago and plummeted 36 places this year (to r. 53), clearly prove that this area is a national weakness. A deterioration was also observed in labour market (down 7 places to r. 47) and management practices (down 1 place to r. 47). In other business efficiency components Slovenia has improved its ranking compared to the year before. finance climbed by 4 places (to r. 48) while values and attitudes moved up 1 place (to r. 54). The values and attitudes of Slovenian enterprises are the third biggest national weakness, as indicated by the manifestly poor rankings in Slovenia's business competitiveness: i) national culture is closed to foreign ideas (the lowest rank, 60<sup>th</sup>); ii) corporate boards do not supervise the management of companies effectively (r. 60); iii) foreign high-skilled people are not attracted by the business environment of the economy (r. 58); iv) large corporations are not efficient by international standards (r. 56); v) attitudes towards globalisation are generally negative (r. 56); vi) worker motivation and dynamism is low (r. 55); and vii) brain drain (well-educated and skilled people) hinders competitiveness of the economy (r. 55 place).

*Slovenia's relatively best ranking within the world competitiveness aggregate in 2005 was recorded in infrastructure where it retained the 38<sup>th</sup> place.* Among the components of this index, the rankings of basic infrastructure (r. 32), technological infrastructure (r. 40) and education (r. 38) fell by 2 places, health and environment infrastructure dropped by 5 places (r. 41), while scientific infrastructure remained on the 41<sup>st</sup> place.

Table: IMD's global competitiveness indices for Slovenia, EU members and the USA

| Country            | Aggregate WCI     |                   | Economic performance |                   | Government efficiency |                   | Business efficiency |                   | Infrastructure    |                   |
|--------------------|-------------------|-------------------|----------------------|-------------------|-----------------------|-------------------|---------------------|-------------------|-------------------|-------------------|
|                    | 2004 <sup>1</sup> | 2005 <sup>2</sup> | 2004 <sup>1</sup>    | 2005 <sup>2</sup> | 2004 <sup>1</sup>     | 2005 <sup>2</sup> | 2004 <sup>1</sup>   | 2005 <sup>2</sup> | 2004 <sup>1</sup> | 2005 <sup>2</sup> |
|                    | r/v               | r/v               | r/v                  | r/v               | r/v                   | r/v               | r/v                 | r/v               | r/v               | r/v               |
| EU-21 <sup>2</sup> | 28.1/67.5         | 29.1/64.8         | 26.9/55.0            | 29/49.6           | 30.1/53.5             | 30.5/49.6         | 31.7/52.0           | 31.5/48.1         | 25.3/58.1         | 25.9/54.1         |
| EU-15              | 22.4/72.4         | 24.3/68.5         | 21.6/57.9            | 23.9/52.7         | 26.4/57.0             | 28.3/51.7         | 25.6/58.6           | 28.0/52.5         | 20.3/63.3         | 21.1/59.2         |
| EU-10 <sup>2</sup> | 42.5/55.3         | 41.4/35.6         | 40/47.6              | 42/42.0           | 39.5/44.7             | 36.2/44.4         | 46.8/35.3           | 40.2/36.9         | 38.0/44.8         | 37.8/41.3         |
| Austria            | 13/78.9           | 17/74.33          | 21/57.25             | 26/50.79          | 14/69.06              | 20/58.88          | 14/69.46            | 12/68.94          | 17/67.66          | 21/60.86          |
| Belgium            | 25/70.3           | 24/67.46          | 20/57.41             | 20/54.06          | 44/43.74              | 42/41.88          | 20/61.38            | 24/51.28          | 18/66.47          | 16/64.77          |
| Czech Rep.         | 43/56.4           | 36/60.13          | 28/53.90             | 36/45.2           | 48/38.32              | 44/40.33          | 50/33.06            | 32/47.69          | 34/48.17          | 30/49.46          |
| Denmark            | 7/84.38           | 7/82.55           | 32/52.41             | 31/46.96          | 5/77.40               | 4/74.33           | 9/77.44             | 7/77.07           | 5/77.96           | 5/73.98           |
| Estonia            | 28/68.4           | 26/66.71          | 29/53.76             | 16/54.42          | 15/68.92              | 13/65.25          | 31/51.10            | 29/49.27          | 35/47.61          | 39/40.07          |
| Finland            | 8/83.63           | 6/82.63           | 31/52.67             | 32/46.07          | 4/77.62               | 3/75.86           | 10/76.84            | 9/75.65           | 7/75.11           | 4/75.09           |
| France             | 30/67.6           | 30/64.20          | 13/62.07             | 9/58.93           | 41/44.80              | 45/38.63          | 43/41.94            | 45/37.46          | 16/69.58          | 17/63.96          |
| Greece             | 44/56.3           | 50/50.33          | 45/46.05             | 49/40.18          | 49/37.99              | 52/31.11          | 39/45.67            | 49/31.07          | 39/43.38          | 37/41.13          |
| Ireland            | 10/80.3           | 12/77.85          | 6/65.80              | 6/61.81           | 13/69.07              | 10/68.91          | 11/75.52            | 10/73.43          | 25/58.52          | 31/49.39          |
| Italy              | 51/50.3           | 53/45.82          | 39/47.87             | 37/44.16          | 56/25.41              | 58/18.05          | 54/28.96            | 53/21.63          | 37/46.69          | 36/41.6           |
| Luxembourg         | 9/83.0            | 10/80.31          | 3/72.97              | 2/77.22           | 9/71.02               | 12/66.5           | 12/72.96            | 19/60.83          | 21/63.07          | 24/58.86          |
| Hungary            | 42/52.2           | 37/59.87          | 47/45.06             | 50/39.82          | 43/43.89              | 38/44.84          | 47/36.52            | 33/47.36          | 32/51.06          | 29/49.6           |
| Germany            | 21/73.4           | 23/67.84          | 4/68.98              | 23/52.45          | 34/50.22              | 35/45.9           | 34/48.69            | 36/44.73          | 10/73.54          | 11/70.44          |
| Netherlands        | 15/78.6           | 13/77.40          | 7/64.39              | 10/58.4           | 25/59.09              | 23/56.22          | 15/68.73            | 15/67.92          | 14/69.94          | 13/69.22          |
| Poland             | 57/41.9           | 57/39.02          | 57/36.49             | 55/35.48          | 58/21.65              | 56/21.22          | 56/21.06            | 58/11.46          | 47/36.31          | 50/30.06          |
| Portugal           | 39/58.4           | 45/52.43          | 42/46.77             | 44/42.39          | 32/51.84              | 41/42.2           | 48/35.89            | 51/25.12          | 36/47.14          | 35/42.16          |
| Slovakia           | 40/57.4           | 40/58.6           | 46/45.40             | 56/33.77          | 26/55.93              | 17/61.43          | 46/37.05            | 37/44.06          | 42/39.16          | 41/37.39          |
| <b>Slovenia</b>    | <b>45/55.4</b>    | <b>52/49.30</b>   | <b>33/50.79</b>      | <b>39/43.29</b>   | <b>47/39.30</b>       | <b>49/33.32</b>   | <b>51/33.00</b>     | <b>52/21.8</b>    | <b>38/46.60</b>   | <b>38/40.98</b>   |
| Spain              | 31/67.4           | 38/59.43          | 22/57.02             | 25/50.81          | 22/61.03              | 30/47.81          | 38/46.76            | 48/34.31          | 31/52.55          | 33/46.96          |
| Sweden             | 11/79.5           | 14/76.26          | 25/55.74             | 30/49.2           | 19/64.12              | 22/57.94          | 16/67.97            | 16/67.61          | 4/78.11           | 8/72.46           |
| UK                 | 22/72.7           | 22/68.52          | 14/61.71             | 14/56.49          | 29/53.06              | 27/51.02          | 21/61.18            | 26/51             | 24/60.49          | 25/57.71          |
| USA                | 1/100             | 1/100             | 1/90.50              | 1/100             | 10/70.50              | 16/62.72          | 1/86.69             | 3/84              | 1/100.00          | 1/95.45           |

Sources: IMD World Competitiveness Yearbook 2005, 2005; IMD World Competitiveness Yearbook 2004, 2004; calculations by IMAD.

Notes: <sup>1</sup>IMD World Competitiveness Yearbook 2004; <sup>2</sup>IMD does not publish data for four new EU member states (EU-10) (Cyprus, Latvia, Lithuania, Malta); 3full data will be available at the release of the IMD Yearbook 2005; r - rank, v - index value.

## ***Slovenia's world competitiveness by the WEF***

*According to the last WEF<sup>1</sup> report (2005-2006)<sup>2</sup>, Slovenia's national competitiveness ranking measured by the WEF indices of growth and business competitiveness improved as regards the former and deteriorated in terms of the latter.* In contrast with the previous report, Slovenia's *growth competitiveness index (GCI)* dropped this time as a result of the lower values in the technology and public institutions indices. The competitiveness of the macroeconomic environment, on the other hand, improved. Nevertheless, Slovenia's ranking among the 117 economies covered in the survey improved by one place, climbing from 33<sup>rd</sup> to 32<sup>nd</sup> place. Thereby Slovenia slightly reduced the lagging behind the EU average and roughly preserved the advantage over the new member states' average. Among the EU countries, Slovenia has a higher growth competitiveness than Malta, Lithuania, Hungary, Greece, Cyprus, the Czech Republic, Slovakia, Latvia, Italy and Poland. Slovenia's ranking in the *business competitiveness index (BCI)* has deteriorated for the third year in a row. Slovenia was ranked 32<sup>nd</sup>, one place lower than a year ago. The drop in business competitiveness by one place is notable in comparison with the average improvement of this indicator in the EU-15 (up 4 places) and the EU-25 (2 places). Among the EU countries, Slovenia was outstripped by the Czech Republic while Hungary and Cyprus narrowed their gaps relative to Slovenia. Slovenia scores relatively higher than Slovakia, Lithuania, Greece, Italy, Poland, Malta and Latvia.

*The biggest negative shift within the aggregate GCI was observed in the competitiveness of technology.* The technology index dropped significantly compared to the previous year (by 0.64 of a point, to 4.07), which is relatively much more than the average drops of the EU-25, EU-15 and EU-10 (see the table). Slovenia's ranking in the technology index dropped by 6 places to 32<sup>nd</sup> place. The biggest drop within this index was observed in the ICT sub-index. The technology index shows the lowest values in the following indicators: FDI and technology transfer (down 10 places to rank (r.) 99), government success in ICT promotion (down 15 places, r. 68); firm level technology absorption (down 10 places, r. 60), government prioritisation of ICT (up 2 places, r. 59), prevalence of foreign technology licensing (down 14 places, r. 59), quality of competition in the ISP sector (up 7 places, r. 50) and technological readiness (up 4 places, r. 44).

*Within the aggregate GCI, the value of the macroeconomic environment index rose* (by 0.31 of a point), *as did Slovenia's ranking in this area* (up from rank 39 to rank 35), which is encouraging in view of the average drops seen in the rankings of the EU-25, EU-10 and EU-15. All components of this index recorded a rise in value. The sub-index of government waste (up 0.23 to 3.15) ranks Slovenia one place higher this year (r. 62). The strongest improvement has been observed in macroeconomic stability which climbed by 8 places to rank 35 (up 0.38 of a point to 4.78). The credit rating index rose as well (by 0.24 to 5.55) while the ranking remained unchanged (r. 27). The least competitive indicators of the macroeconomic environment according to the WEF are: the real effective exchange rate, 2004 (r. 77), recession expectations (r. 75), inflation, 2004 (r. 52), government deficit, 2004 (r. 47) and interest rate spread (r. 47).

*The third index within the aggregate GCI, which measures the competitiveness of public institutions, dropped* (by 0.14 of a point), *while the ranking of Slovenia in this index slipped by four places.* Regarding the changes in the three groups of EU countries, this fall is disturbing, particularly in comparison with the new member states which generally improved both their rankings and values in this index. Among the components of the index,

<sup>1</sup> WEF – World Economic Forum

<sup>2</sup> WEF's analysis of global competitiveness was published in autumn 2005.

the contracts and law sub-index dropped by 0.10 of a point, pushing Slovenia down from 47<sup>th</sup> to 48<sup>th</sup> place (43<sup>rd</sup> two years ago). After the improvement in the previous report, the estimated corruption index has now deteriorated again (by 0.17 of a point), ranking Slovenia 25<sup>th</sup>, 2 places lower than a year ago. The least competitive indicators within the public institutions index according to the WEF 2005-2006 include: favouritism in decisions of government officials (r. 50), judicial independence (r. 50), property rights (r. 49) and organised crime (r. 46).

*Slovenia's ranking by the business competitiveness index (BCI) dropped by one place again due to the deterioration of quality of the national business environment and the unchanged rating of the sophistication of company operations and strategies.* Slovenia's global competitiveness therefore reveals exactly the reverse dynamics as the averages of the EU-25, EU-10 and EU-15. In the business environment quality index, Slovenia slipped from 33<sup>rd</sup> to 35<sup>th</sup> place after the improvement observed last year, while the average rankings of the EU-15, EU-25 and EU-10 have risen (by 1, 2 and 4 places, respectively). The least competitive indicators of the business environment according to the WEF 2005-2006 are: reliance on professional management (r. 47), extent of marketing (r. 43) and extent of incentive compensation (r. 43). Slovenia's ranking in the index of the sophistication of company operations and strategy is still relatively good (r. 27), but the average rankings of the EU-10 and EU-25 have also moved up (by 2 and 1 places to r. 42 and r. 27, respectively). Slovenia's least competitive indicators in this field are: foreign ownership restrictions (r. 85), availability of scientists and engineers (r. 78) and local equity market access (r. 65).

Table: WEF's global competitiveness indices for Slovenia, EU members and the USA

| Country            | WEF aggregate indices        |                 |                 |                 | GCI components   |                 |                     |                 |                           |                 | BCI components           |                 |  |                 |
|--------------------|------------------------------|-----------------|-----------------|-----------------|------------------|-----------------|---------------------|-----------------|---------------------------|-----------------|--------------------------|-----------------|--|-----------------|
|                    | Growth competitiveness (GCI) |                 | BCI             |                 | Technology index |                 | Public institutions |                 | Macroeconomic environment |                 | Comp. operat. and strat. |                 | Quality of the nation. business environ. |                 |
|                    | 04 <sup>2</sup>              | 05 <sup>1</sup> | 04 <sup>2</sup> | 05 <sup>1</sup> | 04 <sup>2</sup>  | 05 <sup>1</sup> | 04 <sup>2</sup>     | 05 <sup>1</sup> | 04 <sup>2</sup>           | 05 <sup>1</sup> | 04 <sup>2</sup>          | 05 <sup>1</sup> | 04 <sup>2</sup>                          | 05 <sup>1</sup> |
|                    | r/v                          | r/v             | r               | r               | r/v              | r/v             | r/v                 | r/v             | r/v                       | r/v             | r                        | r               | r  | r               |
| EU-25              | 27.4/4.90                    | 28/4.77         | 27              | 25              | 26/4.78          | 25/4.36         | 29/5.44             | 27/5.40         | 28/4.64                   | 31/4.73         | 28                       | 27              | 27.2                                     | 25              |
| EU-15              | 20/5.13                      | 21.6/5.0        | 15              | 15              | 23/4.89          | 21/4.57         | 19/5.82             | 18.6/5.72       | 17.6/4.93                 | 21.8/5.0        | 15                       | 15              | 16                                       | 15              |
| EU-10 <sup>3</sup> | 38.5/4.57                    | 37.7/4.43       | 41              | 37              | 29/4.63          | 31/4.05         | 43/4.87             | 40/4.92         | 43.2/4.21                 | 45.2/4.3        | 44                       | 42              | 41                                       | 37              |
| Austria            | 17/5.20                      | 21/4.95         | 16              | 10              | 22/4.85          | 21/4.35         | 15/5.99             | 11/6.00         | 10/5.11                   | 22/5.07         | 14                       | 11              | 17                                       | 9               |
| Belgium            | 25/4.95                      | 31/4.63         | 14              | 16              | 31/4.59          | 28/4.18         | 22/5.71             | 28/5.38         | 19/4.92                   | 29/4.76         | 11                       | 12              | 19                                       | 17              |
| Cyprus             | 38/4.56                      | 34/4.54         | 45              | 36              | 39/4.36          | 36/3.87         | 33/5.18             | 27/5.44         | 45/4.14                   | 45/4.33         | 59                       | 48              | 41                                       | 36              |
| Czech Rep.         | 40/4.55                      | 38/4.42         | 35              | 27              | 19/4.88          | 22/4.31         | 51/4.56             | 48/4.63         | 41/4.22                   | 46/4.31         | 31                       | 29              | 37                                       | 27              |
| Denmark            | 5/5.66                       | 4/5.65          | 7               | 4               | 6/5.34           | 5/5.30          | 1/6.59              | 2/6.35          | 4/5.36                    | 3/5.64          | 9                        | 4               | 3  | 3               |
| Estonia            | 20/5.08                      | 20/4.95         | 27              | 26              | 15/5.01          | 18/4.62         | 26/5.59             | 25/5.51         | 30/4.65                   | 30/4.73         | 34                       | 33              | 24                                       | 25              |
| Finland            | 1/5.95                       | 1/5.94          | 2               | 2               | 1/6.24           | 2/6.02          | 3/6.48              | 5/6.19          | 3/5.47                    | 4/5.52          | 7                        | 9               | 1  | 1               |
| France             | 27/4.92                      | 30/4.78         | 12              | 11              | 30/4.65          | 24/4.26         | 25/5.62             | 20/5.72         | 25/4.78                   | 27/4.90         | 10                       | 10              | 16                                       | 11              |
| Greece             | 37/4.56                      | 46/4.26         | 41              | 40              | 38/4.42          | 37/3.85         | 44/4.74             | 43/4.77         | 31/4.52                   | 51/4.16         | 40                       | 42              | 42                                       | 40              |
| Ireland            | 30/4.90                      | 26/4.86         | 22              | 19              | 37/4.43          | 31/4.07         | 17/5.87             | 13/5.93         | 21/4.85                   | 7/5.38          | 22                       | 16              | 22                                       | 20              |
| Italy              | 47/4.27                      | 47/4.21         | 34              | 38              | 50/4.08          | 44/3.68         | 48/4.64             | 46/4.70         | 38/4.27                   | 47/4.26         | 26                       | 28              | 43                                       | 39              |
| Latvia             | 44/4.43                      | 44/4.29         | 49              | 48              | 36/4.46          | 38/3.83         | 52/4.55             | 50/4.55         | 37/4.27                   | 38/4.48         | 51                       | 51              | 48                                       | 48              |
| Lithuania          | 36/4.57                      | 43/4.3          | 36              | 41              | 33/4.51          | 42/3.70         | 43/4.75             | 44/4.73         | 33/4.46                   | 39/4.47         | 37                       | 41              | 35                                       | 41              |
| Luxembourg         | 26/4.95                      | 25/4.9          | N/A             | N/A             | 41/4.28          | 29/4.11         | 14/5.99             | 7/6.08          | 6/5.23                    | 9/5.30          | N/A                      | N/A             | N/A                                      | N/A             |
| Hungary            | 39/4.56                      | 39/4.38         | 42              | 34              | 29/4.66          | 30/4.08         | 37/5.07             | 34/5.15         | 55/3.95                   | 63/3.91         | 48                       | 40              | 38                                       | 32              |
| Malta              | 32/4.79                      | 35/4.54         | 50              | 46              | 21/4.85          | 23/4.29         | 30/5.39             | 32/5.23         | 47/4.11                   | 54/4.09         | 60                       | 61              | 49                                       | 44              |
| Germany            | 13/5.28                      | 15/5.1          | 3               | 3               | 12/5.08          | 16/4.78         | 11/6.21             | 8/6.04          | 26/4.77                   | 28/4.81         | 1                        | 2               | 5  | 4               |
| Netherlands        | 12/5.30                      | 11/5.21         | 9               | 9               | 16/4.98          | 11/4.88         | 13/6.08             | 16/5.83         | 7/5.13                    | 10/5.26         | 6                        | 8               | 9  | 8               |
| Poland             | 60/3.98                      | 51/4            | 57              | 42              | 45/4.19          | 39/3.77         | 80/3.70             | 64/4.14         | 51/4.05                   | 53/4.09         | 47                       | 43              | 64                                       | 46              |
| Portugal           | 24/4.96                      | 22/4.91         | 33              | 30              | 23/4.78          | 20/4.39         | 23/5.69             | 15/5.83         | 34/4.42                   | 37/4.51         | 42                       | 39              | 31                                       | 28              |
| Slovakia           | 43/4.43                      | 41/4.31         | 39              | 39              | 28/4.67          | 34/3.99         | 49/4.64             | 45/4.73         | 54/3.98                   | 49/4.23         | 41                       | 47              | 39                                       | 38              |
| Slovenia           | 33/4.75                      | 32/4.59         | 31              | 32              | 26/4.71          | 32/4.07         | 31/5.28             | 35/5.14         | 39/4.26                   | 35/4.57         | 27                       | 27              | 33                                       | 35              |
| Spain              | 23/5.00                      | 29/4.8          | 26              | 25              | 20/4.86          | 27/4.21         | 34/5.16             | 36/5.13         | 16/4.99                   | 24/5.07         | 25                       | 25              | 27                                       | 26              |
| Sweden             | 3/5.72                       | 3/5.65          | 4               | 12              | 4/5.80           | 4/5.78          | 6/6.31              | 17/5.82         | 17/4.99                   | 12/5.24         | 5                        | 7               | 6  | 14              |
| UK                 | 11/5.30                      | 13/5.11         | 6               | 6               | 18/4.92          | 17/4.66         | 7/6.23              | 12/5.98         | 8/5.11                    | 18/5.13         | 8                        | 6               | 4  | 6               |
| USA                | 2/5.82                       | 2/5.81          | 1               | 1               | 3/5.92           | 1/6.19          | 21/5.74             | 18/5.77         | 15/5.04                   | 23/5.07         | 2                        | 1               | 2  | 2               |

Source: WEF Global Competitiveness Report, 2004-2005, 2005-2006.

Notes: <sup>1</sup>WEF Global Competitiveness Report 2005/2006. The WEF evaluates 117 countries in the 2005-2006 report, 15 more than in the previous one (Asian and African countries score lower than Slovenia). <sup>2</sup>WEF Global Competitiveness Report 2004-2005. <sup>3</sup>New member states; r - rank; v - index value. Bold numbers indicate a rise in the country's competitiveness by at least three places. Dark cells indicate a fall in the country's competitiveness by at least three places.

## Total assets of banks

**In 2004<sup>1</sup> total assets of banks<sup>2</sup> compared to GDP rose by 3.3 percentage points and totalled 90.3% of gross domestic product.** In the period from 1995 to 2000, the growth of the total assets of banks was mainly underpinned by banks' robust lending activity. In 2001 and 2002, it was largely driven by surging investment in securities. In the 2003-2004 period, however, it was again chiefly fed by the increase in loans. The main types of lending were foreign currency loans to enterprises and other financial organisations and household loans. At first, the growth of banks' total assets was mainly financed by the growing bank deposits. In recent years, however, borrowing abroad has taken over as a result of the structural changes in the saving habits of households. In 2004, total assets of banks grew by 11.6%. Among the balance sheet items, bank loans recorded the highest growth rate (44.9%), probably due to the changed monetary policy of the Bank of Slovenia which, in order to postpone the rise in liquidity caused by the maturity of tolar bills to the period until after Slovenia has adopted the euro, began to offer banks a long-term deposit<sup>3</sup> which is itemised under loans to banks in the balance sheet. On the other hand, investment in non-tradable debt securities fell by 8.9% and pushed total growth down by 2.6 p.p. The main contribution to the increase in banks' total assets (10 p.p.) came from loans to the non-banking sector, which rose by close to one-fifth in 2004 and represented 53.9% of total assets. In 2005, the growth of banks' total assets continued to strengthen, having doubled compared to that of 2004.

**Slovenia still significantly lags behind the European average in terms of its level of total banks' assets as a share of GDP, while its advantage over the average of the new EU members is narrowing.** Following the relatively high increase in the value of banks' total assets relative to GDP in 2003, the growth of this indicator for the EU-25 slowed down slightly in 2004. Its value rose by 5.0 p.p. to the level of 276.6%<sup>4</sup> of GDP. New member states (EU-10) recorded the average level of 85.5% for this indicator. While this is almost five p.p. below Slovenia's level, the gap between the two has narrowed for the second consecutive year. Slovenia thus moved into the lower half of the EU-10 countries in 2004 and was outperformed not only by Malta, which achieved the level of 426.3% of GDP, Cyprus (289.5%) and the Czech Republic (99.7%), but also Latvia (100.0%), Estonia (94.4%) and Slovakia (90.5%). Apart from that, some old EU members that are comparable to Slovenia in terms of their development level, recorded appreciably higher values for this indicator – e.g. Portugal (218.1%) and Greece (136.2%).

<sup>1</sup> Data on the structure of banks' total assets for 2005 are shown in the table, while the analysis in the text covers the period up until 2004, since all the necessary data for this area were still not available at the time of preparing the report.

<sup>2</sup> The Slovenian financial system belongs to banking systems in which banks have the dominant position. Banks accounted for almost 60% of the financial system's total assets and generated approximately three-quarters of value added in financial intermediation.

<sup>3</sup> The interest rate of this loan is 0.2 p.p. higher than the interest rate on the Bank of Slovenia's 60-day tolar bills and currently stands at the level of 4.2%.

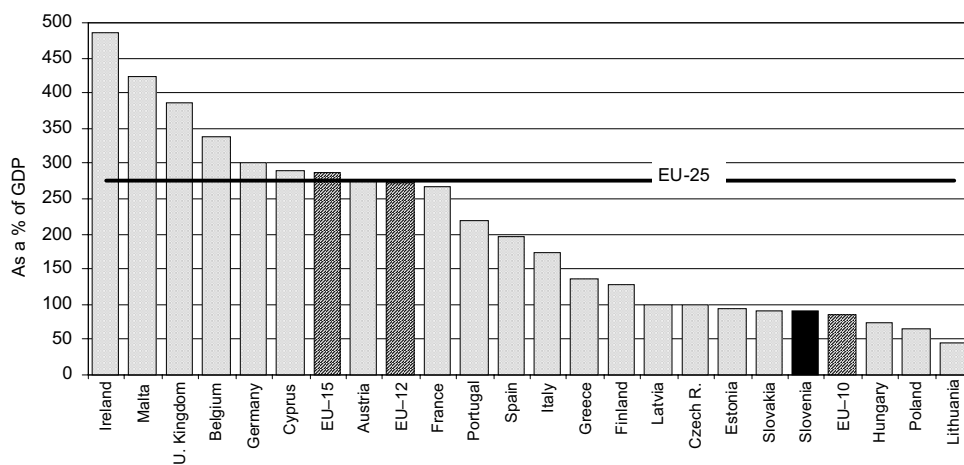
<sup>4</sup> The significance of the banking sector of new member states measured by its proportion to total assets is rising slowly but is still very small (1.4%).

Table: Structure of banks' total assets, SIT bn

|                             | 1995    | 2000    | 2001    | 2002    | 2003    | 2004    | 2005    |
|-----------------------------|---------|---------|---------|---------|---------|---------|---------|
| Assets                      | 1,475.3 | 3,125.3 | 3,876.8 | 4,553.2 | 5,057.5 | 5,644.7 | 6,979.9 |
| as a % of GDP               | 63.2    | 74.2    | 80.8    | 85.1    | 87.0    | 90.3    | 106.4   |
| Loans to banking sector     | 253.6   | 364.4   | 396.2   | 373.1   | 345.2   | 500.2   | 682.5   |
| Loans to non-banking sector | 607.8   | 1,635.2 | 1,913.9 | 2,172.5 | 2,538.1 | 3,041.3 | 3,811.5 |
| Securities                  | 414.7   | 793.2   | 1,109.3 | 1,546.7 | 1,719.7 | 1,642.2 | 1,954.5 |
| Other assets                | 199.3   | 332.5   | 457.3   | 460.9   | 454.5   | 320.0   | 387.8   |

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

Figure: Total assets of banks in selected EU member states in 2003, as a % of GDP



Sources: Bank of Slovenia's Annual Report, 2005; European Banking Federation, 2006; First release – national accounts (SORS) (September 2005).

## ***Insurance premiums***

***The volume of insurance premiums enjoyed its highest growth in three years in 2004<sup>1</sup> when it rose to the level of 5.6% of GDP.*** Insurance premiums<sup>2</sup> amounted to SIT 348.0 bn in 2004, having increased by 16.8% over the year before. The main driver of this robust growth was the rapid increase in the volume of *life insurance premiums*. Their share increased by 5.5 p.p. over the year before and accounted for 29.4% of total insurance premiums. Similarly as in 2003, the largest increase within this category was seen in insurance premiums tied to mutual funds, which rose almost threefold in nominal terms. On the other hand, the growth of *non-life insurance premiums* continued to soften for the third consecutive year (see the table). In 2004, the volume of these premiums rose by 8.3%, which was largely due to the 0.5% contraction in health insurance premiums that hold the biggest, 28.1% share within non-material insurance. The largest increase in this group was registered in aircraft insurance that surged by 82.7% over 2003, yet it represented less than 0.5% of total life insurance premiums.

***The level of insurance premiums relative to gross domestic product in Slovenia is low compared to the European Union, although the difference is narrowing.*** The EU average totalled 8.4% of GDP in 2004, 0.1 p.p. less than a year ago (8.7% in the EU-15). The indicator was substantially lower in the new member states (3.5%), among which Slovenia still has the highest ratio of insurance premiums to GDP (5.6% of GDP). Compared to the old EU members, Slovenia also had a higher value than Greece (2.2%) and Spain (5.4%).

***The insurance sector in Slovenia also differs strongly from developed insurance markets in terms of the structure of premiums.*** Non-life insurance premiums amount to more than 70% of total premiums, while the corresponding average level in the EU is about 40%. Slovenia thus has one of the biggest shares of non-life insurance relative to GDP, which totalled 3.9% for the third year in a row (the EU average is 3.3%). Although life insurance compared to GDP rose by one-third (to 1.6%) in 2004, it is much lower than the European average (5.1% of GDP). Among the old member states, only Greece has a lower level of life insurance expressed relative to GDP than Slovenia. At the same time, Slovenia exceeded the average of new member states according to this indicator (1.4% of GDP) for the first time in 2004. Only Cyprus (with 2.1% of GDP) and Malta (2.8%) recorded higher values.

<sup>1</sup> Data on insurance premiums by type of insurance for 2005 are shown in the table, while the analysis in the text covers the period up until 2004, since all the necessary data for this area were still not available at the time of preparing the report.

<sup>2</sup> The calculation includes institutions that do not yet operate according to the Insurance Act (Capital Company, Fund for Craftsmen and Entrepreneurs, Slovenian Export Corporation).



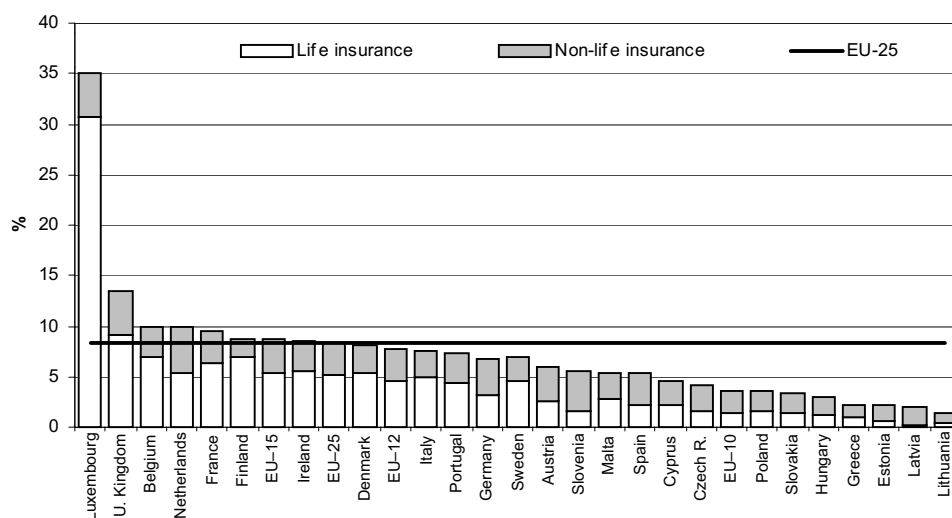
Table: Insurance premiums by type of insurance in Slovenia

|   | 1995  | 2000  | 2001  | 2002  | 2003  | 2004 | 2005  |
|---|-------|-------|-------|-------|-------|------|-------|
| <b>As a % of GDP</b>                        |       |       |       |       |       |      |       |
| Insurance premiums, total                   | 4.3   | 4.5   | 4.8   | 5.0   | 5.1   | 5.6  | 5.7   |
| Life insurance                              | 0.6   | 0.9   | 1.0   | 1.1   | 1.2   | 1.6  | 1.7   |
| Non-life insurance <sup>1</sup>             | 3.7   | 3.6   | 3.8   | 3.9   | 3.9   | 3.9  | 4.0   |
| <b>Structure, %</b>                         |       |       |       |       |       |      |       |
| Insurance premiums, total                   | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | N/A  | 100.0 |
| Life insurance                              | 14.8  | 19.4  | 21.4  | 22.7  | 23.9  | 29.4 | 30.0  |
| Non-life insurance                          | 85.2  | 80.6  | 78.6  | 77.3  | 76.1  | 70.6 | 70.0  |
| <b>Year-on-year nominal growth rates, %</b> |       |       |       |       |       |      |       |
| Insurance premiums, total                   | 62.6  | 12.5  | 19.3  | 16.1  | 11.7  | 16.8 | 6.7   |
| Life insurance                              | 67.8  | 20.9  | 31.5  | 23.2  | 17.8  | 44.0 | 9.0   |
| Non-life insurance                          | 61.7  | 10.7  | 16.3  | 14.1  | 9.9   | 8.3  | 5.7   |

Sources: Statistical Insurance Bulletin, 2005 (August 2005). Ljubljana: Slovenian Insurance Association, 2005.

Note: <sup>1</sup>The main types of non-life insurance include: health insurance, liability insurance for use of motor vehicles, land motor vehicles insurance, accident insurance, and fire and natural disaster insurance.

Figure: Total insurance premiums, life and non-life insurance premiums relative to GDP in selected EU countries in 2004, %



Sources: Statistical Insurance Bulletin, 2005 (August 2005). Ljubljana: Slovenian Insurance Association, 2005. Annual Report 2004-2005 (May 2005). The Comité Européen des Assurances, 2005.

## Market capitalisation

*Following the stagnation in 2003, the value of the indicator measuring the market capitalisation of shares (excluding the shares of investment funds) relative to GDP rose by 4.3 percentage points to total 27.3% of GDP in 2004<sup>1</sup>.* The market capitalisation of shares listed on the stock exchange, which accounts for 72.3% of the total market capitalisation of shares (excluding shares of investment funds), rose by 26.1% in 2004, while the market capitalisation of shares listed in the free market increased by 30.8%. Since the number of shares on the Ljubljana Stock Exchange fell and no significant (in terms of market capitalisation) new shares were issued, the growth of market capitalisation was chiefly underpinned by the rise in the value of shares listed on the Ljubljana Stock Exchange. The value of the main index on the Ljubljana Stock Exchange (SBI20) rose by 24.7% while the value of shares listed in the free market increased by over one-third. The latter rise was probably also related to the further reorganisation of authorised investment funds into regular joint-stock companies. Following the drop in 2003, turnover in the secondary market of the Ljubljana Stock Exchange picked up by 16.6% to total SIT 396.7 bn in 2004. Turnover in shares saw the biggest surge (49.9%), which also resulted in a slightly higher turnover ratio of shares<sup>2</sup>. Compared to 2003, its value increased by 0.04 of a point to 0.15, which is significantly below the level achieved in developed capital markets<sup>3</sup>. The primary capital market remains underdeveloped. However, after a three-year period during which there were no public bids for equity sales, one such bid in 2004 worth SIT 1.5 bn was recorded in 2004, yet it accounted for just 0.2% of the total value of all public bids – the rest (99.8%) were public government bond sale bids.

*Despite the significant increase in the market capitalisation of shares in 2004, the development gap between the Slovenian capital market and the capital markets of advanced European countries remains considerable.* In the EU-25, the market capitalisation of shares rose by 3.9 p.p. in 2004 and achieved the level of 67.1% of GDP in 2004. As a result, the difference between Slovenia and the European average narrowed slightly. Compared to the new member states, however, Slovenia's position deteriorated since the indicator value for this group of countries rose by almost 9 p.p. to total 27.8% of GDP. This means that the Slovenian capital market is less developed than the average market of the new member states. This leap can be attributed mainly to the rapid growth of the shares' value on the stock markets in Poland, Hungary and the Czech Republic, which represented almost 80% of the market capitalisation of shares of all new member states.

*The gap in the capital market's development level is expected to widen further in 2005* since market capitalisation rose by close to one-fifth in the EU-25 in 2005 and growth in the EU-10 (new member states) amounted to almost 40%. Drops in the value of shares listed on the stock exchange were recorded in Estonia (down by almost one-third) and Slovenia, which faced a 5.9% decrease in the market capitalisation of shares in this period.

<sup>1</sup> Data on capital market indicators for 2005 are shown in the table, while the analysis in the text covers the period up until 2004, since all the necessary data for this area were still not available at the time of preparing the report.

<sup>2</sup> The turnover ratio of shares is the ratio between the annual turnover in shares and the market capitalisation at the end of a period.

<sup>3</sup> In these markets, the value of this indicator may exceed one.

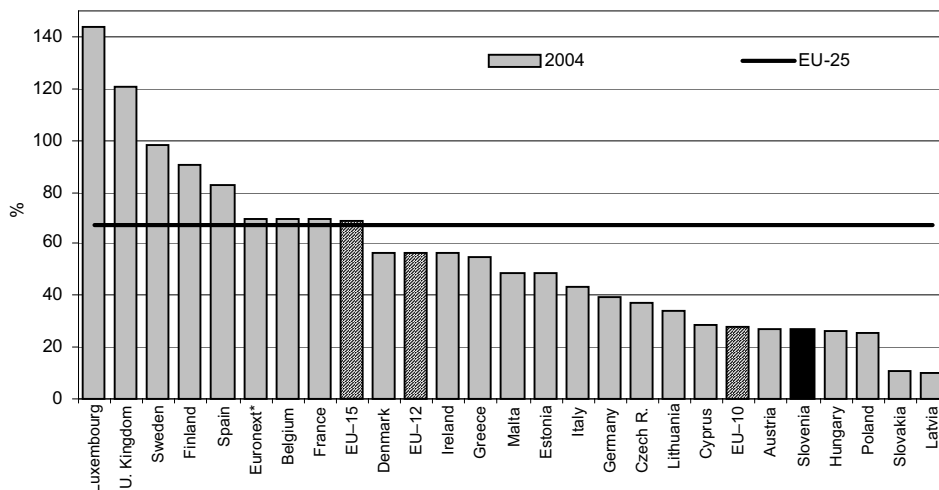
Table: Selected capital market indicators for Slovenia

|  | 1995  | 2000  | 2001  | 2002    | 2003     | 2004    | 2005    |
|--|-------|-------|-------|---------|----------|---------|---------|
| Market capitalisation of shares, excluding investment funds, SIT bn        | 41.1  | 705,1 | 850.0 | 1,233.1 | 1.339.70 | 1,705.8 | 1,604.3 |
| Market capitalisation of shares, excluding investment funds, as a % of GDP | 1.7   | 16,4  | 17,7  | 23,0    | 23,0     | 27,3    | 24,5    |
| SBIZO  | 1,448 | 1,808 | 2,152 | 3,340   | 3,932    | 4,904   | 4,630   |
| BIO  | 111   | 109   | 109   | 111     | 117      | 122     | 123     |
| PIX  | -     | 1,521 | 1,588 | 2,730   | 3,372    | 4,513   | 3,962   |
| Number of securities   | 49    | 267   | 270   | 265     | 254      | 254     | 227     |
| Shares   | 27    | 197   | 193   | 172     | 162      | 153     | 128     |
| of which investment funds' shares  | 0     | 44    | 37    | 33      | 26       | 11      | 10      |
| Bonds  | 22    | 68    | 76    | 92      | 92       | 101     | 99      |
| Pension coupons  | 0     | 1     | 1     | 1       | 0        | 0       | 0       |

Sources: Annual Statistical Report (2004). Ljubljana: Ljubljana Stock Exchange 2005; First Release - National Accounts (September 2005). Ljubljana: Statistical Office of the Republic of Slovenia, 2005.

Notes: SBI - Slovenian stock exchange index, BIO - bond index, PIX - index of shares of authorised investment companies.

Figure: Market capitalisation in selected EU member states and candidate countries in 2004, as a % of GDP



Sources: Annual Statistical Report (2004). Ljubljana: Ljubljana Stock Exchange 2005; First Release - National Accounts (September 2005). Statistical Office of the Republic of Slovenia, 2005; Stock market capitalisation (2005). Eurostat.

Note: \*From January 2001 onwards, Euronext comprised the Stock Exchanges of Paris, Amsterdam and Brussels. In February 2002, the Lisbon Stock Exchange joined in.



The second priority:

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

### **1. Synthesised indicator**

- Investment in knowledge

### **2. Education and training**

- Share of population with tertiary education
- Average years of schooling attained by persons in employment
- Ratio of students to teaching staff
- Total public expenditure on education
- Public and private expenditure on educational institutions
- Expenditure on educational institutions per student

### **3. Research, development, innovation and use of information and communication technologies**

- Gross domestic expenditure on research and development
- Science and technology graduates
- Number of researchers per thousand labour force
- Internet use



## ***Investment in knowledge***

Knowledge, innovation, new technologies and entrepreneurship are the key factors of competitiveness in modern economies and significant drivers of economic growth. In the future, Slovenia should raise both the level of its investment in knowledge<sup>1</sup> and its efficiency.

***According to the latest comparable data available (2002), investment in knowledge as a share of gross domestic product in Slovenia stagnated (compared to the previous year) and totalled 3.0%, which is less than the EU average (3.8%).*** In OECD countries, investment in knowledge reached around 5.2% of GDP in 2002. A breakdown by country shows that in some countries the share of investment in knowledge exceeded 6% of GDP (6.8% in Sweden, 6.6% in the USA, 6.0% in Finland), while in the Southern European countries it was lower than 2.7% of GDP. In most OECD countries investment in knowledge is rising rapidly; its average annual growth in the 1990s topped 7.5% in several countries (Denmark, Sweden, Finland, Ireland, Greece, Portugal)<sup>2</sup> and was much higher than the increase in gross fixed capital formation. The fastest growth within expenditure on knowledge has been generally recorded in investment in software. The only exception was Finland, where R&D expenditure rose most rapidly. In the last few years, investment in software in Slovenia has also recorded a swift pace of growth; the average growth rate in 1995-2004 totalled 31.2%.

***Despite the swift dynamics seen in the last few years (due to the very low comparative basis), Slovenia's performance in comparison with other EU countries was particularly poor in investment in software, according to the latest comparable data (2002; see the table).*** In the eight-year period<sup>3</sup>, investment in software as a share of GDP rose by 0.3 p.p. in Slovenia. Bigger increases were meanwhile recorded in Sweden (0.7 p.p.), Denmark (0.6 p.p.) and the Netherlands and Austria (both 0.5 p.p.). Slovenia's level of investment in software expressed as a % of GDP was 50% lower than the corresponding levels in Austria, Spain and France in 2002. In the Netherlands this proportion was triple that of Slovenia, while in Scandinavian countries it was four-times higher.

***Slovenia's investment in R&D is similarly below the EU average (see the table). The gap between Slovenia and the EU-15 average in this field is narrowing gradually. It totalled 0.34 of a percentage point according to the latest provisional data (2004)*** (see the Indicator: Gross domestic expenditure on research and development). In 1996-2004, investment in R&D as a share of GDP rose by 0.3 p.p. in Slovenia. Better results were achieved by Finland (up 1.0 p.p.), Denmark (0.8 p.p.) and Austria (0.7 p.p.).

***Slovenia's total (public and private) expenditure on tertiary education (excluding expenditure on R&D in tertiary education) expressed as a share of GDP was higher than in most EU other countries in 2002.*** Only Denmark topped Slovenia according to this indicator, while Finland achieved the same level (see the table). Denmark and Finland were also in the lead in other education-related indicators: the share of the population with a tertiary education, writing skills and inclusion of adults in education, where Slovenia's levels were still much lower.

<sup>1</sup> According to the OECD's definition, investment in knowledge comprises expenditure on research and development, expenditure on tertiary education (both public and private), and investment in software.

<sup>2</sup> The average annual growth rates in 1992-2000 totalled 10.8% in Ireland, 9.7% in Sweden, 8.8% in Finland, 8.8% in Greece, 8.3% in Portugal, and 7.5% in Denmark (OECD, National Accounts, Economic Outlook; MSTI and Education databases; International Data Corporation, June 2003).

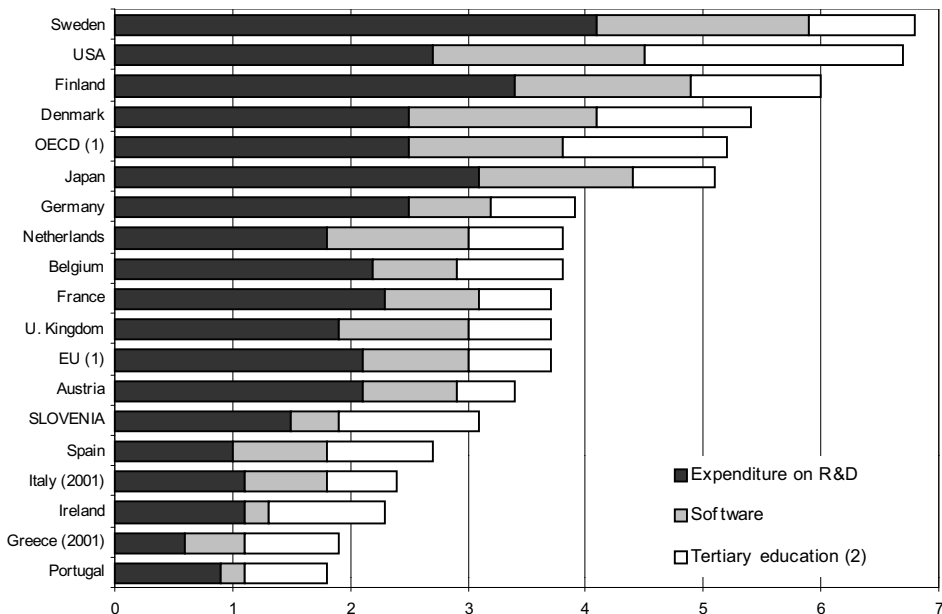
<sup>3</sup> Due to difficulties in obtaining comparable data, the eight-year period spans 1995-2003 for Slovenia and 1994-2002 for other mentioned countries.

Table: Investment in knowledge in 2002; changes from 1994 to 2002

|                   | % of GDP, 2002 |            |                                 |                         | Change in the % of GDP, 1994-2002 |                        |                                 |                         |
|-------------------|----------------|------------|---------------------------------|-------------------------|-----------------------------------|------------------------|---------------------------------|-------------------------|
|                   | Expend. on R&D | Software   | Tertiary education <sup>2</sup> | Investment in knowledge | Expend. on R&D                    | Software               | Tertiary education <sup>2</sup> | Investment in knowledge |
|                   | 1              | 2          | 3                               | 4=1+2+3                 | 1                                 | 2                      | 3                               | 4=1+2+3                 |
| EU <sup>1</sup>   | 2.1            | 0.9        | 0.7                             | 3.8                     | 0.1                               | 0.3                    | 0.1                             | 0.5                     |
| OECD <sup>1</sup> | 2.5            | 1.3        | 1.4                             | 5.2                     | 0.3                               | 0.5                    | 0.1                             | 0.9                     |
| Austria           | 2.1            | 0.8        | 0.5                             | 3.4                     | 0.6                               | 0.5                    | 0.1                             | 1.2                     |
| Belgium           | 2.2            | 0.7        | 0.9                             | 3.8                     | N/A                               | N/A                    | N/A                             | N/A                     |
| Denmark           | 2.5            | 1.6        | 1.3                             | 5.4                     | 0.8                               | 0.6                    | 0.4                             | 1.8                     |
| Finland           | 3.4            | 1.5        | 1.1                             | 6.0                     | 1.2                               | 0.1                    | 0.1                             | 1.3                     |
| France            | 2.3            | 0.8        | 0.6                             | 3.7                     | -0.1                              | 0.4                    | 0.0                             | 0.3                     |
| Greece (2001)     | 0.6            | 0.5        | 0.8                             | 1.9                     | 0.2                               | 0.3                    | 0.3                             | 0.8                     |
| Ireland           | 1.1            | 0.2        | 1.0                             | 2.3                     | -0.1                              | 0.1                    | -0.1                            | -0.2                    |
| Italy (2001)      | 1.1            | 0.7        | 0.6                             | 2.4                     | 0.1                               | 0.2                    | 0.0                             | 0.3                     |
| Germany           | 2.5            | 0.7        | 0.7                             | 3.9                     | 0.3                               | 0.2                    | 0.0                             | 0.5                     |
| Netherlands       | 1.8            | 1.2        | 0.8                             | 3.8                     | -0.2                              | 0.5                    | 0.0                             | 0.3                     |
| Portugal          | 0.9            | 0.2        | 0.7                             | 1.8                     | 0.3                               | 0.0                    | 0.1                             | 0.5                     |
| <b>Slovenia</b>   | <b>1.5</b>     | <b>0.4</b> | <b>1.1</b>                      | <b>3.0</b>              | <b>0.3<sup>3</sup></b>            | <b>0.3<sup>3</sup></b> | <b>N/A</b>                      | <b>N/A</b>              |
| Spain             | 1.0            | 0.8        | 0.9                             | 2.7                     | 0.2                               | 0.3                    | 0.2                             | 0.7                     |
| Sweden            | 4.1            | 1.8        | 0.9                             | 6.8                     | 0.8                               | 0.7                    | 0.2                             | 1.7                     |
| United Kingdom    | 1.9            | 1.1        | 0.7                             | 3.7                     | -0.1                              | 0.2                    | 0.2                             | 0.2                     |
| Japan             | 3.1            | 1.3        | 0.7                             | 5.0                     | 0.3                               | 0.7                    | 0.2                             | 1.2                     |
| USA               | 2.7            | 1.8        | 2.2                             | 6.6                     | 0.2                               | 0.6                    | 0.3                             | 1.2                     |

Sources: OECD, Science, Technology and Industry Scoreboard 2005, SORS Statistical Yearbook 2005, Rapid Report No. 149/2005, First Release No. 74/2005.  
Notes: <sup>1</sup>EU-15 excluding Greece and Italy; <sup>2</sup>Expenditure on R&D in tertiary education is subtracted from the total (public and private) expenditure because it is already included in the figure on the share of expenditure on R&D; <sup>3</sup>Data for the period 1996-2004.

Figure: Investment in knowledge in 2002, as a % of GDP



Sources: OECD, Science, Technology and Industry Scoreboard 2005, SORS Statistical Yearbook 2005, Rapid Report No. 149/2005, First Release No. 74/2005.

Notes: <sup>1</sup>EU-15 excluding Greece and Italy; <sup>2</sup>Expenditure on R&D in tertiary education is subtracted from the total (public and private) expenditure because it is already included in the figure on the share of expenditure on R&D.

## ***Share of population with tertiary education***

***The population's education structure in Slovenia continues to improve; however, the share of the population with tertiary education has been slowly approaching the average EU level.*** The share of the population aged 25-64 with tertiary education reached 20.0% in the second quarter of 2005 according to the labour force survey (1.2 p.p. more than a year ago and 5.8 p.p. more than in 1995) while the share of the population having attained secondary education remained the same as in 2004 (60.5%, i.e. 6.0 p.p. more than in 1995). Within that, the share of people having attained a vocational secondary education is contracting while the share of people with a technical or general secondary education is rising. The share of the population aged 25-64 who have completed at least secondary education thus rose to the high 80.5% by Q2 of 2005 (68.7% in 1995 and, according to census data, 75.9% in 2002 and 59.1% in 1991). In the EU, the average shares of the population aged 25-64 with a tertiary education was 22.5% in the EU-25 and 24.0% in the EU-15 in 2005, which is a respective 2.8 and 4.0 p.p. more than in Slovenia (see the table).

***The participation rate of young people and adults in the formal education system continues to rise.*** In the 2004/2005 academic year, around 80% of the generation aged 15-19 were enrolled in secondary schools (67.2% in 1994/1995). The Lisbon strategy target was thus met. The shares of pupils enrolled in grammar schools and technical secondary schools have risen notably, while enrolment in secondary vocational schools and lower-secondary vocational programmes has declined. In 2004, 95.5% of the generation had attained secondary education<sup>1</sup> (26.4% of the generation finished vocational schools while 69.1% graduated from technical and general secondary schools). In 1995, the corresponding percentage was 72.9% (32.5% of the generation from vocational schools and 40.4% from 4- to 5-year secondary schools). The number of adults enrolled in formal secondary education, which had already exceeded 20,000 in the 2000/2001 academic year (8,460 in 1994/1995), continues to climb slowly. In 2003/2004, a total of 21,732 persons were enrolled in adult secondary education programmes, while 6,227 people finished secondary schools (3.4-times more than in 1994/1995).

***The number of tertiary level students and graduates is also rising steadily.*** In the 2004/2005 academic year, a total of 112,228 students were enrolled at all three tertiary education levels; 12,621 thereof in post-secondary vocational, 91,229 in higher professional and university, and 8,378 in postgraduate programmes. The ratio of the number of students per 1,000 population rose to 56.2 in 2004 (24.1 in 1995), while the share of students in the population aged 20-29 was 37.9% (16.4% in 1995). Slovenia has thus achieved the level of EU members with the highest ratios of students to total population<sup>2</sup>. The number of full-time students is rising; together with graduation candidates and full-time postgraduate students, it already includes more than 50% of the generation aged 19-23 (23.6% in 1994/1995). The number of part-time students is also still rising while their ratio to total students has stabilised at the level between 35% and 36% (24% in 1995).

<sup>1</sup> The generation aged 15 at the time of enrolment in the respective types of secondary schools.

<sup>2</sup> Eurostat's statistical database enables calculations of these ratios for 2003. The highest ratios of the number of students to 1,000 population were found in Finland (56.0%) and the Czech Republic (53.2%) while the EU-25 average was 37.0%. The highest ratios of students to the population aged 20-29 were recorded in Finland (44.7%), the Czech Republic (43.2%) and Sweden (38.4%). The EU-25 average stood at 27.6%, while Slovenia's score was 50.9 students per 1,000 population and 34.0 students per 1,000 population aged 20-29, ranking Slovenia 6<sup>th</sup> among the current 25 EU members according to both indicators (IMAD's calculations based on Eurostat's data).

<sup>3</sup> In 2003, the EU-25 average was 52.9 graduates per 1,000 population aged 20-29. Ireland (82.6), United Kingdom (81.4) and Poland (77.8) had the highest ratios. The value of this indicator in Slovenia in 2003 was 46.6.



The number of part-time students is growing notably in post-secondary vocational schools and at the postgraduate level, whereas it is decreasing slowly at the higher professional and university levels. The growing number of students has been matched by a rise in the number of graduates, which currently totals 50.2 per 1,000 population aged 20-29 (24.5 in 1995) and is approaching the average EU-25<sup>3</sup> level.

Table: **Share of the population aged 25-64 having completed tertiary education in Slovenia and the EU-25, 1995-2005 (second quarter), %**

|                 | 1995        | 2000        | 2001        | 2002        | 2003        | 2004        | 2005        |
|-----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>EU-25</b>    | <b>N/A</b>  | <b>20.0</b> | <b>20.1</b> | <b>20.4</b> | <b>21.3</b> | <b>22.2</b> | <b>22.8</b> |
| <b>EU-15</b>    | <b>17.7</b> | <b>21.2</b> | <b>21.5</b> | <b>21.8</b> | <b>22.6</b> | <b>23.4</b> | <b>24.0</b> |
| <b>EU-10</b>    | <b>N/A</b>  | <b>13.9</b> | <b>13.1</b> | <b>13.5</b> | <b>14.7</b> | <b>15.9</b> | <b>17.0</b> |
| Austria         | N/A         | 14.5        | 15.2        | 15.1        | 15.2        | 18.4        | 17.6        |
| Belgium         | 23.3        | 27.2        | 27.8        | 27.9        | 28.2        | 29.8        | 30.7        |
| Cyprus          | N/A         | 25.1        | 26.8        | 29.1        | 29.5        | 29.4        | 27.8        |
| Czech Rep.      | N/A         | 11.5        | 11.6        | 11.8        | 11.9        | 12.3        | 13.1        |
| Denmark         | 27.2        | 25.8        | 28.1        | 29.0        | 31.8        | 32.4        | 33.0        |
| Estonia         | N/A         | 28.9        | 29.8        | 29.7        | 30.4        | 31.5        | 33.6        |
| Finland         | 21.0        | 32.6        | 32.5        | 32.4        | 32.8        | 34.0        | 34.5        |
| France          | N/A         | 21.6        | 22.6        | 23.5        | 23.5        | 23.9        | 24.6        |
| Greece          | 14.3        | 16.9        | 17.2        | 17.9        | 18.6        | 20.6        | 20.5        |
| Ireland         | 19.9        | 21.6        | 23.4        | 25.1        | 26.8        | 28.3        | 29.0        |
| Italy           | 7.4         | 9.6         | 10.0        | 10.4        | 10.8        | 11.4        | 11.9        |
| Latvia          | N/A         | 18.0        | 18.1        | 19.6        | 18.2        | 19.4        | 21.5        |
| Lithuania       | N/A         | 21.8        | 22.4        | 21.9        | 23.2        | 24.2        | 26.5        |
| Luxembourg      | 15.5        | 18.5        | 18.1        | 18.8        | 19.9        | 22.8        | 22.8        |
| Hungary         | N/A         | 14.0        | 13.9        | 14.0        | 15.2        | 16.6        | 17.0        |
| Malta           | N/A         | 5.4         | 9.6         | 8.6         | 9.0         | 10.9        | 12.2        |
| Germany         | 22.1        | 23.8        | 23.5        | 22.3        | 24.0        | 24.9        | 24.4        |
| Netherlands     | N/A         | 24.1        | 24.0        | 24.9        | 27.3        | 29.3        | 30.3        |
| Poland          | N/A         | 11.4        | 11.7        | 12.2        | 13.9        | 15.3        | 16.5        |
| Portugal        | 11.3        | 9.0         | 9.3         | 9.5         | 10.5        | 12.6        | 12.7        |
| Slovakia        | N/A         | 10.3        | 10.6        | 10.8        | 11.6        | 12.8        | 13.9        |
| <b>Slovenia</b> | <b>14.2</b> | <b>15.7</b> | <b>14.1</b> | <b>14.8</b> | <b>17.8</b> | <b>18.8</b> | <b>20.0</b> |
| Spain           | 16.4        | 22.5        | 23.6        | 24.6        | 25.0        | 26.4        | 28.2        |
| Sweden          | 27.7        | 29.7        | 25.5        | 26.4        | 27.2        | 28.1        | 29.5        |
| United Kingdom  | 21.8        | 28.1        | 28.5        | 29.2        | 30.5        | 29.1        | 29.5        |

Sources: SORS, Eurostat: [http://epp.eurostat.ec.eu.int/extraction/getExport/en?theme3/ifsq/ifsq\\_pgaed?OutputDir=EJOutputDir\\_1203&OutputMime=application%2Fxml&OutputMode=U&OutputFile=ifsq\\_pgaed.tab&NumberOfCells=1089&Language=en](http://epp.eurostat.ec.eu.int/extraction/getExport/en?theme3/ifsq/ifsq_pgaed?OutputDir=EJOutputDir_1203&OutputMime=application%2Fxml&OutputMode=U&OutputFile=ifsq_pgaed.tab&NumberOfCells=1089&Language=en).

## ***Average years of schooling attained by persons in employment***

*Although the average years of schooling attained by employed people in Slovenia has been rising steadily, it is still significantly below the level of this indicator in developed countries.* Data available for 2005<sup>1</sup> show that people in employment in Slovenia completed 11.8 years of schooling according to the labour force survey and 11.6 years according to the statistical employment register, which is a respective 0.8 and 0.6 of a year more than in 1995, and 0.09/0.07 of a year more than in 2004. In comparison with the average of the OECD countries<sup>2</sup> the value of this indicator in Slovenia is low. In the EU only Greece, Italy and Portugal, and for women alone Slovakia, have lower values of this indicator than Slovenia (see the figure). In Q2 of 2005, employed men had attained 11.6 years of schooling on average while women attained 12.0 years. In 2003, men received 0.1 of a year less and women 0.2 of a year less schooling than in 2005, which was at that time a respective 0.9 and 0.7 of a year below the OECD average (12.7 and 12.5 years, respectively) and a respective 2.5 and 2.4 years below the highest average years of schooling attained by people in employment, then recorded in Norway and the USA (14.0 years for men and 14.2 years for women).

*The highest level of average years of schooling was achieved in the education sector itself, where it is also rising at the fastest pace.* People employed in the education sector attained an average of 13.9 years of schooling according to figures from December 2005, which is 0.1 of a year more than in 2004 and 0.9 of a year more than in 1995. Education was followed by public administration and financial intermediation, while the lowest average years of schooling were registered among people employed in construction (10.0). The indicator is also low in manufacturing (10.6), where it has been increasing very sluggishly (see the table). Within manufacturing, only workers employed in the manufacture of petroleum products, chemicals and chemical products and in paper, publishing and printing industries received more than 11 years of education, while the lowest average years of schooling are found in the manufacture of leather and leather products (10.0).

*The share of persons in employment with a completed higher education is growing in all activities – most rapidly in those which also record the highest average years of schooling attained.* According to the labour force survey, this share topped 20% of the total employed population in Slovenia in 2004 and totalled 21.5% in Q2 of 2005 (6 p.p. more than in 1995). Generally, the highest and most rapidly rising shares of employed people with a higher education are found in the activities where people received the highest average years of schooling. These include the education, public administration and financial intermediation sectors, where the shares of highly-skilled employees increased by more than 11 p.p. in ten years. In December 2005, the proportion of employees with a higher education totalled 61.2% in education, 48.0% in public administration and 39.2% in financial intermediation. High ratios of workers with completed tertiary education were also recorded in health care and social work (35.7% in December 2005), real estate, renting and business services (34.5%), other community, social and personal services (29.5%) and electricity, gas and water supply (23.4%). In all other mainly production-oriented branches there were less than 13% of workers with

<sup>1</sup> Figures from the labour force survey for Q2 of 2005 and the Statistical Register of Employment as in December 2005.

<sup>2</sup> Eurostat does not calculate precisely the same indicator; it surveys the expected years of schooling instead.

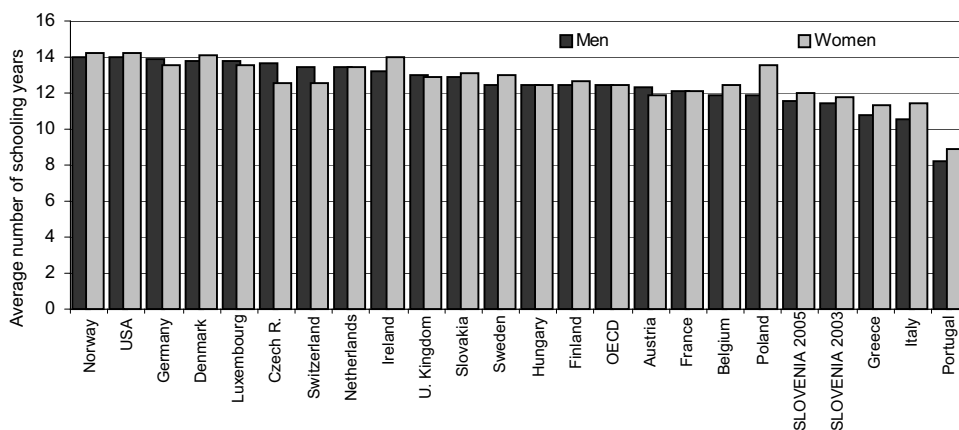
tertiary education. The lowest shares of such workers were registered in construction and hotels and restaurants (around 5.5%). The education sector also still employs the largest share (20.9%) of the total employed population with a completed tertiary education in Slovenia. The next highest shares in this category were observed in manufacturing (14.4%), public administration (13.8%), real estate, renting and business services (13.5%), health care and social work (10.5%) and wholesale and retail trade (8.0%).

Table: Average years of schooling attained by persons in employment in Slovenia

|   |  | 1995  | 2000  | 2001  | 2002  | 2003  | 2004 | 2005 |
|---|--|-------|-------|-------|-------|-------|------|------|
|   | Persons in employment according to the labour force survey | 11.0  | 11.4  | 11.4  | 11.5  | 11.6  | 11.7 | 11.8 |
|   | Persons in employment according to the SORS register       | 11.0  | 11.2  | 11.3  | 11.4  | 11.5  | 11.5 | 11.6 |
| A | Agriculture, forestry, hunting                             | 10.30 | 10.69 | 10.58 | 10.45 | 10.47 | 10.5 | 10.6 |
| B | Fishing  | 10.13 | 10.38 | 10.52 | 10.62 | 10.74 | 10.4 | 10.4 |
| C | Mining and quarrying                                       | 10.31 | 10.59 | 10.62 | 10.65 | 10.87 | 11.0 | 11.1 |
| D | Manufacturing  | 10.06 | 10.31 | 10.35 | 10.38 | 10.45 | 10.5 | 10.6 |
| E | Electricity, gas and water supply                          | 11.23 | 11.56 | 11.62 | 11.62 | 11.71 | 11.8 | 11.9 |
| F | Construction   | 10.19 | 9.93  | 9.91  | 9.95  | 9.95  | 10.0 | 10.0 |
| G | Wholesale and retail trade; repair of motor vehicles       | 11.20 | 11.37 | 11.40 | 11.44 | 11.49 | 11.5 | 11.6 |
| H | Hotels and restaurants                                     | 10.21 | 10.39 | 10.42 | 10.41 | 10.44 | 10.5 | 10.5 |
| I | Transport, storage and communications                      | 10.94 | 11.10 | 11.15 | 11.18 | 11.23 | 11.3 | 11.3 |
| J | Financial intermediation                                   | 12.64 | 12.88 | 12.94 | 13.04 | 13.12 | 13.2 | 13.3 |
| K | Real estate, renting and business services                 | 11.98 | 12.14 | 12.24 | 12.25 | 12.30 | 12.3 | 12.4 |
| L | Public administration, defence and social insurance        | 12.86 | 13.23 | 13.30 | 13.38 | 13.44 | 13.5 | 13.6 |
| M | Education  | 12.94 | 13.36 | 13.42 | 13.55 | 13.69 | 13.8 | 13.9 |
| N | Health care and social work                                | 11.89 | 11.81 | 11.86 | 12.50 | 12.55 | 12.6 | 12.7 |
| O | Other community, social and personal services              | 11.81 | 11.91 | 11.94 | 12.04 | 12.11 | 12.2 | 12.3 |
| P | Private households with employed persons                   | 10.12 | 10.15 | 10.34 | 10.20 | 10.24 | 10.2 | 10.5 |

Source: SORS, Statistical Register of Employment; calculations by IMAD.

Figure: Average years of schooling attained by persons in employment in European OECD members and the USA, 2003, and Slovenia, 2003 and 2005



Source: OECD, Education at a Glance, OECD Indicators 2005, Table A1.4.

## ***Ratio of students to teaching staff***

*The ratio of students to teaching staff is used as an indicator of quality in tertiary education.* It is assumed that the ratio reflects the workload of teachers and that a lesser load offers more possibilities for active teaching and thus a higher quality education. The ratio is calculated by dividing the number of full-time equivalent students<sup>1</sup> in tertiary education by the number of full-time equivalent teachers in tertiary education<sup>2</sup>. It should be noted, however, that the calculation does not take into account the actual teaching time of teachers nor the weekly number of a student's study hours, which means that this ratio does not lead to the conclusion about the average class size<sup>3</sup> or, more precisely, this should not be regarded as the same.

*In the 2004/2005 academic year, Slovenia calculated an internationally comparable indicator for the first time<sup>4</sup>. This indicator shows a considerable lag of Slovenia behind the OECD average.* On average, there were 22.6 students per teacher in tertiary education in 2004/2005 (21.5 students in 2003/2004) in Slovenia. The indicator is internationally comparable<sup>5</sup> only for 2005 in terms of the methodology used. It shows that Slovenia lags behind the OECD average (14.9) and most EU member states in which the ratio amounted to 9.0 in Sweden through to 29.6 in Greece 2002/2003. In the 1998-2003 period, the ratio became slightly less favourable in most countries for which there is data available due to high increases in the number of students. In Slovenia, the ratio slightly improved in the 2000-2003 period (from 23.8 in 2000 to 22.9 in 2003), but the data only include full-time students and therefore cannot be compared with those of other countries.

*The ratio of students to teaching staff is also influenced by the type of undergraduate courses.* Data for OECD countries show that the student/teaching staff ratio is normally lower in professional programmes of type B (the OECD average being 14.1) than of type A (the OECD average being 15.7)<sup>6</sup>. In Slovenia, the ratio at vocational colleges belonging to type B programmes is worse than the OECD average: in 2003/2004 it was 17.0, while in 2004/2005 it grew to 17.9. The ratio is even worse at undergraduate professional and university programmes (5A and 5B): there were 23.2 students per teaching staff in 2004/2005.

<sup>1</sup> The number of full-time equivalent students in tertiary education = full-time students + 1/3 (part-time students + candidates for graduation + postgraduate students).

<sup>2</sup> In connection with this indicator, teaching staff includes instructional and professional support staff at vocational colleges (vocational college lecturers, exercise instructors, and lab assistants) and teaching faculty (assistant professors, associate and full professors, lecturers, lecturers and senior lecturers), excluding researchers and higher education assistants (teaching assistants, librarians, specialist advisors, research advisors, senior researchers, researchers, and skills teachers).

<sup>3</sup> The class size is thought to be an indicator more accurately reflecting the load of teachers and consequently the quality of the school system, but it is calculated only for lower levels of the education system (ISCED 1-3).

<sup>4</sup> The 2004/2005 data on the total number of students also includes doctor's degree students for the first time (therefore the 2004/2005 ratio (22.6) is higher than the 2003/2004 ratio (21.5)). As far as teaching staff is concerned, in 2003/2004 teaching staff giving courses for part-time and postgraduate students were included in addition to those giving courses for full-time students (Rapid Reports No. 259 – SORS, 2004).

<sup>5</sup> Specific methodological features for the period until 2005 are given below the table.

<sup>6</sup> ISCED 5B: postsecondary vocational and professional undergraduate education; ISCED 5A academic undergraduate university studies and postgraduate studies.

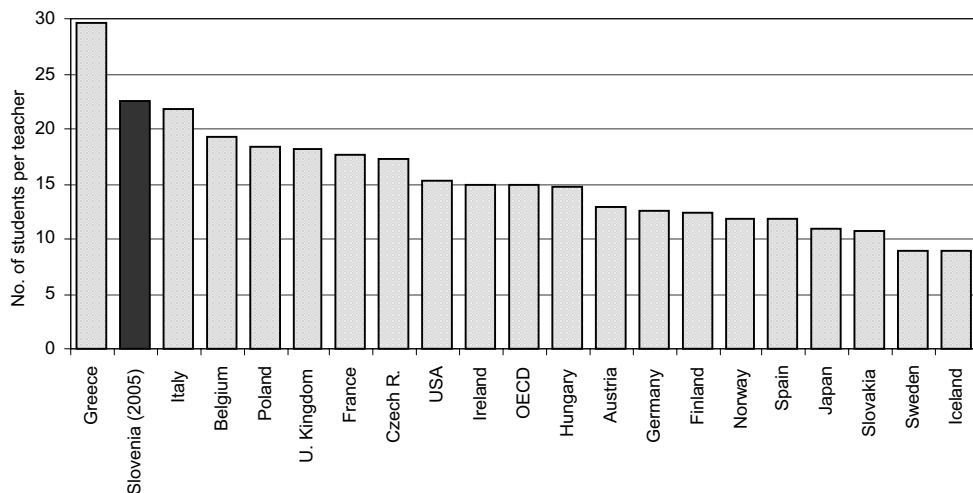
Table: The ratio of students to teaching staff in tertiary education

|                             | 1998        | 2000        | 2002        | 2003        |
|-----------------------------|-------------|-------------|-------------|-------------|
| <b>OECD</b>                 | <b>14.8</b> | <b>14.7</b> | <b>15.4</b> | <b>14.9</b> |
| Austria                     | N/A         | N/A         | 13.0        | 12.9        |
| Belgium                     | N/A         | 19.9        | 18.7        | 19.2        |
| Czech Republic              | 13.5        | 13.5        | 16.1        | 17.3        |
| Finland                     | N/A         | N/A         | 12.6        | 12.3        |
| France                      | N/A         | 18.3        | 17.9        | 17.6        |
| Greece                      | 26.3        | 26.8        | 32.2        | 29.6        |
| Ireland                     | 16.6        | 17.4        | 16.3        | 15          |
| Italy                       | N/A         | 22.8        | 23.1        | 21.9        |
| Hungary                     | 11.8        | 13.1        | 13.8        | 14.8        |
| Germany                     | 12.4        | 12.1        | 12.6        | 12.5        |
| Poland                      | N/A         | 14.7        | 18.0        | 18.3        |
| Slovakia                    | N/A         | 10.2        | 10.5        | 10.8        |
| <b>Slovenia<sup>1</sup></b> | <b>N/A</b>  | <b>23.8</b> | <b>22.5</b> | <b>22.9</b> |
| Spain                       | 17.2        | 15.9        | 13.0        | 11.8        |
| Sweden                      | 9.0         | 9.3         | 9.1         | 9.0         |
| United Kingdom              | 17.7        | 17.6        | 18.3        | 18.2        |
| Island                      | 9.3         | 7.9         | 8.7         | 9.0         |
| Japan                       | 11.8        | 11.4        | 11.2        | 11          |
| Norway                      | 13.0        | 12.7        | 13.2        | 11.9        |
| USA                         | 14.6        | 13.5        | 17.1        | 15.2        |

Source: Education at a Glance (issues: 2002 - 2005); Rapid Reports No. 121 - Education, SORS (2005); Rapid Reports No. 259 - Education, SORS 2005; calculations IMAD.

Note: Data for year Y refer to the X/Y academic year. 1 For Slovenia, only the 2005 data are internationally comparable in full (until 2003 - full-time equivalent student/teacher ratio in full-time courses; 2004 - the total of students expressed as a full-time equivalent does not include doctoral students, while the number of teachers for the first time also included part-time teachers and those at postgraduate levels in addition to full-time staff, expressed as a full-time equivalent).

Figure: The ratio of students to teaching staff in tertiary education in 2003 (2002/2003 academic year)



Source: Education at a Glance 2005; Rapid Reports No. 121 - Education, SORS (2005); Rapid Reports No. 259 - Education, SORS (2004); calculations IMAD.

Note: For Slovenia, only the 2005 data are fully internationally comparable.

## Total public expenditure on education

*Total public expenditure on education as a share of GDP is the main structural indicator measuring the level of investment in education used in international comparisons*<sup>1</sup>. Total public expenditure on education<sup>2</sup> totalled 6.02% of GDP in 2003 (5.98% in 2002), which ranks Slovenia above the EU-25 average (Eurostat, 2002: 5.22%). Between 1995 and 2000 the shares of public expenditure on GDP generally fell in the EU. From 2000 onwards, however, most countries have recorded a rising trend in this expenditure, which is in line with the Lisbon Strategy goals. Slovenia's relatively high share is nevertheless still much lower than the shares of some northern European countries, notably Denmark, Sweden and Norway (over 7%-8% of GDP).

*Slovenia also tops the EU average by its share of public expenditure on education in total public expenditure*. In 2003 this share rose to 12.52% in Slovenia (12.44% in 2001), ranking the country 13<sup>th</sup> in the EU. Most countries increased their public expenditure on education expressed as a share of total public expenditure in 1995-2002 (Latvia and France were the only exceptions). However, as countries have different shares of total public expenditure relative to GDP, the country rankings according to this indicator are slightly different. Lithuania, Cyprus and Latvia, rather than Scandinavian countries, are in the lead.

*Slovenia's total public expenditure on tertiary education as a share of GDP is higher than the comparable shares in most new member states and the EU average, partly due to the high transfers to households* (see the figure). Slovenia's total public expenditure on tertiary education as a share of GDP totalled 1.32% in 2001 and 2002, having risen to 1.34% in 2003.<sup>3</sup> The allocation of public expenditure on tertiary education differs across countries. Some countries have higher direct expenditure on educational institutions while others earmark more funds for transfers to households and loans for tuition fees. The Czech Republic, Greece, Spain, France, Poland and Portugal earmark more than 90% of their total expenditure on tertiary education for educational institutions. The corresponding average share in the EU is 83.6%, while Slovenia's it is just 74.2%. As much as 25.9% of Slovenia's total public expenditure at the tertiary level of education goes for transfers to households (national and Zois scholarships, child benefits). High transfers are also characteristic of Scandinavian countries.

*The high expenditure on tertiary education in Slovenia is also linked to the high participation rate in tertiary education*. According to Eurostat's estimate, Slovenia's expenditure on public education expressed as a share of GDP would be around 0.3 p.p. lower (i.e. 1.0% of GDP) if the participation rate in tertiary education<sup>4</sup> were at the average EU-25 level. Assuming this situation, only Finland, Sweden and Norway would still have lower total public expenditure on tertiary education than Slovenia (Finland by 0.8 p.p.), while the shares of the Czech Republic, Cyprus, Malta, Slovakia and Switzerland would rise by over 0.5 p.p. (Statistics in Focus, 18/2005). Apart from the participation factor, the level of tertiary education expenditure is also significantly determined by the average duration of studies at the tertiary level. The average of the OECD countries in 2002 was 4.21 years (Education at a Glance, 2005)<sup>5</sup>. Comparable data for Slovenia are not available yet but some figures suggest that Slovenia does not exceed the average official duration of study programmes in the EU<sup>6</sup>. However, the average graduate in Slovenia is estimated (Mihevc, 2005) to have spent 5.4 years on his or her studies at higher education programmes (about 1.5 years longer than expected) and 7.3 years at university programmes (more than 2 years longer than expected) in 2004.

<sup>1</sup> Financial data for Slovenia are collected using an internationally comparable methodology based on the UOE questionnaire (a joint questionnaire of UNESCO, OECD and Eurostat). Data cover only formal education.

<sup>2</sup> Total public expenditure on education comprises the total budgetary expenditure on formal education of youth and adults at national and municipal levels. This includes public direct expenditure on educational institutions (both instructional and non-instructional) and transfers to households and non-profit institutions (grants, training grants for the unemployed, subsidised tickets, subsidised textbooks, evaluation costs, child benefits, to the level that is conditional on inclusion in education).

<sup>3</sup> Public expenditure on R&D in tertiary education is included.

<sup>4</sup> The participation rate in tertiary education is calculated as the share of participating population aged 20-29 (Statistics in Focus 19/2005).

<sup>5</sup> Eurostat does not publish data on average duration of studies. These data are planned to be collected for 2005 for the first time.

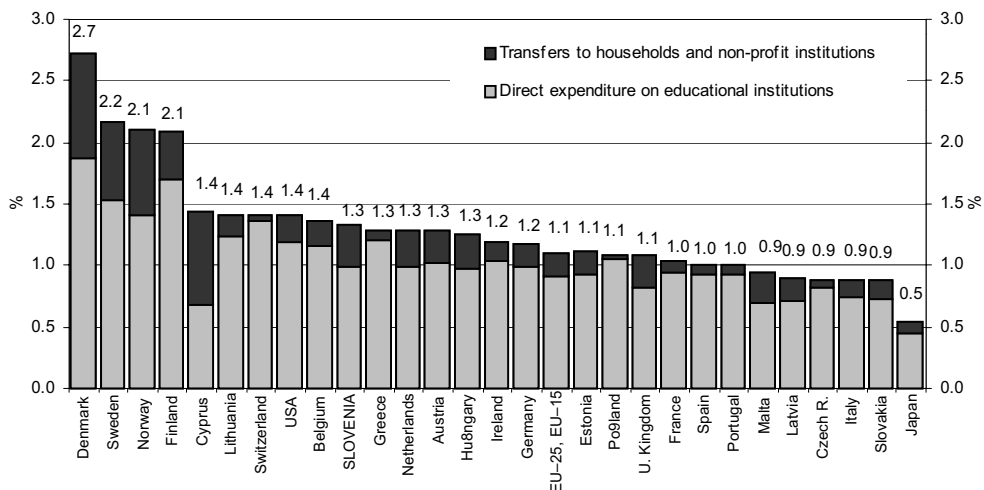
<sup>6</sup> The share of students (both full-time and part-time) enrolled at university programmes shrank from 52.8% to 47.6% in 2000-2003 (in 2004 and 2005 it rebounded to 48.1%). Data on graduates by type of programme similarly show that only 30% of total undergraduate students (ISCED 5A) finish the studies whose duration is more than 5 years in Slovenia. In

Table: Total public expenditure on education as a % of GDP and as a % of total public expenditure

|                    | % of GDP    |             |             |             | % of total public expenditure |              |              |              |
|--------------------|-------------|-------------|-------------|-------------|-------------------------------|--------------|--------------|--------------|
|                    | 1995        | 2000        | 2001        | 2002        | 1995                          | 2000         | 2001         | 2002         |
| EU-25 <sup>1</sup> | 5.17        | 4.94        | 5.1         | 5.22        | 10.27                         | 10.81        | 10.94        | 11.01        |
| EU-15 <sup>1</sup> | 5.19        | 4.97        | 5.09        | 5.22        | 10.3                          | 10.84        | 10.93        | 11.01        |
| EU-10 <sup>1</sup> | 5.08        | 4.75        | 5.16        | 5.31        | 9.83                          | 10.5         | 11.07        | 11.02        |
| OECD <sup>2</sup>  | 5.3         | N/A         | N/A         | 5.4         | 11.9                          | N/A          | N/A          | 12.9         |
| Austria            | 6.04        | 5.66        | 5.7         | 5.67        | 10.78                         | 11.01        | 11.21        | 11.2         |
| Belgium            | N/A         | N/A         | 6.11        | 6.26        | N/A                           | N/A          | 12.38        | 12.47        |
| Cyprus             | 4.81        | 5.60        | 6.28        | 6.83        | N/A                           | 14.46        | 15.55        | 16.29        |
| Czech Rep.         | 4.62        | 4.04        | 4.16        | 4.41        | 8.5                           | 9.59         | 9.23         | 9.41         |
| Denmark            | 7.67        | 8.39        | 8.5         | 8.51        | 12.98                         | 15.65        | 15.7         | 15.59        |
| Estonia            | 5.83        | 5.59        | 5.48        | 5.69        | 13.42                         | 14.61        | 14.84        | 15.56        |
| Finland            | 6.85        | 6.12        | 6.24        | 6.39        | 11.49                         | 12.47        | 12.68        | 12.75        |
| France             | 6.04        | 5.83        | 5.76        | 5.81        | 11.27                         | 11.42        | 11.25        | 10.99        |
| Greece             | 2.87        | 3.79        | 3.9         | 3.96        | 5.62                          | 7.28         | 7.77         | 8.06         |
| Ireland            | 5.07        | 4.36        | 4.35        | 4.32        | 12.22                         | 13.62        | 12.91        | 12.9         |
| Italy              | 4.85        | 4.57        | 4.98        | 4.75        | 9.09                          | 9.75         | 10.23        | 9.89         |
| Latvia             | 6.27        | 5.43        | 5.7         | 5.82        | 15.94                         | 14.32        | 15.6         | 16.24        |
| Lithuania          | 5.08        | 5.67        | 5.92        | 5.89        | 14.07                         | 14.79        | 16.9         | 17.16        |
| Luxembourg         | 4.26        | N/A         | 3.84        | 3.99        | 9.35                          | N/A          | 9.89         | 9.25         |
| Hungary            | 5.37        | 4.54        | 5.15        | 5.51        | N/A                           | 9.51         | 10.56        | 10.46        |
| Malta              | N/A         | 4.55        | 4.47        | 4.54        | N/A                           | 10.87        | 10.2         | 9.98         |
| Germany            | 4.62        | 4.53        | 4.57        | 4.78        | 9.7                           | 9.9          | 9.72         | 9.81         |
| Netherlands        | 5.06        | 4.87        | 4.99        | 5.08        | 8.98                          | 10.75        | 10.69        | 10.62        |
| Poland             | 5.14        | 5.01        | 5.56        | 5.6         | 10.02                         | 11.16        | 11.67        | 11.46        |
| Portugal           | 5.37        | 5.74        | 5.91        | 5.83        | 11.92                         | 12.71        | 12.76        | 12.7         |
| Slovakia           | 4.98        | 4.15        | 4.03        | 4.35        | 9.2                           | 6.92         | 7.83         | 8.53         |
| <b>Slovenia</b>    | <b>5.87</b> | <b>5.95</b> | <b>6.08</b> | <b>5.98</b> | <b>N/A</b>                    | <b>12.37</b> | <b>12.41</b> | <b>12.44</b> |
| Spain              | 4.66        | 4.42        | 4.41        | 4.44        | 10.36                         | 11.06        | 11.14        | 11.11        |
| Sweden             | 7.22        | 7.39        | 7.31        | 7.66        | 10.67                         | 12.89        | 12.8         | 13.14        |
| UK                 | 5.24        | 4.58        | 4.69        | 5.25        | 11.7                          | 11.54        | 11.71        | 12.77        |
| Norway             | 7.44        | 6.82        | 7           | 7.63        | 14.44                         | 16           | 15.83        | 16.11        |
| Japan              | 3.53        | 3.59        | 3.57        | 3.6         | N/A                           | 10.49        | 10.54        | N/A          |
| USA                | 5.03        | 4.93        | 5.08        | 5.35        | N/A                           | 15.49        | 17.15        | N/A          |

Sources: Rapid Reports. No. 149/2005, First Release No. 86 - SORS (2006); National accounts - SORS (Sept. 2005), Main aggregates of the general government sector - First Release No. 82 (2006); IMAD's calculations; Population and social condition - Eurostat (2005), Education at a Glance 2005 - OECD, 2005.  
Notes: <sup>1</sup>Averages for the EU-25, EU-15, EU-10 - Eurostat's estimates (weighted averages for the entire area); EU-10 - new member states. <sup>2</sup>Average for OECD countries - calculation by OECD (mean value).

Figure: Total public expenditure on tertiary education as a % of GDP, 2002



Source: Population and Social Condition - Eurostat (2005), *Statistics in Focus*. (18/2005).

## Public and private expenditure on educational institutions

**The share of total public and private expenditure on education institutions<sup>1</sup> in GDP is higher in Slovenia than in most EU states.** The amount of resources allocated to education is influenced by many factors, including the demographic structure, participation rates, per capita income, level of teaching staff's salaries, organisation of the education system, and the financing system for education. In 2002 and 2003 expenditure on education institutions amounted to 6.3% of GDP (6.2% in 2001). It was only higher in four EU states (Belgium, Denmark, Sweden, and Cyprus). For the EU-15 average, the share in 2002 did not change in comparison with 1995. Seven of the 14 countries for which data are also available for 1995 noted an increase in the share of expenditure on education institutions in GDP. Likewise, in approximately half of the OECD countries the increase in expenditure on education institutions exceeded increases in GDP in the same period. In the composition of expenditure, the largest share is taken by expenditure on elementary schools (45% in 2002 or 2.9% of GDP in Slovenia), followed by expenditure on secondary schools (22% or 1.4% of GDP), tertiary education institutions (21% or 1.3% of GDP) and preschool education institutions (12% or 0.7% of GDP). In Slovenia, the high expenditure on education institutions can be explained by the high participation rate of young learners (aged 15 to 24) in education, which in 2003 amounted to 66.9%, while the EU-25 average was 59.2%. Higher participation rates were only noted in Finland, Lithuania, Belgium, and Poland (Population and Social Conditions – Eurostat, 2005).

**In Slovenia, private expenditure on education institutions is high<sup>2</sup>.** In 2003 it amounted to 0.9% of GDP (0.8% in 2002). With regard to the level of education, it is the highest in tertiary education and preschool institutions. It should be noted, however, that international comparisons of private expenditure are not fully reliable because they are based in part on estimates which are usually higher for countries with better information sources, including Slovenia. The comparison of public to private expenditure on education institutions ratio also shows that Slovenia allocates a fairly high share of private funding to education institutions. In 2003 this ratio amounted to 86.4:13.6 in Slovenia. Among European countries, a higher share of private expenditure was only noted in Cyprus (19.4%), Germany (16.7%) and the United Kingdom (15.6%).

**Slovenia is ranked among the top EU states as far as the share of private expenditure on tertiary education institutions is concerned.** Expressed as a percentage of GDP, it amounted to 0.3% (see the table) in 2002 and to 23.3% in relation to total expenditure on tertiary education institutions (EU average 17.2%; Figure). In Slovenia, the reason for the high private expenditure at the tertiary level is primarily the tuition fees for part-time students, paid in most cases by students themselves<sup>3</sup>. Expenditure on student housing is also high. Among European countries, higher private expenditure at the tertiary level has only been noted in Poland, the United Kingdom and Spain. Total public and private expenditure on tertiary education institutions in 2002 and 2003 amounted to 1.3% of GDP (Table), which is at the level of the EU-15 average. It should be noted, however, that expenditure on tertiary education institutions also includes expenditure on research and development in tertiary education, which varies significantly among individual countries. In Slovenia it amounted to 0.2% of GDP in 2002<sup>4</sup>.

<sup>1</sup> According to the UOE methodology, expenditure on education institutions includes all public and private expenditure for teaching and non-teaching education institutions offering formal education at levels. This indicator does not include transfers to individuals and households otherwise included in total public expenditure on education (Indicator: *Public expenditure on education*).

<sup>2</sup> Private expenditure includes expenditure by households and other private individuals paid directly to education institutions (expenditure on tuition fees, meals, out-of-school classes, student housing).

<sup>3</sup> According to data in the annual reports of public institutions, private sources at public tertiary education institutes represent on average somewhat more than 15% of all income, while at some social science faculties even more than a third of total income due to the large numbers of part-time students.

<sup>4</sup> The table under the indicator "Investments in knowledge" displays data for tertiary education institutions without expenditure on research and development (which amounted to 1.1% of GDP in 2002 in Slovenia).



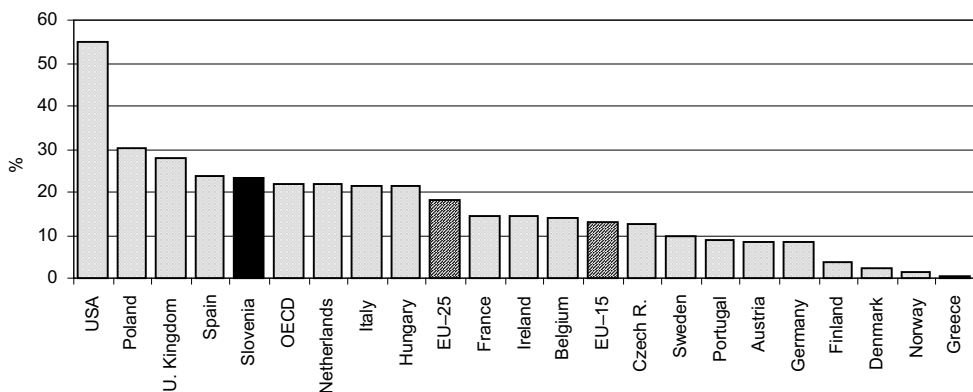
Tabela: Total expenditure on educational institutions in % of GDP and % of private expenditure in total expenditure

|                             | Share of total expenditure on educational institutions in GDP, in % |            |                                 |                     |                                 |            |                                 |                     | Share of private expenditure in total expenditure, in % |                                 |
|-----------------------------|---|------------|---------------------------------|---------------------|---------------------------------|------------|---------------------------------|---------------------|---|---------------------------------|
|                             | All levels of education   |            |                                 |                     | Tertiary education <sup>3</sup> |            |                                 |                     | All levels  | Tertiary education <sup>3</sup> |
|                             | Total   |            | Public expenditure <sup>5</sup> | Private expenditure | Total                           |            | Public expenditure <sup>5</sup> | Private expenditure |   |                                 |
|                             | 1995  | 2002       | 2002                            | 2002                | 1995                            | 2002       | 2002                            | 2002                | 2002  | 2002                            |
| EU-25 <sup>2</sup>          | N/A   | 5.5        | 4.9                             | 0.6                 | N/A                             | N/A        | N/A                             | N/A                 | 10.6  | N/A                             |
| EU-15 <sup>2</sup>          | 5.5   | 5.5        | 4.9                             | 0.6                 | 1.2                             | 1.3        | 1.2                             | 0.2                 | 10.8  | 12.8                            |
| OECD <sup>4</sup>           | N/A   | 5.8        | 5.1                             | 0.7                 | 1.3                             | 1.4        | 1.1                             | 0.3                 | 11.6  | 21.9                            |
| Austria                     | 6.1   | 5.7        | 5.4                             | 0.3                 | 1.2                             | 1.1        | 1.1                             | N/A                 | 6.7   | 8.4                             |
| Belgium                     | N/A   | 6.4        | 6.0                             | 0.4                 | N/A                             | 1.4        | 1.2                             | 0.2                 | 5.8   | 14.0                            |
| Cyprus                      | N/A   | 7.6        | 6.1                             | 1.5                 | 1.0                             | N/A        | N/A                             | N/A                 | 19.4  | N/A                             |
| Czech Republic              | 5.4   | 4.4        | 4.2                             | 0.2                 | 1.0                             | 0.9        | 0.8                             | 0.1                 | 5.5   | 12.5                            |
| Denmark                     | 6.3   | 7.1        | 6.8                             | 0.3                 | 1.6                             | 1.9        | 1.9                             | N/A                 | 3.9   | 2.1                             |
| Finland                     | 6.3   | 6.0        | 5.9                             | 0.1                 | 1.9                             | 1.8        | 1.7                             | N/A                 | 2.2   | 3.7                             |
| France                      | 6.3   | 6.1        | 5.6                             | 0.5                 | 1.1                             | 1.1        | 1.0                             | 0.1                 | 11.6  | 14.3                            |
| Greece                      | 3.2   | 4.1        | 3.9                             | 0.2                 | 0.8                             | 1.2        | 1.2                             | N/A                 | 4.6   | 0.4                             |
| Ireland                     | 5.3   | 4.4        | 4.0                             | 0.3                 | 1.3                             | 1.3        | 1.1                             | 0.2                 | 6.6   | 14.2                            |
| Italy                       | N/A   | 4.9        | 4.6                             | 0.3                 | 0.8                             | 0.9        | 0.8                             | 0.2                 | 7.4   | 21.4                            |
| Latvia                      | N/A   | 6.1        | 5.4                             | 0.7                 | N/A                             | N/A        | N/A                             | N/A                 | 12  | N/A                             |
| Hungary                     | 5.5   | 5.6        | 5.0                             | 0.6                 | 1.0                             | 1.2        | 1.0                             | 0.3                 | 10.2  | 21.3                            |
| Germany                     | 5.4   | 5.3        | 4.4                             | 0.9                 | 1.1                             | 1.1        | 1.0                             | 0.1                 | 16.7  | 8.4                             |
| Netherlands                 | 4.9   | 5.1        | 4.6                             | 0.5                 | 1.4                             | 1.3        | 1.0                             | 0.3                 | 9.7   | 21.9                            |
| Poland                      | N/A   | 6.1        | 5.5                             | 0.7                 | 0.8                             | 1.5        | 1.1                             | 0.5                 | 10.8  | 30.3                            |
| Portugal                    | 5.3   | 5.8        | 5.7                             | 0.1                 | 0.9                             | 1.0        | 0.9                             | 0.1                 | 1.6   | 8.7                             |
| <b>Slovenia<sup>1</sup></b> | <b>6.2</b>  | <b>6.3</b> | <b>5.4</b>                      | <b>0.8</b>          | <b>1.3</b>                      | <b>1.3</b> | <b>1.0</b>                      | <b>0.3</b>          | <b>13.7</b>   | <b>23.3</b>                     |
| Spain                       | 5.4   | 4.9        | 4.3                             | 0.6                 | 1.0                             | 1.3        | 1.0                             | 0.3                 | 11.6  | 23.7                            |
| Sweden                      | 6.2   | 6.9        | 6.7                             | 0.2                 | 1.6                             | 1.8        | 1.6                             | 0.2                 | 2.5   | 10.0                            |
| United Kingdom              | 5.5   | 5.9        | 5.0                             | 0.9                 | 1.2                             | 1.1        | 0.8                             | 0.3                 | 15.6  | 28.0                            |
| Norway                      | 7.1   | 6.9        | 6.7                             | 0.3                 | 1.7                             | 1.5        | 1.4                             | 0.1                 | 3.8   | 1.5                             |
| USA                         | 7.2   | 7.2        | 5.3                             | 1.9                 | 2.7                             | 2.6        | 1.2                             | 1.4                 | 26.2  | 54.9                            |

Source: Izobraževanje - Statistične informacije št. 149, SURS (2005) ) and Izobraževanje - Prva statistična objava št. 86, SURS (2006); Nacionalni računi - SURS (Sept. 2005); calculated by IMAD; Population and Social Conditions - Eurostat (2005); Education at a Glance 2005 - OECD (2005).

Notes: <sup>1</sup>GDP after the last revision in autumn 2005 has been taken into account for Slovenia; <sup>2</sup>EU-25 and EU-15 averages - estimates of Eurostat (weighted averages); <sup>3</sup>for tertiary education average shares for those countries for which data are available - calculation by IMAD; expenditure on R&D for tertiary education institutions is also included; <sup>4</sup>OECD average - calculation by the OECD (mean value); <sup>5</sup>International sources of financing are included.

Figure: Share of private expenditure in total expenditure on tertiary education institutions in 2002, in %



Source: Population and Social Conditions - Eurostat (2005), Education at a Glance 2005 - OECD (2005).

## ***Expenditure on educational institutions per student***

*With regard to per capita expenditure for tertiary education students, Slovenia significantly lags behind the majority of more developed EU states and the European average. The situation further deteriorated in 2002.* In spite of relatively high expenditure on tertiary education institutions<sup>1</sup>, the figures for Slovenia paint a different picture if annual expenditure is calculated per number of students. In 2002 expenditure per student amounted to EUR 6,139 in Purchasing Power Standards (hereinafter EUR PPS<sup>2</sup>; 7,452 in 2001) in Slovenia, while the EU-25 average amounted to 7,946 EUR PPS. In certain Scandinavian countries, expenditure per student almost doubled that of Slovenia (in Sweden it amounted to as much as 13,658 EUR PPS). The figure shows that new EU member states, with the exception of Cyprus, spend less per student than the EU average. In general, expenditure per student in tertiary education is considerably higher in those countries with higher per capita income. In international comparisons, the indicator of expenditure on education institutions per student in comparison with per capita GDP is therefore a frequently used indicator (see the table), reflecting investments per capita taking a country's level of economic development into account. The indicator proves that investments per student can be approximately the same even in countries with different per capita incomes (e.g. Poland and Finland with 43%) (Statistics in Focus, 18/2005). In Slovenia in 2002 the share of expenditure per student amounted to 38.2% of GDP per capita (48.7% in 2001), which is slightly above the EU-25 average (37.1%), but less than in most EU member states. In Slovenia, both indicators of expenditure per student worsened in 2002 in comparison with 2001. The gap between the relatively high total expenditure on tertiary education institutions on one hand and the low annual expenditure per student in tertiary education, when compared with other European countries, is closely connected with a high participation rate in tertiary education<sup>3</sup> and the duration of studies<sup>4</sup>.

*Concerning per capita expenditure, Slovenia ranks higher for all levels of education together than for tertiary education.* Thus in 2002 in Slovenia, 4,862.2 EUR PPS (4,689.1 EUR PPS in 2001) was expended per pupil/student, which is close to the EU-25 average (5,391.7 EUR PPS). A completely different picture is given by the indicator of expenditure per pupil/student expressed in % of GDP per capita (Table), according to which Slovenia with 30.3% in 2002 ranks at the top of European countries (together with Cyprus) and well above the EU-15 (25.3%) and EU-25 averages (25.1%). Per capita expenditure in EUR PPS in most EU and OECD countries has been increasing in the past few years primarily at the primary and secondary levels because the size of classes is shrinking due to demographic changes. However, certain comparisons between pupil achievements by country and expenditure on education per pupil/student show that higher expenditure does not necessarily mean better results or a higher quality education (Education at a Glance 2005).

<sup>1</sup> Indicators: *Total public expenditure on education and Public and private expenditure on educational institutions*

<sup>2</sup> Purchasing Power Standards (PPS). The basis for calculations into PPS is EUR, which means that the data is first converted from national currencies into EUR and then, by using special converters or Purchasing Power Standards (PPS), from EUR into Purchasing Power Standards – that is a common fictional currency enabling comparisons of economic aggregates, taking into account differences in price levels among countries.

<sup>3</sup> The rate of participation in tertiary education with regard to cohorts aged 20 to 24 amounted for the first time to approximately 68% (EU average 56%) in 2002/2003 in Slovenia. In addition, the percentage of students enrolled in tertiary education for the first time is quite high (85%; relatively calculated with regard to the age of the cohort at the beginning of studies (18-19 years)). In Europe, only Sweden and Iceland (approximately 90%) have a higher participation rate for first-time enrolments (Statistics in Focus 19/2005).

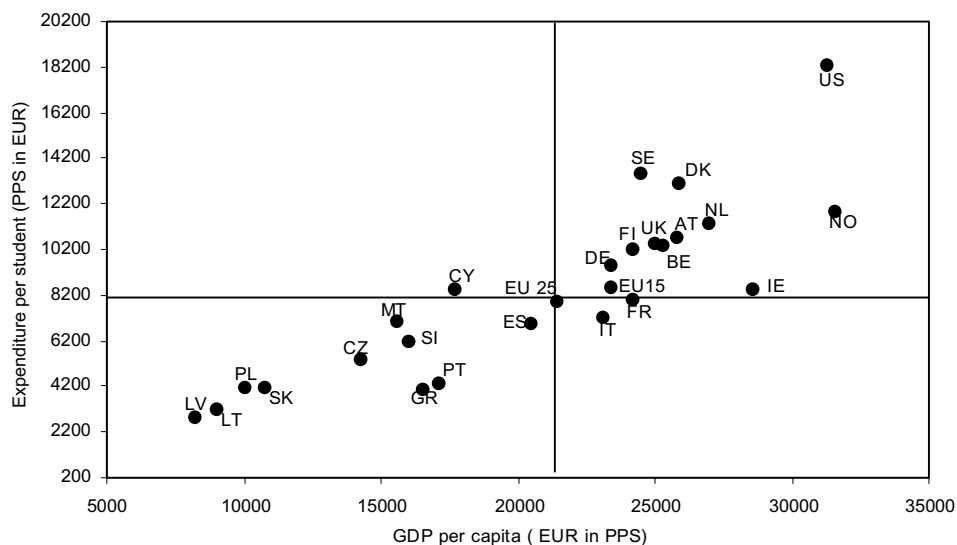
<sup>4</sup> Indicator: *Total public expenditure on education.*

Table: Annual expenditure on educational institutions per pupil/student, in Purchasing Power Standards (EUR PPS) and in comparison with GDP per capita

|                    | IN EUR PPS   |                                 | Share in GDP per capita <sup>1</sup> , in % |             |             |                                 |             |             |
|--------------------|--------------|---------------------------------|---|-------------|-------------|---------------------------------|-------------|-------------|
|                    | All levels   | Tertiary education <sup>4</sup> | All levels                                  |             |             | Tertiary education <sup>4</sup> |             |             |
|                    | 2002         | 2002                            | 2000  | 2001        | 2002        | 2000                            | 2001        | 2002        |
| EU-25 <sup>2</sup> | 5,392        | 7,946                           | 24.0  | 24.9        | 25.1        | 38.1                            | 37.2        | 37.1        |
| EU-15 <sup>2</sup> | 5,878        | 8,562                           | 24.2  | 25.2        | 25.3        | 37.9                            | 36.9        | 36.9        |
| OECD <sup>3</sup>  | N/A          | N/A                             | N/A   | N/A         | N/A         | N/A                             | N/A         | 43.0        |
| Austria            | 7,632        | 10,747                          | N/A   | N/A         | 29.4        | N/A                             | N/A         | 41.4        |
| Belgium            | 6,507        | 10,377                          | 23.0  | 26.4        | 26.3        | 40.7                            | 42.7        | 42.0        |
| Cyprus             | 5,363        | 8,487                           | 29.5  | 29.2        | 30.3        | 51.8                            | 50.0        | 48.0        |
| Czech Republic     | 2,986        | 5,384                           | 20.1  | 20.4        | 20.8        | 35.5                            | 37.2        | 37.6        |
| Denmark            | 7,344        | 13,109                          | 28.4  | 29.1        | 28.3        | 45.0                            | 50.1        | 50.5        |
| Finland            | 5,983        | 10,160                          | 24.2  | 23.8        | 25.4        | 42.3                            | 35.3        | 43.2        |
| France             | 6,077        | 8,009                           | 24.2  | 24.2        | 24.3        | 31.9                            | 31.8        | 32.0        |
| Ireland            | 4,999        | 8,469                           | 18.0  | 18.0        | 17.3        | 38.2                            | 33.0        | 29.4        |
| Latvia             | 2,221        | 2,829                           | 26.2  | 26.3        | 26.6        | 40.5                            | 36.3        | 33.9        |
| Germany            | 6,012        | 9,496                           | 25.7  | 25.7        | 26.2        | 41.7                            | 41.3        | 41.4        |
| Netherlands        | 6,038        | 11,311                          | 21.7  | 22.5        | 23.4        | 45.4                            | 45.2        | 43.9        |
| Poland             | 2,537        | 4,174                           | 21.8  | 23.8        | 26.4        | 29.7                            | 36.6        | 43.4        |
| Portugal           | 4,834        | 4,328                           | 25.8  | 29.6        | 29.8        | 28.4                            | 29.1        | 26.7        |
| <b>Slovenia</b>    | <b>4,862</b> | <b>6,138</b>                    | <b>N/A</b>                                  | <b>30.7</b> | <b>30.3</b> | <b>N/A</b>                      | <b>48.7</b> | <b>38.2</b> |
| Spain              | 4,837        | 6,925                           | 23.8  | 24.0        | 24.3        | 32.9                            | 34.9        | 34.7        |
| Sweden             | 6,801        | 13,568                          | 26.1  | 26.0        | 28.1        | 57.8                            | 56.5        | 56.1        |
| United Kingdom     | 5,996        | 10,430                          | 21.3  | 23.2        | 24.5        | 38.0                            | 41.3        | 42.7        |
| Norway             | 8,611        | 11,862                          | 24.5  | 25.6        | 27.4        | 34.7                            | 36.1        | 37.7        |
| USA                | 9,660        | 18,260                          | 29.7  | 29.9        | 30.6        | 64.7                            | 62.2        | 57.8        |

Source: Population and social condition - Eurostat (2005); Education at a Glance 2005 - OECD (2005).  
 Note: <sup>1</sup>GDP per capita in EUR PPS; <sup>2</sup>EU-25 and EU-15 averages - calculated by Eurostat (weighted averages); <sup>3</sup>Averages for OECD countries - calculation by OECD (mean value); <sup>4</sup>includes expenditure for research and development in tertiary education.

Figure: Annual expenditure on educational institutions per student in tertiary education in 2002, in comparison with GDP per capita



Source: Population and social condition - Eurostat (2005). Abbreviations for countries: AT-Austria, BE-Belgium, CY-Cyprus, CZ-Czech Republic, DE-Germany, DK-Denmark, ES-Spain, FI-Finland, FR-France, GR-Greece, IE-Ireland, IT-Italy, LT-Lithuania, LU-Luxembourg, LV-Latvia, MT-Malta, NL-the Netherlands, PL-Poland, PT-Portugal, SE-Sweden, SI-Slovenia, SK-Slovakia, UK-United Kingdom, NO-Norway, and US-USA.

## ***Gross domestic expenditure on research and development***

*After the considerable increase seen in 2001, the share of gross domestic expenditure on research and development (R&D) in GDP went up again in 2004.* According to the SORS' first estimate for 2004, the share of gross domestic expenditure on R&D expressed as a percentage of GDP rose by 0.08 p.p. compared with the previous year to 1.61%, which was the second biggest increase seen in the 1996-2004 period (the biggest in 2001: up 0.12 p.p.). The appreciable rise in the indicator's value made a positive contribution to the narrowing of Slovenia's gap behind the EU-25 average (1.90% of GDP) to 0.29 p.p., the smallest gap Slovenia recorded so far. According to the indicator's value, Slovenia remains ahead of all new EU member states as well as the Mediterranean countries (Greece, Italy, Portugal, Spain) and Ireland.

*Slovenian business sector's expenditure on R&D investment has been going up, which is in line with the development documents<sup>1</sup> in this area; the pace of the rise, however, has so far been too slow to allow Slovenia as an EU-25 member to reach the Barcelona objective by 2010.* The average annual real growth rate of the Slovenian business sector's R&D expenditure totalled 8.2% in 1996-2003 while being even higher (by 0.9 p.p.) in the 2000-2003 period. This was by 2.8 and 3.8 p.p., respectively, in excess of the respective average annual real growth rates of the total R&D investment expenditure, and by as much as 5.9 and 8.2 p.p., respectively, in excess of the rates for the government sector's expenditure. In 2003, the business sector's expenditure on R&D recorded a real increase of 1.3% over the previous year to represent 0.91% of GDP. In 2003 Slovenia remains far from the Barcelona objective setting the amount to be spent on R&D by 2010 at 2% of GDP for the private (business) sector and 1% for the public sector. Supposing the business sector continued to increase its R&D investment at the 2000-2003 rate, its expenditure on R&D would come in at 1.67% of GDP in 2010. The Slovenian public<sup>2</sup> sector spent 0.57% of GDP on R&D in 2003 (0.50% in 1996). Also at the EU level both the business sector (EU-25 in 2003: 1.04% of GDP) and the public<sup>3</sup> sector (EU-25 in 2003: 0.77%, EU-15 in 1996: 0.79%) still lag behind the Barcelona objective.

*Although the Slovenian business sector's share in the structure of financing sources for gross domestic expenditure on R&D shrank in 2003, it remained bigger than the EU's for the second consecutive year.* The volume of gross domestic expenditure on R&D financed by the Slovenian business sector dropped by 0.7 of a structural point (s.p.) in 2003 relative to the year before to 59.3% while the figure for the higher education sector rose by 0.8 s.p. to 1.4%. The shares of the government and private non-profit sectors remained almost unchanged (35.3 %, 0.04 %). 4.0% of the total R&D investment expenditure was financed from abroad, most of which went to the government sector (42.7%), the major recipient of foreign R&D funds in the last three years (15.3 % in 2001). In contrast, the share of foreign funds flowing into the business sector has been declining over the last three years (26.3% in 2004, 59.7% in 2001), meaning that the Slovenian business sector is making insufficient use of the EU funds available for the

<sup>1</sup> According to the new Act Amending the Corporate Income Tax Act passed in late 2005, taxable companies investing in R&D are entitled to tax relief for investment in their own R&D activities and for the purchase of R&D services carried out by external research organisations. The companies are entitled to claim a reduction of the tax base in the amount of 20% of the volume of these investments whereas before they were entitled to a reduction in the amount of 10% of the sum invested in R&D equipment.

<sup>2</sup> In 2004 the government's R&D budget totalled 0.61% of GDP.

<sup>3</sup> In 2004 the government's planned R&D budget averaged at 0.76% of GDP in the EU-25 member states.

purpose. The EU-25 business sector's average share in total R&D expenditure was 54.3% in 2003, i.e. by 5.0 p.p. less than in Slovenia. The following EU-25 member states had a share very similar to Slovenia's: Ireland (59.1%), Belgium (60.3%) and Denmark (61.3%), while it was significantly bigger in Finland (70.0%), Germany (66.3%) and Sweden (65.0%). The business sector in the new EU members financed, on average, 40.1% of total R&D expenditure. The government sector in the EU-25 covered 34.9% of the total expenditure, a share comparable to Slovenia's (35.3%), while in the new EU member states the government's share was as much as 51.5%.

*The difference between Slovenia and the European average regarding the business sector's share in the amount spent on R&D performance continues to decrease.* In 2004, the Slovenian business sector spent 0.96% of GDP on R&D performance, i.e. by 0.06 p.p. more than in 2003. In the same year, the business sector in the EU-25 spent 1.22% of GDP on R&D performance on average, which contributed to the smallest gap (of 0.26 p.p.) of the Slovenian business sector behind the European average recorded in the 1996-2004 period. The gap of the new member states vis-à-vis the EU-25 average in terms of the business sector's share in R&D expenditure on performance, however, is significantly wider than Slovenia's (by 0.85 p.p. in 2004).

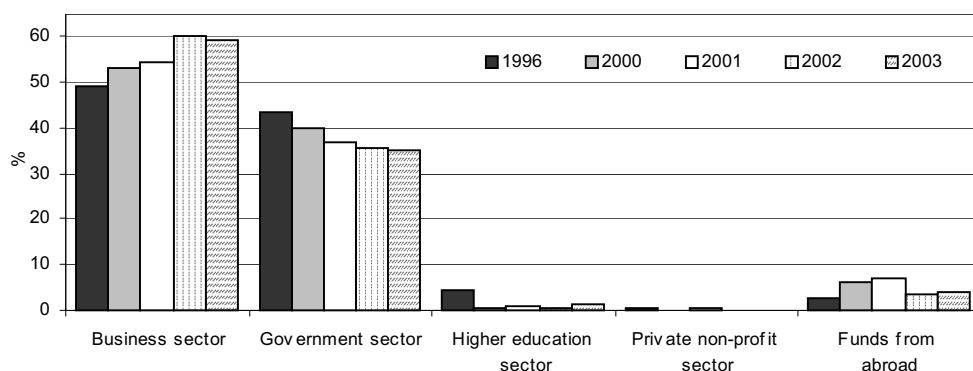
Table: Gross domestic expenditure on R&D in Slovenia and other EU-25 members, as a % of GDP

|                    | 1996              | 2000              | 2001        | 2002        | 2003                    | 2004 <sup>1</sup>       |
|--------------------|-------------------|-------------------|-------------|-------------|-------------------------|-------------------------|
| EU-25              | 1.83              | 1.89              | 1.93        | 1.93        | 1.92                    | 1.90                    |
| EU-10 <sup>4</sup> | N/A               | 0.79              | 0.80        | 0.79        | 0.80                    | 0.81                    |
| Czech Republic     | 0.98              | 1.23              | 1.22        | 1.22        | 1.26                    | 1.28                    |
| Finland            | 2.52              | 3.38              | 3.38        | 3.43        | 3.48                    | 3.51                    |
| Ireland            | 1.32              | 1.13              | 1.12        | 1.10        | 1.16                    | 1.20                    |
| Hungary            | 0.65              | 0.80              | 0.95        | 1.02        | 0.95                    | 0.89                    |
| Poland             | 0.67              | 0.66              | 0.64        | 0.58        | 0.56                    | 0.58                    |
| Portugal           | 0.60 <sup>5</sup> | 0.80 <sup>5</sup> | 0.85        | 0.80        | 0.78                    | N/A                     |
| Slovakia           | 0.92              | 0.65              | 0.64        | 0.58        | 0.58                    | 0.53                    |
| <b>Slovenia</b>    | <b>1.33</b>       | <b>1.44</b>       | <b>1.56</b> | <b>1.53</b> | <b>1.53<sup>2</sup></b> | <b>1.61<sup>3</sup></b> |

Sources: SORS, EUROSTAT, OECD 2005.

Notes: <sup>1</sup>for the majority of the countries (except the Czech Republic, Finland, Poland, Ireland and Slovakia), and hence for the two aggregates, data are provisional  
<sup>2</sup>SORS' estimate, <sup>3</sup>SORS' first estimate for 2004, <sup>4</sup>new member states, <sup>5</sup>this figure is taken from the OECD Science, Technology and Industry. Scoreboard 2005, OECD 2005.

Figure: Structure of financing sources for gross domestic expenditure on R&D in Slovenia



Source: SORS.

## Science and technology graduates

*In Slovenia, the number of science and technology graduates per 1,000 inhabitants aged between 20 and 29 dropped in the years 2003 and 2004, which increased Slovenia's gap behind the European average.* The indicator<sup>1</sup> gives information on one of the major factors that have an impact on innovativeness and knowledge-based society development. The indicator and the differences between various countries are *inter alia* influenced by the intensiveness of cooperation between the economy and universities and the demand for such human resources by the economy (Education at glance – OECD indicators 2005). In 2003, Slovenia had 8.7 science and technology graduates per 1,000 inhabitants aged between 20 and 29, which is a considerable reduction in comparison to the year 2002 (see table). However, along with the increase in the total number of graduates in most EU Member States also the number of science and technology graduates has been increasing accordingly from year to year. In 2003, the total number of graduates in the EU-25 average increased to 52.9 persons per 1,000 inhabitants aged between 20 and 29 (49.0 in 2002; 40.7 in 1999; in the period 1999 – 2003 this was an average of 29.9%<sup>2</sup>), whereas the number of science and technology graduates increased to 12.3 persons (11.4 in 2002; 9.8 in 1999). In the period from 2002 to 2003 the total number of all graduates had increased rapidly also in Slovenia (from 36.3 to 47.6 persons per 1,000 inhabitants aged between 20 and 29, i.e. 28.4% %), whereas the number of science and technology graduates had increased from 6.3 to 9.5. However, in 2003 it was the first time that Slovenia recorded a reduction in the total number of all graduates (to 46.6) and at the same time Slovenia was together with Cyprus also the only EU Member State that had to face a decline in the number of science and technology graduates. As per indicator value Slovenia's position among EU Member States fell from 9<sup>th</sup> to 13<sup>th</sup> place and the gap behind the European average (12.3 in the year 2003) increased considerably in comparison to the previous years. The number of science and technology graduates continued to drop also in the year 2004, when the indicator value fell to only 7.6 (the total number of graduates in this field dropped by only 11.5% – from 2,600 graduates in 2003 to 2,250 graduates in 2004).

*In 2003, also the share of science and technology graduates in the total number of all graduates in Slovenia dropped more than in the previous years.* In 2003, the share of science and technology graduates in the total number of graduates in Slovenia dropped as much as by 1.3 percentage point (from 19.9 % in 2002 to 18.6 % in 2003), whereas in the period 1998 – 2003 only by 1.0 percentage point per annum, i.e. by a total of 5.2 percentage point. A reduction in the share of science and technology graduates in the period from 1998 to 2003 was actually recorded in more than a half of the EU-Member States (see picture) and in the EU-25 average the share dropped from 25.1% in 1998 to 24.1% in 2003. A slightly lower decline in the number of science and technology graduates was observed in the EU-15 Member States (from 26.3% in 1998 to 26.1% in 2003), since some countries, in particular Spain and the Scandinavian countries, succeeded in increasing also the share of science and technology graduates despite the rapid growth of the total number of all graduates. In Slovenia, the decline in the share of science and technology graduates was far more drastic than in the majority of EU-Member States and only the decline in two countries, Latvia and Hungary, exceeded that of Slovenia.

<sup>1</sup> In accordance with ISCED 97, indicators for *science and technology* cover two broader fields, i.e. the field "science, mathematics and computing" (ISC 42, 44, 46 and 48) and the field "engineering, manufacturing and construction" (ISC 52, 54 and 58). Within this framework the International Standard Classification of Education ISCED 97 and the Eurostat Fields of Education and Training Manual, 1999, were taken into consideration. The indicator covers the number of all tertiary education graduates in the field of science and technology who completed their studies at a public or private university at ISCED 5 and 6 Levels (graduate and post-graduate levels) in the calendar year under observation. The indicator is expressed per 1,000 inhabitants aged between 20 and 29.

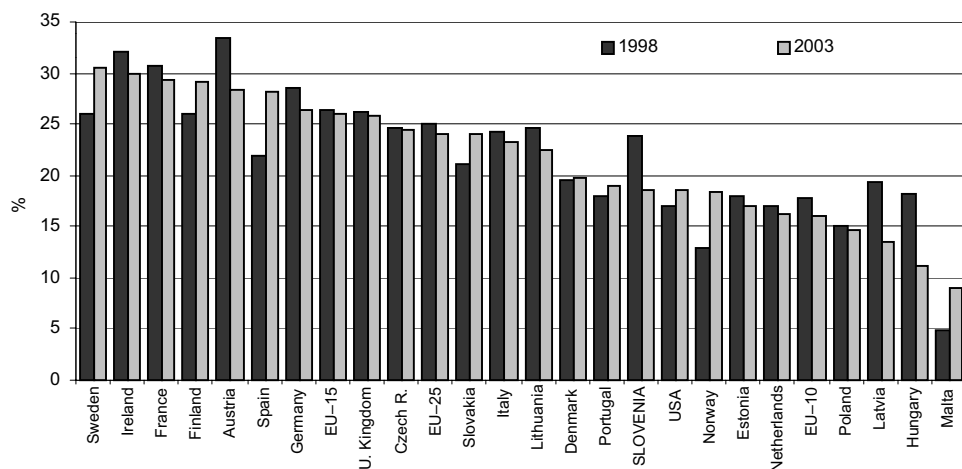
<sup>2</sup> Such increase in the number of graduates is also related to the fact that the number of higher degree graduates has been increasing. In 2003, 16% more students obtained their doctor's degree in the EU-25 in comparison to the year 1998 (Statistics in focus 19/2005).

Table: Number of science and technology graduates per 1,000 inhabitants aged between 20 and 29

|                 | 1997       | 1998     | 1999       | 2000       | 2001       | 2002       | 2003       |
|-----------------|------------|----------|------------|------------|------------|------------|------------|
| EU-25           | N/A        | N/A      | 9.8        | 10.2       | 11         | 11.4       | 12.3       |
| EU-15           | N/A        | 10.2     | 10.7       | 11         | 11.9       | 12.3       | 13.3       |
| EU-10           | N/A        | N/A      | 5.8        | 6.4        | 7          | 7.6        | 8.2        |
| Austria         | 4.3        | 7.9      | 6.9        | 7.2        | 7.3        | 7.9        | 8.2        |
| Belgium         | N/A        | N/A      | N/A        | 9.7        | 10.1       | 10.5       | 11         |
| Cyprus          | N/A        | N/A      | 3.8        | 3.4        | 3.7        | 3.8        | 3.6        |
| Czech Republic  | N/A        | 4.6      | 5          | 5.5        | 5.6        | 6          | 6.4        |
| Denmark         | N/A        | 8.1      | 8.2        | 11.7       | 12.2       | 11.7       | 12.5       |
| Estonia         | 4.2        | 3.3      | 6.3        | 7          | 7.3        | 6.6        | 8.8        |
| Finland         | 15.8       | 15.9     | 17.8       | 16         | 17.2       | 17.4       | 17.4       |
| France          | 17.5       | 18.5     | 19         | 19.6       | 20.2       | N/A        | 22.2       |
| Ireland         | 21.8       | 22.9     | 23.8       | 24.2       | 22.9       | 20.5       | 24.2       |
| Italy           | 5          | 5.1      | 5.5        | 5.7        | 6.1        | 7.4        | 9          |
| Latvia          | 6.9        | 6.1      | 6.4        | 7.4        | 7.6        | 8.1        | 8.6        |
| Lithuania       | 7.3        | 9.3      | 11.7       | 13.5       | 14.8       | 14.6       | 16.3       |
| Hungary         | 5          | 5        | 5.1        | 4.5        | 3.7        | 4.8        | 4.8        |
| Malta           | N/A        | N/A      | 3.9        | 3.4        | 2.7        | 3.1        | 3.1        |
| Germany         | 9.1        | 8.8      | 8.6        | 8.2        | 8          | 8.1        | 8.4        |
| Netherlands     | N/A        | 6        | 5.8        | 5.8        | 6.1        | 6.6        | 7.3        |
| Poland          | 3.8        | 4.9      | 5.7        | 6.6        | 7.6        | 8.3        | 9          |
| Portugal        | 4.8        | 5.2      | 6.1        | 6.3        | 6.6        | 7.4        | 8.2        |
| Slovakia        | 4.9        | 4.3      | 5.1        | 5.3        | 7.5        | 7.8        | 8.3        |
| <b>Slovenia</b> | <b>6.3</b> | <b>8</b> | <b>8.4</b> | <b>8.9</b> | <b>8.2</b> | <b>9.5</b> | <b>8.7</b> |
| Spain           | 7.6        | 8        | 9.6        | 9.9        | 11.3       | 12         | 12.6       |
| Sweden          | 7.8        | 7.9      | 9.7        | 11.6       | 12.4       | 13.3       | 13.9       |
| United Kingdom  | 14.5       | 15.2     | 15.6       | 16.2       | 19.5       | 19.5       | 21         |
| Norway          | 8.4        | 7.5      | 7.2        | 7.9        | 8.6        | 7.7        | 9.3        |
| Switzerland     | N/A        | N/A      | N/A        | N/A        | N/A        | 15.2       | 14.1       |
| Japan           | N/A        | 12.3     | 12.6       | 12.6       | 12.8       | 13         | 13.2       |
| USA             | N/A        | 9.2      | 9.3        | 9.7        | 9.9        | 10         | 10.9       |

Source: Population and social conditions - Education and training, Eurostat (2005).

Figure: Share of science and technology graduates in the total number of all graduates expressed in %



Source: Population and social conditions – Education and training, Eurostat (2005).

## ***Number of researchers per thousand labour force***

***The number of researchers per thousand labour force remained unchanged in Slovenia in 2004.*** According to the SORS' first estimate, 5,003 researchers expressed in the full-time equivalent (FTE) worked in Slovenia in 2004, which is the biggest human research potential recorded in the 1996-2004 period. The number of researchers increased by 3.9% over 2003 while in 2000-2004 the average annual increase was somewhat lower (3.6%). The number of researchers per thousand labour force in Slovenia was again 5.0<sup>1</sup> in 2004. In the EU-25, there were 5.4 researchers per thousand labour force in 2003 (latest available data). According to the indicator's value, Slovenia is ahead of some EU-15 member states (Spain, Portugal, Greece, Italy) while also still outperforming all the new EU members (see figure).

***The composition of researchers by employment sector has been changing in the proper direction as the number of those working in the business sector has been on the rise; the situation, however, is still significantly different than in the EU.*** 2004 saw a continuation of the rising trend in the number of Slovenian researchers working in the business, higher education and private non-profit sectors and, conversely, of the falling trend in the government sector's number of researchers, which was also reflected in the structure of researchers by employment sector (see table). Despite the favourable shifts in the structure, however, the Slovenian business sector still employs significantly less researchers relative to the EU-25 average (by 11.5 structural points in 2004), and so does the higher education sector (by 8.3 s.p. in 2004). In comparison with the EU 25 average, more researchers work in the Slovenian government and private non-profit sectors (by 16.6 and 3.2 s.p., respectively, in 2004). The composition of researchers in the new EU member states is very different<sup>2</sup> from Slovenia's in terms of employment sector while the biggest similarity was detected in the relatively strong government sector where 23.4% of researchers work (29.8% in Slovenia)<sup>3</sup>.

***The sectoral distribution of the government's R&D budget importantly reflects a substantially different Slovenian structure of researchers by employment sector as compared with the EU's.*** In 1996-2003, the majority of the government's R&D budget was earmarked for basic research (69.5% in 2003, 55.2% in 1996), followed by applied research (28.0% in 2003, 29.6% in 1996) and experimental development (2.5% in 2003, 15.3% in 1996). The bulk of the budget for basic research went to the government sector (56.5% in 2003, 53.9% in 1996) while the biggest recipient of the government's budgetary funds for applied research and experimental<sup>4</sup> development since 2001 has been the higher education sector (42.1% in 2003, 42.6% in 1996; 44.4% in 2003, 5.8% in 1996). Therefore, it is no surprise that a relatively big share of Slovenian researchers are employed by the government sector (29.8%; 13.2% in the EU-25, 23.4% in the EU-10) while the

<sup>1</sup> In 2004, both the rise in the number of researchers (up 3.9%) and the even somewhat higher rise in the number of the labour force (up 4.8%) contributed to the indicator's value (5.0) while in 2003, despite a similar increase in the number of researchers (up 3.7%), the indicator's value was the same mainly owing to the drop in the number of the labour force (down 1.0%).

<sup>2</sup> On average, the majority (as much as 55.4%) of researchers in the new EU member states were employed in the higher education sector in 2004 while the figure for the business sector was considerably lower (20.7%).

<sup>3</sup> Slovenia's high share of researchers working in the government sector with respect to other new EU member states is mainly attributable to the fact that Slovenia managed to preserve large public research institutions in the transitional period while their number shrank considerably in other new members.

<sup>4</sup> Before 2001, the business sector (13.3% in 2003, 81.3% in 1996).

<sup>5</sup> The data are for 2004.



share of those working in the business sector is comparatively small (38.0%; 49.5% in the EU-25, 20.7% in the EU-10).<sup>5</sup>

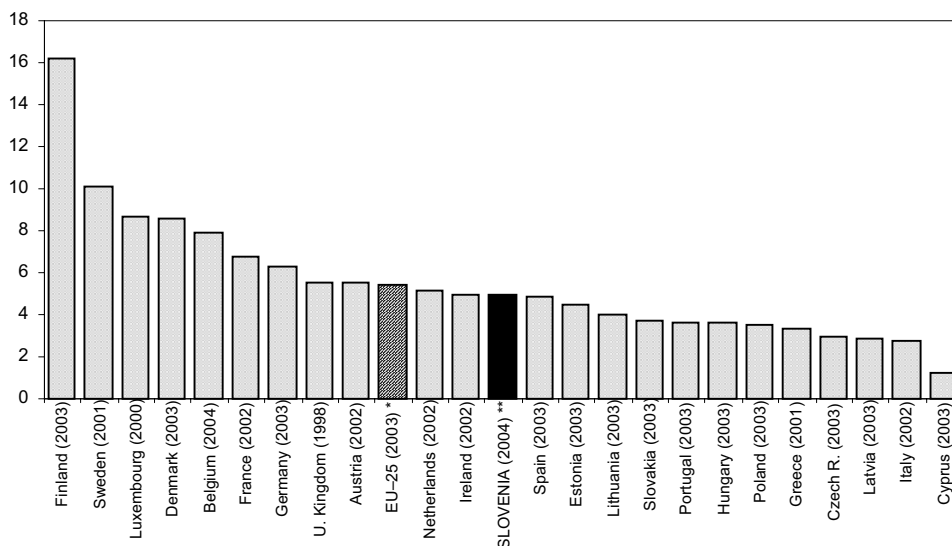
Table: Number of researchers in Slovenia in the full-time equivalent (FTE)

|      | Number of researchers per 1,000 labour force | Number of researchers | Distribution of researchers by sector of employment, % |                   |                         |                           |
|------|--|-----------------------|--|-------------------|-------------------------|---------------------------|
|      |  |                       | Business sector  | Government sector | Higher education sector | Private non-profit sector |
| 1996 | 4.7  | 4,489                 | 30.5   | 35.2              | 31.4                    | 2.8                       |
| 2000 | 4.5  | 4,336                 | 31.8   | 34.5              | 30.9                    | 2.8                       |
| 2001 | 4.6  | 4,498                 | 33.6   | 32.3              | 30.7                    | 3.5                       |
| 2002 | 4.8  | 4,642                 | 34.9   | 32.2              | 29.4                    | 3.5                       |
| 2003 | 5.0  | 4,815 <sup>1</sup>    | 36.4   | 31.0              | 28.6                    | 3.9                       |
| 2004 | 5.0  | 5,003 <sup>2</sup>    | 38.0   | 29.8              | 27.8                    | 4.4                       |

Source: SORS, calculations by IMAD.

Notes: <sup>1</sup>SORS' revised estimate, <sup>2</sup>SORS' first estimate for 2004.

Figure: Number of researchers in the full-time equivalent (FTE) per 1,000 labour force in Slovenia and other EU-25 member states



Sources: Towards a European Research Area. Science, Technology and Innovation. Key Figures 2005. European Communities, 2005, SORS.

Notes: \*the figure for the EU-25 average excludes Luxembourg and Malta, \*\*SORS' first estimate for 2004.

## Internet use

***The share of the population having used the Internet in the last three months rose substantially in 2005.*** According to the SORS' data, 47% of the population aged 16-74 used the Internet in 2005<sup>1</sup>, i.e. by 10 p.p. more than in 2004. As internationally comparable SORS' data are only available for the last two years (Development Report 2005), they do not allow an estimation of Internet use growth trends. We get a more complete picture on Internet use in Slovenia if we include in the calculations the population aged 10-15 using the Internet most intensely. Data for this age group are only available for 2005, revealing that Internet penetration in this age group totalled as much as 85% while the figure for the total population aged 10-74 was 50%.

***Slovenia lags behind the European average regarding the share of Internet users, yet the rapid increase in the number of users recorded in 2005 narrowed this gap considerably.*** According to the Eurostat's estimates, the share of the population aged 16-74 having used the Internet in the last three months reached 51% in 2005, i.e. 4 p.p. more than in Slovenia, while in 2004 this difference amounted to 10 p.p. Slovenia's lagging behind the average of the old EU member states is wider (8 p.p.) yet it also narrowed by 4 p.p. relative to 2004. Among the new EU members, Internet penetration in Estonia and Slovakia is higher than in Slovenia while among the old members, Greece, Spain, Portugal and Italy lag behind<sup>2</sup> Slovenia (Figure). Comparisons of Slovenia with the EU show a somewhat different picture if only regular Internet users<sup>3</sup> are included, pointing to a wider gap vis-à-vis the old EU members and a slower catching up with the European average<sup>4</sup>.

***The shift in household access to the Internet was considerably lesser than in Internet use, pushing Slovenia below the EU average.*** 48% of Slovenian households had access to the Internet in 2005; among them, households with children predominated (64-percent penetration) which again indicates the intensity of Internet use by the younger population. The share of households with Internet access only rose by 1 p.p. relative to 2004 in Slovenia while in the EU it went up by 5 p.p. on average (to total 48%) or, if only the old members are considered, by 7 p.p. (to 53%). Slovenia still has the highest share of households with Internet access among the new EU member states while among the old members, figures for five countries are lower than Slovenia's.

***The prime factors impeding a faster expansion of household Internet use are the lack of appropriate e-services, lack of know-how, and the prices of Internet equipment and access.*** In September 2005, a positive shift took place in the promotion of price accessibility through the strengthening of competition in the broadband access market when the ISDN-ADSL loop was unbundled, which is already being reflected in the growing number of both providers and users of broadband access (Kovšca, 2005). Another way in which the state can significantly stimulate Internet use is through the introduction of electronic administrative services. Although the implementation of the E-government

<sup>1</sup> The figure applies to the first quarter of 2005.

<sup>2</sup> Among the old member states, there are no data for Ireland and Denmark for 2005 while in 2004 Internet penetration was higher in Denmark than in Slovenia but lower in Ireland.

<sup>3</sup> Regular users are those using the Internet at least once a week.

<sup>4</sup> In terms of the share of regular Internet users (those using the Internet at least once a week), Slovenia lagged behind the EU-25 average by 4 p.p. in 2005 while the old members were ahead of it by 8 p.p. Its gap behind the EU-25 narrowed by 1 p.p. last year while remaining unchanged with respect to the EU-15.

<sup>5</sup> In 2004, 49% of Slovenian enterprises acquired information from the government web pages (51% in the EU-25, 48% in the EU-15), 46% acquired forms (46% in the EU-25, 45% in the EU-15) and 38% submitted completed forms via the Internet (32% in the EU-25, 29% in the EU-15) (Statistics in Focus, 35/2005).

Action Plan by 2004 represents an important shift in this area, the launching of e-government services must continue vigorously, especially in view of the international comparisons revealing that households in Slovenia lag behind European countries regarding the use of e-government services more than they do in the general use of the Internet and information and communication technologies (Vehovar, 2005).

*Nearly all Slovenian enterprises already have access to the Internet, the majority broadband access; in the field of e-commerce, online banking is used the most while e-government services are used less and online shopping/selling is very infrequent.*

Already 96% of enterprises with ten or more employees had access to the Internet in 2005 (93% in 2004), predominantly using the ADSL broadband connection (65%). According to the latest available data (2004), the online services used the most by enterprises are e-banking (93%) and e-government services (50%); 62% of them also had their own web page. Although Slovenian enterprises do not lag behind the EU average<sup>5</sup> in the use of e-government services, there are still many possibilities in this area for the promotion of e-commerce, particularly through the introduction of services with greater value added, enabling enterprises to save relatively more. Online shopping/selling is very infrequent in Slovenian enterprises: 15% of them shopped via the Internet in 2005 (24% in the EU), 12% received orders via the Internet (same in the EU) while only 2% received payment via the Internet (4% in the EU). According to the SORS' survey on ICT use by enterprises (2005), the main obstacles identified by companies are security problems concerning payments, the unsuitability of their goods/services for e-sale, and uncertainty with regard to the legal frameworks for e-sale.

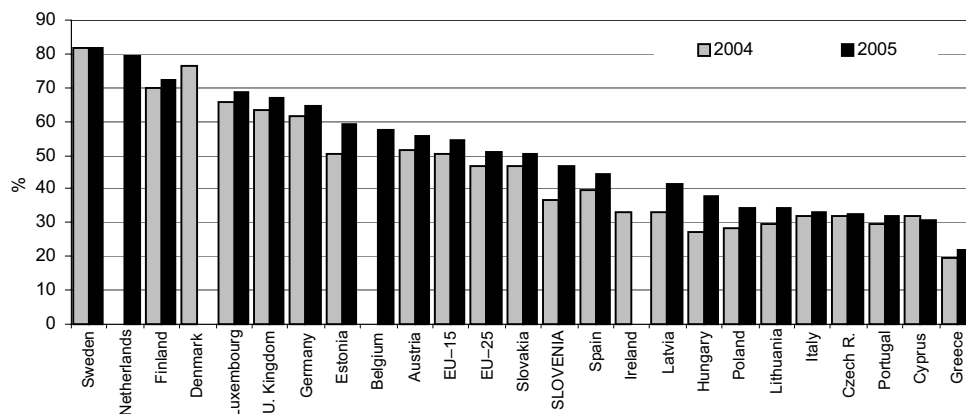
Table: Internet use in Slovenia in 2004-2005

|   | 2004 <sup>1</sup> | 2005 <sup>1</sup> |
|---|-------------------|-------------------|
| Internet users <sup>2</sup> (aged 16-74)      | 37                | 47                |
| Enterprises <sup>3</sup> with Internet access | 93                | 96                |
| Households with Internet access               | 47                | 48                |

Sources: Household Internet use, Q1 of 2005 (First Release). (2005). Ljubljana: SORS, 12 October 2005. Enterprise Internet use, Q1 of 2005 (First Release). (2005). Ljubljana: SORS, 3 October 2005.

Notes: <sup>1</sup>The figures apply to the first quarter of the year. <sup>2</sup>Those having used the Internet in the last three months. <sup>3</sup>Enterprises with more than 10 employees.

Figure: Internet users<sup>1</sup> in Slovenia and EU countries in 2004 and 2005



Source: Industry, trade and services - Information society statistics. (2005. 24 November.). Eurostat. Acquired on 29 November 2005 at <http://epp.eurostat.ec.eu.int>; Household Internet use, Q1 2005 (First Release). (2005). Ljubljana: SORS, 12 October 2005; calculations by IMAD.

Note: <sup>1</sup>Those having used the Internet in the last three months.



The third priority:

## **An efficient and less costly state**

### **1. Quality of public finance**

- Expenditure by institutional sector – general government
- General government sector expenditure by function (COFOG)
- Economic structure of taxes and contributions
- State aid

### **2. Efficiency of the judiciary**

- Court backlogs



## ***Expenditure by institutional sector – general government***

*In Slovenia, the amount of the general government sector's expenditure,<sup>1 2</sup> measured in relation to gross domestic product, is higher than in the EU, however, it has been decreasing over the past two years.* In the years from 2000 to 2003, the share of the government sector's expenditure as a percentage of GDP was stable at 48.1%, then it decreased to 47.6% (2004) and to 47.3% (2005). In 2004, the last year for which comparable data are available, the share of the government sector's expenditure was slightly above the EU-25 average (47.1% GDP) and EU-15 average (47.3% GDP) as well as the average of the new Member States (44.7% GDP). In 2004, the share of the general government sector's expenditure in GDP was higher than in Slovenia in ten EU Member States (Sweden, Denmark, France, Finland, Belgium, Austria, Greece, Hungary, Malta and Italy), while in other Member States the share was lower. During the period 2000 - 2004, the share of expenditure in GDP decreased in Slovenia by 0.5 p.p. (2000: 48.1%; 2004: 47.6% GDP), while the EU-25 average increased by 1.6 p.p. (2000: 45.5%; 2004: 47.1% GDP).

*Concurrently with the decrease in the share of the general government sector's expenditure in the period 2000- 2005, the economic structure of the expenditure slightly changed as well in Slovenia.* In comparison with 2000, the share of expenditure in GDP for capital transfers and property expenditure decreased most significantly in 2005 (each by 0.8 p.p.) and the share of expenditure for intermediate consumption (by 0.5 p.p.). At the same time increased the share of expenditure for other current transfers (by 0.6 p.p.), for compensation of employees (by 0.5 p.p.), gross capital formation (by 0.2 p.p.), and for subsidies and other taxes on production (by 0.1 p.p.).

*The most important factor for the decrease in the share of the general government sector's expenditure in GDP was the decrease in the expenditure for capital transfers* (2000: 1.8%; 2005: 1.0% GDP); capital transfers were particularly high in 2000 and 2001, when, in addition to other investment grants, they included all war damage claims covered by the issue of bonds, and, throughout the period 2001-2005, also the expenditure for the debts of *Slovenske železnice d.d.* Public Company and net payments for called government guarantees ensuing from loans raised by companies. The share of expenditure for intermediate consumption decreased (2000: 6.8%; 2005: 6.3% GDP) owing to saving and reducing expenditure on goods and services both in government bodies and public agencies. After 2000, the share of expenditure for payable property income was decreasing gradually owing to lower interest rates and lower inflation (2000: 2.5%; 2005: 1.6% GDP). The share of expenditure for social benefits in cash and in kind did not change (19.0% GDP). With the entry into force of the pension and disability scheme in 2000, the share of expenditure for pensions was decreasing by 0.1 to 0.2 p.p. yearly. At the same time the share of GDP for other transfers payable to individuals and households was increasing slightly owing to the broadening of the existing social protection system with new rights.

*On the other hand, the share of certain expenditure of the general government sector increased in the period 2000-2005.* The share of expenditure for compensation of employees increased mainly at the beginning of the period under consideration (2000: 11.6%; 2001: 12.2% GDP), and afterwards remained stable at the same level which was, given the fact that the number of employees was growing quickly (in the period 2000-2005, the average growth rate in the number of employees in

<sup>1</sup> The Statistical Office of the Republic of Slovenia published, along with the revised data of the general government sector's current account deficit, data on the basic categories of general government sector expenditure in line with the European System of Accounts 1995 (ESA-95) methodology for the period 2000-2005. The revision of estimates has been a further step towards the alignment with the ESA-95 and it allows for international comparability of expenditure among EU Member States. The data on the general government sector's expenditure are taken from the SORS's release – Main Aggregates of the General Government, Slovenia 2000-2005 (first release on 31 March 2006). In a previous release (Government Expenditure by Function, Slovenia 2000-2004, first release 30/1/2005 on 30 December 2005), the amount of expenditure as a percentage of GDP was some 0.2 p.p. less which is of no consequence as regards the structure of expenditure.

<sup>2</sup> General government's expenditure in conformity with the ESA-95 includes four public finance funds (the central government and municipal budgets, and the pension and health funds), State-run funds (including the pension fund (KAD) and the restitution fund (SOD)), public institutes and public agencies.

the general government sector amounted to 2% annually), due to the restrictive wage growth policy. The share of expenditure for subsidies (2000: 1.5%; 2005: 1.6% GDP) and for other current transfers (2000: 1.3%; 2005: 1.9% GDP) increased as well. The latter transfers increased mainly due to the contributions to the EU budget after the accession. In the period 2000 – 2005, the share of expenditure for gross capital formation increased only slightly (2000: 3.1%; 2005: 3.3% GDP), or, if the decrease (by 0.8 p.p.) in the share of the capital transfers is taken into account, the share of public funds investments actually decreased. The expenditure for investments is decreased already in the process of yearly adjusting of the public finance expenditure as is driven out by the expenditure for the classical expenditure of the general government (laid down by law), whereas in the implementation of the budget it is expenditure on investment that is most often cut to balance the expenditure with the available annual revenues.

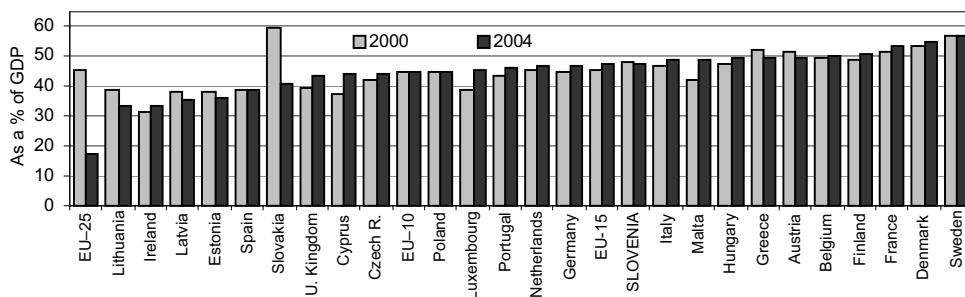
**In Slovenia, the structure of the total general government sector's expenditure, broken down by economic purposes, slightly differs from the structure of the EU Member States' average.** In 2004, Slovenia allocated less than EU Member States' average for social benefits in cash and in kind (Slovenia 39.7%, EU-25 42.8%), for property expenditure (Slovenia 3.9%, EU-25 6.2%), and for other current transfers (Slovenia 3.7%, EU-25 4.5%), whereas it allocated more than EU Member States' average for the compensation of employees (Slovenia 25.3%, EU-25 22.8%), intermediate consumption (together with other taxes on production Slovenia 14.5%, and EU-25 13.4%), subsidies (Slovenija 3.3%, EU-25 2.8%) and capital transfers and gross capital formation (Slovenia 9.8%, EU-25 7.7%). In Slovenia's structure of the total expenditure of the general government sector, in the period 2000-2004 the shares of the expenditure for intermediate consumption, property expenditure and capital transfers were decreasing, while all other shares were increasing. In the EU Member States average, the shares of the compensation of employees, subsidies and property expenditure were decreasing.

Table: Breakdown of general government expenditure as a % of GDP

|   | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
|---|------|------|------|------|------|------|
| Total general government sector's expenditure                     | 48.1 | 49.0 | 48.0 | 48.1 | 47.6 | 47.3 |
| Intermediate consumption  | 6.8  | 6.8  | 7.0  | 6.5  | 6.3  | 6.3  |
| Compensation of employees   | 11.6 | 12.2 | 12.0 | 12.1 | 12.0 | 12.1 |
| Other taxes on production   | 0.5  | 0.5  | 0.5  | 0.5  | 0.5  | 0.6  |
| Subsidies   | 1.5  | 1.5  | 1.3  | 1.7  | 1.6  | 1.6  |
| Property expenditure  | 2.5  | 2.5  | 2.4  | 2.1  | 1.9  | 1.6  |
| Cash and in-kind social benefits                                  | 19.0 | 19.1 | 19.1 | 19.1 | 18.9 | 19.0 |
| Other current transfers   | 1.3  | 1.7  | 1.5  | 1.2  | 1.8  | 1.9  |
| Capital transfers   | 1.8  | 2.1  | 1.2  | 1.5  | 1.2  | 1.0  |
| Gross capital formation   | 3.1  | 3.2  | 3.0  | 3.3  | 3.4  | 3.3  |
| Acquisitions less disposals of non-produced, non-financial assets | 0.0  | -0.6 | 0.0  | 0.0  | -0.1 | -0.1 |
| Total general government sector's expenditure                     | 44.3 | 44.7 | 45.4 | 45.2 | 45.3 | 45.5 |

Source: SORS, First release No. 82/2006, 31 March, 2006, Main Aggregates of the General Government Sector, 2000-2005.

Figure: General government sector's expenditure by EU Member States, 2000-2004, as a % of GDP



Source: Eurostat, for Slovenia SORS, Main aggregates of the general government sector – revision, First release No.191/2005, 31 August 2005.

# Public expenditure according to the Classification of the Functions of Government (COFOG)\*

*The structure of public expenditure has a significant impact on economic growth.* Although economic growth is not the only aim of public finances, the allocation of expenditure that raises the potential of long-term growth is increasingly becoming an indicator of the quality of public finance. Due to theoretical and empirical limitations, there is no list separating expenditure into that which increases and that which does not improve economic growth<sup>1</sup>. In spite of this, various studies have confirmed the impact of public expenditure on long-term economic growth. Growth-enhancing expenditure has a positive impact on the marginal productivity of labour and capital and includes particularly expenditure on economic activities, research and development, investment, education, housing development, transport and communications, and health (European Commission, 2002, p. 98; OECD 2003, p. 67 and 83; Afonso et al., 2005, pp. 24-27).

*The available data do not unilaterally confirm the correlation between "productive" expenditure, the share of total expenditure in GDP and the economic growth rate,* but Ireland (6.1%), Luxembourg (4.1%), Estonia (7.2%), Lithuania (6.9%) and Latvia (7.7%) achieved above-average economic growth rates in the past five years, while in these countries the share of expenditure in GDP was lower than in those countries which achieved only moderate growth rates in the past five years<sup>2</sup>, namely 8.1 p.p. in 2004. Moreover, countries with the fastest growth rates allocated less for basic functions of the State (by 3.1 p.p.), health (1.0) and social protection (3.8 p.p.), and more for education (0.2 p.p.) (see the figure) in 2004.

*In the 2000-2003 period the EU-15 member states increased "productive" expenditure on average* (2000: 15.5%; 2003: 16.8% of GDP), while in Slovenia the share of this expenditure decreased between 2000 and 2004 (2000: 16.5%; 2004: 16.1% of GDP). Those countries achieving above-average development, measured by GDP per capita in PPS, are normally characterised by a high share of expenditure on economic activities (Rebelo and Easterly, 1993, p.p. 2 and 13 and OECD, 2003, p. 90); in the EU-15 they were at the level of 4% of GDP on average, and varied between 2.9% (United Kingdom) and up to 7.4% (Czech Republic). Slovenia's share dropped below the EU-15 average (2000: 4.0; 2004: 3.5% of GDP) between 2000 and 2004. In the EU-15 low shares were allocated for housing and community amenities (2000-2003: 1.0% of GDP), and were even lower in Slovenia (from 0.2% to 0.4% of GDP). Expenditure on education in the EU-15 between 2000 and 2003 amounted to approximately 5% of GDP, while in Slovenia it represented 5.7% of GDP in 2000, and reached 0.1 p.p. more in the 2001-2004 period. Health expenditure<sup>3</sup> has increased in the EU-15 (2000: 5.9%; 2003: 6.5% of GDP), while in Slovenia it stabilised at 6.6% of GDP. This percentage has only been exceeded by eight EU member states.

*On the other hand, the majority of research findings show that expenditure on social protection do not have a positive impact on economic growth<sup>4</sup>,* however the majority of EU member states allocate the largest share of expenditure precisely for this purpose (EU-15 2000: 18.6%, 2003: 19.3% of GDP). From 2000 to 2004, Slovenia allocated approximately 19.0% of its GDP for social protection; the most in 2001 (19.1%), and the least in 2004 (18.7% of GDP). Expenditure

<sup>0</sup> Data on the general government expenditure by function were taken from the SORS publication *Izdatki sektorja država po namenih*, Slovenia 2000-2004, first statistical publication 301/2005, 30 December 2005.

<sup>1</sup> The impact also depends on the specific institutional and other characteristics of an individual country (e.g. achieved development and the quality of infrastructure or education systems) and on how efficiently the resources are used (European Commission, 2005, pp. 1-2).

<sup>2</sup> Countries with slow growth, which on average achieved 1.2% economic growth in the past five years, include the Netherlands, Portugal, Malta, Germany and Italy.

<sup>3</sup> According to research, health expenditure forms part of that expenditure encouraging economic growth, but its actual impact depends on its internal structure.

<sup>4</sup> Certain studies (EC, 2002 p. 98; Arjona et al., 2002, p. 24) even indicate a negative correlation.

<sup>5</sup> Basic functions of the State include the public administration, defence and public order and safety.



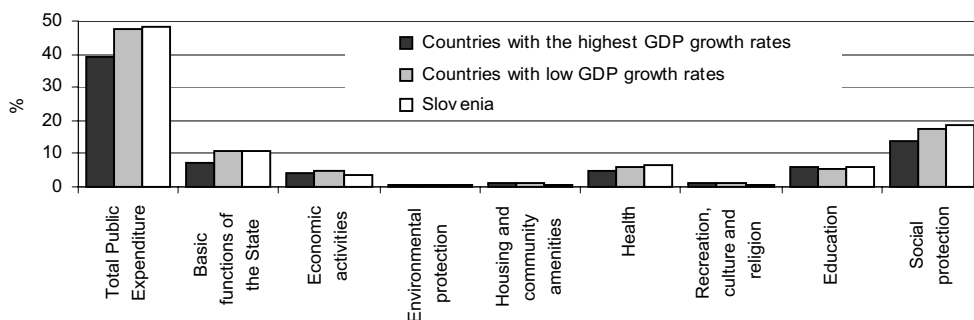
that does not increase economic growth also includes public expenditure on basic functions of the State<sup>5</sup>, which are increasing at the EU-15 level (2000: 9.9%; 2003: 10.2% of GDP). In the 2000-2004 period Slovenia allocated approximately 11% to these functions, the most in 2001 (11.8%) and the least in 2003 (10.9% of GDP), and thus belongs to those countries spending the most for such purposes. In 2004 only 6 countries allocated more funding for basic functions of the State than Slovenia. In the 2000-2003 period, allocations for environmental protection at the EU-15 level amounted to 0.7%, while allocations for culture, recreation and religion amounted to 0.9-1.0% of GDP. Between 2000 and 2004, Slovenia allocated 0.4-0.5% of its GDP to environmental protection, and 0.9-1.0% of its GDP to culture, recreation and religion.

Table: Public expenditure according to the Classification of the Functions of Government as a % of GDP

|                     | Total public expenditures | Basic functions of the State | Economic affairs | Environmental protection | Housing & community amenities | Health     | Recreation, culture & religion | Education  | Social protection |
|---------------------|---------------------------|------------------------------|------------------|--------------------------|-------------------------------|------------|--------------------------------|------------|-------------------|
| <b>EU-25 (2003)</b> | <b>47.8</b>               | <b>10.1</b>                  | <b>4.0</b>       | <b>0.7</b>               | <b>1.0</b>                    | <b>6.4</b> | <b>1.0</b>                     | <b>5.4</b> | <b>19.1</b>       |
| <b>EU-15 (2003)</b> | <b>47.9</b>               | <b>10.2</b>                  | <b>3.9</b>       | <b>0.7</b>               | <b>1</b>                      | <b>6.5</b> | <b>1</b>                       | <b>5.4</b> | <b>19.3</b>       |
| Austria             | 49.9                      | 9.3                          | 5.1              | 0.4                      | 0.6                           | 6.7        | 1                              | 5.7        | 21.2              |
| Belgium (2003)      | 51.1                      | 12.5                         | 5.3              | 0.7                      | 0.3                           | 7          | 1.3                            | 6.2        | 17.9              |
| Cyprus              | 43.6                      | 14.6                         | 4.7              | 0                        | 3.5                           | 2.9        | 0.7                            | 5.6        | 11.6              |
| Czech Rep.          | 44.3                      | 8.3                          | 7.4              | 1.2                      | 0.7                           | 6.3        | 1.3                            | 5          | 14.2              |
| Denmark             | 55.1                      | 10                           | 3.7              | 0.5                      | 0.7                           | 7.1        | 1.8                            | 8.3        | 23                |
| Estonia             | 36.4                      | 7.1                          | 4.4              | 0.7                      | 0.5                           | 4.1        | 2.2                            | 6.6        | 11                |
| Finland             | 51.1                      | 9.7                          | 4.8              | 0.3                      | 0.3                           | 6.7        | 1.2                            | 6          | 21.9              |
| France              | 53.4                      | 10.4                         | 3.2              | 0.8                      | 1.9                           | 7.3        | 1.5                            | 6.4        | 21.9              |
| Greece              | 49.8                      | 13.9                         | 6.9              | 0.7                      | 0.5                           | 4.9        | 0.4                            | 3.5        | 19.2              |
| Ireland             | 33.7                      | 5.5                          | 5                | n.p.                     | 2                             | 7.1        | 0.5                            | 4.5        | 9.1               |
| Italy               | 48.6                      | 11.8                         | 4                | 0.8                      | 0.8                           | 6.8        | 1                              | 5          | 18.4              |
| Latvia              | 35.9                      | 8                            | 4.3              | 0.8                      | 0.8                           | 4.5        | 1.4                            | 6          | 10.2              |
| Lithuania           | 33.2                      | 8                            | 3.6              | 0.5                      | 0.4                           | 4.1        | 0.7                            | 5.9        | 10.1              |
| Luxembourg          | 57.5                      | 8.7                          | 5.1              | 1.2                      | 1                             | 5.5        | 2.2                            | 5.9        | 28                |
| Hungary             | 49.7                      | 12.7                         | 5.8              | 0.8                      | 0.8                           | 5.4        | 1.8                            | 5.8        | 16.5              |
| Malta               | 48.8                      | 11.6                         | 7.2              | 1                        | 1.2                           | 6.5        | 0.7                            | 6.1        | 14.6              |
| Germany             | 46.9                      | 8.7                          | 3.6              | 0.5                      | 1.1                           | 6.1        | 0.7                            | 4          | 22.1              |
| Netherlands         | 46.6                      | 11.4                         | 4.7              | 0.8                      | 1.2                           | 4.5        | 1.4                            | 5.2        | 17.3              |
| Poland              | 42.2                      | 8.2                          | 3.2              | 0.6                      | 1.4                           | 4.3        | 0.9                            | 6          | 17.6              |
| Portugal            | 46.1                      | 9.5                          | 4.9              | 0.6                      | 0.8                           | 6.6        | 1.2                            | 7.4        | 15.2              |
| Slovakia            | 40.6                      | 7.3                          | 6.6              | 0.5                      | 1.2                           | 4.2        | 1.2                            | 3.7        | 15.8              |
| <b>Slovenia</b>     | <b>47.4</b>               | <b>11.2</b>                  | <b>3.5</b>       | <b>0.5</b>               | <b>0.2</b>                    | <b>6.6</b> | <b>0.9</b>                     | <b>5.8</b> | <b>18.7</b>       |
| Spain               | 38.8                      | 7.8                          | 4.9              | 0.9                      | 1                             | 5.5        | 1.4                            | 4.4        | 13                |
| Sweden              | 56.7                      | 10.9                         | 4.8              | 0.3                      | 0.8                           | 7          | 1                              | 7.4        | 24.3              |
| United Kingdom      | 43.7                      | 10                           | 2.9              | 0.7                      | 0.7                           | 7          | 0.5                            | 5.8        | 16.2              |

Source: Data on public expenditure according to the Classification of the Functions of Government. Eurostat, New Cronos: <http://epp.eurostat.ec.eu.int/>. Growth rates: <http://epp.eurostat.ec.eu.int/>.

Figure: 2004 public expenditure according to the Classification of the Functions of Government as a % of GDP



Source: public expenditure according to the Classification of the Functions of Government: <http://epp.eurostat.ec.eu.int/>; public expenditure according to the Classification of the Functions of Government for Slovenia: <http://www.stat.si/>.

Note: Countries with the highest economic growth rate include: Latvia, Estonia, Lithuania, Ireland, and Luxembourg, while countries with a low economic growth rate are the Netherlands, Portugal, Malta, Germany and Italy.

# ***Economic structure of taxes and contributions***

***In Slovenia, the total burden of taxes and contributions, expressed as a percentage of the gross domestic product, is only slightly below the EU average.*** In 2003 the total tax burden<sup>1</sup> amounted to 40.1% of GDP, which was slightly below the average of EU-25 (40.3%) and EU-15 (40.6%), respectively, and slightly above the average of the new member states (35.8% of GDP). In 2003, eight EU member states (Sweden, Denmark, Belgium, Finland, France, Austria, Italy and Luxembourg) recorded a higher tax burden than Slovenia, Germany's tax burden was the same, while in other members the total burden of taxes and contributions was lower than in Slovenia.

***In recent years the tax burden has increased in Slovenia, while it has decreased in the EU.*** In 2003, the total burden of taxes and contributions in Slovenia was 1.1 p.p. of GDP higher than in 2000, while the burden in EU member states was 1.3 p.p. lower on average. In new member states the burden rose by 0.6 p.p.

***In addition to the global analysis, a structural analysis of the tax systems of individual member states is needed.*** Because of the different tax systems in different countries (the systems consist of a large number of different taxes with different and specific features and cannot be directly compared as part of tax systems), their comparison is only possible by finding a common denominator in the framework of national accounts<sup>2</sup>. Taxes and contributions are classified by economic activity as taxes on consumption, taxes on labour and taxes on capital<sup>3</sup>. In Slovenia, the share of taxes on consumption in total taxes and contributions is above-average and amounted to 34.7% in 2003, which was higher than the EU-25 (28.7%) and the EU-15 (28.6%) averages and slightly less than the average in new EU member states (36%). In ten member states the share of taxes on consumption was higher than in Slovenia in 2003. The share of taxes on labour was also higher than the average. In 2003 it amounted to 54.8%, which was higher than the EU-25 average (51.2%) and the average in the new member states (48.4%, excluding Poland). The share of taxes on labour was higher only in four EU member states. In Slovenia, the share of taxes on capital is low. In 2003 it amounted to a mere 10.6%, which was only a good half of the share reached on average in the EU-25 (20.3%; EU-15: 20.4%) and less than in new member states (15.5%, excluding Poland). Only two member states have a lower share than Slovenia.

***The comparison of calculated implicit tax rates is more important for an economic analysis of the tax system than the economic structure of taxes<sup>4</sup>. Calculations confirm that the tax burden on consumption as well as labour is above-average in Slovenia.*** In 2003, the calculated implicit tax rate on consumption in Slovenia amounted to 24.9%, which was above the EU-25 average (22%) and the average of new EU member states (20.6%). Only five member states had a higher implicit tax rate on consumption than Slovenia. In the same year, the calculated implicit tax rate

<sup>1</sup> In addition to taxes and contributions, total government sector revenue (42.2% of GDP in 2003) includes revenue from the sale of goods and services on the market, revenue from property, and capital transfers.

<sup>2</sup> The European system of national accounts (ESA-1995) enables an international comparison of tax systems. EU member states are obliged to notify the European Commission of the burden of taxes and social security contributions in compliance with a strictly defined methodology. The data was used by the European Commission as a basis for an overview of the tax systems of all member states.

<sup>3</sup> The tax classification is based on the classification of taxes according to the ESA-95. Common basic rules are used in their classification. *Taxes on consumption* are defined as taxes on transactions between consumers and producers and as taxes on final consumption. *Taxes on labour* are tied directly to salaries and paid by workers or employers. *Taxes on capital* relate to taxes on capital, corporate tax, taxes on income from household capital (annuities, dividends, interests, other income from property), capital gains, property tax etc.

<sup>4</sup> Implicit tax rates compare taxes by economic activities based on national accounts. The *implicit tax rate on consumption* is defined as the ratio between taxes on consumption and the final household consumption in a country's territory, 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.

on labour in Slovenia amounted to 38.4%, which was higher than the EU-25 average (35.9%) and the average of the new member states (34.5%). Twelve countries had a higher implicit tax rate on labour than Slovenia.

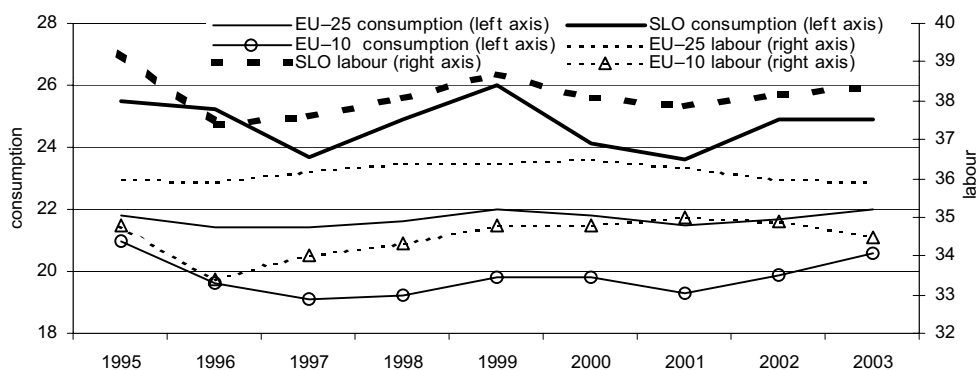
*The implicit tax rates also reflect the increased burdens seen in recent years.* With regard to 2000, the implicit tax rate on consumption was 0.8 p.p. higher, while the implicit tax rate on labour was 0.3 p.p. higher in Slovenia in 2003. In the same period, both implicit tax rates fell by 0.3 and 0.2 p.p., respectively, in the EU-25.

Table: Economic structure of taxes and social contributions as a % of GDP

|                 | Total       |             | Taxes on consumption |             | Taxes on labour |             | Taxes on capital |            |
|-----------------|-------------|-------------|----------------------|-------------|-----------------|-------------|------------------|------------|
|                 | 1995        | 2003        | 1995                 | 2003        | 1995            | 2003        | 1995             | 2003       |
| <b>EU-25</b>    | <b>40.5</b> | <b>40.3</b> | <b>11.5</b>          | <b>11.6</b> | <b>21.4</b>     | <b>20.7</b> | <b>7.6</b>       | <b>8.0</b> |
| <b>EU-15</b>    | <b>40.5</b> | <b>40.6</b> | <b>11.5</b>          | <b>11.6</b> | <b>21.4</b>     | <b>20.8</b> | <b>7.6</b>       | <b>8.2</b> |
| <b>EU-10</b>    | <b>38.4</b> | <b>35.8</b> | <b>13.8</b>          | <b>12.9</b> | <b>18.6</b>     | <b>17.1</b> | <b>6.0</b>       | <b>5.8</b> |
| Austria         | 41.3        | 43.0        | 11.3                 | 12.2        | 23.5            | 23.9        | 6.5              | 6.9        |
| Belgium         | 45.1        | 45.7        | 11.0                 | 11.2        | 25.0            | 25.1        | 9.1              | 9.4        |
| Cyprus          | 26.9        | 33.3        | 10.1                 | 14.3        | 10.0            | 10.7        | 6.8              | 8.3        |
| Czech Republic  | 36.2        | 36.2        | 11.4                 | 10.6        | 17.1            | 17.9        | 7.7              | 7.7        |
| Denmark         | 49.0        | 48.8        | 15.6                 | 16.1        | 28.0            | 26.9        | 5.4              | 5.8        |
| Estonia         | 37.9        | 33.4        | 13.3                 | 12.2        | 21.0            | 18.1        | 3.6              | 3.1        |
| Finland         | 46.0        | 44.8        | 13.9                 | 14.1        | 26.1            | 23.6        | 6.0              | 7.1        |
| France          | 43.7        | 43.8        | 12.7                 | 11.9        | 22.9            | 23.1        | 8.1              | 8.8        |
| Greece          | 32.6        | 36.2        | 13.4                 | 12.8        | 11.8            | 14.4        | 7.4              | 9.0        |
| Ireland         | 33.5        | 29.9        | 13.1                 | 11.2        | 13.7            | 10.1        | 6.7              | 8.6        |
| Italy           | 41.2        | 42.9        | 10.5                 | 10.3        | 18.6            | 20.5        | 12.1             | 12.1       |
| Latvia          | 33.6        | 28.9        | 12.3                 | 11.1        | 17.5            | 14.7        | 3.8              | 3.1        |
| Lithuania       | 28.6        | 28.5        | N/A                  | 11.3        | N/A             | 14.8        | N/A              | 2.4        |
| Luxembourg      | 42.3        | 41.3        | 11.4                 | 11.8        | 17.7            | 16.2        | 13.2             | 13.3       |
| Hungary         | 41.6        | 39.1        | 17.3                 | 15.7        | 20.8            | 19.0        | 3.5              | 4.4        |
| Malta           | 26.9        | 33.6        | 9.8                  | 12.0        | 9.7             | 11.7        | 7.4              | 9.9        |
| Germany         | 40.8        | 40.3        | 10.2                 | 10.3        | 24.9            | 24.6        | 5.7              | 5.4        |
| Netherlands     | 40.6        | 39.3        | 10.8                 | 11.4        | 22.1            | 19.4        | 7.7              | 8.5        |
| Poland          | 39.4        | 35.8        | N/A                  | N/A         | N/A             | N/A         | N/A              | N/A        |
| Portugal        | 33.6        | 37.0        | 12.6                 | 12.7        | 14.0            | 15.6        | 7.0              | 8.7        |
| Slovakia        | 40.5        | 30.6        | N/A                  | 12.1        | N/A             | 13.4        | N/A              | 5.1        |
| <b>Slovenia</b> | <b>40.8</b> | <b>40.1</b> | <b>15.6</b>          | <b>13.9</b> | <b>23.1</b>     | <b>21.9</b> | <b>2.1</b>       | <b>4.3</b> |
| Spain           | 33.4        | 35.6        | 9.0                  | 10.1        | 16.7            | 16.8        | 7.7              | 8.7        |
| Sweden          | 49.5        | 50.8        | 13.5                 | 13.1        | 31.0            | 32.1        | 5.0              | 5.6        |
| United Kingdom: | 35.4        | 35.7        | 13.4                 | 13.5        | 14.0            | 13.9        | 8.0              | 8.3        |

Source: European Commission: Structures of the taxation systems in the European Union, 2005.

Figure: Implicit tax rate on consumption and on labour as a % of the tax base



Source: European Commission – Structures of the taxation systems in the European Union, 2005.

## State aid

*After the rapid drop seen between 1998 and 2002, the share of state aid in GDP has been on the rise again* (Table 1). The share of state aid in GDP declined by approximately two-fifths between 1998 (2.53%)<sup>1</sup> and 2002 (1.42% GDP). After 2002, state aid began to increase again, totalling by 0.16 p.p. of GDP more in 2004 than two years before. Similar trends are observed in state aid in comparison with general government expenditure and with the people in employment and population numbers.

*After 2002, the biggest increase in state aid was recorded in specific sectoral objectives*, with their share in total aid having risen from 11.9% (2002) to 24.1% (2004).<sup>2</sup> The rise was almost entirely due to aid to transport which nominally increased more than twofold in the last two years. Comparatively low aid to the energy sector has been recorded only for 2003 and 2004 while aid to mining and quarrying nominally declined by 12% in 2004 relative to 2002. Aid to agriculture and fishing remained at the 2002 level in real terms in the last two years, resulting in a sharp drop in its share in total aid (59.3% in 2002; 47.7% in 2004). Aid for horizontal objectives retained its 2002 structural share (25%) in 2004 having gone up by 30% in real terms in the last two years; however, its composition deteriorated significantly in terms of developmental orientation as aid for rescue and restructuring, and employment (25.3% of horizontal help in 2002; 44.2% in 2004) has gradually been superseding more effective purposes.

*State aid, excluding aid to rail transport, is higher in Slovenia<sup>3</sup> than in the EU-25 and EU-15 countries while being lower than in the new EU member states* (Table 2). In 2004, state aid in Slovenia exceeded the EU-15 average by 0.4 p.p. of GDP while being lower than in Portugal and Finland. Compared with the new members, it was by 0.1 p.p. of GDP lower than the average of this group of states; only Cyprus, Hungary and Malta had a higher share of state aid than Slovenia.

*The composition of state aid (excluding aid to agriculture, fishing and transport) in Slovenia is seemingly similar to the average in the EU-25 countries.*<sup>4</sup> In 2002-2004, the EU-25 states allocated the bulk of total aid (68%) to horizontal objectives, among which environmental protection and regional development predominated, followed by aid for small and medium-sized enterprises. The structure of state aid in the new member states is entirely different as they only earmarked 23% of total aid for horizontal objectives and 77% for sectoral objectives. In Slovenia, the structure of aid is seemingly similar as in the EU-15 states since 72% of its aid is earmarked for horizontal objectives. Within the horizontal objectives, however, there are considerable differences between the EU-15 states and Slovenia. Compared with the old EU members, Slovenia allocates considerably less aid to small and medium-sized enterprises and regional development, and substantially more in particular to employment.

*The lack of development-oriented state aid in Slovenia became even more pronounced in 2004.* The burden of sectoral objectives (of agriculture and other specific sectors) (63.4% in 2003; 71.9% in 2004) and of the accommodation of horizontal objectives so as to support the existing economic structures (rescue and restructuring, employment) (10.0% in 2003; 11.2% in 2004) has marginalised developmentally effective objectives, particularly investment (regional objectives), and the development of small and medium-sized enterprises (6.8% in 2003; 3.7% in 2004).<sup>5</sup> These two development-oriented objectives are very strongly present in the EU-15 as almost half of total aid (excluding agriculture, fishing and transport) is on average allocated to small and

<sup>1</sup> In 1997 it was estimated at 2.76% of GDP on the basis of summary assessments of aid providers while a year later a special systematic record of aid recipients was established.

<sup>2</sup> Seventh Survey on State Aid in Slovenia, 2005, p. 14.

<sup>3</sup> Data on state aid in Slovenia differ between the Survey on state aid, which is more inclusive and based on the actual record of aid, and the European Commission's Scoreboard where state aid for all member states is estimated.

<sup>4</sup> State Aid Scoreboard, spring 2006 update, p. 13.

<sup>5</sup> The Survey (Seventh Survey on State Aid in Slovenia, 2005, p. 14) also reports a decrease in state aid to the horizontal objective of research and development which, however, is not the case. A decrease was detected because the instrument of basic research was left out of the 2004 record of aid and thus from the Survey. In 2003 this instrument represented nearly one-half (49.1%) of total aid to research and development.

medium-sized enterprises and regional development in those countries. Among the new member states which, like Slovenia, are still concerned with assisting the old economic structures, only Estonia, Latvia and Hungary reached a breakthrough in development-oriented state aid by 2003 followed in 2004 by the Czech Republic.

*Even if state aid were more development-orientated, it would not be particularly effective on account that it is extremely dispersed.* Numerous providers and disunited measures insufficiently backed up by public finance instruments have led to the distribution of available resources instead of the pursuit of goals. In a four-year period (2001-2004; data from the state aid recipient record), 271,385 million tolar were distributed among 28,948 recipients (enterprises and individual entrepreneurs), i.e. just 9.4 m per recipient on average. The distribution of aid reveals that no less than 73.6% of the recipients received less than a million tolar in four years, and only one percent more than 100 m. As a rule, insufficient aid does not encourage the recipients to work towards higher developmental goals in the areas pursued by state aid. Moreover, the larger amounts of aid are mostly given (in addition to the Railways and the three electricity supply companies) as price support to the food-processing industry and as financial assistance to enterprises in need of restructure, mainly from the group of low-technology-intensive manufacture productions.

Table 1: Indicators of state aid in Slovenia

| Indicators of state aid   | 1998   | 2000   | 2001   | 2002   | 2003   | 2004   |
|---|--------|--------|--------|--------|--------|--------|
| State aid in SIT m, current prices  | 82,364 | 83,494 | 92,898 | 75,288 | 86,756 | 97,625 |
| Share of state aid in GDP (%)   | 2.53   | 2.07   | 1.96   | 1.42   | 1.51   | 1.58   |
| Share of state aid in government expenditure (as a % of general government expenditure) | 5.79   | 4.68   | 4.57   | 3.23   | 3.39   | 3.53   |
| State aid per employee (in 000 SIT)   | 110.53 | 108.69 | 119.21 | 96.09  | 111.62 | 124.81 |
| State aid per resident (in 000 SIT)   | N/A    | N/A    | 46.57  | 37.74  | 43.46  | 48.87  |

Sources: for 1998-2000: Third Survey of State Aid in Slovenia, 2001; for 2001: Sixth Survey of State Aid in Slovenia, 2004; for 2002-2004: Seventh Survey of State Aid in Slovenia, 2005.

Note: N/A - not available.

Table 2: State aid (excluding rail transport), as a % of GDP

| Country         | 1995       | 2000       | 2001       | 2002       | 2003       | 2004       |
|-----------------|------------|------------|------------|------------|------------|------------|
| <b>EU-25</b>    | <b>1.0</b> | <b>0.6</b> | <b>0.6</b> | <b>0.7</b> | <b>0.6</b> | <b>0.6</b> |
| <b>EU-15</b>    | <b>1.0</b> | <b>0.6</b> | <b>0.6</b> | <b>0.7</b> | <b>0.6</b> | <b>0.6</b> |
| <b>EU-10</b>    | <b>N/A</b> | <b>1.2</b> | <b>1.0</b> | <b>1.2</b> | <b>2.1</b> | <b>1.1</b> |
| Austria         | 1.0        | 0.6        | 0.7        | 0.6        | 0.7        | 0.6        |
| Belgium         | 0.6        | 0.5        | 0.5        | 0.5        | 0.4        | 0.3        |
| Cyprus          | N/A        | 2.1        | 2.4        | 2.6        | 2.1        | 1.1        |
| Czech Republic  | N/A        | 2.4        | 1.9        | 3.9        | 2.5        | 0.4        |
| Denmark         | 0.6        | 1.0        | 1.1        | 0.9        | 0.7        | 0.7        |
| Estonia         | N/A        | 0.1        | 0.1        | 0.1        | 0.1        | 0.4        |
| Finland         | 2.8        | 1.4        | 1.5        | 1.4        | 1.5        | 1.5        |
| France          | 0.8        | 0.6        | 0.6        | 0.6        | 0.6        | 0.5        |
| Greece          | 1.6        | 0.7        | 0.6        | 0.4        | 0.4        | 0.3        |
| Ireland         | 0.6        | 1.1        | 1.1        | 0.9        | 0.7        | 0.7        |
| Italy           | 1.3        | 0.5        | 0.5        | 0.6        | 0.6        | 0.5        |
| Latvia          | N/A        | 0.6        | 0.4        | 0.1        | 0.1        | 0.4        |
| Lithuania       | N/A        | 0.3        | 0.2        | 0.4        | 0.3        | 0.7        |
| Luxembourg      | 0.6        | 0.4        | 0.3        | 0.4        | 0.4        | 0.3        |
| Hungary         | N/A        | 1.1        | 1.0        | 1.1        | 1.2        | 1.3        |
| Malta           | N/A        | 3.3        | 4.1        | 4.5        | 2.3        | 3.1        |
| Germany         | 1.2        | 0.7        | 0.8        | 1.0        | 0.7        | 0.7        |
| Netherlands     | 0.4        | 0.5        | 0.4        | 0.5        | 0.4        | 0.4        |
| Poland          | N/A        | 0.9        | 0.6        | 0.5        | 3.0        | 1.0        |
| Portugal        | 1.0        | 0.9        | 1.2        | 1.1        | 1.1        | 1.1        |
| <b>Slovenia</b> | <b>N/A</b> | <b>0.8</b> | <b>0.8</b> | <b>0.5</b> | <b>0.6</b> | <b>1.0</b> |
| Slovakia        | N/A        | 0.6        | 0.5        | 0.5        | 0.5        | 0.6        |
| Spain           | 1.1        | 0.9        | 0.7        | 0.6        | 0.5        | 0.5        |
| Sweden          | 0.5        | 0.4        | 0.4        | 0.4        | 0.6        | 1.0        |
| United Kingdom  | 0.4        | 0.2        | 0.2        | 0.3        | 0.3        | 0.3        |

Source: State Aid Scoreboard, spring 2006 update.

Note: N/A - not available.

## ***Court backlogs\****

***The number of pending court cases has dropped in the last two years.*** In 2004, the number of cases brought before the judiciary (including both general and special jurisdiction cases) totalled 628,000 while the figure for 2005 is estimated at 606,000 cases.<sup>1</sup> The share of major cases rose slightly (by 0.5 p.p.) to total 20.1% of all cases in 2005. In both years, the number of completed cases increased: by 14.3% in 2004, and by 3.7% in 2005. The number of pending cases at the end of the year fell by 3.4% and 12.0%, respectively. In both years this was largely due to land registry cases, which accounted for one-third of all pending cases in 2004. The share those cases contributed to the 2005 drop in the total caseload was as much as 90.9%, the reason being that fewer new cases were initiated and more pending cases were completed.

***Court backlogs have been declining while the enforcement area remains critical.*** Court backlogs<sup>2</sup> at the district level have been dropping gradually. Land registry cases in particular are being settled more promptly while backlogs in the enforcement area remain critical. They rose by 19% in 2004 over 2003 to represent as much as 116% of the annual new caseload while for 2005 we estimate that, owing to the decrease in the new caseload, the situation has stabilised although it has not improved yet. With the number of judges having risen, it is our estimate that their productivity decreased by 5.1%. In regional courts, backlogs are estimated to have remained at the previous year's level in 2005. The judges' productivity also remained roughly the same as the year before while it increased by 6.3% relative to 2003. In high courts, the number of judges rose in 2005 and the number of pending cases dropped. The judges' productivity remained at about the same level as the year before in 2005 while it escalated by 1.4% in 2004. In specialised courts, the productivity picked up slightly in 2005 after having fallen by 6.7% in 2004. In general, however, specialised courts are also burdened considerably: the number of their pending cases amounts to the 9-month number of their completed cases (the figure for general jurisdiction courts totals a few days less). The Supreme Court increased its productivity in both 2004 and 2005; however, the annual new caseload has been on the rise as well. The situation is most critical in the administrative department where many cases are subject to imprecise general administrative acts.

***International comparisons also point to weaknesses in the enforcement area.*** In the World Bank's report (World Development Report 2005), Slovenia, with 1,003 days needed to recover a debt through court action (the time from the initiation of proceedings to repayment is measured), is ranked at the very bottom of European countries. Only Italy does worse with 1,390 days; the world average is 388 days while the figure for high-income countries is 280 days.

***The duration of the procedure has gradually been decreasing as well.*** Based on the Supreme Court's report for 2004, district courts settled 45.9% of civil cases within a year, 22.9% within 1-3 years, and 31.2% within more than 3 years. Regional courts completed 51.9% of commercial cases within a year, meaning that substantial progress was made compared with the 2000 figure (19%). In 28.4% of cases the procedure took between 1 and 3 years whereas in 19.7% of the cases it took over 3 years. Civil cases

\* Prepared by Aco Trampuž and Katarina Zajc.

<sup>1</sup> Courts were reorganised in 2005, thereby granting the powers of a misdemeanour judge to misdemeanour bodies. As the Ministry does not release data on misdemeanour statistics, judges dealing with misdemeanours are excluded from the calculations of the number of judges.

<sup>2</sup> As defined by Article 50 of the Courts Order (Official Gazette of the RS, no. 17/1995 and further amendments).

were settled at a similar pace; 59.6% were completed within a year. Bankruptcy departments settled 69.7% of their cases within a year, about 14% within 1-2 years, and 15.4% within more than 2 years. In high courts, 19% of civil cases were resolved within a month, 27.8% within 1-3 months, 13.1% within 3-6 months, and 40.1% within more than 6 months. The figures for commercial procedures are similar; as much as 47% of them took over 6 months to be closed.

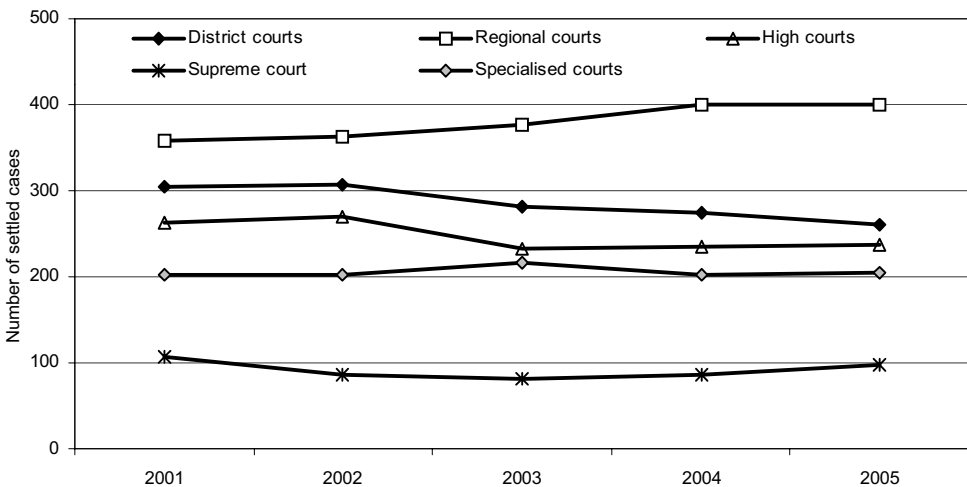
*As regards civil cases, the most frequent reasons for prolonged procedures are the adjournment or stay of proceedings and a party's inaction.* The majority of cases involve annuity and/or compensation claims (24.9%) and other financial claims while 10.9% of cases are disputes over claims to establish the right of (co-)ownership and/or claims to issue a land registry document. Other disputes do not reach the 5-percent threshold. The most common reason for prolonged procedures is the adjournment or stay of proceedings (20.9%). As regards commercial disputes, their composition is different since as much as 77.9% of cases involve debt recovery claims, followed by claims of a non-specified content (13.9%) and compensation claims (3%). In the majority of cases the procedures are prolonged owing to the stay of proceedings or a non-issued or withheld decision. Bankruptcy procedures are mostly prolonged due to a dispute over claims. In enforcement cases, the extended duration of procedures is mainly attributable to a party's inaction (18.5%), or to the stay of proceedings or suspension of enforcement (13.4%), while in 11.9% of cases the proceedings have been completed but a decision has not yet been drawn up.

Table: Time needed to complete all pending cases, months

|             | 1995 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
|-------------|------|------|------|------|------|------|------|
| All cases   | 9.0  | 12.1 | 12.1 | 12.6 | 11.9 | 11.1 | 10.4 |
| Major cases | 19.5 | 17.1 | 15.6 | 14.2 | 13.3 | 12.7 | 12.1 |
| Minor cases | 6.3  | 10.5 | 10.9 | 12.0 | 11.5 | 10.7 | 9.9  |

Source: Judicial statistics, IMAD's calculations.

Figure: Court productivity, completed cases per judge



Source: Judicial statistics, IMAD's calculations.

Note: The figures for district courts exclude land registry cases and enforcement cases while the figures for regional courts exclude cases related to the register of companies since they are mainly settled by judicial staff.





The fourth priority:

## **A modern welfare state and higher employment**

### ***1. Increasing labour market flexibility***

- Employment rate
- Unemployment rate
- Part-time employment
- Temporary employment

### ***2. Modernising the social protection systems***

- Social protection expenditure

### ***3. Living conditions and reduction of social exclusion and poverty risk***

- Human development index (HDI)
- Gender pay gap
- Long-term unemployment
- Population in jobless households
- Risk of poverty rate
- Number of practising doctors and nurses
- Life satisfaction
- Trust in others – generalised trust
- Trust in institutions

## Employment rate

**Slovenia's employment rate increased in the last two years, mainly due to the intensified informal<sup>1</sup> employment.** In the second half of the 1990s, Slovenia recorded a relatively high and stable employment rate. The overall employment rate<sup>2</sup> was about 63%; the male rate hovered around 67% and the female around 58% of the working age population of the same gender. After having reached the highest level of 63.9% in 2001, the employment rate started to decline in 2002 and 2003 as economic growth slowed down and negative trends in employment rates emerged; in 2004, it recorded a repeated and substantial increase (to 65.3%) that was above the EU average for that year. According to the labour force survey in 2004, Slovenia recorded substantial growth in the number of employed persons (by 3.1%), self-employed (by 3.3%) and unpaid family workers (53.3%)<sup>3</sup>. The labour force survey showed that the average number of persons in employment increased by 5.1% in 2004, recording the highest annual increase in survey employment since it started to be measured. The main reason for such growth was a significant increase in different types of informal work activities that followed the higher economic growth. The labour force survey facilitates at least the partial coverage of these types of activities, while employed persons registers and other sources do not show them. In 2005, the employment growth continued but, given the strong rise in 2004, at a slower pace. Compared with the previous year, the number of people in employment increased by 0.7%, while the employment rate increased by 0.6 p.p. and reached 65.9%<sup>4</sup>. In the first three quarters of 2005, the number of people in employment recorded by the labour force survey exceeded by 0.3% the number for the same reference period in 2004. The employment rate remained high. In the second quarter (the latest data available), it was higher than in 2004 and also exceeded the EU average in the same period (see the table).

**In the last two years, Slovenia recorded a total employment rate higher than the EU average; slow growth is perceived in the employment rate of older people as well.** Up until 2003, the employment rate in Slovenia was lower than the EU-15 average; in 2003 it was also below the EU-25 average. Due to high informal employment, the employment rate in Slovenia exceeded the EU average (EU-15 and EU-25) as late as 2004; the situation did not change in the second quarter of 2005 (most recent comparable data for EU members). Slovenia's male employment constantly stands at a slightly lower rate, while the female employment rate is slightly higher than the EU-15 and EU-25 averages. Slovenia's youth employment (aged 15-24) rate and the employment rate of people aged over 50 are still below the EU average. The worryingly low employment rate in the 55-64 age group, where the Lisbon target is set at 50% by 2010, has been on a slow upward trend. It grew to 29.0% in 2004 (EU-25: 41.0%) and to 30.5% in 2005.<sup>5</sup> The gap in youth employment has been due to relatively high enrolment levels in secondary and tertiary education (Indicator: share of the population with a completed tertiary education) and the relatively high youth unemployment rate compared with the EU average; as regards the elderly, this gap has been linked to the high structural unemployment rate that has mainly affected older unemployed people (Indicator: unemployment rate). The lower employment rate among people of this

<sup>1</sup> Informal employment includes people who work either as unpaid family workers, on a temporary contractual basis or in the shadow economy.

<sup>2</sup> According to the Eurostat's methodology, the employment rate is expressed as a proportion of employed persons aged 15 - 64 to the population of the same age. It is calculated using survey data (labour force survey) that include informally employed people who may also be students among the young, or retired people among the elderly.

<sup>3</sup> Unpaid family workers refer to people who are not formally employed or self-employed but who, in the week before the survey, worked on a family farm, were engaged in a family craft or enterprise or any other form of gainful family activity. Attention should be drawn to the fact that Slovenia's share of unpaid family workers (around 4%) among persons in employment is significantly higher than the EU-15 average (1.5%).

<sup>4</sup> According to IMAD's unofficial calculation based on the data for the four quarters of 2005 released by the SORS.

<sup>5</sup> According to IMAD's unofficial calculation based on the data for the four quarters of 2005 released by the SORS.

age group is also attributable to relatively early retirements. The average retirement age is rising – in 2005 it was 58 years and 10 months for a retirement pension and 52 years and 3 months for a disability pension (in 1995: 55 years and 7 months and 47 years and 1 month, respectively) – but it is still below the EU-25 average: 60.7 years. In part, the low elderly employment rate is still attributable to the mass early retirements witnessed at the beginning of the 1990s.

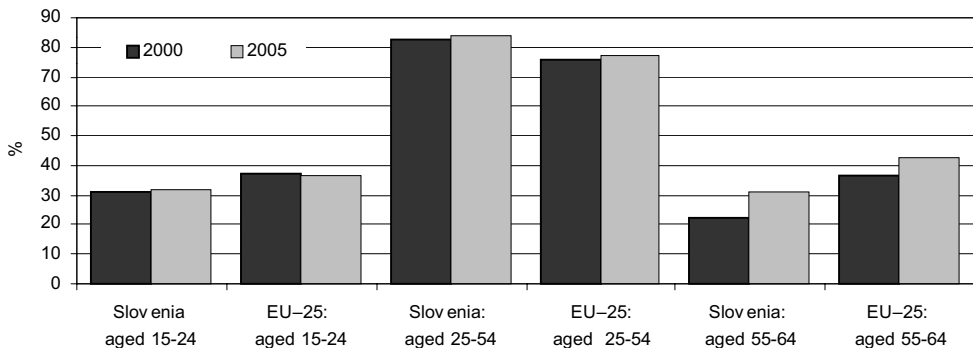
Table: Employment rates (15-64 age group) according to labour market surveys, %

|                 | 1995       | 2000        | 2001        | 2002        | 2003        | 2004        | Q2-2005     |
|-----------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| EU-25           | N/A        | 62.4        | 62.8        | 62.8        | 62.9        | 63.3        | 63.6        |
| EU-15           | 60.1       | 63.4        | 64.0        | 64.2        | 64.3        | 64.7        | 65.0        |
| EU-10           | N/A        | 57.4        | 56.6        | 55.8        | 55.9        | 56.0        | N/A         |
| Austria         | 68.8       | 68.5        | 68.5        | 68.7        | 68.9        | 67.8*       | 68.4        |
| Belgium         | 56.1       | 60.5        | 59.9        | 59.9        | 59.6        | 60.3        | 61.0        |
| Cyprus          | N/A        | 65.7        | 67.8        | 68.6        | 69.2        | 68.9        | 68.7        |
| Czech Republic  | N/A        | 65.0        | 65.0        | 65.4        | 64.7        | 64.2        | 64.7        |
| Denmark         | 73.4       | 76.3        | 76.2        | 75.9        | 75.1        | 75.7        | 75.5        |
| Estonia         | N/A        | 60.4        | 61.0        | 62.0        | 62.9        | 63.0        | 64.9        |
| Finland         | 61.6       | 67.2        | 68.1        | 68.1        | 67.7        | 67.6        | 69.2        |
| France          | 59.5       | 62.1        | 62.8        | 63.0        | 63.3        | 63.1        | 63.4        |
| Greece          | 54.7       | 56.5        | 56.3        | 57.5        | 58.7        | 59.4        | 60.3        |
| Ireland         | 54.4       | 65.2        | 65.8        | 65.5        | 65.5        | 66.3        | 67.1        |
| Italy           | 51.0       | 53.7        | 54.8        | 55.5        | 56.1        | 57.6        | 57.8        |
| Latvia          | N/A        | 57.5        | 58.6        | 60.4        | 61.8        | 62.3        | 63.0        |
| Lithuania       | N/A        | 59.1        | 57.5        | 59.9        | 61.1        | 61.2        | 62.6        |
| Luxembourg      | 58.7       | 62.7        | 63.1        | 63.4        | 62.7        | 61.6        | N/A         |
| Hungary         | N/A        | 56.3        | 56.2        | 56.2        | 57.0        | 56.8        | 56.8        |
| Malta           | N/A        | 54.2        | 54.3        | 54.4        | 54.2        | 54.0        | 53.6        |
| Germany         | 64.6       | 65.6        | 65.8        | 65.4        | 65.0        | 65.0        | 65.3        |
| Netherlands     | 64.7       | 72.9        | 74.1        | 74.4        | 73.6        | 73.1        | 73.2        |
| Poland          | N/A        | 55.0        | 53.4        | 51.5        | 51.2        | 51.7        | 52.2        |
| Portugal        | 63.7       | 68.4        | 69.0        | 68.8        | 68.1        | 67.8        | 67.6        |
| Slovakia        | N/A        | 56.8        | 56.8        | 56.8        | 57.7        | 57.0        | 57.4        |
| <b>Slovenia</b> | <b>N/A</b> | <b>62.8</b> | <b>63.8</b> | <b>63.4</b> | <b>62.6</b> | <b>65.3</b> | <b>66.0</b> |
| Spain           | 46.9       | 56.3        | 57.8        | 58.5        | 59.8        | 61.1        | 63.2        |
| Sweden          | 70.9       | 73.0        | 74.0        | 73.6        | 72.9        | 72.1        | 72.6        |
| United Kingdom  | 68.5       | 71.2*       | 71.4        | 71.3        | 71.5        | 71.6        | 71.5        |

Source: Population and Social Conditions - Labour Market (Eurostat) (2005).

Note: \*estimate.

Figure: Employment rates in terms of the highest attained level of education, EU-25 and Slovenia, 2000 and 2005, second quarter



Source: Population and Social Conditions – Labour Market, Eurostat, 2005.

## Unemployment rate

*According to the IMAD's unofficial calculations<sup>1</sup>, the survey unemployment rate in Slovenia in 2005 increased slightly, while the downward trend in registered unemployment rate slowed down.* In the 1995-2000 period, the survey unemployment rate ranged between 7% and 8% and has been on a falling trend since 2001. In the second quarter of 2005, it had reached its lowest level (5.8%) since 1993 – when we started measuring it – but increased again significantly in the third and fourth quarters of 2005 so that the average annual survey unemployment rate in 2005 (6.5%) was higher than in 2004 (6.3%). The number of unemployed people according to the labour force survey, ranging around 70,000 in the 1995-2000 period, declined to 62,000 in 2002 and has remained at the level of 64,000 since 2003, including in the first three quarters of 2005. In the fourth quarter of 2005, the number rose to 74,000 and consequently the average number of survey unemployed totalled 66,500 in 2005.

*The number of the registered unemployed continues to fall.* It was around 125,000 in 1993-1998, while the registered unemployment rate was between 14% and 14.5%<sup>2</sup>. Since 1999, the number and rate of registered unemployment have been in decline (with the exception of 2002). On average, the number of registered unemployed persons decreased in 2005 as well, namely to 91,416 persons and corresponding to 1.0% less than the year before. In 2005, the number of registered unemployed persons dropped mainly due to a substantially lower inflow of first-time job-seekers; other inflows were stronger, while outflows were weaker than in the year before. In 2005, the average registered unemployment rate was 10.2 percent, that is 0.1 percentage point less than in 2004.

*The internationally comparable rate of survey unemployment in Slovenia has been below the EU average ever since it started to be measured and has hovered around the average of the OECD countries.* According to the Eurostat<sup>3</sup> data, it is lower than in most new member states (with the exceptions of Hungary and Cyprus in 2004 and only Cyprus in 2005); in 2004 and 2005, survey unemployment rates lower than Slovenia's were recorded in the following old member states: Ireland, Netherlands, the United Kingdom, Austria, Luxembourg, Denmark and Sweden (Table).

<sup>1</sup> According to IMAD's unofficial calculation based on the quarterly data released by the SORS.

<sup>2</sup> The number of the registered unemployed is higher than the number of survey unemployed because it includes people registered as unemployed but periodically working or those who have given up job searching. According to the international definition, persons considered unemployed in the labour force survey are only those who did not have the status of employed or self-employed persons in the reference week or people who were not otherwise employed and who were actively seeking employment and were prepared to take up work if offered.

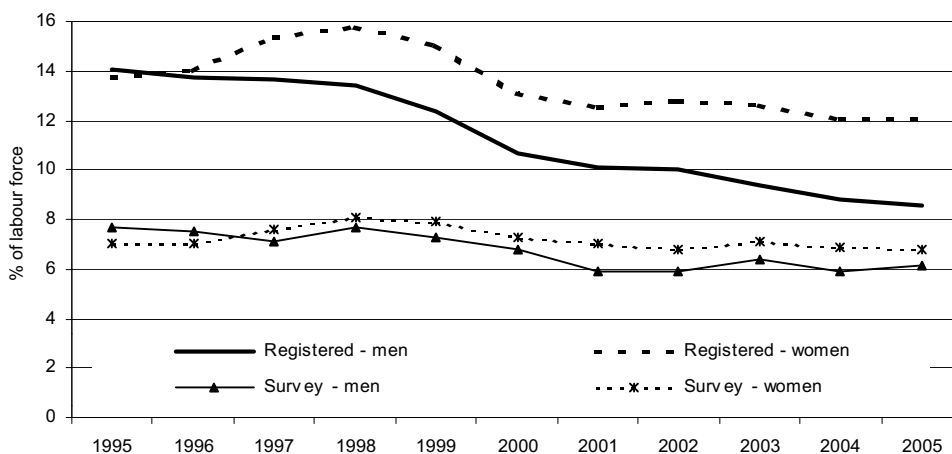
<sup>3</sup> Regarding Slovenia, Eurostat released its estimate for 2005 based on data for the first three quarters of 2005.

Table: Unemployment rate, %

|                 | 1995       | 2000       | 2001       | 2002       | 2003       | 2004       | 2005       |
|-----------------|------------|------------|------------|------------|------------|------------|------------|
| EU-25           | N/A        | 8.6        | 8.4        | 8.8        | 9.0        | 9.1        | 8.7        |
| EU-15           | 10.1       | 7.7        | 7.3        | 7.6        | 8.0        | 8.1        | 7.9        |
| EU-10           | N/A        | 13.6       | 14.5       | 14.8       | 14.3       | 14.2       | 13.4       |
| Austria         | 3.9        | 3.6        | 3.6        | 4.2        | 4.3        | 4.8        | 5.2        |
| Belgium         | 9.7        | 6.9        | 6.6        | 7.5        | 8.2        | 8.4        | 8.4        |
| Cyprus          | N/A        | 4.8        | 3.9        | 3.6        | 4.1        | 4.7        | 5.3        |
| Czech Republic  | N/A        | 8.7        | 8.0        | 7.3        | 7.8        | 8.3        | 7.9        |
| Denmark         | 6.7        | 4.3        | 4.5        | 4.6        | 5.4        | 5.5        | 4.8        |
| Estonia         | N/A        | 12.8       | 12.4       | 10.3       | 10.0       | 9.7        | 7.9        |
| Finland         | 15.4       | 9.8        | 9.1        | 9.1        | 9.0        | 8.8        | 8.4        |
| France          | 11.1       | 9.1        | 8.4        | 8.9        | 9.5        | 9.6        | 9.5        |
| Greece          | 9.2        | 11.3       | 10.8       | 10.3       | 9.7        | 10.5       | 10.0       |
| Ireland         | 12.3       | 4.3        | 4.0        | 4.5        | 4.7        | 4.5        | 4.3        |
| Italy           | 11.2       | 10.1       | 9.1        | 8.6        | 8.4        | 8.0        | 7.7        |
| Latvia          | N/A        | 13.7       | 12.9       | 12.2       | 10.5       | 10.4       | 9.0        |
| Lithuania       | N/A        | 16.4       | 16.5       | 13.5       | 12.4       | 11.4       | 8.2        |
| Luxembourg      | 2.9        | 2.3        | 2.1        | 2.8        | 3.7        | 4.8        | 5.3        |
| Hungary         | N/A        | 6.4        | 5.7        | 5.8        | 5.9        | 6.1        | 7.2        |
| Malta           | N/A        | 6.7        | 7.6        | 7.5        | 7.6        | 7.3        | 7.3        |
| Germany         | 8.0        | 7.2        | 7.4        | 8.2        | 9.0        | 9.5        | 9.5        |
| Netherlands     | 6.6        | 2.8        | 2.2        | 2.8        | 3.7        | 4.6        | 4.7        |
| Poland          | N/A        | 16.1       | 18.2       | 19.9       | 19.6       | 19.0       | 17.7       |
| Portugal        | 7.3        | 4.0        | 4.0        | 5.0        | 6.3        | 6.7        | 7.6        |
| <b>Slovenia</b> | <b>7.4</b> | <b>6.7</b> | <b>6.2</b> | <b>6.3</b> | <b>6.7</b> | <b>6.3</b> | <b>6.3</b> |
| Slovakia        | N/A        | 18.8       | 19.3       | 18.7       | 17.6       | 18.2       | 16.4       |
| Spain           | 18.8       | 11.4       | 10.8       | 11.5       | 11.5       | 11.0       | 9.2        |
| Sweden          | 8.8        | 5.6        | 4.9        | 4.9        | 5.6        | 6.3        | 6.3        |
| United Kingdom  | 8.5        | 5.4        | 5.0        | 5.1        | 4.9        | 4.7        | 4.7        |

Source: Population and social conditions - Labour Market, Eurostat, 2005. Rapid Reports - Labour Market, the Statistical Office of the RS.

Figure: Survey and registered unemployment rate in Slovenia, by gender



Source: Labour Market (various publications), Statistical Office of the RS, 1995-2005.

## ***Part-time employment***

*The share of part-time employment (shorter working hours) in total employment, which measures the extent of this form of employment, is an important partial indicator of labour market flexibility.* Often, an increase in part-time employment is seen as a positive trend. Part-time employment increases labour market flexibility on the demand side since it increases the possibility of adjusting production and labour costs. As to the supply side, it expands the choices of individuals who might not be willing or able to work full-time and enables an easier reconciliation of family and working life.

*In the last twenty years, the prevalence of part-time employment in the EU-15 has substantially increased (from 13% in 1983 to 19.4% in 2004); there are considerable differences in the extent of such employment between countries.* The Netherlands records the highest part-time share; in 2004, it amounted to 45.5%. As early as 1982, the Netherlands adopted a tripartite agreement on the effective distribution of employment through working time reductions and part-time employment; a large extent of part-time employment was due to the social partners' agreement and the long tradition. In 2004, the group of countries with a relatively large extent of part-time employment (between 20 and 30 percent) included: Austria, Belgium, Germany, Denmark, Sweden, Norway and the United Kingdom.

The analyses of the extent and determinants of part-time work (Buddelmeyer, Mourre and Ward, 2005) in the EU-15 countries show that part-time employment is more frequent among women. The mentioned analysis also indicates that part-time employment is a more common means of entering the labour market than of exiting it and that part-time employment facilitates a transition from part-time to full-time employment only to a small extent (less than 5% of cases). The decision to take up part-time employment is significantly influenced by one's marital status and family size. Differences in the extent of part-time employment are significantly determined by country-specific differences in labour market institutions, culture and tradition.

*In the 1995-2004 period, the prevalence of part-time employment in Slovenia increased but it is still relatively low in comparison with old member states* although higher than in other new member states. In the second quarter of 2004, Slovenia noted an above-average share of part-time employment among young people (aged 15 to 24); it exceeded the EU-25 and the EU-15 averages among women and men. In the older population (aged 55 to 64), the EU average is exceeded only among men while the share of older women working part-time is still below the EU average. There is no data available on the type of work carried out by the young, but we may speculate that such work mainly relates to temporary work through student services, which is recorded as part-time employment in the labour force survey. The share of part-time employment in the 25 to 49 age group is well below the EU average.

*An increase in part-time employment would provide an opportunity for Slovenia to raise its current low employment rate of older workers,* particularly women within the service sector development, namely in the field of social protection. As regards the Slovenian public administration, part-time employment, which is relatively common in the EU-15, may lead to greater flexibility in this sector.

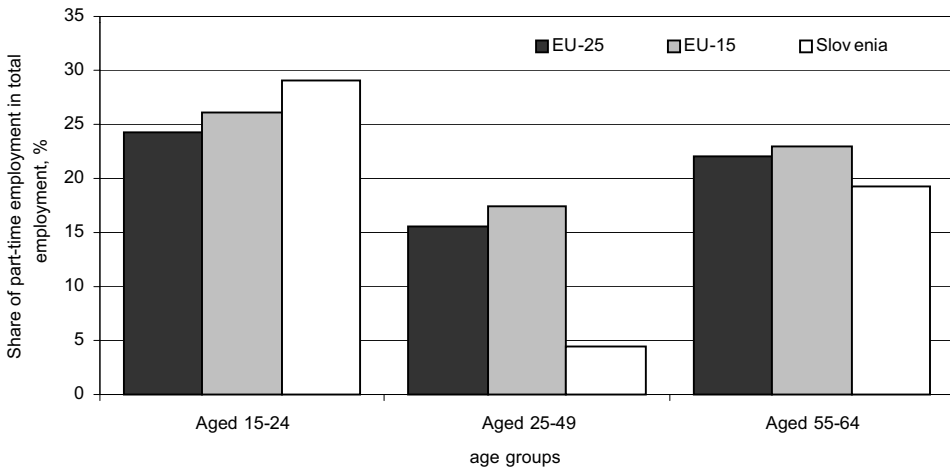
Table: Share of part-time employment in total employment in % (data for second quarter)

|                  | 1995       | 2000       | 2001       | 2002       | 2003       | 2004       | 2005       |
|------------------|------------|------------|------------|------------|------------|------------|------------|
| <b>EU-25</b>     | N/A        | 16.4       | 16.4       | 16.6       | 17.0       | 17.8       | N/A        |
| <b>EU-15</b>     | 16.0       | 17.9       | 18.0       | 18.2       | 18.6       | 19.5       | N/A        |
| <b>Euro area</b> | 14.1       | 16.5       | 16.3       | 16.4       | 16.9       | 17.8       | N/A        |
| Austria          | 13.9       | 17.0       | 17.2       | 19.0       | 18.6       | 20.2       | 21.0       |
| Belgium          | 13.6       | 20.7       | 18.5       | 19.4       | 20.6       | 21.6       | 21.9       |
| Cyprus           | N/A        | 8.4        | 8.4        | 7.2        | 8.9        | 8.7        | 8.9        |
| Czech Rep.       | N/A        | 5.4        | 5.0        | 4.8        | 5.0        | 5.0        | 4.8        |
| Denmark          | 21.6       | 21.7       | 20.1       | 20.6       | 20.9       | 22.5       | 22.0       |
| Estonia          | N/A        | 6.8        | 7.5        | 6.7        | 8.0        | 7.8        | 7.7        |
| Finland          | 11.8       | 12.2       | 12.0       | 12.4       | 12.9       | 13.1       | 13.6       |
| France           | 15.6       | 16.9       | 16.4       | 16.2       | 16.7       | 16.6       | 17.4       |
| Greece           | 4.8        | 4.6        | 4.1        | 4.4        | 4.1        | 4.6        | 4.8        |
| Ireland          | 12.1       | 16.8       | 16.6       | 16.6       | 17.0       | 16.9       | 12.8       |
| Italy            | 6.6        | 8.8        | 9.1        | 8.6        | 8.6        | 12.7       | 12.8       |
| Latvia           | N/A        | 11.1       | 10.0       | 9.3        | 10.0       | 10.5       | 9.6        |
| Lithuania        | N/A        | 9.1        | 8.8        | 9.8        | 9.1        | 8.6        | 6.5        |
| Luxembourg       | 7.9        | 11.3       | 11.3       | 11.7       | 13.3       | 17.8       | N/A        |
| Hungary          | N/A        | 3.6        | 3.5        | 3.6        | 4.4        | 4.6        | 4.4        |
| Malta            | N/A        | 6.5        | 7.7        | 8.8        | 9.3        | 8.1        | 9.2        |
| Germany          | 16.3       | 19.4       | 20.3       | 20.8       | 21.7       | 22.3       | N/A        |
| Netherlands      | 37.3       | 41.2       | 42.2       | 43.8       | 45.0       | 45.6       | 46.2       |
| Poland           | N/A        | 10.6       | 10.2       | 10.7       | 10.3       | 10.5       | 10.6       |
| Portugal         | 7.5        | 10.8       | 11.3       | 11.4       | 11.8       | 11.2       | 11.5       |
| Slovakia         | N/A        | 1.9        | 2.4        | 1.9        | 2.4        | 2.7        | 2.4        |
| <b>Slovenia</b>  | <b>5.8</b> | <b>6.1</b> | <b>6.1</b> | <b>6.6</b> | <b>6.6</b> | <b>9.6</b> | <b>8.9</b> |
| Spain            | 7.4        | 8.1        | 8.1        | 8.1        | 8.3        | 8.9        | 12.8       |
| Sweden           | 26.2       | 22.8       | 21.0       | 21.4       | 22.9       | 23.9       | N/A        |
| United Kingdom   | 24.1       | 25.3       | 25.2       | 25.5       | 26.0       | 26.2       | 25.7       |
| Bulgaria         | N/A        | N/A        | 3.5        | 3.1        | 2.4        | 3.1        | 2.5        |
| Croatia          | N/A        | N/A        | N/A        | 8.0        | 8.4        | 8.7        | N/A        |
| Iceland          | 30.7       | 28.2       | 26.9       | 27.8       | 19.5       | 19.9       | 19.5       |
| Norway           | 27.7       | 26.1       | 26.0       | 26.3       | 29.0       | 29.6       | 28.5       |
| Romania          | N/A        | 16.4       | 16.8       | 11.4       | 12.0       | 10.2       | 10.7       |
| Switzerland      | N/A        | 30.5       | 31.8       | 31.7       | 32.7       | 33.0       | 33.1       |

Source: Internet:

[http://epp.eurostat.ec.eu.int/portal/page?\\_pageid=1996,39140985&\\_dad=portal&\\_schema=PORTAL&screen=detailref&language=en&product=Yearlies\\_new\\_population&root=Yearlies\\_new\\_population/C/C4/C41/c41ccb22800](http://epp.eurostat.ec.eu.int/portal/page?_pageid=1996,39140985&_dad=portal&_schema=PORTAL&screen=detailref&language=en&product=Yearlies_new_population&root=Yearlies_new_population/C/C4/C41/c41ccb22800)

Figure: Prevalence of part-time employment by age groups



Source: Eurostat.

# Temporary employment

*The prevalence of temporary employment is an indicator of labour market flexibility but, as a measure of flexibility, it has a number of limitations. The significant share of temporary employment reflects the response of employers to the rigid rules governing the dismissal of full-time employees.* Due to high dismissal costs, employers often use fixed-term employment, as a rule thereby incurring lower dismissal costs. Countries with more rigid legislation in the field of employment protection have a high share of temporary employment (Spain, Portugal, for example); to a certain extent, the frequency of temporary employment depends on the economic structure (impact of seasonal work on fixed-term employment). Therefore, the highest share of temporary employment does not necessarily indicate significant labour market flexibility although, in the context of rigid legislation in the field of employment protection, temporary employment creates better possibilities for companies to adjust to changed conditions.

Kahn's (2005) analysis of data for 7 OECD countries with very different legislation in the field of employment protection<sup>1</sup> (USA, Canada, Finland, Italy, Netherlands, Switzerland, the United Kingdom) proved that more stringent employment protection for regular employment increases the incidence of temporary employment for young workers, women and individuals with low cognitive ability. The effect of employment protection on the above-mentioned groups is stronger in those countries with higher levels of collective bargaining coverage.

*The share of temporary employment (fixed-term employment) in total employment, which measures the extent of temporary employment, doubled in the 1996-2005 period,* nonetheless Slovenia only slightly exceeds the EU average as regards the extent of temporary employment. Gender-specific data on the extent of temporary employment in the EU show that women are engaged in this type of employment more often than men. Slovenia records a high, above-average extent of temporary employment among the young (aged 15 to 24) and some sociologists (Ignjatović, 2002) are speaking of the age segregation of the Slovenian labour market, which is more flexible for the young than for the older.

*In terms of temporary employment shares, the most outstanding EU countries are Spain, Poland and Portugal* and, according to the OECD's assessments (OECD Employment Outlook 2004), Spain and Portugal are the countries with the most rigid legislation in the field of employment protection<sup>2</sup>.

<sup>1</sup> The rigidity of legislation is measured by the OECD's employment protection index with values ranging from 0.7 (USA) to 3.1 (Italy) in the included countries at the end of the 1990s.

<sup>2</sup> The employment protection index enables a comparison of employment protection arrangements between countries. It came to 3.0 for Spain and 3.7 for Portugal at the end of the 1990s; this places both among those EU countries with the most rigid legislation in the employment protection field.

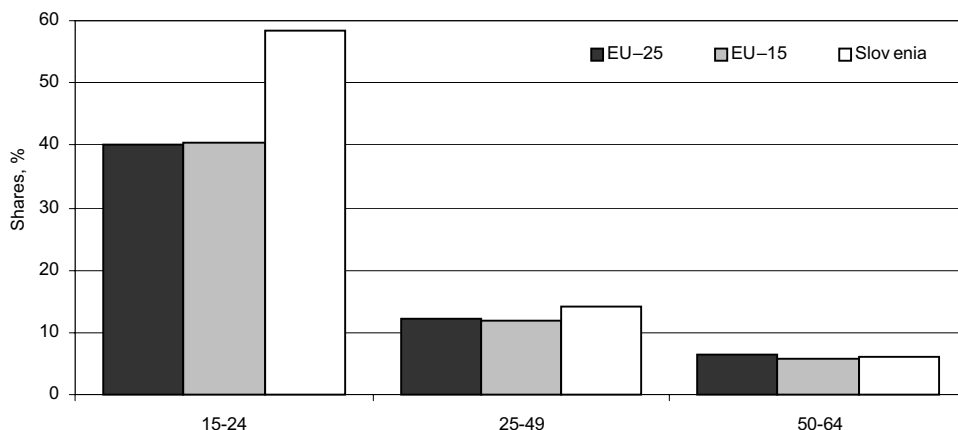


Table: Share of temporary employment in total employment in % (data for second quarter)

|                 | 1996       | 2000        | 2001      | 2002        | 2003        | 2004        | 2005        |
|-----------------|------------|-------------|-----------|-------------|-------------|-------------|-------------|
| EU-25           | N/A        | 12.5        | 12.9      | 12.9        | 12.9        | 13.5        | 14.2        |
| EU-15           | 11.8       | 13.7        | 13.5      | 13.2        | 13          | 13.4        | 14          |
| Austria         | N/A        | 8.6         | N/A       | 7.5         | 6.6         | 9.4         | 8.8         |
| Belgium         | 5.9        | 9           | 8.8       | 7.6         | 8.5         | 8.7         | 9.1         |
| Cyprus          | N/A        | 10.7        | 10.8      | 9.1         | 12.6        | 13.1        | 13.9        |
| Czech Rep.      | N/A        | 7.2         | 7.3       | 7.5         | 8.5         | 8.8         | 8           |
| Denmark         | 11.3       | 10.2        | 9.4       | 8.9         | 9.5         | 9.8         | 9.9         |
| Estonia         | N/A        | 2.3         | 2.9       | 2.2         | 3           | 3           | 3.3         |
| Finland         | 17.3       | 17.7        | 17.9      | 17.2        | 17.9        | 17.1        | 18.1        |
| France          | N/A        | N/A         | N/A       | N/A         | 12.7        | 12.9        | 13.3        |
| Greece          | 11         | 13.8        | 13.5      | 11.8        | 11.3        | 12.4        | 12.1        |
| Ireland         | 9.2        | 5.3         | 4.6       | 4.9         | 4.6         | 3.4         | 2.5         |
| Italy           | 7.4        | 10.1        | 9.6       | 9.9         | 9.5         | 11.9        | 12.4        |
| Latvia          | N/A        | 6.7         | 7.1       | 11.7        | 9.5         | 9.2         | 8.4         |
| Lithuania       | N/A        | 3.8         | 6.6       | 7.6         | 8.1         | 6.6         | 5.1         |
| Luxembourg      | 2.6        | 3.4         | 4.3       | 4.3         | 3.2         | 4.9         | N/A         |
| Hungary         | N/A        | 6.8         | 7.5       | 7.3         | 7.6         | 6.9         | 7.2         |
| Malta           | N/A        | 3.9         | 4.1       | 4.1         | 4.2         | 3.2         | 4           |
| Germany         | 11.1       | 12.8        | 12.4      | 12          | 12.2        | 12.5        | 13.9        |
| Netherlands     | 11.9       | 13.8        | 14.3      | 14.2        | 14.4        | 14.4        | 15          |
| Poland          | N/A        | 5.6         | 11.9      | 15.4        | 18.9        | 22.5        | 25.4        |
| Portugal        | 10.7       | 19.8        | 20        | 21.7        | 20.6        | 19.9        | 19.5        |
| Slovakia        | N/A        | 4           | 4.9       | 4.6         | 4.7         | 5.3         | 4.9         |
| <b>Slovenia</b> | <b>8.4</b> | <b>12.8</b> | <b>13</b> | <b>14.6</b> | <b>13.5</b> | <b>17.8</b> | <b>16.8</b> |
| Spain           | 33.8       | 32.4        | 32.1      | 32.1        | 31.8        | 32.1        | 33.3        |
| Sweden          | 11.5       | 14.3        | 15.5      | 15.3        | 15.6        | 15.5        | 16          |
| United Kingdom  | 7          | 6.6         | 6.6       | 6           | 5.7         | 5.6         | 5.4         |

Source: Internet.  
[http://epp.eurostat.ec.eu.int/portal/page?\\_pageid=1996.45323734&\\_dad=portal&\\_schema=PORTAL&screen=welcomeref&open=/labour/employ/lfsq/emptemp\\_q&language=en&product=EU\\_MASTER\\_labour\\_market&root=EU\\_MASTER\\_labour\\_market&scrollto=0](http://epp.eurostat.ec.eu.int/portal/page?_pageid=1996.45323734&_dad=portal&_schema=PORTAL&screen=welcomeref&open=/labour/employ/lfsq/emptemp_q&language=en&product=EU_MASTER_labour_market&root=EU_MASTER_labour_market&scrollto=0)

Figure: Prevalence of temporary employment by age groups



Source: Eurostat.

## Social protection expenditure

*Social protection expenditures are various cash benefits and benefits in kind and programmes aimed at alleviating social risks.* Social protection is a comprehensive system providing insurance to individuals against the loss of income due to illness, birth and childcare or old age, death of the head of the family and unemployment; within this system, health care, facilities for child and family care, basic subsistence and assistance concerning other forms of social exclusion are provided to individuals and families. The scope of such expenditure reveals the country's efforts to improve the welfare of its citizens. Since 1996, data on social protection have been collected in accordance with the EUROSTAT methodology – ESSPROS.

*In 2003, Slovenia's expenditure on social protection totalled 24.8% of GDP*, which was 0.6 of a percentage point less than in 2002 and 0.4 p.p. more than in 1996. In real terms, social protection expenditure remained at the level of 2002. In 2003, the majority of funds were earmarked for old age – 10.4% of GDP (1996: 10.6%) and sickness and health care – 7.8% (1996: 7.4%). Family and children were allocated 2.1% of GDP (1996: 2.0%), disability 2% (the same as in 1996), unemployment 0.7% (1996: 1%), survivors 0.4% (1996: 0.5%), and other forms of social exclusion 0.6% of GDP (in 1996: 0.4% of GDP).

*The expenditure structure for 2003 shows that the biggest share was earmarked for old age (mainly pensions); together with expenditure on sickness and health care, they represent as much as three-quarters of total social protection expenditure* (Figure). In the period from 1996 to 2003, certain shifts were noted within social protection expenditure. The most significant increase was observed in expenditure on sickness and health care, while expenditure on programmes for old age decreased. In 2003, Slovenia's expenditure on old age amounted to 43.3% (1996: 44.2%), on sickness and health care to 32.4% (1996: 30.8%), on family and children to 8.6% (1996: 8.5%), on disability to 8.2% (1996: 8.5%); Slovenia recorded a substantial drop in funds for unemployment, namely from 4.3% in 1996 to 3.1% in 2003, as was the case for cash benefits and benefits in kind for survivors (2003: 1.7% and 1996: 2.0%). In 2003, expenditure on other forms of social exclusion represented a slightly higher share in Slovenia's expenditure structure, namely 2.6% compared with 1.8% in 1996.

*In 2003, the EU-25 countries earmarked on average 28% of GDP for social protection; with 24.8% of GDP Slovenia is positioned around the middle of the scale* in the vicinity of Portugal and Luxembourg. There are significant differences between countries. The Swedish social protection expenditure stays at the highest level (33.5% of GDP), and Estonia's and Latvia's at the lowest (both 13.4% of GDP). In the period from 1995 to 2003, social protection expenditure in approximately half of the old member states increased (in Austria, Belgium, France, Italy, Luxembourg, Germany and Portugal). Social protection expenditure decreased in welfare states (Sweden, Denmark and Finland). New member states earmark much less funds for social protection than the EU-15 countries. Czech Republic, Hungary, Poland and Slovenia (ranking first among the ten new member states) allocate over 20% of their GDP, while other countries allocate less than 20%.

*In 2003, social protection expenditure per person averaged out at EUR 6,012.2 in the EU-25 countries (in the EU-15 to EUR 6,925.5). With EUR 3,038 Slovenia is ranked in the middle.* A comparison between countries in purchasing power standards (PPS) shows a similar picture, with the highest-ranking countries being Luxembourg, Sweden and Denmark. In terms of PPS per capita, Slovenia is the leading country among the ten new member states, while in comparison with the EU-15 countries it holds the same level as Portugal.

*Around two-thirds of the social protection programmes in Slovenia are financed by social contributions; the remaining one-third is paid from the national budget. In the period from 1996 to 2003, the structure of financing sources changed considerably.* The biggest change was noted in the social contributions of employers, which dropped by 5.2 percentage points; the social contributions of insured persons decreased only slightly; budgetary sources increased by 3.4 percentage points. In 2003, employers' social contributions represented 27.3% of all financial

resources for social protection (1996: 32.5%), contributions of insured persons 39.9% (1996: 38.4%), budgetary funding 31.5% (1996: 28.1%) and other financial resources 1.3% (1996: 1%).

*The structure of social protection resources differs from the EU average; differences seen between countries are large.* In 2003, employers' contributions represented 39% of all resources in the EU-15 (in Slovenia, this percentage is substantially lower: 27.3%); employees' contributions amounted to 21% (in Slovenia, they exceeded 39.9%). In the EU-15, budgetary funds represented 37% of social protection resources; in Slovenia, this resource represented a slightly lower share (31.5%).

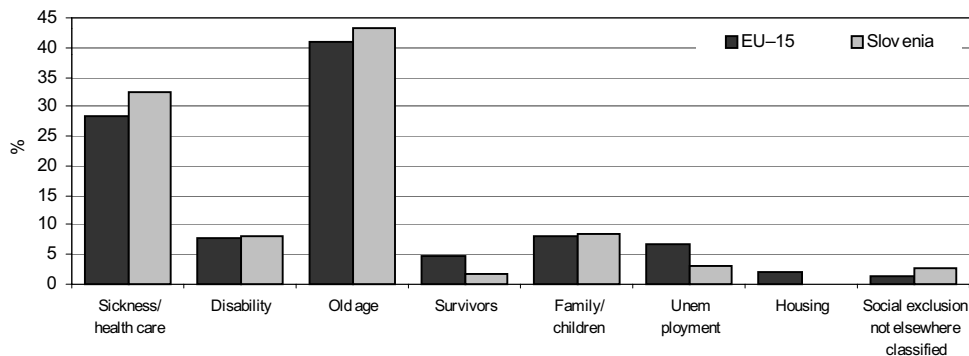
Table: Social protection expenditure in Slovenia and EU member states in % of GDP and in PPS per capita

|                               | Social protection expenditure |             |             |             |             |                               |           |           |
|-------------------------------|-------------------------------|-------------|-------------|-------------|-------------|-------------------------------|-----------|-----------|
|                               | Share in GDP, in %            |             |             |             |             | Per capita in PPS EU-15 = 100 |           |           |
|                               | 1995                          | 2000        | 2001        | 2002        | 2003        | 1996                          | 2000      | 2003      |
| EU-25                         | N/A                           | 26.9        | 27.1 p      | 27.4 e      | 28.0 e      | N/A                           | 86        | 87        |
| EU-15                         | 28.2                          | 27.2        | 27.5 p      | 27.7 e      | 28.3 e      | 100                           | 100       | 100       |
| Austria                       | 28.9                          | 28.3        | 28.6        | 29.2        | 29.5        | 113                           | 115       | 111       |
| Belgium                       | 28.1                          | 26.8        | 27.7 p      | 28.8 e      | 29.7 e      | 103                           | 100       | 108       |
| Cyprus                        | N/A                           | N/A         | 15.2 p      | 16.4 p      | N/A         | N/A                           | 43**      | 43***     |
| Czech Republic                | 17.2                          | 19.6        | 19.5 p      | 20.2 p      | 20.1 p      | 38                            | 41        | 43        |
| Denmark                       | 31.9                          | 28.9        | 29.2        | 29.9        | 30.9        | 120                           | 118       | 117       |
| Estonia                       | N/A                           | 14.4        | 13.6        | 13.2 p      | 13.4 p      | N/A                           | 20        | 20        |
| Finland                       | 31.4                          | 25.3        | 25.5        | 26.2        | 26.9        | 102                           | 93        | 95        |
| France                        | 30.3                          | 29.3        | 29.5        | 30.2        | 30.9 p      | 108                           | 108       | 107       |
| Greece                        | 22.3                          | 26.3        | 27.0        | 26.4        | 26.3 e      | 49                            | 61        | 66        |
| Ireland                       | 18.8                          | 14.1        | 15.0        | 15.9        | 16.5 p      | 56                            | 58        | 70        |
| Italy                         | 24.8                          | 25.2        | 25.6        | 26.1 p      | 26.4 p      | 88                            | 91        | 87        |
| Latvia                        | N/A                           | 15.3        | 14.3        | 13.8        | N/A         | N/A                           | 17        | 17        |
| Lithuania                     | N/A                           | 15.8        | 14.7        | 14.1 p      | 13.6 p      | N/A                           | 20        | 19        |
| Luxembourg                    | 23.7                          | 20.3        | 21.3        | 22.6        | 23.8 p      | 130                           | 142       | 157       |
| Hungary                       | N/A                           | 19.8        | 19.8        | 20.7        | 21.4        | N/A                           | 34        | 40        |
| Malta                         | 17.5                          | 16.9        | 17.7        | 18.0        | 18.5        | 41                            | 42        | 42        |
| Germany                       | 28.2                          | 29.3        | 29.3        | 29.9        | 30.2 p      | 108                           | 106       | 102       |
| Netherlands                   | 30.9                          | 27.4        | 26.5        | 27.6        | 28.1 p      | 110                           | 106       | 110       |
| Poland                        | N/A                           | 20.1        | 21.5        | 21.9 p      | 21.6 p      | N/A                           | 29        | 31        |
| Portugal                      | 21.3                          | 21.7        | 22.8        | 23.7        | 24.3 p      | 47                            | 57        | 59        |
| Slovakia                      | 18.7                          | 19.5        | 19.1        | 19.2        | 18.4 p      | 28                            | 35        | 30        |
| <b>Slovenia<sup>1,2</sup></b> | <b>24.4*</b>                  | <b>25.2</b> | <b>25.5</b> | <b>25.4</b> | <b>24.8</b> | <b>52*</b>                    | <b>59</b> | <b>59</b> |
| Spain                         | 22.1                          | 19.6        | 19.4 p      | 19.6 p      | 19.7 p      | 58                            | 59        | 60        |
| Sweden                        | 34.6                          | 31.0        | 31.5        | 32.5        | 33.5 p      | 121                           | 118       | 119       |
| United Kingdom                | 28.2                          | 27.0        | 27.5        | 26.4 p      | 26.7        | 94                            | 97        | 98        |

Source: For Slovenia - SORS, Statistical information, Social protection, No. 237, October 2005, calculations by IMAD; For EU countries: Eurostat.

Notes: <sup>1</sup>share of GDP according to revised data for 1995-2003, 23 April 2004; <sup>2</sup>figures on accommodation are excluded due to non-availability; PPS - purchasing power standards; \* data for 1996, \*\* data for 2001, \*\*\* data for 2002, p - preliminary data; e - Eurostat estimate; N/A - not available.

Figure: Structure of social protection expenditure by purpose in 2003, in %



Source: Eurostat.

## ***Human development index (HDI)***

*The human development index (HDI) is a summary measure of development supplementing a traditional economic development indicator, i.e. gross domestic product.* It combines three (basic) dimensions of social development: health (life expectancy at birth), income or access to sources providing a decent standard of living (GDP per capita in purchasing power parity), and education and knowledge (enrolment and literacy rates). It measures the achievement of one of the basic objectives of the Development Strategy of Slovenia, i.e. the sustainable growth in prosperity for the population of Slovenia.

*In 2003<sup>1</sup>, for the first time the HDP value exceeded a value of 0.90, which indicates a very high development level; by attaining the value of 0.904 Slovenia ranks 26th among the 177 countries included.* Slovenia's HDI (0.895 in 2002) increased due to constant growth in all its components (Figure). The most substantial change was noted in the education index (0.02 point). Although GDP in per capita PPP increased by USD 610 compared with 2002, the GDP index increased by only 0.01 of a point. Of three composite indexes, the life expectancy at birth remains the lowest. Despite methodological alterations, the value of the HDI and Slovenia's ranking have been gradually and continuously improving since 1992 (when the first calculation for Slovenia was made available). The relatively fast growth of the HDI in the 1990s was influenced mainly by the growth in GDP and an increase in the gross enrolment ratio. Although life expectancy at birth has been continuously improving, its positive effect on the total value of the index is less significant.

*In 2003, the average HDI value in the EU-25 totalled 0.907, with the highest scores being recorded in Luxembourg and Sweden (0.949). Slovenia was ranked 15th among the EU-25.* Slovenia closely follows Spain (0.928) and Greece (0.912). Portugal, typically ranked above Slovenia in previous years, had the same HDI value in 2003 but was ranked just below Slovenia due to its lower values in the education and GDP indices. The lowest values were recorded in two new member states: Latvia, whose HDI rose by 0.013 of a point over 2002 (from 0.823 to 0.836) and Slovakia (0.849). Slovenia remains the highest-ranking new member state with the highest HDI value (see the figure), followed by Cyprus (0.891; rank 29) and the Czech Republic (0.874; rank 31).

*The HDI has recorded positive development trends ever since 1990* (GDP growth translates into higher general welfare in most countries). According to the most recent calculations of development indices and compared with previous years, the number of countries within the high human development group (HDI over 0.80) has increased, while the number of countries in the low human development group (an HDI value below 0.50) has decreased. Norway remains the country with the highest HDI value (0.963), followed by Iceland (0.956) and Australia (0.955). Out of 177 countries included in the analysis, there are 57 countries with high human development levels; their average HDI amounts to 0.895. The number of countries with very high HDI (exceeding 0.90) is also growing (in 2003, there were 28 such countries and in 2002, there were 25). Norway remains the country with the highest HDI value (0.963), followed by Iceland (0.956) and Australia (0.955). However, there are still 32 countries in the group of low human development countries, though less than in previous years; their average HDI value is 0.486. The lowest HDI values are recorded in African countries.

<sup>1</sup> Data released in 2005 (data are published with a two-year delay).

<sup>2</sup> The values of HDI and of its composite indexes range from 0 to 1.

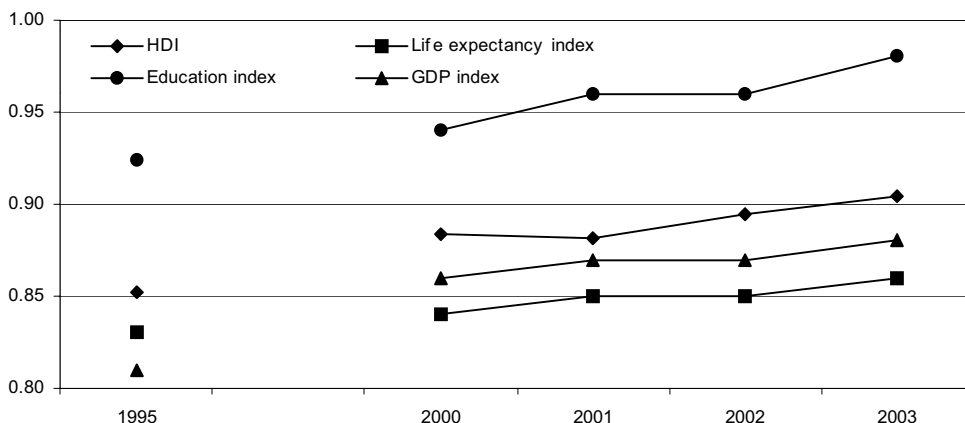
Table: Human development index in Slovenia and EU-25, value<sup>1</sup>

|                 | 1995                     | 2000                     | 2001         | 2002         | 2003         |
|-----------------|--------------------------|--------------------------|--------------|--------------|--------------|
| <b>EU-25</b>    | <b>0.876<sup>2</sup></b> | <b>0.900<sup>2</sup></b> | <b>0.893</b> | <b>0.901</b> | <b>0.907</b> |
| <b>EU-15</b>    | <b>0.910</b>             | <b>0.930</b>             | <b>0.924</b> | <b>0.929</b> | <b>0.936</b> |
| <b>EU-10</b>    | <b>0.820<sup>2</sup></b> | <b>0.851<sup>2</sup></b> | <b>0.847</b> | <b>0.953</b> | <b>0.865</b> |
| Austria         | 0.914                    | 0.933                    | 0.929        | 0.934        | 0.936        |
| Belgium         | 0.929                    | 0.949                    | 0.937        | 0.942        | 0.945        |
| Cyprus          | 0.858                    | 0.883                    | 0.891        | 0.883        | 0.891        |
| Czech Republic  | 0.843                    | 0.857                    | 0.861        | 0.868        | 0.874        |
| Denmark         | 0.913                    | 0.932                    | 0.930        | 0.932        | 0.941        |
| Estonia         | 0.795                    | 0.833                    | 0.833        | 0.853        | 0.853        |
| Finland         | 0.914                    | 0.940                    | 0.930        | 0.935        | 0.941        |
| France          | 0.921                    | 0.932                    | 0.925        | 0.932        | 0.938        |
| Greece          | 0.876                    | 0.895                    | 0.892        | 0.902        | 0.912        |
| Ireland         | 0.894                    | 0.929                    | 0.930        | 0.936        | 0.946        |
| Italy           | 0.907                    | 0.921                    | 0.916        | 0.920        | 0.934        |
| Latvia          | 0.765                    | 0.812                    | 0.811        | 0.823        | 0.836        |
| Lithuania       | 0.787                    | 0.828                    | 0.824        | 0.842        | 0.852        |
| Luxembourg      | 0.911                    | 0.929                    | 0.930        | 0.933        | 0.949        |
| Hungary         | 0.812                    | 0.843                    | 0.837        | 0.848        | 0.862        |
| Malta           | 0.852                    | 0.874                    | 0.856        | 0.875        | 0.867        |
| Germany         | 0.913                    | 0.927                    | 0.921        | 0.925        | 0.930        |
| Netherlands     | 0.928                    | 0.939                    | 0.938        | 0.942        | 0.943        |
| Poland          | 0.816                    | 0.845                    | 0.841        | 0.850        | 0.858        |
| Portugal        | 0.878                    | 0.898                    | 0.896        | 0.897        | 0.904        |
| Slovakia        | N/A                      | N/A                      | 0.836        | 0.842        | 0.849        |
| <b>Slovenia</b> | <b>0.853</b>             | <b>0.884</b>             | <b>0.881</b> | <b>0.895</b> | <b>0.904</b> |
| Spain           | 0.904                    | 0.918                    | 0.918        | 0.922        | 0.928        |
| Sweden          | 0.929                    | 0.958                    | 0.941        | 0.946        | 0.949        |
| United Kingdom  | 0.921                    | 0.948                    | 0.930        | 0.936        | 0.939        |

Source: (2002-2005) Human Development Report. UNDP, Oxford University Press: NY, Oxford.

Notes: <sup>1</sup> Interval of 0 to 1. <sup>2</sup> Data not available for Slovakia.

Figure: HDI value trends and Slovenia's ranking, 1995-2003



Source: (2005) Human Development Report. UNDP, Oxford University Press: NY, Oxford.

## ***Gender pay gap***

***Gender differences in terms of payment for work done are measured by the 'gender pay gap' indicator.*** As regards the employment policy, the Lisbon Strategy emphasises efforts to reduce structural imbalances in the labour market including the gender pay gap. The 2010 target is to reduce gender gaps in employment rates, unemployment rates and the payment for work done.

***In Slovenia the gender pay gap is gradually decreasing and Slovenia is thus among the EU member states with the smallest difference.*** According to provisional SORS's data on average monthly earnings by gender which the Eurostat has not yet included in its releases, the ratio of female to male earnings rose from just below 91% in 2002 to 93.1% in 2003. The data on the gender pay gap in Slovenia show about the same value of the indicator in both the private and the public sectors. The average gross earnings per person in paid employment in the public sector are about a quarter higher than in the private sector because of the better education structure of employees. Women represent two-thirds of employees in the public sector, which has an important impact on total national average gross earnings per employed woman and thus on the gender pay gap.

***According to Eurostat's data, the gender pay gap has not changed much.*** In the EU-25 the ratio has improved only slightly in the past two years; the difference decreased from 16% to 15%. According to data for the past four years, only in Italy, Malta and Portugal was the ratio higher than 90%, which means that hourly earnings of women were less than 10% lower than those of men. The gender pay gap in the EU-15 is broken down by the private and public sectors only for the year 2000. In general, the ratio is higher in the public sector, except in Finland. The gender pay gap is broken down by activities of the Standard Classification of Activities also only for the EU-15 for the year 2000. In Slovenia and the EU-15 the gender differences in pay by activity are very similar (see the figure). A major difference is recorded only in construction activities, where female earnings in Slovenia are 26% higher than male earnings (the situation is similar in the EU-15, but female earnings are only 4% higher than male earnings). In the EU-15 women have more than 20% lower earnings than men do in manufacturing industries and in financial intermediation, and in Slovenia also in agriculture. The education structure of employees is an important reason for the differences in female earnings compared to male earnings, but it is not the only one. The proportion of female workers is relatively high in low-paid activities but much lower in the high-tech, high-income sectors.

***The low share of part-time employment among employed women in Slovenia, which is among the lowest in the EU, is one of the reasons for Slovenia's very small gender pay gap.*** Employed women working normal hours receive earnings that also depend on their performance and promotion and have the opportunity to make a career. In this respect, women are therefore equal to men. On the other hand, if they work part time their opportunities are smaller. The high share of women working full time is made possible by a wide network of childcare for pre-school children. The European Council is well aware that this is the most important factor of women's inclusion in the labour market; in 2002 an agreement was concluded in Barcelona that by 2010 member states will provide childcare for at least 90% of pre-school children from age 3 to mandatory school age and at least 33% of children under 3 years of age. Slovenia is drawing close to this objective and compared to the EU-15 it is in the group of countries with the highest share of children in kindergartens.

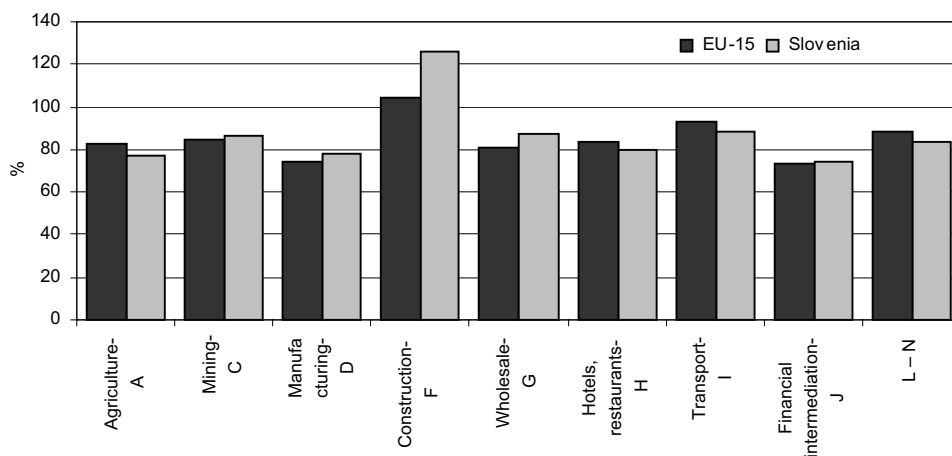
Table: Female gross hourly earnings as % of male gross hourly earnings

|                 | 1995      | 2000      |           |           | 2001      | 2002      | 2003       | 2004       |
|-----------------|-----------|-----------|-----------|-----------|-----------|-----------|------------|------------|
|                 |           | total     | private   | public    |           |           |            |            |
| EU-25           | 83        | 84        | N/A       | N/A       | 84        | 84        | 85         | 85         |
| EU-15           | 83        | 84        | 79        | 88        | 84        | 84        | 84         | 85         |
| Austria         | 78        | 80        | 76        | 86        | 80        | N/A       | 83         | 82         |
| Belgium         | 88        | 87        | 85        | 107       | 88        | N/A       | N/A        | 94         |
| Cyprus          | 71        | 74        | N/A       | N/A       | 74        | 75        | 75         | 75         |
| Czech Republic  | N/A       | 78        | N/A       | N/A       | 80        | 81        | 81         | 81         |
| Denmark         | 85        | 85        | N/A       | N/A       | 85        | 82        | 82         | 83         |
| Estonia         | 73        | 75        | N/A       | N/A       | 76        | 76        | 76         | 76         |
| Finland         | N/A       | 83        | 85        | 75        | 83        | 80        | 80         | N/A        |
| France          | 87        | 87        | N/A       | N/A       | 86        | 87        | 88         | 88         |
| Greece          | 83        | 85        | 78        | 91        | 82        | 83        | 89         | 90         |
| Ireland         | 80        | 81        | 77        | 85        | 83        | N/A       | 86         | 89         |
| Italy           | 92        | 94        | 85        | 100       | 94        | N/A       | N/A        | 93         |
| Latvia          | N/A       | 80        | N/A       | N/A       | 84        | 84        | 84         | 85         |
| Lithuania       | 73        | 84        | N/A       | N/A       | 84        | 84        | 83         | 84         |
| Luxembourg      | 81        | 85        | N/A       | N/A       | 84        | 83        | 85         | 86         |
| Hungary         | 78        | 79        | N/A       | N/A       | 80        | 84        | 88         | 89         |
| Malta           | N/A       | 89        | N/A       | N/A       | 91        | 94        | 96         | 96         |
| Germany         | 79        | 79        | 79        | 80        | 79        | 78        | 77         | 77         |
| Netherlands     | 77        | 79        | N/A       | N/A       | 81        | 81        | 82         | 81         |
| Poland          | N/A       | N/A       | N/A       | N/A       | 88        | 89        | 89         | 90         |
| Portugal        | 95        | 92        | 72        | 117       | 90        | 92        | 91         | 95         |
| Slovakia        | N/A       | 78        | N/A       | N/A       | 77        | 73        | 77         | 76         |
| <b>Slovenia</b> | <b>86</b> | <b>88</b> | <b>85</b> | <b>84</b> | <b>89</b> | <b>91</b> | <b>N/A</b> | <b>N/A</b> |
| Spain           | 87        | 85        | 77        | 97        | 83        | 79        | 82         | 85         |
| Sweden          | 85        | 82        | N/A       | N/A       | 82        | 83        | 84         | 83         |
| UK              | 74        | 79        | 74        | 82        | 79        | 77        | 78         | 78         |

Source: EUROSTAT, ECHP.

Note: for France, the Netherlands and Sweden, data from national statistical institutes. For Slovenia, calculation for the private and public sectors by IMAD.

Figure: Gender pay gap by activity



Source: for Slovenia SORS and calculations by IMAD, for EU-15 Eurostat, ECHP.

## ***Long-term unemployment***

***The long-term unemployment rate, i.e. the ratio between the number of the long-term unemployed (people unemployed for over 1 year) and the size of the labour force, is an indicator of problems in the labour market and in social cohesion.*** In the 2000-2004 period, the long-term unemployment rate in Slovenia declined gradually from 4.0% in 2000 when it peaked, to 3.1% in 2004 when it was the lowest thus far, and below the EU-25 and EU-15 averages. In most countries, the long-term unemployment rate is higher for women than for men (in the EU-25, it totalled 4.6% for women and 2.9% for men in 2004).

***Although the long-term unemployment rate in Slovenia is below the EU average, the share of long-term unemployment in total unemployment in Slovenia is comparatively high.*** In the second quarter of 2005, Slovenia's share of long-term unemployment within total unemployment in the 15-64 age group totalled 51.0%. In countries with a comparable share of the long-term unemployment (Portugal or Hungary, for example) this share was somewhat lower while being substantially lower in Scandinavian countries and in countries with a similar unemployment rate as Slovenia's – in Q2 of 2005, Sweden had the lowest share of long-term unemployment in total unemployment in the EU (14.1%), followed by Norway (17.4%), United Kingdom (22.2%), Finland (22.4%) and Austria (23.6%). Everything points to the fact that structural unemployment is still a problem in Slovenia and that employment policy measures should lay an even bigger emphasis on the reduction and prevention of long-term unemployment.

***The shares of long-term unemployment in total unemployment within particular age groups rise with age,*** pointing to bigger problems in employing older, jobless people. The share of long-term unemployment in total unemployment doubles in the 55-64 age group compared with the 15-24 age group.

***Long-term unemployment is an important factor of poverty.*** Whereas the total poverty risk rate (income plus income in kind) totalled 10.0% in 2003, the comparable poverty risk rate among unemployed people was 38.4% and the figure for people in employment was 3.6%.

***As a rule, long-term unemployment impairs working skills and lessens the chances of reemployment.*** Long-term unemployed people, particularly older ones, often give up actively seeking jobs, which contributes significantly to the big difference in Slovenia between unemployment according to the survey of labour force and according to the records of the Employment Service of Slovenia since those who give up actively seeking jobs stop being unemployed according to the labour force survey.

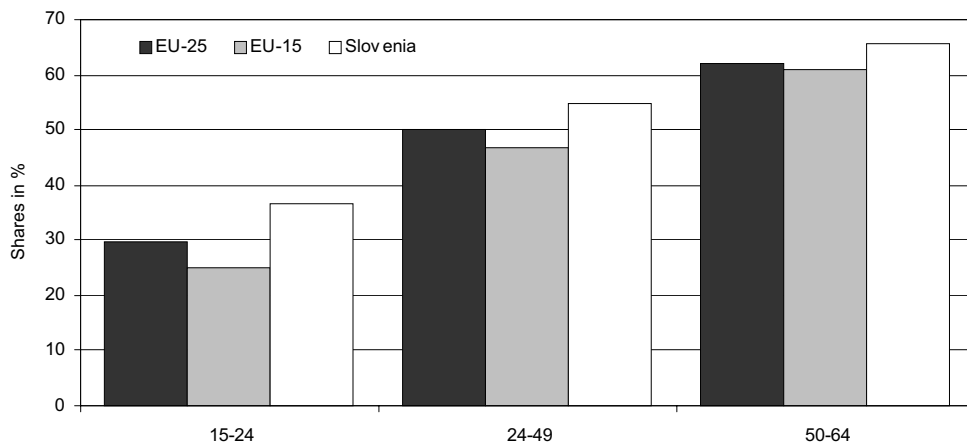


Table: Long-term unemployment rate

|                  | 1995       | 2000       | 2001       | 2002       | 2003       | 2004       |
|------------------|------------|------------|------------|------------|------------|------------|
| <b>EU-25</b>     | N/A        | 3.9        | 3.8        | 3.9        | 4.0        | 4.1        |
| <b>EU-15</b>     | 4.9        | 3.4        | 3.1        | 3.1        | 3.3        | 3.4        |
| <b>Euro area</b> | 5.4        | 3.9        | 3.6        | 3.6        | 3.9        | 4.0        |
| Austria          | 1.0        | 1.0        | 0.9        | 1.1        | 1.1        | 1.3        |
| Belgium          | 5.8        | 3.7        | 3.2        | 3.6        | 3.6        | 3.9        |
| Cyprus           | N/A        | 1.3        | 1.0        | 0.8        | 1.1        | 1.4        |
| Czech Republic   | N/A        | 4.2        | 4.2        | 3.7        | 3.8        | 4.2        |
| Denmark          | 2.0        | 1.0        | 0.9        | 0.9        | 1.1        | 1.2        |
| Estonia          | N/A        | 5.7        | 5.7        | 5.0        | 4.7        | 4.8        |
| Finland          | N/A        | 2.8        | 2.5        | 2.3        | 2.3        | 2.1        |
| France           | 4.4        | 3.5        | 3.0        | 3.1        | 3.7        | 3.9        |
| Greece           | 4.6        | 6.2        | 5.5        | 5.3        | 5.3        | 5.6        |
| Ireland          | 7.6        | 1.6        | 1.3        | 1.3        | 1.5        | 1.6        |
| Italy            | 7.1        | 6.3        | 5.7        | 5.1        | 4.9        | 4.0        |
| Latvia           | N/A        | 7.9        | 7.2        | 5.7        | 4.3        | 4.3        |
| Lithuania        | N/A        | 8.0        | 9.2        | 7.2        | 6.1        | 5.6        |
| Luxembourg       | 0.7        | 0.6        | 0.6        | 0.8        | 0.9        | 1.1        |
| Hungary          | N/A        | 3.0        | 2.5        | 2.4        | 2.4        | 2.6        |
| Malta            | N/A        | 4.4        | 3.7        | 3.4        | 3.3        | 3.5        |
| Germany          | 3.9        | 3.7        | 3.7        | 3.9        | 4.5        | 5.4        |
| Netherlands      | 3.1        | 0.8        | 0.6        | 0.7        | 1.0        | 1.6        |
| Poland           | N/A        | 7.6        | 9.3        | 10.8       | 10.8       | 10.2       |
| Portugal         | 3.1        | 1.7        | 1.5        | 1.7        | 2.2        | 3.0        |
| Slovakia         | N/A        | 10.2       | 11.4       | 12.2       | 11.4       | 11.8       |
| <b>Slovenia</b>  | <b>N/A</b> | <b>4.0</b> | <b>3.5</b> | <b>3.4</b> | <b>3.4</b> | <b>3.1</b> |
| Spain            | 10.5       | 4.8        | 3.9        | 3.9        | 3.9        | 3.5        |
| Sweden           | 2.3        | 1.4        | 1.0        | 1.0        | 1.0        | 1.2        |
| United Kingdom   | 3.5        | 1.4        | 1.3        | 1.1        | 1.1        | 1.0        |
| Bulgaria         | N/A        | 9.4        | 11.9       | 11.7       | 8.9        | 7.0        |
| Croatia          | N/A        | N/A        | N/A        | 8.9        | 8.4        | 7.3        |
| Iceland          | N/A        | N/A        | N/A        | N/A        | 0.2        | 0.3        |
| Japan            | 0.6        | 1.2        | 1.3        | 1.7        | 1.8        | 1.6        |
| Norway           | N/A        | 0.3        | 0.4        | 0.5        | 0.6        | 0.8        |
| Romania          | N/A        | 3.5        | 3.2        | 4.0        | 4.2        | 4.5        |
| USA              | 0.5        | 0.2        | 0.3        | 0.5        | 0.7        | 0.7        |

Source: Eurostat.

Figure: Shares of long-term unemployment in total unemployment within particular age groups



Share: Eurostat.

## ***Population in jobless households***

***The share of people aged 18-59 living in households whose members are in active age but remain jobless is a structural indicator of social cohesion, indirectly measuring the risk of poverty and social exclusion.*** Apart from poor education, joblessness or unemployment is the main driver of the risk of poverty and social exclusion. Households composed of active-age members of whom none is employed are a non-stimulating environment since people in such environments lose contact with the reality of working life. Owing to the lack of material resources, such households also have limited access to the means required for a decent standard of living. In the long run, it is above all employment that helps cut the risk of poverty and social exclusion, thus enhancing social cohesion.

***In Slovenia, the share of adults living in jobless households has been dropping.*** Indirectly, this means a decline in poverty risk, as confirmed by data on Slovenia's decreasing poverty risk rate. 8.8% of the population in Slovenia lived in jobless households in 1996 (no figure for 1995 is available) while in 2005 this percentage was just 6.7%. The share rose slightly until 2000 and then again in 2003 while, on the whole, it decreased by 2.3 p.p. between 2000 and 2005. Since 2004, it has been falling again.

***Data for Slovenia reveal an even more favourable picture compared with the EU-15.*** The share of adults living in jobless households was 2.7 p.p. lower in Slovenia in 1996 than in the EU-15 in 1995; the difference declined slightly (by 0.9 p.p.) in 2000, then rose again in 2004 to total 3.1 in 2005. A similar picture, albeit with the differences being even somewhat wider, is revealed in comparison with the EU-25. Both in the EU-15 and EU-25 the shares of jobless households, while appreciably higher, have been dropping considerably more slowly than in Slovenia. In 2005, the percentage of people living in jobless households was highest in Poland (15.3%) and Belgium (13.5%), and lowest in Portugal (5.5%) and Luxembourg (6.5%). Slovenia (6.7%) came fourth in terms of the lowest share.

***Differences between the share of men in jobless households and that of women are markedly bigger in the EU than in Slovenia.*** In the EU-25, 9.2% of men and 11.2% of women aged 18-59 lived in jobless households in 2005. In the EU-15, too, this difference was 2 p.p. while in Slovenia it was just 0.8 p.p., with 6.3% of men and 7.1% of women having lived in jobless households in 2005. The biggest difference between the share of women and that of men was recorded in Greece where women's share was 4.3 p.p. higher, followed by Belgium (3.8 p.p.) and United Kingdom (3.6 p.p.). The group with a difference totalling less than 1 p.p. includes Denmark, Germany, Portugal and Slovenia. The difference is interesting in the Baltic States, i.e. Estonia, Latvia, Lithuania and Finland, where more men than women lived in jobless households in 2005.

***Data on children living in jobless households reveal that in Slovenia considerably less children than adults live in such households.*** In the EU, there are no substantial differences between the two figures; in 2005, the share of children living in jobless households totalled 9.6% in the EU-15 (same in the EU-25) while the figure for adults was 9.8% (10.2% in the EU-25). In Slovenia, the share of children was 2.7% while the figure for adults totalled 6.7% (Figure). The share of children living in jobless households in 2005 was lowest in Slovenia, followed by Luxembourg (3.0%) and Greece (4.1%). The highest shares were recorded in Hungary (14.2%) and Ireland (12%).

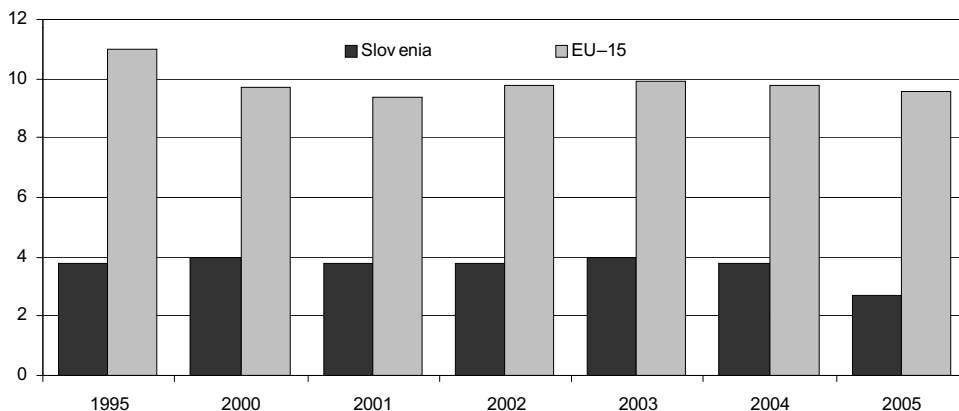
Table: Share of people aged 18-59 living in jobless households, %

|                 | 1995                   | 2000       | 2001       | 2002       | 2003       | 2004       | 2005       |
|-----------------|------------------------|------------|------------|------------|------------|------------|------------|
| <b>EU-25</b>    | N/A                    | N/A        | 10.1(s)    | 10.2(s)    | 10.2(s)    | 10.3(s)    | 10.2(s)    |
| <b>EU-15</b>    | 11.5(s)                | 9.9(s)     | 9.7 (b)    | 9.7(s)     | 9.8(s)     | 9.8(s)     | 9.8(s)     |
| Austria         | 7.0                    | 8.3        | 7.9        | 7.5        | 7.4        | 8.8        | 8.8        |
| Belgium         | 14.1                   | 12.4       | 13.8       | 14.2       | 14.4       | 13.7       | 13.5       |
| Cyprus          | N/A                    | 5.6        | 4.9        | 5.3        | 5.2        | 5.0        | 5.2        |
| Czech Republic  | 5.3 <sup>2</sup>       | 7.8        | 7.9        | 7.3        | 7.7        | 8.0        | 7.4        |
| Denmark         | N/A                    | N/A        | N/A        | 7.6        | 8.6        | 8.5        | 8.5(p)     |
| Estonia         | 9.6 <sup>2</sup>       | 9.6        | 11.0       | 10.8       | 10.9       | 9.5        | 8.5        |
| Finland         | N/A                    | N/A        | N/A        | N/A        | 10.9       | 11.0       | 11.0(p)    |
| France          | 11.0                   | 10.7       | 10.3       | 10.4       | 10.6       | 10.8       | 10.7       |
| Greece          | 10.3                   | 9.2        | 8.8        | 8.9        | 8.5        | 8.5        | 8.5        |
| Ireland         | 13.5                   | 8.6        | 8.8        | 8.5        | 8.9        | 8.6        | 8.4        |
| Italy           | 11.9                   | 11.2       | 10.8       | 10.2       | 9.7        | 9.1        | 9.5        |
| Latvia          | 14.0 <sup>3</sup>      | 15.0       | 12.8       | 10.5(b)    | 8.7        | 7.8        | 8.1        |
| Lithuania       | 10.4 <sup>3</sup>      | 9.2        | 10.0       | 9.1(b)     | 7.4        | 8.1        | 6.6        |
| Luxembourg      | 6.5                    | 6.9        | 6.7        | 6.3        | 6.6        | 6.5        | 6.5(p)     |
| Hungary         | 15.8 <sup>1</sup>      | 13.5       | 13.2       | 13.0       | 11.6 (b)   | 11.9       | 12.3       |
| Malta           | N/A                    | 7.4        | 7.8        | 7.2        | 7.9        | 8.6        | 8.2        |
| Germany         | 10.6                   | 9.7        | 9.7        | 10.0       | 10.6       | 11.1       | 11.1(p)    |
| Netherlands     | 11.0                   | 7.6        | 6.9        | 6.7        | 8.0        | 8.0        | 7.9        |
| Poland          | 9.8 <sup>2</sup>       | N/A        | 13.8       | 15.1       | 14.8       | 15.8       | 15.3       |
| Portugal        | 5.9                    | 4.6        | 4.3        | 4.6        | 5.5        | 5.3        | 5.5        |
| Slovakia        | 9.0 <sup>4</sup>       | 10.9       | 10.0       | 10.9       | 10.1       | 10.8       | 10.2       |
| <b>Slovenia</b> | <b>8.8<sup>1</sup></b> | <b>9.0</b> | <b>8.2</b> | <b>8.0</b> | <b>8.7</b> | <b>7.5</b> | <b>6.7</b> |
| Spain           | 12.5                   | 7.5        | 7.4        | 7.3        | 7.2        | 7.3        | 6.7        |
| United Kingdom  | 13.7                   | 11.4       | 11.2       | 11.3       | 10.9       | 11.0       | 11.0       |

Source: Eurostat, New Cronos database.

Notes: <sup>1</sup>the figure applies to 1996; <sup>2</sup>the figure applies to 1997; <sup>3</sup>the figure applies to 1998; <sup>4</sup>the figure applies to 1998; "s" Eurostat's estimate; "b" a break in the series; "p" preceding figure. There are no data for Sweden since appropriate figures are unavailable due to the differences in its labour force survey.

Figure: Share of children aged 0-17 living in jobless households, %



Source: Eurostat, New Cronos database.

## Risk of poverty rate

*The risk of poverty rate, indicating the percentage of people living in households below the threshold of poverty risk, has been on a decrease in Slovenia, with the same applying to the relative gap of poverty risk* (which indicates the distance of the poor from the poverty risk threshold and thereby how poor they actually are). The risk of poverty rate (excluding income in kind) totalled 11.7% in 2003, having dropped by 2.3 p.p. in the 1997-2003 period. This means that in 2003, 170,574 residents of Slovenia lived on a monthly income below the poverty threshold (which in 2003 was set at SIT 85,642 or EUR 366.25 per month for individuals while for a four-member household of two adults and two children the figure was SIT 179,848 or EUR 769.1 per month). On average, income in kind reduces the risk of poverty by about 2 p.p. Thus, if included in income, the risk of poverty totalled 10% in 2003, having declined by 1.7 p.p. since 1997. If income in kind is included, the risk of poverty threshold is slightly higher: SIT 92,407 (or EUR 395.2) for individuals and SIT 194,055.6 (or EUR 830) for four-member households.

*Differences among risk of poverty rates before and after social transfers point to an important redistributive impact of social transfers as reducers of the poverty risk.* In 2003, the risk of poverty rate in Slovenia would have been 6 p.p. higher if the population had received no social transfers whereas it would have risen by a further 20.7 p.p. if people had not received pensions.

*Compared with EU countries, by recording a 10-percent risk of poverty rate Slovenia ranks among those with the lowest rates<sup>1</sup>, equalling Hungary's and Luxembourg's rate, while the lowest rate (8%) was recorded in the Czech Republic.* Differences among EU countries are very big. The highest risk of poverty rate was recorded in Ireland, Greece and Slovakia (21%), followed by Portugal (19%), the United Kingdom and Estonia (18%) and Poland (17%). Among the EU-25 states, there are also differences if comparing risk of poverty rates before and after social transfers. The widest such difference was registered in Denmark (20 p.p.), followed by Sweden (18 p.p.) and Finland (17 p.p.). Slovenia (6 p.p.) belongs to the group of states recording the narrowest difference among risk of poverty rates before and after social transfers.

*In 2003, the risk of poverty was most pronounced among the unemployed (38.4%), women over 65 years of age (22.9%) and residential tenants (23.5%)<sup>2</sup>.* Among households with children, one-parent households with at least one dependent child are most exposed to poverty risk. Here the risk of poverty rate rose substantially. Both in Slovenia and the EU the average risk rate is higher for women than for men. The EU average is 3 p.p. higher for women while in Slovenia the difference totalled 2.6 p.p. in 2003. Variations across countries are not vast; this difference is biggest in Germany (5 p.p.) while in Denmark, Finland, Netherlands, Hungary and Luxembourg the rates are equal; in Poland and Slovakia the situation is reversed as in both countries the risk rate is 1 p.p. lower for women than for men.

*In addition to a decrease in income poverty, the 1998-2003 period also saw a drop in income inequality, measured as a ratio between two quintile classes and by the Gini coefficient<sup>3</sup>.*

<sup>1</sup> Previously, income in kind had been excluded from the risk of poverty rate calculations used in the Institute's publications for comparisons with the EU-15. Since poverty in all new member states began to be measured in a unified manner, however, Eurostat has released data for the EU-10 based on the risk of poverty rate calculations in which income in kind is included. This is why Slovenia ranks so highly.

<sup>2</sup> Social cohesion indicators adopted at Laeken – income and poverty, 1997-2003, income in kind included.

<sup>3</sup> Both data are measured so that income in kind is included; the quintile coefficient indicates the ratio of 20% of the richest in terms of income to 20% of the poorest while the Gini coefficient takes into account total income distribution. If income equality were absolute, the Gini coefficient would be 0%, meaning that all people would have the same income whereas, in the case the Gini coefficient were 100%, this would mean that the entire national income was concentrated in the hands of one person.

<sup>4</sup> Income in kind is included in the calculation.

According to both indicators, Slovenia ranks at the very top of those European countries with the lowest income inequality. The quintile coefficient dropped from 3.2 in 1998 to 3.1 in 2003, meaning that the most affluent had 3.1 times higher income than the poorest in 2003. In the same period, the Gini coefficient declined from 22.2 to 22.1%<sup>4</sup>. In the EU-25, the average quintile coefficient totalled 4.6 in 2003. The lowest quintile coefficient was recorded in Hungary (3.0), and the highest in Portugal (7.4). The Gini coefficient averaged out at 29% in the EU-25 in 2003, being the lowest in Slovenia (22.1%), and the highest in the United Kingdom (35%).

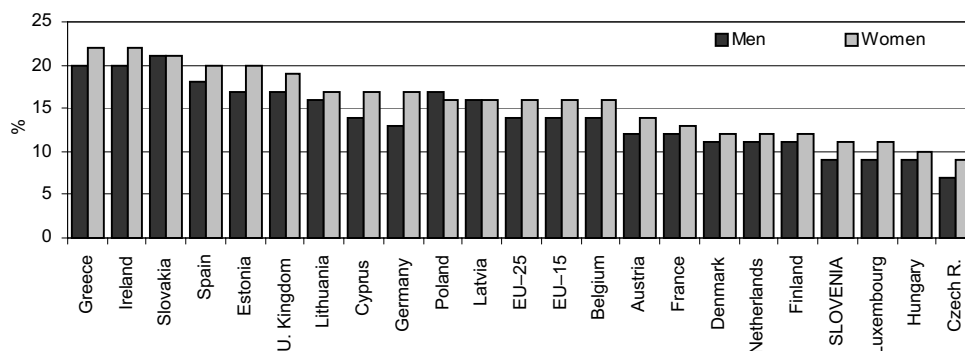
Table: Risk of poverty rates before and after social transfers (income in kind included), %

|                 | Risk of poverty rate after social transfers |           |           |           |           | Risk of poverty rate before social transfers (pension included in income) |           |           |           |           |
|-----------------|---|-----------|-----------|-----------|-----------|---|-----------|-----------|-----------|-----------|
|                 | 1995  | 2000      | 2001      | 2002      | 2003      | 1995  | 2000      | 2001      | 2002      | 2003      |
| EU-25           | N/A   | N/A       | 15(s)     | N/A       | N/A       | N/A   | N/A       | 24 (s)    | N/A       | N/A       |
| EU-15           | 16(s)                                       | 15(s)     | 16(s)     | N/A       | N/A       | 25(s)   | 23(s)     | 24(s)     | N/A       | N/A       |
| Austria         | 13  | 12        | 12        | N/A       | 13        | 24  | 22        | 22        | N/A       | 24        |
| Belgium         | 16  | 13        | 13        | N/A       | 16        | 27  | 23        | 23        | N/A       | 30(b)     |
| Cyprus          | 16 <sup>1</sup>                             | N/A       | N/A       | N/A       | 15        | 181   | N/A       | N/A       | N/A       | 18        |
| Czech Republic  | N/A   | N/A       | 8         | N/A       | 8         | N/A   | N/A       | 18        | N/A       | 21        |
| Denmark         | 10  | N/A       | 10        | N/A       | 12        | N/A   | N/A       | 29        | N/A       | 32        |
| Estonia         | N/A   | 18        | 18        | 18        | 18        | N/A   | 26        | 25        | 25        | 25        |
| Finland         | N/A   | 11        | 11        | 11        | 11        | 231   | 19        | 29(b)     | 28        | 28        |
| France          | 15  | 16        | 13        | 12        | 12        | 26  | 24        | 26(b)     | 26        | 24        |
| Greece          | 22  | 20        | 20        | N/A       | 21        | 23  | 22        | 23        | N/A       | 24(b)     |
| Ireland         | 19  | 20        | 21        | N/A       | 21        | 34  | 31        | 30        | N/A       | 31(b)     |
| Italy           | 20  | 18        | 19        | N/A       | N/A       | 23  | 21        | 22        | N/A       | N/A       |
| Latvia          | N/A   | 16        | N/A       | 16        | 16        | N/A   | 22        | N/A       | 24        | 24        |
| Lithuania       | N/A   | 17        | 17        | 17        | 15        | N/A   | 23        | 24        | 24        | 23        |
| Luxembourg      | 12  | 12        | 12        | N/A       | 10        | 25  | 23        | 23        | N/A       | 23        |
| Hungary         | N/A   | 11        | 11        | 10        | 12        | N/A   | 17        | 17        | 15        | 17        |
| Malta           | N/A   | 15        | N/A       | N/A       | N/A       | N/A   | 19        | N/A       | N/A       | N/A       |
| Germany         | 15  | 10        | 11        | 15        | 15        | 20  | 22        | 22(b)     | 24        | 24        |
| Netherlands     | 11  | 11        | 11        | 11        | 12        | 24  | 22(b)     | 22        | 23        | N/A       |
| Poland          | N/A   | 16        | 16        | 17        | 17        | N/A   | 30        | 31        | 32        | 31        |
| Portugal        | 23  | 21        | 20        | 20        | 19        | 27  | 27        | 24        | 26        | 26        |
| Slovakia        | N/A   | N/A       | N/A       | N/A       | 21        | N/A   | N/A       | N/A       | N/A       | 28        |
| <b>Slovenia</b> | <b>12<sup>1</sup></b>                       | <b>11</b> | <b>11</b> | <b>10</b> | <b>10</b> | <b>17</b>   | <b>17</b> | <b>17</b> | <b>16</b> | <b>16</b> |
| Spain           | 19  | 18        | 19        | 19        | 19        | 27  | 22        | 23        | 22(b)     | 22        |
| Sweden          | N/A   | N/A       | 9         | 11        | N/A       | N/A   | N/A       | 17        | 29(b)     | N/A       |
| United Kingdom  | 20  | 19        | 18        | 18        | 18        | 32  | 29        | 28        | 28        | 29        |

Source: Eurostat, New Cronos database. Income Poverty and Social Exclusion in the EU 25; Statistics in focus; Population and social conditions; no. 13/2005.

Notes: <sup>1</sup>the figure applies to 1997 since no appropriate calculation based on the new methodology is available for 1995; "s" Eurostat's estimate, "N/A" not available; "b" a break in the series. Data for 2003 are the latest available.

Figure: Differences among risk of poverty rates for women and men, 2003



Source: Eurostat, New Cronos database. Income Poverty and Social Exclusion in the EU 25; Statistics in focus; Population and social conditions; no. 13/2005.

## ***Number of practising doctors and nurses***

***Indicators of health personnel coverage show the accessibility and capacity of the health system.*** The growing demand for health services – closely linked to the growth of per capita income, progress in medicine and medical technology, health awareness and ageing of population – affects the fact that most European countries face the growing problem of a shortage of doctors and nurses. Key factors that are highlighted in different studies and which affect the number and structure of practising doctors are the level of remuneration, working conditions, specialisation opportunities and restrictions on enrolment to medical studies (Health at a glance – OECD indicators 2005).

***In terms of the number of practising physicians per 100,000 inhabitants, there is a growing gap between Slovenia and the European average.*** In 2004, there were 229.8 practising physicians per 100,000 inhabitants (222.5 in 2002 and 224.6 in 2003)<sup>1</sup>, while in the EU-25 this ratio stood at 314.0 in 2003; among European countries only the United Kingdom records a lower ratio than Slovenia (216.2)<sup>2</sup>. In the 1995-2005 period, Slovenia recorded an average annual ratio increase of 0.9%, that is only 0.3% in the 1995-2000 period, while a faster – 1.7 percent average annual – increase in the number of doctors per 100,000 inhabitants was recorded after 2000. In the last period, the accelerated employment of physicians in Slovenia was mostly facilitated by the adoption of the National Programme Health for All by 2004, the regulation of remuneration for internship, central planning of specialist trainings and funding of remuneration during specialist training by the government. In the 1995-2003 period, the number of practising physicians per inhabitant in the EU-25 increased on average by 1.3% per year, with the majority of EU-15 countries recording a substantially higher average annual increase of this indicator than Slovenia and other new EU member states. The most significant ratio increase was seen in Austria, namely by an annual average of 3.1%, in the United Kingdom by 2.9%, in Finland, Ireland and Luxembourg – having a similarly low ratio as Slovenia – by 2.3%. Those countries succeeded in encouraging the employment of physicians from other countries; thus, the United Kingdom saw as high as a 3.9 percent increase in the number of doctors after 2000.

***The number of practising nurses per 100,000 inhabitants is slightly more encouraging and is reflected in their high ratio to physicians.*** In 2004, there were 745 nurses per 100,000 inhabitants<sup>3</sup>, placing Slovenia among the upper half of European countries (Figure). In the 2000-2004 period, the number of practising nurses per 100,000 inhabitants grew annually by 1.8%, consequently the number of practising nurses per physician rose to 3.2. The fact is that countries differ considerably in the ratio of nurses to physicians (Table) and that there is a possibility of delegating certain tasks to nurses, particularly those with a high or university degree. Some studies for the United Kingdom and the USA indicate that the satisfaction of patients is greater if more tasks are carried out by nurses after the diagnosis has been made (Health at a Glance 2005, quoted from Buchan and Calman, 2004). As shown by the chart, most countries with a low number of physicians have a relatively high number of nurses, including Slovenia. It should be noted, however, that only a quarter of the nurses in Slovenia have completed post-

<sup>1</sup> According to the Institute of Public Health (IPH) data for 2004, there were 4,589 practising physicians in Slovenia (including those undergoing specialisation, interns and physician trainees; 4,485 in 2003).

<sup>2</sup> According to the IPH estimate, there was a shortage of 300 to 500 physicians in Slovenia at the end of 2003, with account being taken of the demographic characteristics of the population of physicians and the possibilities to rationalise work and modify work processes (Health in Slovenia 2003, 2005).

<sup>3</sup> In 2003, there were 3,394 nurses holding a higher or university degree in Slovenia and 11,311 nursing assistants (including midwives), in total 14,705 (in 2002: 14,281) (Statistical Yearbook 2005) and 14,888 in 2004 (IHP data).

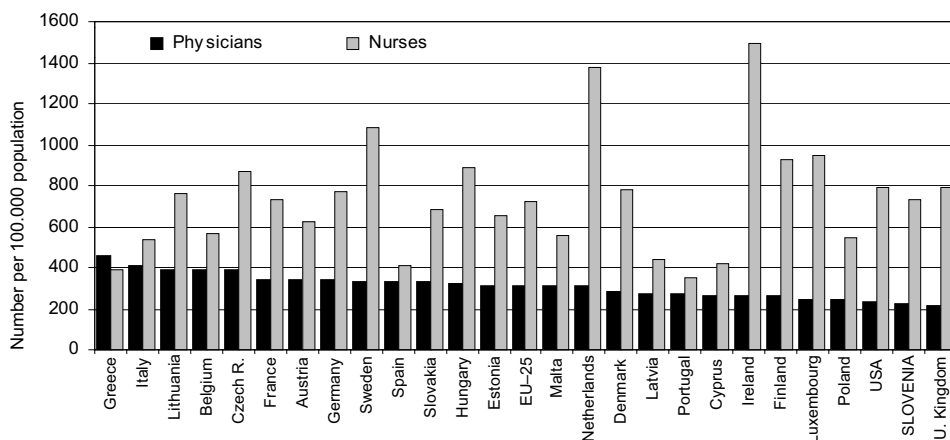
secondary education, while in most European countries as well as in the USA nurses obtain, as a rule, a high or university degree.

Table: Health care resources in Slovenia and some EU member states

|                 | Practising physicians per 100,000 inhabitants |              |              | Practising dentists per 100,000 inhabitants |             | Practising nurses per 100,000 inhabitants |              | Ratio nurses to physicians |
|-----------------|---|--------------|--------------|---|-------------|---|--------------|----------------------------|
|                 | 1995  | 2000         | 2003         | 2000  | 2003        | 2000                                      | 2003         | 2003                       |
| <b>EU-25</b>    | <b>282.7</b>                                  | <b>302.4</b> | <b>314.0</b> | <b>N/A</b>                                  | <b>N/A</b>  | <b>N/A</b>                                | <b>720.0</b> | <b>2.2</b>                 |
| Austria         | 265.7   | 312.6        | 338.3        | 44.2  | 49.8        | N/A                                       | 622.0        | 1.8                        |
| Belgium         | 344.6   | 378.6        | 393.6        | 81.3  | 82.6        | 525.6                                     | 563.0        | 1.4                        |
| Cyprus          | 220.2   | 238.5        | 262.7        | 82.0  | 93.8        | N/A                                       | 422.0        | 1.6                        |
| Czech Republic  | 345.9   | 370.2        | 389.0        | 64.8  | 67.4        | 828.4                                     | 870.8        | 2.7                        |
| Denmark         | 251.3   | 269.4        | 284.9        | 85.9  | 85.4        | 769.6                                     | 776.4        | 3.6                        |
| Estonia         | 307.4   | 326.3        | 315.4        | 75.4  | 83.1        | 631.2                                     | 650.1        | 2.1                        |
| Latvia          | 277.8   | 286.5        | 277.8        | 52.0  | 54.6        | 438.3                                     | 435.9        | 1.8                        |
| Lithuania       | 404.5   | 379.4        | 395.1        | 66.1  | 68.5        | 797.7                                     | 757.5        | 2.0                        |
| Luxembourg      | 204.4   | 235.7        | 245.4        | 64.6  | 70.0        | N/A                                       | 948.0        | 4.1                        |
| Hungary         | 302.8   | 272.7        | 320.0        | 32.3  | 66.1        | N/A                                       | 883.0        | 2.7                        |
| Germany         | 307.0   | 326.1        | 336.7        | 73.5  | 75.0        | 745.0                                     | 770.6        | 2.9                        |
| Poland          | 231.8   | 220.0        | 243.3        | 30.4  | 29.0        | 537.3                                     | 548.8        | 2.4                        |
| Portugal        | 254.5   | 265.1        | 269.3        | 3.7   | 3.8         | 355.3                                     | 347.0        | 1.2                        |
| Slovakia        | 291.5   | 334.8        | 328.4        | 44.3  | 43.5        | 748.0                                     | 679.8        | 2.2                        |
| <b>Slovenia</b> | <b>211.8</b>                                  | <b>215.0</b> | <b>224.6</b> | <b>58.3</b>                                 | <b>60.4</b> | <b>693.4</b>                              | <b>736.4</b> | <b>3.2</b>                 |
| Spain           | 268.2   | 332.6        | 329.2        | N/A   | N/A         | 359.4                                     | 405.0        | 1.2                        |
| Sweden          | 286.0   | 307.7        | 332.9        | 80.6  | 81.2        | N/A                                       | N/A          | 3.3                        |
| United Kingdom  | 172.6   | 192.6        | 216.2        | 42.3  | 45.4        | 701.1                                     | 793.7        | 4.1                        |

Sources: Eurostat Queen Tree (2005); WHO Database (data on the practising nurses per 100,000 inhabitants for 2003 for Cyprus, Luxembourg, Hungary, Austria and Sweden and data on the ratio nurses per physicians for all countries); For Slovenia: SORS, Statistical Yearbook (different issues) and IMAD's calculations.  
Notes: The table includes only those countries for which most of the data shown were available; the EU-25 average for physicians is the arithmetic average calculated by IMAD; the EU-25 average for nurses and for the ratio between nurses and physicians is the WHO estimate for the European region due to a lack of data; in respect of Slovenia, data on the practising nurses include nurses with a high and university degree and nursing assistant, including midwives.

Figure: Practising physicians and nurses per 100,000 inhabitants in 2003



Sources: Eurostat Queen Tree (2005), WHO Database: for Finland, Netherlands, Italy, Malta, Ireland and France the source is Health at a Glance – OECD Indicators (2005).

Notes: for Ireland and the Netherlands data refer to doctors holding a licence and not those actually employed; see notes below the table.

## Life satisfaction

*Life satisfaction is a synthetic and multi-dimensional indicator of the quality of life and personal well-being.* It is measured by surveys that ask people how satisfied they are with their lives.

*In Slovenia life satisfaction has been stable<sup>1</sup> but, compared to other European countries<sup>2</sup>, Slovenia falls in the group of countries with low life satisfaction.* Slovenia has undergone profound social changes and uncertainties since the 1980s. Therefore, it seems that it would be right to assume that changed circumstances result in changes of perceived satisfaction. However, the data do not confirm this fact; they namely show that life satisfaction is much more stable than one would assume (Bernik, 2004). Although no data are available for the first years after Slovenia acquired its independence, around 80% of residents were “satisfied” or “fairly satisfied” with their life throughout the 1995-2000 period. The picture changes, however when people are asked to evaluate their lives on a numerical scale. In 1995, 50.1% of people rated their life with a score of 7 or higher on an eleven-grade scale (0-10), while 64.6% of people rated it with a score of 6 or higher. After 1999, data show higher, if oscillating, life satisfaction. According to most recent data, in 2004 a score of 7 or higher was chosen by 63.2% of people and a score of 6 or higher by 71.6% of people. Analyses show that changes in Slovenia did not have a systematic impact on people's life satisfaction; on the other hand it is obvious that political stability and prosperity can have a reverse effect – they can relatively rapidly exert an upward impact on the perceived life satisfaction (Bernik, 2004).

*Perceived life satisfaction reveals significant statistical correlations with a number of factors.* National and foreign surveys confirm a statistically significant correlation between life satisfaction and income and GDP levels. However, this does not mean that the increase in economic growth or income itself brings about greater satisfaction of people with their lives. Results of a longitudinal analysis in Slovenia show that the self-perceived health and marital status have the highest explanatory power, while education and self-perceived social status are less significant (Bernik, 2004). In general, people in Slovenia are more satisfied with life when they feel healthy, are married (or cohabit with a partner – out of wedlock) and have a higher (self-perceived) social status. Differences in individual's satisfaction based on age or sex are relatively small. Analyses show that the level of satisfaction is also being (increasingly) determined by employment (paid work), the quality of work and the level of work autonomy. Another important factor of life satisfaction is the welfare state.

*There are obvious differences among countries as regards perceived life satisfaction.* Lower levels are characteristic for post-socialist countries<sup>3</sup> as well as for Southern European countries (see the figure). The highest average values were recorded in Scandinavian countries and Western Europe. The average score of life satisfaction in Slovenia (6.6) is higher than in other post-socialist surveyed countries. However, life satisfaction is (similar to trust) higher than in Greece (average score 6.3) and Portugal,

<sup>1</sup> The same is true for EU member states, where life satisfaction has been measured with Eurobarometer surveys since 1973. In Slovenia the only source of data that enables longitudinal reviews of life satisfaction are the *Slovenian Public Opinion Polls* conducted by the Public Opinion and Mass Communication Research Centre at the Faculty of Social Sciences in Ljubljana.

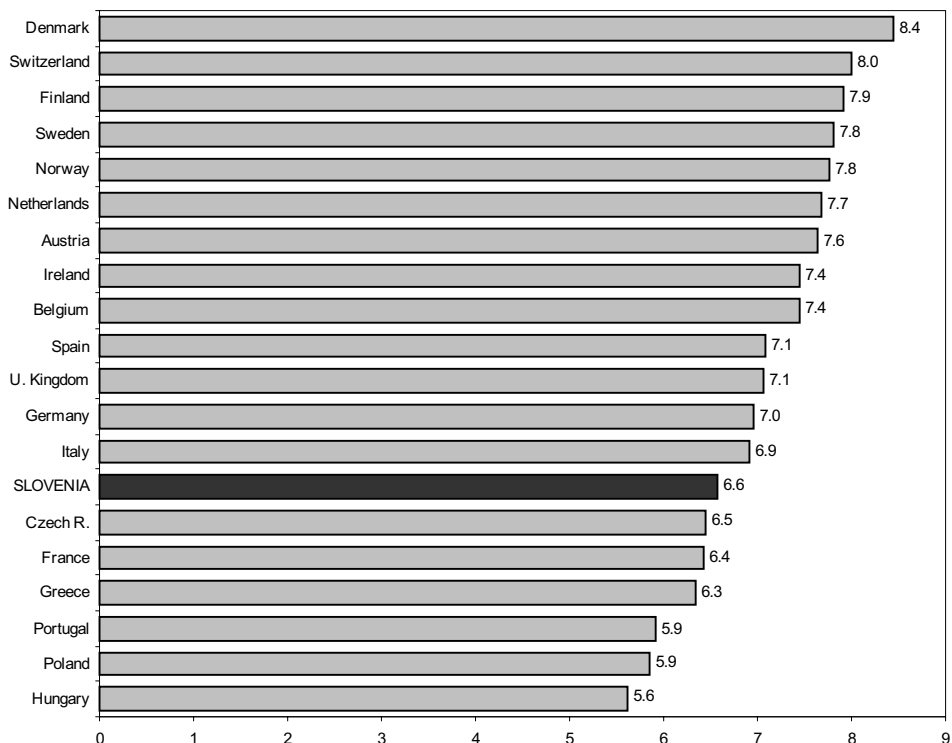
<sup>2</sup> This is shown by the *European Social Survey* (ESS; 22 countries), the *Quality of Life in an Enlarged Europe* (28 countries), carried out in 2002, and the survey *Value Systems of the Citizens and Socio-Economic Conditions: Challenges from Democratisation for the EU Enlargement*, carried out in 2000 and 2001. The data are not directly comparable.

<sup>3</sup> The ESS covers only economically more developed post-socialist countries (in addition to Slovenia also the Czech Republic, Poland and Hungary), while the Quality of Life in an Enlarged Europe survey covers other post-socialist countries as well.



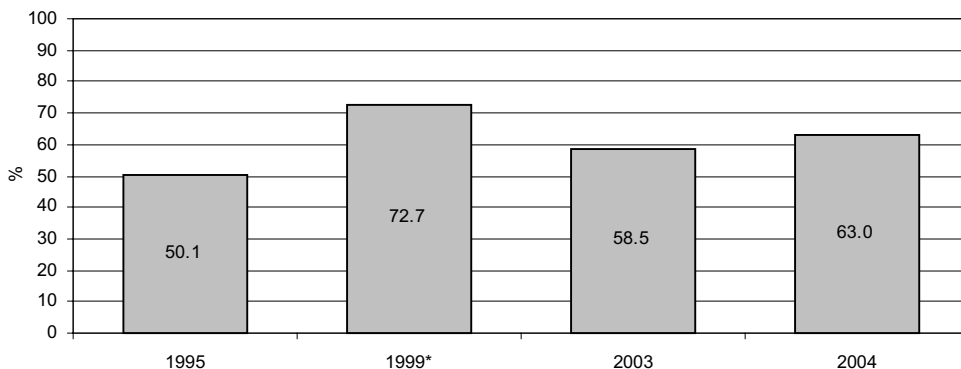
two 'old' EU countries that are comparable in terms of economic welfare, and slightly lower than in Italy (6.9) and Austria (7.6). The comparison thus indicates a loose correlation between life satisfaction and macroeconomic factors.

Figure 1: Assessment of life satisfaction<sup>1</sup>, selected countries, 2002, average value, 0-10 scale ("0" very unsatisfied, "10" very satisfied)



Source: ESS, 2002 database, In: Malnar, B. (2004): *European Social Survey. Final Report*. Ljubljana: CJMMK, IDV, FDV.  
 Note: The question reads: 'As a whole, how satisfied are you with your life these days?'

Figure 2: Share of people<sup>1</sup> satisfied with life, Slovenia, 1995 and 2004, %



Source: Public Opinion Polls Database. Ljubljana: CJMMK, FDV, IDV.  
 Note: <sup>1</sup>Share of people who selected the value 7 or higher on a 0-10 scale. \*When people are asked how happy and satisfied / unhappy or unsatisfied they are, 59.3% choose the score 7 or higher.

## ***Trust in others – generalised trust***

***The most frequently used indicators of social capital at the macro level (generalised trust) are answers to questions on the expected behaviour of other people (whether most people can be trusted or one should be careful, whether the majority tries to act fairly or they try to exploit others, and whether people are mostly willing to help or they only look after themselves).*** The indicator measures the level of trust in anonymous others who do not have a clearly recognisable personal identity and with whom one does not have a longstanding contact. Like trust in institutions, in Slovenia trust in others is also surveyed by means of the Slovenian Public Opinion Polls<sup>1</sup>, while international data are drawn from the European Social Survey (ESS)<sup>2</sup>.

***The empirically measured generalised level of trust in Slovenia is low.*** Even though in the 2000-2005 period trust grew among all social strata (Iglič, 2004), Slovenia is still at the end of the list of European countries. The rise in trust can be attributed to the normalisation of the social and economic situation, especially compared to the early 1990s when levels of trust in Slovenia were exceptionally low (among the lowest in all surveyed countries).

***Generalised trust in Slovenia is the third lowest among 21 countries included in the ESS.*** With 3.98 (see Figure 2), Slovenia is ranked among those countries with the least positive collective expectations regarding the expected behaviour of other people. Slovenia is in front of Greece (which has the lowest level of generalised trust with 3.63) and Poland (3.69) and just behind Hungary (4.08) and Portugal (4.16). In aggregate terms, people in Slovenia strongly lean towards the opinion that “one should be careful”, which is the opposite of the Scandinavian countries where, in aggregate terms, people tend to think that “most people can be trusted”. The lowest generalised trust is recorded in the four post-socialist and south Mediterranean countries and the highest in the Scandinavian countries, Switzerland, Ireland and the Netherlands.

In Europe countries are classified as follows: countries of Southern and Eastern Europe are low on the trust scale (between 3 and 5), while in the Scandinavian countries the levels of trust are on average between 6 and 7. Like trust in institutions, generalised trust also shows differences between countries with similar macroeconomic indicators (the Scandinavian countries versus France, Germany and Italy), between countries with the same predominant religion (Ireland versus Poland), between neighbours (Austria and Slovenia) etc. (see Figure 2).

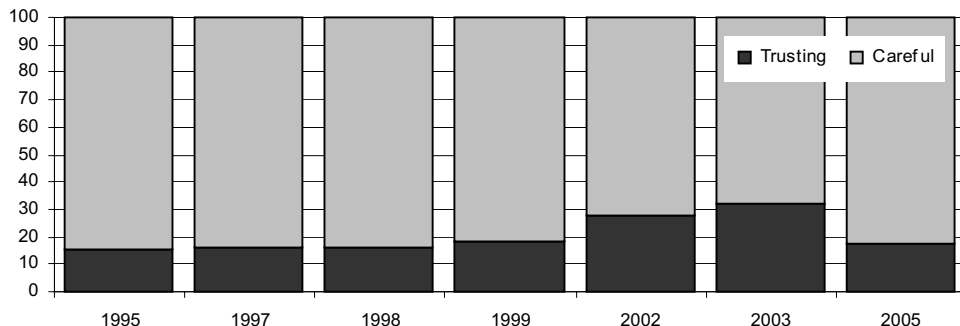
Deducing from the answer to the question »*Would you say that people are mostly willing to help others or that they mostly just look after themselves?*«, in Slovenia (and in Eastern and Southern Europe) the image of an egocentric and unsupportive environment predominates (averages between 3 and 5; in Slovenia 4.24, which is the highest level of the four post-socialist countries surveyed). The greatest solidarity is recorded in the Scandinavian countries and in Western Europe (averages between 5 and 7), where the perception that people are mostly willing to help others, prevails. In view of the very

<sup>1</sup> The project is carried out by the Public Opinion and Mass Communication Research Centre at the Faculty of Social Sciences. The Slovenian Public Opinion Poll is conducted as a personal interview. The sample covers randomly selected persons from the register of population with a permanent residence in Slovenia. It is representative for the whole population in Slovenia from 18 years of age onwards. The sample size is between 1,000 and 1,100 units.

<sup>2</sup> In Slovenia the European Social Survey is conducted by the Public Opinion and Mass Communication Research Centre. The survey covers 22 countries (21 European countries and Israel). The first survey was conducted in 2002, the observation unit was a country and the sample (N) covered 42,358 persons aged 18+.

low measured level of trust in Slovenia, we can expect that the prevailing perception of the environment is one that does not stimulate trust.

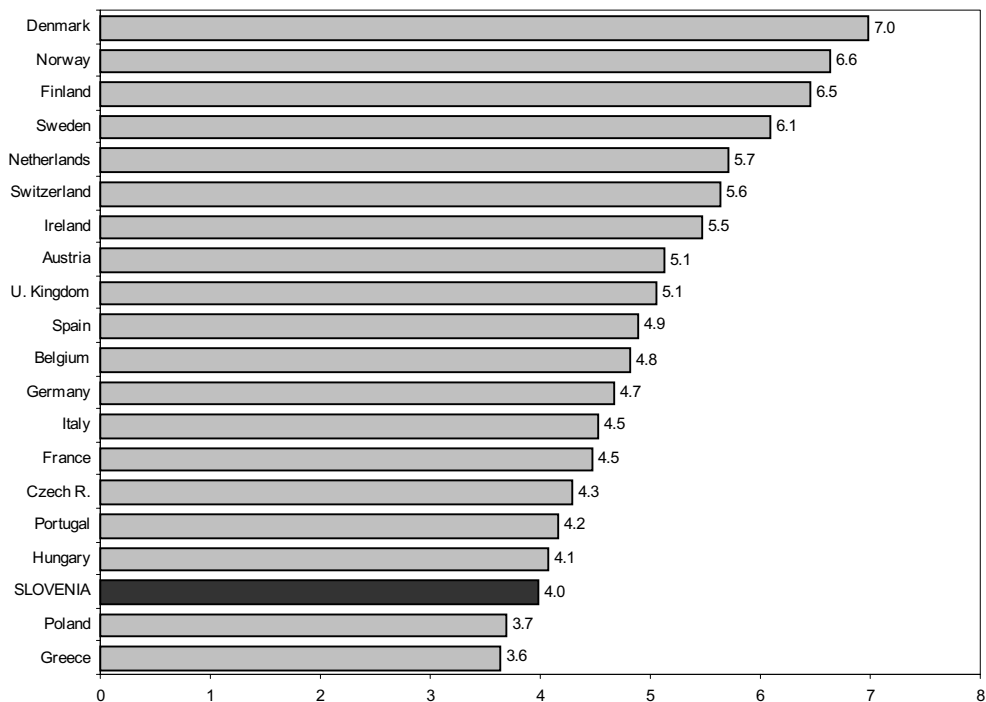
Figure 1: Trust in others, Slovenia (in %)



Source: SJM95/2, SJM97/2, SJM 98/1, SJM99/2+3, SJM02/2, SJM03/4, SJM05/2. Ljubljana: CJMMK, FDV.

Notes: 1/ Question: "Generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people?" Possible answers: 'I trust most people' or 'One should be careful' 2/ Data are not fully comparable. For example, in SJM98/1 the answer 'I trust' combines the answers "People can almost always be trusted" and "People can mostly be trusted" and in SJM03/4 it combines the answers 'I almost always trust people' and 'I frequently trust people'. In SJM98/1 the answer 'I'm careful' combines the answers 'One should mostly be careful with people' and 'One should always be careful with people' and in SJM03/4 it combines the answers 'It frequently happens that one should have to be more careful' and 'One is almost never too careful'. 3/ The answers 'don't know' and 'no answer' are eliminated.

Figure 2: Trust in others, countries included in the ESS, 2002, 0-10 scale, average value



Source: ESS, 2002 database, In: Malnar, B. (2004): *European Social Survey. Final Report*. Ljubljana: CJMMK, IDV, FDV.

Note: Question: 'Generally speaking, would you say that most people can be trusted, or that you cannot be too careful in dealing with people?' 0 = you cannot be too careful with people, 10 = most people can be trusted.

# Trust in institutions

*Trust in institutions reflects an individual's expectations about the functioning of the institutions.* In general, trust in institutions follows the same patterns as trust in others; it is part of the same social phenomenon. In Slovenia, trust is surveyed by means of the Slovenian Public Opinion Polls, while international data are drawn from the European Social Survey (ESS)<sup>1</sup>.

*In Slovenia trust in institutions is low; in the 1990s Slovenia was notably lagging behind the European average as regards trust in institutions.* The 1991–2005 period was a period of dynamic and variable expression of trust (see the table). Symbols of the informal, cultural and economic institutional environment and the related values of knowledge and economic stability are ranked high on the trust scale (Rus and Toš, 2005), while symbols of the political environment score lowly. People have the greatest trust in their family and relatives, followed by the education system, the Slovenian tolar and the Bank of Slovenia (Slovenian Public Opinion Polls 1991–2005), whereas there is little trust in political parties and the National Assembly (NA).

*In the 1991–1998 period the initial high levels of trust in political institutions dropped sharply; trust in political parties, the NA and the church with clergy was low, while trust in the family and the education system was high.* There was serious distrust in political parties, the NA, trade unions and the church with clergy, followed by the Government, courts of law, the Prime Minister (who enjoyed less trust than the President of the Republic), the army and the police. Trust in the family and the education system was strong, and a rising trend was observed in trust in the media, the Slovenian tolar and the Bank of Slovenia (and banks in general).

*The 1999–2003 period was a period of the legitimisation of institutions; trust in political and national institutions oscillated notably, while the already high trust in the family and the education system rose further.* At the end of the 1990s many institutions surpassed their previously extremely low levels of trust, notably trade unions, the media and the church. Political parties and the NA continued to enjoy the lowest trust, while economic institutions (including banks and the tolar) scored highly. In 2003 the trends slowed down and trust declined, especially trust in national institutions (the NA, the Government, the Prime Minister, the President of the Republic, courts of law, the police, but not the army), while trust in the family and the education system continued to rise.

*The 2003–2005 period was a period of notable oscillations in trust.* Trust in political parties, the church with the clergy, the NA, courts of law, the media and the Government continued to be the lowest, while trust in the family and relatives was still the highest (see the table).

*Among European countries, most institutions show similar patterns of trust.* On average, people in EU countries put the greatest trust in the police (6.15). On the other hand, the post-socialist countries exhibit the lowest values of trust in the police (between 4.89 in Slovenia and 4.98 in the Czech Republic). As in Slovenia, people from the surveyed countries on average express the lowest trust in politicians (3.87), the European Parliament<sup>2</sup> (4.74) and national parliaments (4.88). The average trust in these institutions is at the lower end of the scale so people tend to distrust them more. The biggest variation across countries is observed in the expressed trust in the legal system, which is particularly low in three post-socialist countries (3.68 in Poland, 3.81 in the Czech Republic and 4.28 in Slovenia; in Hungary it was 5.11), followed by Portugal (4.26), Spain (4.31), Belgium (4.39) and France (4.83).

*Both trust in institutions and trust in others show geographic, cultural, social, historical and economic patterns, but frequently they are influenced by methodological factors.* There are considerable differences in trust between countries with similar macroeconomic indicators (the Scandinavian countries versus France, Germany and Italy), between countries with the same

<sup>1</sup> This survey measures trust in the parliament, the legal system, the police, politicians, the European Parliament and the UN.

<sup>2</sup> The survey was conducted in 2002; most respondents chose the middle values on the scale, with the aggregate values between 4 and 5. The lowest values were recorded in the UK (3.64), while in the post-socialist countries they were higher than usual – perhaps the reason for this is the period of accession to the EU and the related positive uncritical valuation of its institutions.

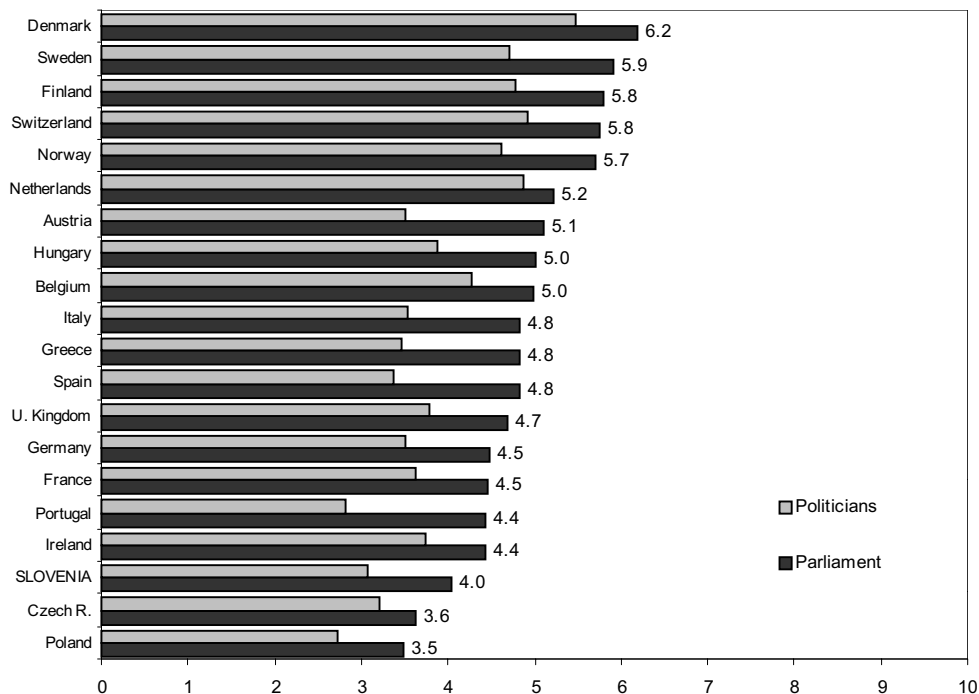
predominant religion (Ireland versus Poland), between neighbours (Austria and Slovenia) etc. These differences and/or similarities in the patterns of trust can be explained by specific combinations of various factors rather than by individual effects (Malnar, 2004).

Table: Trust in institutions, Slovenia, % (sum total of answers 'I trust completely' and 'I trust considerably')

|  | 1995 | 2000 | 2001 | 2002 | 2003 | 2005 |
|--|------|------|------|------|------|------|
| Family, relatives                      | 89.7 | 93.6 | 91.0 | 88.1 | 95.0 | 94.4 |
| Education institutions/system          | 71.6 | 82.7 | 80.3 | 77.2 | 83.3 | 77.3 |
| Bank of Slovenia                       | 45.8 | 68.7 | 68.2 | 60.0 | 57.7 | 61.9 |
| Slovenian tolar                        | 55.2 | 69.2 | 69.8 | 64.6 | 66.1 | 61.8 |
| Banks                                  | 40.2 | 65.5 | 65.5 | 58.0 | 56.5 | 58.6 |
| European Union                         | N/A  | 41.0 | 41.8 | 42.2 | 56.3 | 54.8 |
| Companies, enterprises                 | 28.8 | 53.2 | 45.3 | 42.4 | 51.9 | 50.8 |
| Human Rights Ombudsman                 | N/A  | N/A  | N/A  | 51.4 | 55.3 | 50.8 |
| UN                                     | N/A  | 51.0 | 49.9 | 41.6 | 53.6 | 49.3 |
| Army                                   | 29.0 | 53.3 | 45.9 | 38.9 | 53.1 | 47.8 |
| Trade unions                           | 14.5 | 39.9 | 36.3 | 40.6 | 44.1 | 44.4 |
| Police                                 | 28.3 | 53.1 | 46.9 | 40.0 | 44.6 | 40.8 |
| Media                                  | 25.7 | 52.2 | 46.1 | 36.1 | 47.1 | 38.6 |
| NATO                                   | N/A  | 44.7 | 38.4 | 31.5 | 36.0 | 37.9 |
| President of the Republic of Slovenia  | 36.3 | 59.2 | 55.6 | 45.9 | 42.1 | 36.6 |
| Government of the Republic of Slovenia | 27.9 | 43.9 | 41.3 | 29.7 | 35.8 | 35.0 |
| Prime Minister                         | 32.4 | 48.3 | 48.6 | 36.2 | 39.5 | 35.0 |
| Courts of law                          | 25.7 | 45.3 | 41.7 | 35.6 | 36.4 | 32.6 |
| Church and clergy                      | 21.1 | 30.1 | 26.8 | 21.4 | 24.3 | 25.2 |
| National Assembly                      | 10.1 | 23.6 | 17.7 | 14.6 | 22.7 | 20.8 |
| Political parties                      | 4.5  | 13.6 | 9.4  | 6.3  | 10.1 | 11.4 |

Source: Slovenian Public Opinion Polls Database, Ljubljana: CJMMK, IDV, FDV.

Figure: Trust in institutions, 2002, selected countries, 0-10 scale, average value ("How much do you trust the following institutions?" "0" does not trust at all, "10" trusts completely).



Source: ESS, 2002 database, In: Malnar, B. (2004): European Social Survey. Final Report.



The fifth priority:

## Integration of measures to achieve sustainable development

### **1. Sustained population growth**

- Percentage of the population aged 65 and over
- Migration coefficient
- Birth rate

### **2. Balanced regional development**

- Regional variation in GDP
- Regional variation in unemployment
- Regional variation in personal income tax base per capita
- Regional variation in the demographic structure

### **3. Ensuring optimal health conditions**

- Life expectancy and infant mortality
- Health satisfaction

### **4. Improving spatial management**

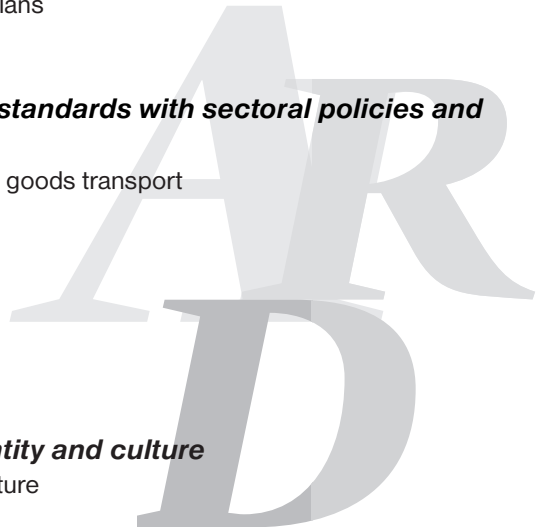
- Changes in municipal spatial plans
- Issued building permits

### **5. Integration of environmental standards with sectoral policies and consumption patterns**

- Share of road transport in total goods transport
- Energy intensity
- Renewable energy sources
- Dirty industries
- Agricultural intensity
- Intensity of tree felling
- Municipal waste

### **6. Development of national identity and culture**

- Household expenditure on culture
- Use of spare time for culture



## ***Percentage of the population aged 65 and over***

***The percentage of the population aged 65 and over in Slovenia has been slowly but steadily growing since 1987.*** The drop in the number of births and the slowdown in the number of deaths has brought about the change in the age structure of the population in Slovenia. The share of children is falling and the shares of the working-age population and the old population are rising. The share of children aged 0-14 dropped from 23% in 1981 to 14.5% in 2004, while the share of the working-age population (people aged 15-64) grew from 66% to 70.4%. In the 1980s the percentage of the population aged 65 and over stagnated around 10%, but from 1987 on it has been constantly rising and reached 15.2% in 2004. In the past 20 years the ageing index, which is the ratio between the old population (aged 65 years and over) and the young population (aged 0-14 years), more than doubled and is over 100, which means that the number of people aged 65 and over is already higher than the number of children. The elderly dependency ratio, which is the ratio between the old and the working-age population, was falling in the first half of the 1980s and reached 14.9 in 1987. In this period the number of the working-age population was rising and the number of the old population was stagnating. Since 1988 the ratio has been slowly but steadily rising; in 2001 it was over 20 and in 2003 it reached 21.2 which, however, is still lower than the EU-15 average<sup>1</sup>.

***The percentage of the old population in Slovenia is still lower than the EU average.*** In 2003 the highest percentage of the old population was registered in Italy (19.1%), while the EU-25 average was 16.4% or 1.5 p.p. more than in Slovenia. Due to longer life expectancy than in most of the new member states, the average of the EU-15 is higher, namely 16.9%. In addition to births and deaths, the percentage of the old population is influenced by the number and the age structure of migrants. Because of high migration coefficients<sup>2</sup>, the lowest percentages of the old population in the EU are recorded by Ireland, Cyprus and Malta; another reason for the low percentage of the old population in Ireland is its high fertility rate. Slovakia and Poland also have low percentages of the old population, but the reasons are the high fertility levels 20 years ago and the still relatively low life expectancy.

<sup>1</sup> Because of lower death rates and thus longer life expectancy, the share of old people in the EU-15 is higher than in Slovenia. The latest available data for the EU-15 average in the New Cronos database are for 1994, when the elderly dependency index was 22.8 and the ageing index was 86.3. At that time the comparable indices for Slovenia were 17.2 and 63.3, respectively.

<sup>2</sup> Indicator: Migration coefficient.

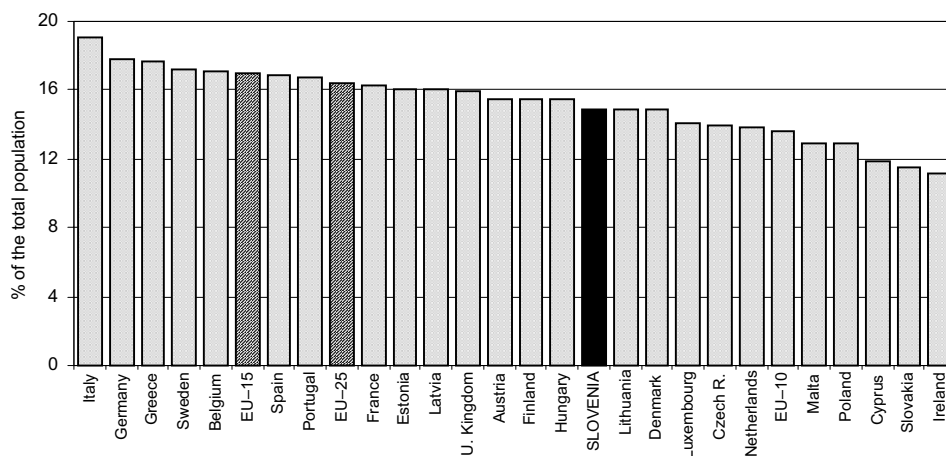


Table: Percentage shares of the population aged 65 and over

|                 | 1995        | 2000        | 2001        | 2002        | 2003        |
|-----------------|-------------|-------------|-------------|-------------|-------------|
| <b>EU-25</b>    | <b>14.9</b> | <b>12.3</b> | <b>16.0</b> | <b>16.2</b> | <b>16.4</b> |
| <b>EU-15</b>    | <b>15.5</b> | <b>12.6</b> | <b>16.6</b> | <b>16.8</b> | <b>16.9</b> |
| <b>EU-10</b>    | <b>12.0</b> | <b>13.0</b> | <b>13.2</b> | <b>13.4</b> | <b>13.6</b> |
| Austria         | 15.1        | 15.4        | 15.5        | 15.5        | 15.5        |
| Belgium         | 15.9        | 16.8        | 16.9        | 17.0        | 17.1        |
| Cyprus          | 11.0        | 11.3        | 11.5        | 11.7        | 11.9        |
| Czech Republic  | 13.2        | 13.9        | 13.9        | 13.9        | 13.9        |
| Denmark         | 15.2        | 14.8        | 14.8        | 14.8        | 14.9        |
| Estonia         | 13.5        | 15.1        | 15.3        | 15.7        | 16.0        |
| Finland         | 14.2        | 14.9        | 15.1        | 15.2        | 15.5        |
| France          | 15.2        | 16.1        | 16.2        | 16.3        | 16.3        |
| Greece          | 15.1        | 16.6        | 17.0        | 17.4        | 17.7        |
| Ireland         | 11.4        | 11.2        | 11.2        | 11.1        | 11.1        |
| Italy           | 16.7        | 18.3        | 18.6        | 18.9        | 19.1        |
| Latvia          | 13.6        | 15.0        | 15.4        | 15.7        | 16.0        |
| Lithuania       | 12.3        | 13.9        | 14.3        | 14.6        | 14.9        |
| Luxembourg      | 14.0        | 14.1        | 13.9        | 14.0        | 14.1        |
| Hungary         | 14.2        | 15.1        | 15.2        | 15.3        | 15.4        |
| Malta           | 11.2        | 12.2        | 12.5        | 12.7        | 12.9        |
| Germany         | 15.5        | 16.4        | 16.9        | 17.3        | 17.7        |
| Netherlands     | 13.2        | 13.6        | 13.6        | 13.7        | 13.8        |
| Poland          | 11.1        | 12.2        | 12.5        | 12.7        | 12.9        |
| Portugal        | 14.9        | 16.2        | 16.4        | 16.6        | 16.7        |
| Slovakia        | 10.9        | 11.4        | 11.4        | 11.4        | 11.5        |
| <b>Slovenia</b> | <b>12.3</b> | <b>14.0</b> | <b>14.3</b> | <b>14.6</b> | <b>14.9</b> |
| Spain           | 15.3        | 16.9        | 17.0        | 17.0        | 16.9        |
| Sweden          | 17.5        | 17.3        | 17.2        | 17.2        | 17.2        |
| UK              | 15.7        | 11.6        | 15.7        | 15.9        | 15.9        |

Source: Population and social conditions - Demography (2005). Eurostat.

Figure: Percentage shares of the population aged 65 and over in the EU member states, 2003



Source: Population and social conditions – Demography (2005). Eurostat.

## Migration coefficient

*The economic and political changes of the past decade were the cause of major changes in migration flows between Slovenia and other countries. These fluctuations have not yet stabilised.* In the first half of the 20<sup>th</sup> century Slovenia was mostly a region of emigration. Only at the end of the 1950s did the number of immigrants slowly start to exceed the number of emigrants. The highest net migration (mostly migration with other parts of the former Yugoslavia) was recorded in the 1970s and the early 1980s, around 5,000, but then it dropped to about 3,000 and in 1991 it was again negative because of the political and economic situation. According to official statistical records, net migration was negative for only two years. Since 1993, except in 1998, the number of immigrants has been greater than the number of emigrants, on average by slightly more than 2,000 or 1.1 per 1,000 population. Net migration was lower than in the 1980s, especially due to political changes, worse access to employment and the high domestic unemployment. Three-quarters of net migration in this period was represented by the working-age population (people aged 15-64), of which a third were women. According to official statistics, the migration coefficient<sup>1</sup> was the highest in 1996 (3.27), followed by 2003 (1.8). As a result of more people emigrating, in 2004 the migration coefficient was only 0.95. In spite of considerable fluctuations, emigration shows an upward tendency; in 2004 more than 8,000 people emigrated, which is the highest number since 1991. In the past decade the number of immigrants was changing considerably, but from 1998 on it has been constantly rising. In 2004 more than 10,000 immigrants were registered.

*Slovenia is ranked among countries with relatively low migration coefficients.* As regards the average migration coefficient in the 1995–2004 period, the figure of 0.83 per 1,000 population<sup>2</sup> places Slovenia 19<sup>th</sup> among the 25 EU member states. Among new member states only Hungary, Malta and Cyprus are ahead, and in 2004 also the Czech Republic. In the mentioned period the highest net migration among the EU-25 was registered in Cyprus, Spain, Luxembourg and Ireland and the lowest in the Baltic states and Poland. In 2004 the situation was similar (see the table and the figure). In the 1995-2004 period the average migration coefficient in the EU-25 was 2.5 and in the EU-15 3.0. In the new member states (EU-10) the migration coefficient was negative in the previous decade, but since 2001 the number of immigrants has been greater than the number of emigrants. In 2004 the migration coefficient was down in almost all EU member states, except in Cyprus and Ireland.

<sup>1</sup> Net migration per 1,000 mid-year population.

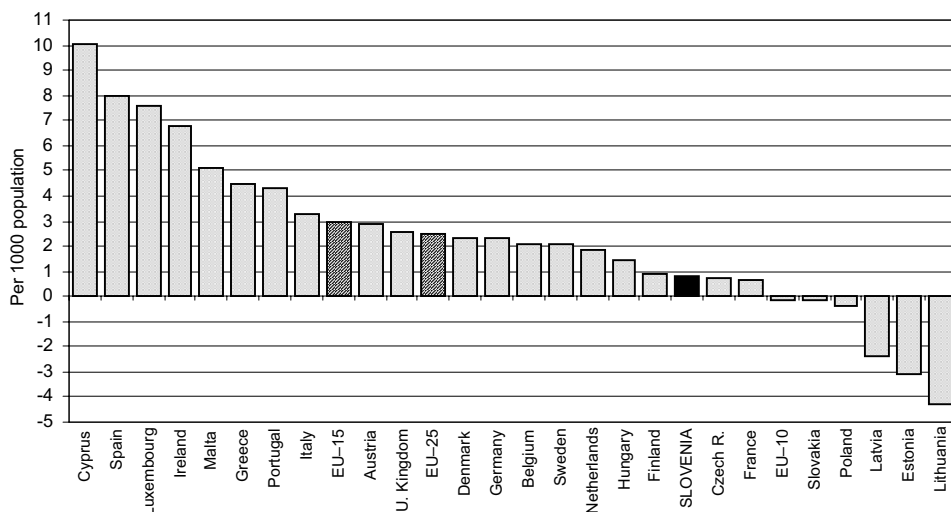
<sup>2</sup> Due to the low quality and comparability of migration statistics in individual EU member states, for the entire 1995-2004 period and for all present member states only migration coefficients estimated by the balance approach (net migration equals the difference between the number of population at the beginning and the end of the year plus the number of deaths minus the number of births during the year), are available in the Eurostat's statistical database. The coefficients thus also include various statistical corrections or errors in statistical determination of the number of people, births and deaths. In Slovenia the average migration coefficient in this period, calculated from official statistical data collected by the SORS, was 1.23 per 1,000 population. For 2004 both coefficients for Slovenia are the same.

Table: Net migration with statistical corrections per 1,000 population

|                 | 1995        | 2000        | 2001        | 2002       | 2003       | 2004       |
|-----------------|-------------|-------------|-------------|------------|------------|------------|
| <b>EU-25</b>    | <b>1.6</b>  | <b>2.2</b>  | <b>2.9</b>  | <b>3.8</b> | <b>4.3</b> | <b>4.0</b> |
| <b>EU-15</b>    | <b>2.1</b>  | <b>2.8</b>  | <b>3.5</b>  | <b>4.5</b> | <b>5.0</b> | <b>4.7</b> |
| <b>EU-10</b>    | <b>-0.4</b> | <b>-0.8</b> | <b>-0.1</b> | <b>0.1</b> | <b>0.5</b> | <b>0.5</b> |
| Austria         | 0.3         | 2.1         | 5.4         | 4.3        | 4.7        | 7.6        |
| Belgium         | 0.2         | 1.3         | 3.5         | 3.9        | 3.4        | 3.4        |
| Cyprus          | 10.1        | 5.8         | 6.6         | 9.7        | 17.1       | 21.3       |
| Czech Republic  | 1.0         | -2.7        | -0.8        | 1.2        | 2.5        | 1.8        |
| Denmark         | 5.5         | 1.9         | 2.2         | 1.8        | 1.3        | 1.0        |
| Estonia         | -10.9       | 0.1         | 0.1         | 0.1        | 0.1        | -0.2       |
| Finland         | 0.8         | 0.5         | 1.2         | 1.0        | 1.1        | 1.3        |
| France          | -0.3        | 0.9         | 1.0         | 1.1        | 2.2        | 1.7        |
| Greece          | 7.3         | 2.7         | 3.5         | 3.5        | 3.2        | 3.2        |
| Ireland         | 1.7         | 8.3         | 10.0        | 8.3        | 7.9        | 11.4       |
| Italy           | 0.6         | 1.0         | 0.8         | 6.1        | 10.6       | 9.6        |
| Latvia          | -5.6        | -2.3        | -2.2        | -0.8       | -0.4       | -0.5       |
| Lithuania       | -6.5        | -5.8        | -0.7        | -0.5       | -1.8       | -2.8       |
| Luxembourg      | 10.5        | 8.0         | 7.5         | 5.8        | 4.6        | 3.4        |
| Hungary         | 1.7         | 1.6         | 1.0         | 0.3        | 1.5        | 1.8        |
| Malta           | -0.5        | 25.7        | 5.6         | 5.1        | 4.3        | 4.8        |
| Germany         | 4.9         | 2.0         | 3.3         | 2.7        | 1.7        | 1.0        |
| Netherlands     | 1.0         | 3.6         | 3.5         | 1.7        | 0.4        | -0.6       |
| Poland          | -0.5        | -0.5        | -0.4        | -0.5       | -0.4       | -0.2       |
| Portugal        | 2.2         | 4.6         | 6.3         | 6.8        | 6.1        | 4.5        |
| Slovakia        | 0.5         | -4.2        | 0.2         | 0.2        | 0.3        | 0.5        |
| <b>Slovenia</b> | <b>0.4</b>  | <b>1.4</b>  | <b>2.5</b>  | <b>1.1</b> | <b>1.8</b> | <b>0.9</b> |
| Spain           | 1.5         | 9.4         | 10.5        | 15.8       | 14.9       | 14.3       |
| Sweden          | 1.3         | 2.8         | 3.2         | 3.5        | 3.2        | 2.8        |
| UK              | 2.0         | 2.8         | 3.1         | 2.1        | 2.5        | 3.4        |

Source: Population and social conditions - Demography (2005). Eurostat.

Figure: Average net migration with statistical corrections per 1,000 population in the 1995–2004 period



Source: Population and social conditions – Demography (2005). Eurostat.

## Birth rate

***Fertility in Slovenia continues to record a downward trend.*** The birth rate has been declining for more than 100 years. The level and speed of this decline have varied, but only after 1980 did it fall below the population replacement level. This period was characterised by the decline in the total fertility rate, which was only interrupted in 2000 and 2005. In 1999, 2001 and 2002 the rate was the lowest at 1.21 children per woman of childbearing age, which ranked Slovenia among the countries with the lowest birth rates in Europe. In 2004 the number of births and the birth rate grew to 17,961 live births or 1.25 per woman of childbearing age, while the data for 2005 again indicate a fall in the number of births.

***The reasons for the low fertility in Slovenia in the past 15 years are partly economic, while partly this also reflects a form of demographic transition, which was characteristic for all developed countries.*** Economic reasons are insecurity and the instability of young people's employment and the related very high unemployment among young people, the lack of dwellings and problems regarding the employment of women in the business sector if the employer can expect that women will decide to have children. The demographic transition means the postponement of births as a result of the high level of inclusion of women in the education system, due to which families and women decide to have children later and to have fewer of them. (In Slovenia too almost an entire generation of girls is attending secondary school and more than half of the generation is studying. Women represent more than half of pupils and students in the country.)

***In other European countries birth rates are also too low to provide for population replacement and in some countries they are still falling.*** In developed countries the reason is partly still the demographic transition (when, because of schooling or starting their professional careers, women postpone having children to later ages), while in less developed countries the reasons are mainly economic (growing costs of taking care of and schooling children, labour market prospects etc.) (Crujisen, Ekamper, 2004). So those countries where the demographic transition (the postponement of births) has not yet finished can count on a rise in fertility, which may be influenced by stable economic conditions or appropriate government policy in the fields of family protection and financing of education. Another reason for the too low birth rates is the insufficient adjustment of institutional and socio-cultural factors to the postponement of births. In countries where the labour market, family policy, child care etc. have adjusted to this fact (especially in the Scandinavian countries and France) the total fertility rate has risen again and stabilised at around 1.8. Because of all the mentioned reasons, the average birth rate in the EU-15 has been rising since 1995 when it reached its lowest level ever (1.42). Eurostat estimates that in 2004 the birth rate in the EU-15 was 1.52 and in the EU-25 it was 1.5. In eight member states it was below 1.3 and in another eight member states it was 1.7 or more (the highest rates were recorded in France and Ireland, see the table).

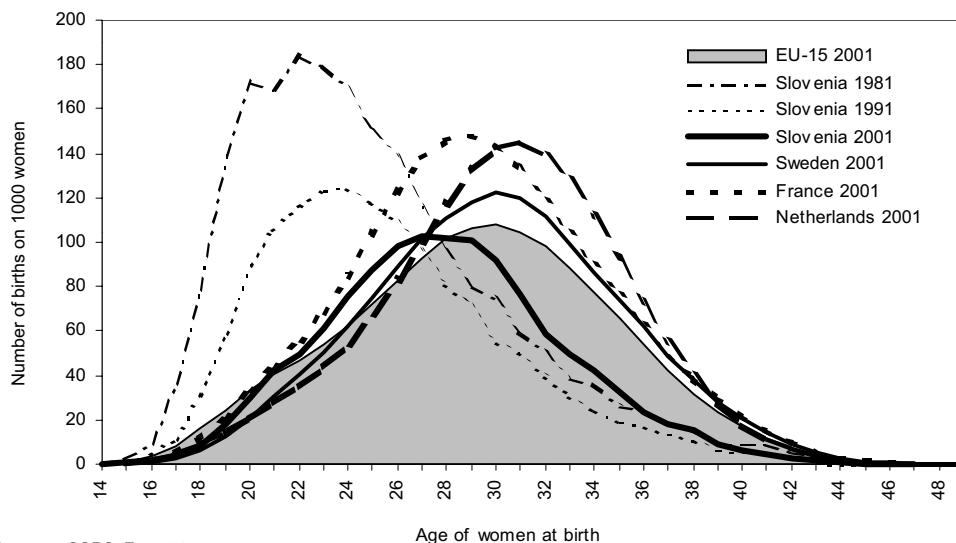
***The mean age of women at birth in Slovenia is rising, but it is still lower than in the more developed countries.*** In the past 20 years the mean age of women at birth has grown from 25.5 to 28.8, while the mean age of women at the birth of their first child has risen from 23.0 to 27.2. Specific fertility rates of women aged up to 25 are rapidly falling, while the fertility rate for women aged 30 or over is rapidly rising. In Slovenia the mean age of women at birth is still lower than in most of the old EU member states. On average, in the EU-15 the mean age of women at birth rose by two years in the past 20 years (to 29.5 in 2002). It is the highest in Spain, Ireland and the Netherlands (30.8, 30.6 and 30.4 years, respectively), while the highest mean age of women at the birth of their first child was recorded in Spain, Luxembourg and the Netherlands (29.2, 28.8 and 28.7 years, respectively).

Table: Birth rates in Slovenia and the EU

|                 | 1995        | 2000        | 2001        | 2002        | 2003        | 2004        |
|-----------------|-------------|-------------|-------------|-------------|-------------|-------------|
| EU-25           | 1.44        | 1.48        | 1.46        | 1.46        | 1.48        | 1.50        |
| EU-15           | 1.42        | 1.50        | 1.49        | 1.50        | 1.52        | 1.52        |
| EU-10           | N/A         | N/A         | N/A         | 1.24        | 1.27        | 1.27        |
| Austria         | 1.42        | 1.36        | 1.33        | 1.40        | 1.38        | 1.42        |
| Belgium         | 1.55        | 1.66        | 1.64        | 1.62        | 1.64        | 1.64        |
| Cyprus          | 2.13        | 1.64        | 1.57        | 1.49        | 1.50        | 1.49        |
| Czech Republic  | 1.28        | 1.14        | 1.14        | 1.17        | 1.18        | 1.23        |
| Denmark         | 1.80        | 1.77        | 1.74        | 1.72        | 1.76        | 1.78        |
| Estonia         | 1.32        | 1.34        | 1.34        | 1.37        | 1.37        | 1.40        |
| Finland         | 1.81        | 1.73        | 1.73        | 1.72        | 1.76        | 1.80        |
| France          | 1.70        | 1.88        | 1.89        | 1.88        | 1.89        | 1.90        |
| Greece          | 1.32        | 1.29        | 1.25        | 1.27        | 1.28        | 1.29        |
| Ireland         | 1.84        | 1.90        | 1.94        | 1.97        | 1.98        | 1.99        |
| Italy           | 1.18        | 1.24        | 1.25        | 1.26        | 1.28        | 1.33        |
| Latvia          | 1.26        | 1.24        | 1.21        | 1.24        | 1.29        | 1.24        |
| Lithuania       | 1.55        | 1.39        | 1.30        | 1.24        | 1.26        | 1.26        |
| Luxembourg      | 1.69        | 1.76        | 1.66        | 1.63        | 1.63        | 1.70        |
| Hungary         | 1.58        | 1.32        | 1.31        | 1.3         | 1.27        | 1.28        |
| Malta           | 1.83        | 1.72        | 1.72        | 1.46        | 1.46        | 1.37        |
| Germany         | 1.25        | 1.38        | 1.35        | 1.31        | 1.34        | 1.37        |
| Netherlands     | 1.53        | 1.72        | 1.71        | 1.73        | 1.75        | 1.73        |
| Poland          | 1.61        | 1.34        | 1.29        | 1.24        | 1.22        | 1.23        |
| Portugal        | 1.41        | 1.55        | 1.45        | 1.47        | 1.44        | 1.42        |
| Slovakia        | 1.52        | 1.30        | 1.20        | 1.18        | 1.20        | 1.25        |
| <b>Slovenia</b> | <b>1.29</b> | <b>1.26</b> | <b>1.21</b> | <b>1.21</b> | <b>1.20</b> | <b>1.22</b> |
| Spain           | 1.18        | 1.24        | 1.26        | 1.27        | 1.30        | 1.32        |
| Sweden          | 1.73        | 1.54        | 1.57        | 1.65        | 1.71        | 1.75        |
| UK              | 1.71        | 1.64        | 1.63        | 1.64        | 1.71        | 1.74        |

Sources: Population and social conditions - Population (Eurostat) (2005). Rapid Reports - Population (Statistical Office of the Republic of Slovenia).

Figure: Distribution of age-specific fertility rates in Slovenia in 1981, 1991 and 2001 and in selected European countries in 2001



Sources: SORS, Eurostat.

## ***Regional variation in GDP***

***Statistical regions in Slovenia differ in both the volume and structure of their value added, with Central Slovenia standing out notably.*** On average, Central Slovenia generates over one-third (35.7% in 2003) of Slovenia's gross value added (GVA). A third of GVA comes from Podravska, Savinjska and Gorenjska together, while the remainder is generated by the eight other regions. In 2003, almost three-quarters of Central Slovenia's GVA came from the service sector while the figure for Obalno-Kraška was even higher. South-eastern Slovenia and Koroška generated the largest shares of GVA in manufacturing, and mining and quarrying, Spodnjeposavska and Zasavska in the energy supply industry, Notranjsko-kraška in construction, and Pomurska in agriculture.

***The period between 1996 and 2003<sup>1</sup> saw a slight shift in the regional GVA structure; in most regions, the industrial and service sectors grew while the agricultural sector declined.*** The biggest rise in the industrial sector's share was recorded in South-eastern Slovenia and Spodnjeposavska while a drop in industry's share was only registered in Zasavska, Central Slovenia and Gorenjska. In Zasavska and Central Slovenia the service sector's share increased the most (by 5.8 and 3.4 p.p., respectively). The biggest fall in the agricultural sector's share was recorded in Notranjsko-kraška (-3.4 p.p.).

***Central Slovenia also achieved the highest level of development measured by GDP per capita.*** Only Central Slovenia and Obalno-kraška had an above-average GDP per capita in all the years for which the revised data on GDP by regions are available. In 2003, Central Slovenia exceeded the Slovenian average by over 44%. In this region, the amount of GDP per capita compared with the national average rose throughout the analysed period but the most in 2003 (by 3.2 i.p.). Obalno-kraška exceeded the Slovenian average by 3.4% while its level above the average, unlike Central Slovenia's, has been gradually declining. Among other regions, Goriška is closest to the Slovenian average, having reached over 95% of the average in 2003, but the gap behind it has also gradually been increasing ever since 1999. Both in the entire period and in 2003, Pomurska had the lowest GDP per capita, having only reached 68.5% of the Slovenian average in 2003. Among other regions, differences in terms of GDP per capita are not big. They can be divided into two groups. The first group includes Podravska, Gorenjska, Savinjska and South-eastern Slovenia, i.e. regions achieving values of between 80% and 90% of the Slovenian average, while the values for regions of the second group (Zasavska, Notranjsko-kraška, Koroška and Spodnjeposavska) total between 70% and 80% of the average. Compared with the EU-25 average, Central Slovenia as the best-performing region achieved, in our estimate, 110% of the average in 2003 while the figure for Pomurska, which has the lowest GDP per capita, totalled 52% of the EU-25 average (in PPS).

***In the 1995-2003 period, regional differences in GDP per capita increased slightly, in particular in relation to Central Slovenia.*** The ratio between the best- and worst-performing regions in terms of gross domestic product per capita rose from 1.8:1 to 2.1:1. The widening of the gap behind the Slovenian average was most pronounced in Zasavska (totalling 11.8 i.p.) and Pomurska (9.2 i.p.). Further, the number of jobs in industry dropped the most in Zasavska, which is also reflected in the GVA structure. Although the Zasavska region received state aid to overcome those problems, it has not yet managed to create enough jobs to make up for the losses. Central Slovenia increased

<sup>1</sup> The revised data are available for the 1995-2003 period, with the GVA structure being available for 1996-2003.

its excess above the Slovenian average (by 7 i.p.) while Podravska and South-eastern Slovenia narrowed their gaps behind the average (by 1.5 and 0.2 i.p., respectively). The GDP per capita of Notranjsko-kraška relative to the Slovenian average was the same as in 1995 in 2003.

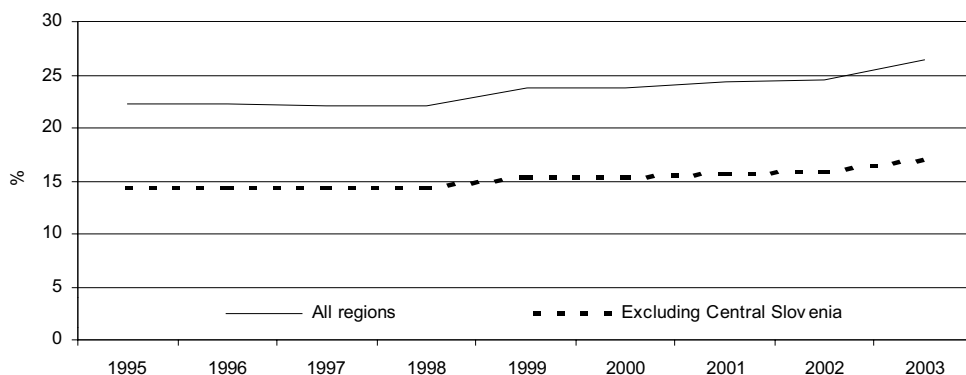
**Regional differences in gross domestic product per capita measured by the coefficient of variation widened the most in 2003.** The coefficient of variation is defined as a ratio of standard deviation from the average, the formula being adjusted for the regions' different sizes. In 2003, the variation coefficient rose by 1.8 p.p. over 2002 to total a high 26.3%. In the entire 1995-2003 period, its rise totalled 4.1 p.p., while being most pronounced from 1999 on. If Central Slovenia as the strongest region enjoying the highest GDP per capita is excluded from the analysis, the coefficient of variation drops and comes in at 14.3% to 17% (see the figure). This indicates that Central Slovenia is playing a firm role as the national centre of the economy, which also strongly affects the regional variations seen in Slovenia.

Table: Gross domestic product per capita, indices, Slovenia = 100

| Statistical region     | 1995  | 2000  | 2001  | 2002  | 2003  |
|------------------------|-------|-------|-------|-------|-------|
| Gorenjska              | 88.6  | 87.4  | 88.3  | 88.0  | 86.9  |
| Goriška                | 97.1  | 98.2  | 98.7  | 97.1  | 95.4  |
| South-eastern Slovenia | 90.0  | 91.6  | 91.9  | 90.5  | 90.2  |
| Koroška                | 79.3  | 81.8  | 81.5  | 80.4  | 78.0  |
| Notranjsko-kraška      | 76.4  | 79.4  | 78.2  | 78.6  | 76.4  |
| Obalno-kraška          | 108.4 | 104.9 | 103.9 | 103.7 | 103.4 |
| Central Slovenia       | 137.1 | 139.7 | 140.6 | 140.9 | 144.1 |
| Podravska              | 81.8  | 82.8  | 82.9  | 84.1  | 83.3  |
| Pomurska               | 77.7  | 70.6  | 70.6  | 69.5  | 68.5  |
| Savinjska              | 93.9  | 90.3  | 88.5  | 89.3  | 88.8  |
| Spodnjejeposavska      | 83.5  | 84.5  | 85.4  | 84.4  | 79.9  |
| Zasavska               | 83.6  | 79.3  | 75.1  | 72.8  | 71.7  |
| SLOVENIA               | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Source: SORS.

Figure: Coefficient of variation in regional GDP per capita, 1995-2003



Source: SORS, calculations by IMAD.

## ***Regional variation in unemployment***

***In 2005, unemployment in most regions declined slightly compared with 2004 while the gap between regions recording the lowest and highest unemployment rates widened somewhat.*** The registered unemployment rate in most regions has been on a decrease since 2000 because the number of unemployed has dropped as more jobs have become available in the regions while many people have also been deleted from unemployment registers for various other reasons. After 2000, the registered unemployment rate has fallen most in Podravska (by 4.6 p.p.), Notranjsko-kraška (by 2.5 p.p.) and Gorenjska (by 2.4 p.p.) while it has increased in Koroška (by 0.7 p.p.), Goriška (by 0.6 p.p.) and Pomurska (by 0.4 p.p.). In 2005, the highest unemployment rate was registered in Pomurska (17.1%), having risen slightly compared with the year before to exceed the Slovenian average by almost 70%. The unemployment rate registered in Pomurska has been highly above the average for several years, and the highest in Slovenia since 2002 when it surpassed the rate in Podravska. In 2005, the Slovenian average was also exceeded by Zasavska (whose rate surpassed Podravska's), Savinjska, Spodnjeposavska and Koroška. In Spodnjeposavska, the registered unemployment rate fell the most compared with the previous year. In Pomurska it was 2.6 times higher than in Goriška where it was the lowest, totalling 64% of the Slovenian average. This ratio declined in 2005 relative to 2000 but it increased somewhat relative to 2004 as in 2005 the registered unemployment rate again slightly rose in Pomurska and fell in Goriška.

***The narrowing of regional disparities in unemployment measured by the coefficient of variation, which began in 2002, continued in 2005.*** The variation coefficient, defined as the ratio of the standard deviation from the arithmetic mean, taking into account the regions' sizes, is a better indicator of regional differences than the ratio between two regions at the two extreme ends; in 2005, it dropped by 0.3 p.p. which, however, has been the slightest drop recorded since 2000 (see the figure).

***Regions, including those with a below-average registered unemployment rate, are still faced with the problem of structural unemployment, surfacing in a specific way in each of them.*** Compared with 2004, most regions recorded a rise in the number of workers permanently laid off<sup>1</sup>, of unemployed people aged over 50, the long-term unemployed, unemployed women and those with a higher education. A decrease was recorded mainly in the shares of the unemployed with a low education and of young people. Long-term unemployment increased in over half of the regions and in those where its share was highest, more than one-half of the unemployed had been out of work for over a year. In 2005, long-term unemployment was highest in Pomurska while also exceeding the Slovenian average in Spodnjeposavska, South-eastern Slovenia (whose registered unemployment rate was below-average), Savinjska, Koroška, Zasavska and Podravska. It is often related to a poor education structure of the unemployed, as is the case in South-eastern Slovenia and the Pomurska region. On the other hand, people who have completed a higher education may also find it difficult to get a job. Generally, the share of the highly educated unemployed has been rising steadily since 2000; in 2005, it was the biggest (above-average) in Central Slovenia, Goriška and Obalno-kraška, where over one-tenth of the unemployed had at least an undergraduate degree. Another group of jobless people difficult to employ is those aged over 40, whose share in most regions has been dropping since 2001 while they nevertheless still account for about one-half of the unemployed in Gorenjska and Spodnjeposavska. An above-average share of the unemployed aged over 50 is mainly typical of regions where the registered unemployment

<sup>1</sup> Unemployed people who have lost their job due to a permanent reduction in the number of workers in their company.



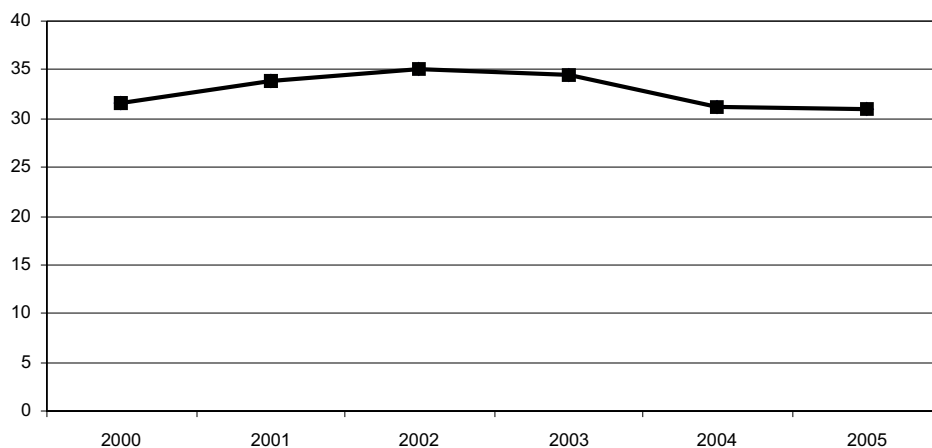
rate is below-average (Gorenjska, Central Slovenia, Goriška, Obalno-kraška). In those regions, they account for over one-quarter of the unemployed. In most regions, the share of unemployed women has been on the rise again. In the last year in particular, it has increased in Gorenjska, Koroška, Goriška, Spodnjeposavska and Pomurska.

Table: Registered unemployment rates by regions

|                        | Registered unemployment rate, % |      |      |      |      |      |
|------------------------|---------------------------------|------|------|------|------|------|
|                        | 2000                            | 2001 | 2002 | 2003 | 2004 | 2005 |
| Gorenjska              | 9.7                             | 8.7  | 8.2  | 8.0  | 7.6  | 7.3  |
| Goriška                | 5.9                             | 5.6  | 6.1  | 6.3  | 6.7  | 6.5  |
| South-eastern Slovenia | 10.4                            | 9.6  | 9.7  | 8.4  | 8.2  | 8.8  |
| Koroška                | 9.9                             | 9.9  | 11.3 | 12.2 | 11.4 | 10.6 |
| Notranjsko-kraška      | 10.4                            | 9.4  | 8.8  | 8.6  | 8.1  | 7.9  |
| Obalno-kraška          | 8.8                             | 8.7  | 8.3  | 8.0  | 7.9  | 7.5  |
| Central Slovenia       | 8.8                             | 8.0  | 7.7  | 7.5  | 7.5  | 7.6  |
| Podravska              | 18.1                            | 17.4 | 17.1 | 15.8 | 14.2 | 13.5 |
| Pomurska               | 16.7                            | 16.3 | 17.7 | 17.6 | 16.8 | 17.1 |
| Savinjska              | 13.1                            | 13.1 | 13.6 | 13.1 | 12.5 | 12.7 |
| Spodnjeposavska        | 13.4                            | 13.9 | 14.1 | 14.6 | 12.7 | 11.5 |
| Zasavska               | 14.9                            | 14.3 | 14.8 | 15.6 | 14.4 | 13.8 |
| SLOVENIA               | 11.8                            | 11.2 | 11.3 | 10.9 | 10.3 | 10.2 |

Source: SORS, calculations by IMAD.

Figure: Variation coefficients of regional unemployment in Slovenia, %



Source: SORS, calculations by IMAD.

## ***Regional variation in personal income tax base per capita***

The personal income tax base per capita is an indicator that is based primarily on all taxable income of the population. It shows the economic strength of the population in a region but not the strength of the economy in this region. The economic strength of a region's population indirectly indicates the social situation of the people living in that region.

***Since 1995 the personal income tax base per capita has been showing a relatively stable situation in regions.*** The only region that is considerably above the national average is Central Slovenia, which usually exceeds the national average by over a fifth. On the other hand, the region that is considerably below the national average is the Pomurska region, which usually achieves only 75% of the national average. For all of these years an above-average personal income tax base per capita has been registered in the Obalno-kraška, Gorenjska and Goriška regions, while in the Notranjsko-kraška region it has been very close to the national average. Other regions can be divided into two groups: in South-eastern Slovenia and in the Savinjska and Zasavska regions the personal income tax base per capita is usually between 90% and 95% of the national average, while in the Podravska, Koroška and Spodnjeposavska regions it is around 85%. Such a distribution of values indicates slightly greater differences between the eastern, relatively less developed, and the western, relatively more developed, halves of the country since above-average values are achieved by regions in the western part of Slovenia – Central Slovenia, Obalno-kraška, Goriška and Gorenjska regions, while in the Notranjsko-kraška region the value is around the national average.

***The most recent data for 2004 do not show a very different picture from the previous years. Central Slovenia is still the best region in the country; compared to other regions its advantage even grew a little.*** An above-average personal income tax base per capita was recorded by four regions, the highest by Central Slovenia, which was more than a fifth above the national average and increased its advantage over other regions compared to 2003. Variations of other above-average regions (Obalno-kraška, Goriška and Gorenjska) are much smaller. The Obalno-kraška and Goriška regions exceed the national average by less than 10%, while the Gorenjska region is just 1.7% above the average. Just below the national average is the Notranjsko-kraška region, which achieved 99.7% of the average. In 2004 the Pomurska region still had by far the lowest personal income tax base per capita with 74.4% of the national average. Compared to 2003, only Central Slovenia increased its advantage over the national average, while the region that increased its lagging behind the average most was Zasavska.

***Regional variation in the personal income tax base per capita is not large.*** In 2004 the ratio between the regions with the highest and lowest personal income tax bases per capita was only 1:1.6. The ratio has not changed much between the years. Small regional differences are also shown by the coefficient of variation, which is a much better indicator of regional differences than the ratio between two extreme values. In 2004 the coefficient of variation was 15% and has not changed much between the years; it has actually decreased by 1.1 p.p. since 2000.

***The relatively small regional variation in the personal income tax base per capita is not a surprise.*** The predominant source of income tax is personal income or wages.

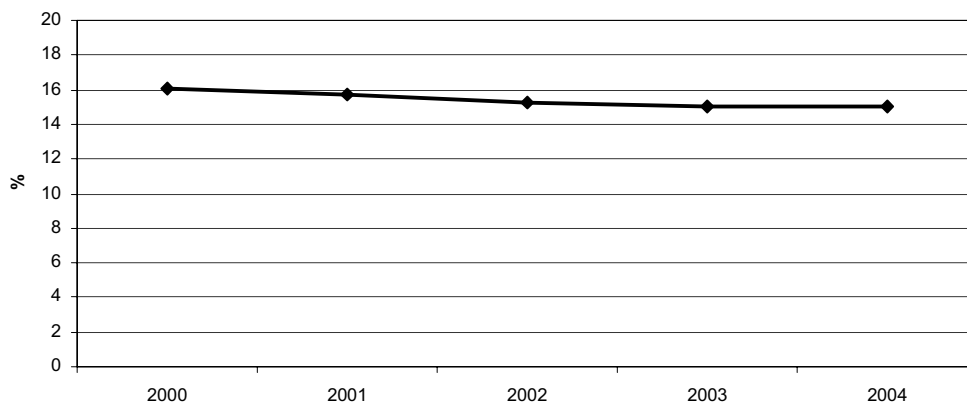
Small regional differences in the distribution of wages are mostly the result of the umbrella system of collective labour agreements – general collective agreements at the national level for the public and private sectors, and the system of collective agreements at industry level, which are valid for individual industries on the entire territory of Slovenia. So, differences between regions are mostly the result of different economic structure by regions, the education structure of employees and the general development of the region (Human Development Report, 2001).

Table: Personal income tax base per capita, indices, Slovenia = 100

| Statistical region     | 1995  | 2000  | 2001  | 2002  | 2003  | 2004  |
|------------------------|-------|-------|-------|-------|-------|-------|
| Gorenjska              | 101.6 | 101.5 | 102.2 | 101.8 | 103.2 | 101.7 |
| Goriška                | 107.6 | 110.1 | 110.4 | 108.8 | 109.3 | 108.2 |
| South-eastern Slovenia | 93.1  | 90.8  | 94.2  | 95.0  | 96.0  | 95.8  |
| Koroška                | 85.9  | 86.1  | 86.4  | 85.5  | 86.9  | 86.0  |
| Notranjsko-kraška      | 97.0  | 101.5 | 99.8  | 100.6 | 101.1 | 99.7  |
| Obalno-kraška          | 109.5 | 110.9 | 111.5 | 111.4 | 111.3 | 109.1 |
| Central Slovenia       | 119.7 | 123.5 | 122.3 | 122.3 | 119.1 | 121.7 |
| Podravska              | 85.5  | 84.6  | 84.5  | 85.5  | 86.9  | 86.4  |
| Pomurska               | 77.4  | 75.2  | 74.0  | 80.3  | 74.6  | 74.4  |
| Savinjska              | 93.5  | 89.6  | 90.2  | 86.8  | 91.2  | 90.7  |
| Spodnjeposavska        | 84.4  | 85.8  | 86.0  | 85.6  | 85.9  | 85.4  |
| Zasavska               | 95.8  | 94.6  | 92.7  | 91.5  | 91.9  | 89.2  |
| SLOVENIA               | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Sources: Tax Administration, SORS, calculations by IMAD.

Figure: Coefficient of variation in the personal income tax base per capita



Sources: Tax Administration, SORS, calculations by IMAD.

## ***Regional variation in the demographic structure***

***The size of the population is growing primarily in regions in the western part of the country, while concentration continues in Central Slovenia.*** Between 1995 and 2005 the size of the population grew in half of the statistical regions, mostly in the western part of the country. The greatest rise was registered in Central Slovenia, the Obalno-kraška and Gorenjska regions, while a fall was registered in the Zasavska, Pomurska and Spodnjeposavska regions. In the Koroška, Podravska and Goriška regions the size of the population did not change. The concentration seen in Central Slovenia, in which a quarter of the total population in Slovenia lives, continued. The population density in this region is almost twice the national average (195 people per km<sup>2</sup>, Slovenia 99 people per km<sup>2</sup>), while a high density is recorded in two other regions: Zasavska and Podravska.

***The rise in the population size is partly the result of the natural increase (the difference between the number of births and the number of deaths) but mostly of positive net migration (the difference between the number of immigrants and the number of emigrants); however, differences between the regions are small.*** In the 1995–2004 period<sup>1</sup> a natural increase was recorded in only four regions: in absolute terms it was highest in Central Slovenia and in relative terms (taking into account the population size) in the Gorenjska region; in addition, a natural increase was also recorded in South-eastern Slovenia and in the Koroška region. In all other regions a natural decrease was detected: in absolute terms it was highest in the Podravska region and in relative terms in the Pomurska region. In contrast to the natural decrease registered in 8 regions and at the national level, in this period most regions experienced positive net migration. The greatest concentration of migration was characteristic of the Central Slovenia, Obalno-kraška and Podravska regions and South-eastern Slovenia. In absolute terms, the highest positive net migration was recorded in Central Slovenia and in real terms (taking into account the population size) in the Obalno-kraška region. Negative net migration was recorded in the Koroška, Pomurska and Zasavska regions. Because of a natural decrease and negative net migration, the size of the population dropped in the Pomurska and Zasavska regions: they both had a below-average life expectancy, low birth rates and a negative migration coefficient. Above-average life expectancy was registered in regions in the western part of the country (Goriška, Central Slovenia, Obalno-kraška, Notranjsko-kraška and Gorenjska). As regards male life expectancy, the difference between the highest and lowest ranked regions is 4.8 years and as regards female life expectancy it is 2.9 years. For men the regional differences are slowly growing, while for women they are falling.

***Due to the fall in the natural increase and lower mortality the regional structure of the population is changing; the ageing index is growing, but the differences between regions are getting smaller.*** In the mentioned period the share of children (0-14) in the total population dropped in all regions, while the share of the old population (65 years and over) rose. In all regions the share of the working-age population (people aged 15-64) grew as well. Therefore, the ageing index, which is the ratio between the old and the young population<sup>2</sup>, is growing. In 1995 no region had more old people than young people, while in 2000 this was recorded in the Obalno-kraška, Goriška and Zasavska regions. In 2005 only three regions had more young people than old people, namely South-eastern Slovenia and the Koroška and Savinjska regions; however, here too we can expect that in the next two years the number of old people will overtake the number of young people. Differences

<sup>1</sup> The latest regional data available for natural and migration changes are for 2004.

<sup>2</sup> Indicator: the ratio between the old (aged 65+) and the young (aged 0-14) population multiplied by 100.

among regions are not large since the coefficient of variation for the ageing index in the 1995–2005 was around 10% and has a downward tendency; in the mentioned period by 2.6 p.p. (see the figure). In those regions that used to have a high ageing index the difference compared to the national average and to other regions has been narrowing due to the accelerated rise in the share of old people and the fall in fertility in all regions.

*As a result of the trends mentioned above, in all regions the elderly dependency ratio is rising and the youth dependency ratio is falling.* In the 1995–2005 period the elderly dependency ratio grew the most in the Gorenjska region and Central Slovenia, while the highest elderly dependency ratio was recorded in the Goriška region, 25 people aged 65 and over per 100 working-age population. The youth dependency ratio has been falling in all regions: in regions with the lowest ratio (Obalno-kraška, Zasavska, Podravska) it is between 17 and 18 young people per 100 working-age population, while the greatest fall in the mentioned period was registered in the Zasavska region.

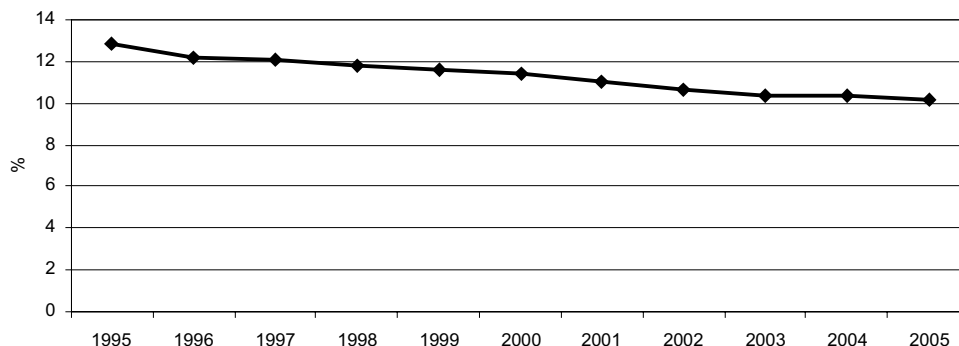
Table: Basic demographic indicators by regions

| Statistical regions | Popula-<br>tion<br>increase<br>index | Regional<br>structure<br>of popula-<br>tion,% | Ageing index <sup>1</sup> |       | Life<br>expectan-<br>cy <sup>2</sup> - total | Natural<br>increase<br>per 1000<br>popula-<br>tion | Net<br>migration<br>per 1000<br>popula-<br>tion | Youth<br>depende-<br>ncy ratio <sup>3</sup> | Elderly<br>depende-<br>ncy ratio <sup>4</sup> |
|---------------------|--------------------------------------|---|---------------------------|-------|--|--|---|---|---|
|                     | 1995–2005                            | 2005  | 1995                      | 2005  | 1999–2003                                    | 1995–2004  | 2005  | 2005  |   |
| Gorenjska           | 102.1                                | 9.9   | 59.7                      | 100.6 | 77.3   | 1.39   | 0.20  | 22.1  | 22.0  |
| Goriška             | 99.0                                 | 6.0   | 83.8                      | 126.0 | 77.6   | -1.61  | 0.43  | 24.9  | 19.8  |
| South-eastern Slov. | 101.7                                | 7.0   | 55.8                      | 95.0  | 75.2   | 0.61   | 1.19  | 21.4  | 22.5  |
| Koroška             | 99.7                                 | 3.7   | 54.4                      | 96.6  | 75.2   | 0.64   | -1.12   | 19.7  | 20.4  |
| Notranjsko-kraška   | 100.7                                | 2.6   | 78.4                      | 118.2 | 77.1   | -1.77  | 3.17  | 23.9  | 20.2  |
| Obalno-kraška       | 102.2                                | 5.3   | 81.1                      | 139.4 | 77.6   | -1.78  | 3.28  | 23.7  | 17.0  |
| Central Slovenia    | 102.8                                | 24.9  | 64.1                      | 105.5 | 77.8   | 0.94   | 1.06  | 21.9  | 20.8  |
| Podravska           | 99.5                                 | 16.0  | 71.1                      | 117.0 | 75.3   | -1.64  | 0.63  | 22.1  | 18.9  |
| Pomurska            | 96.5                                 | 6.1   | 78.4                      | 112.7 | 73.8   | -3.01  | -0.50   | 21.8  | 19.3  |
| Savinjska           | 100.6                                | 12.9  | 60.4                      | 98.0  | 75.2   | -0.20  | 0.38  | 20.2  | 20.6  |
| Spodnjeposavska     | 98.2                                 | 3.5   | 72.6                      | 113.3 | 74.5   | -2.18  | 1.54  | 23.3  | 20.6  |
| Zasavska            | 96.4                                 | 2.3   | 76.2                      | 124.2 | 74.5   | -2.88  | -0.04   | 22.6  | 18.2  |
| SLOVENIA            | 100.7                                | 100.0   | 67.0                      | 108.7 | 76.2   | -0.42  | 0.77  | 22.0  | 20.3  |

Source: SORS, calculations by IMAD.

Notes: <sup>1</sup>the ratio between the old (65+) and the young (0-14) population \* 100; <sup>2</sup>according to abridged life tables for regions; because of regions having a small population size, two regions were joined with their neighbouring regions (Notranjsko-kraška with Obalno-kraška and Koroška with Savinjska) while Zasavska was joined with the non-bordering Spodnjeposavska. The regions that were joined have the same value; <sup>3</sup>the ratio between the young (0-14) and the working-age (15-64 let) population multiplied by 100; <sup>4</sup>the ratio between the old (65+) and the working-age (15-64) population multiplied by 100.

Figure: Coefficient of variation in the ageing index



Source: SORS, calculations by IMAD.

## ***Life expectancy and infant mortality***

***Life expectancy in Slovenia continues to rise;*** in 2004 it reached 73.5 years for men and 81.1 years for women. Since 1995 life expectancy has grown by slightly more than 3 years for both genders; however, the difference between the genders is still growing as female life expectancy is growing faster (see the table). Longer life expectancy is mostly the result of the lower mortality rate in the age group 65-84 (in both genders) – for men also in the age group 40-64 and for women in the age group 85+. In 2004 the male mortality rate dropped in almost all age groups, while the female mortality rate dropped in the group of women aged 55 and more. Life expectancy in Slovenia has been increasing for more than 150 years, with short periods of stagnation in between (the last such period was the early 1990s when the rise in mortality was influenced by the then economic and political changes). In the past 40 years the life expectancy of men has risen by 8.5 years and the life expectancy of women by 9.2 years.

***In 2003 the difference between life expectancy in Slovenia and the average life expectancy in the EU-25 narrowed considerably.*** In 2003 (last available data), average male life expectancy in the European Union (EU-25) was 74.9 years (1.7 years more than in Slovenia), while average female life expectancy was 81.3 years (0.6 of a year more than in Slovenia). In 2003 male life expectancy in Slovenia was still lower than in the old EU member states and in Malta and Cyprus. Slovenia's rate of female life expectancy was also lower than in most of the old EU member states (except Denmark and Portugal) and higher than in most of the new member states (except Cyprus). As regards the EU, men recorded the longest life expectancy in Sweden (77.9 years in 2003), Cyprus and Spain, while women recorded the longest life expectancy in Spain (83.6 years), France, Italy and Sweden. Among the present EU member states the lowest life expectancy – both male and female – was recorded by Latvia (65.7 and 75.9 years, respectively).

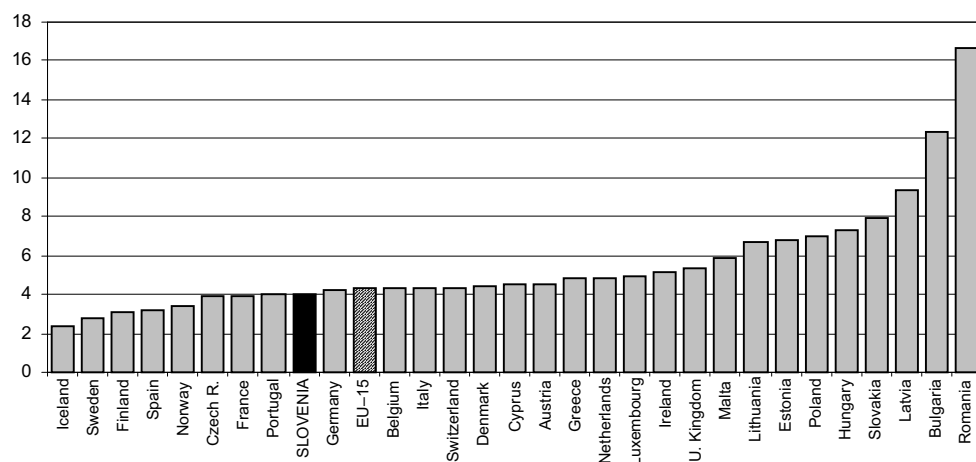
***Slovenia's infant mortality rate is among the lowest in the EU; in 2004 it was down to its lowest level ever.*** After rising slightly in 2003, in 2004 the rate dropped to 3.7 dead babies aged less than one year per 1000 live-born children, which is 0.1 less than in 2002 when it reached the lowest level recorded till then. The infant mortality rate in Slovenia has dropped by three quarters since 1980: it fell from 15.3 in 1980 to 5.5 in 1995, hovered between 4.5 and 5.5 in the second half of the 1990s and around 3.9 since 2001, with a downward tendency. As early as 1999 the infant mortality rate in Slovenia was lower than the EU-25 average; except in 2000 it was also lower than the EU-15 average (see the figure). The lowest infant mortality rate in the EU is still recorded in Sweden (3.1 in 2004). In addition to Sweden, in 2004 a lower infant mortality than Slovenia's was recorded by Finland, Spain and Cyprus, while the Czech Republic had the same rate as Slovenia. In 2004 Latvia still had the highest infant mortality in the EU (9.4). Like in other industrialised countries, infant mortality levels are on a downward trend in Slovenia primarily due to specific preventive measures taken in the area of prenatal and neonatal health care, and due to the common well-being of society.

Table: Life expectancy, number of years

|                 | 1995                 | 2000        | 2001        | 2002        | 2003        | 2004       | 1995                   | 2000        | 2001        | 2002        | 2003        | 2004       |
|-----------------|----------------------|-------------|-------------|-------------|-------------|------------|------------------------|-------------|-------------|-------------|-------------|------------|
|                 | Male life expectancy |             |             |             |             |            | Female life expectancy |             |             |             |             |            |
| EU-25           | 72.8                 | 74.4        | 74.7        | 75          | 75.1        | N/A        | 79.7                   | 80.8        | 81.1        | 81.2        | 81.2        | N/A        |
| EU-15           | 73.9                 | 75.4        | 75.7        | 75.9        | 76          | N/A        | 80.4                   | 81.4        | 81.7        | 81.7        | 81.7        | N/A        |
| EU-10           | N/A                  | N/A         | N/A         | N/A         | 70.2        | N/A        | N/A                    | N/A         | N/A         | N/A         | 78.3        | N/A        |
| Austria         | 73.3                 | 75.1        | 75.6        | 75.8        | 75.9        | 76.4       | 79.9                   | 81.1        | 81.5        | 81.7        | 81.6        | 82.1       |
| Belgium         | 73.4                 | 74.6        | 74.9        | 75.1        | 75.9        | N/A        | 80.2                   | 80.8        | 81.1        | 81.1        | 81.7        | N/A        |
| Cyprus          | 75.3                 | N/A         | 76.1        | N/A         | 77.0        | N/A        | 79.8                   | N/A         | 81.0        | N/A         | 81.4        | N/A        |
| Czech Republic  | 69.7                 | 71.6        | 72.1        | 72.1        | 72.1        | 72.6       | 76.6                   | 78.4        | 78.5        | 78.7        | 78.7        | 79.0       |
| Denmark         | 72.7                 | 74.5        | 74.7        | 74.8        | 75.1        | 75.2       | 77.8                   | 79.3        | 79.3        | 79.5        | 79.9        | 79.9       |
| Estonia         | 61.9                 | 65.6        | 64.9        | 65.3        | 66          | N/A        | 74.5                   | 76.4        | 76.4        | 77.1        | 76.9        | N/A        |
| Finland         | 72.8                 | 74.2        | 74.6        | 74.9        | 75.1        | 75.3       | 80.2                   | 81.0        | 81.5        | 81.5        | 81.8        | 82.3       |
| France          | 73.9                 | 75.3        | 75.5        | 75.8        | 75.9        | 76.7       | 81.8                   | 82.7        | 82.9        | 83.0        | 82.9        | 83.8       |
| Greece          | 75.0                 | 75.6        | 76.1        | 76.4        | 76.5        | 76.6       | 80.3                   | 80.5        | 80.9        | 81.1        | 81.3        | 81.4       |
| Ireland         | 72.9                 | 73.9        | 74.5        | 75.2        | 75.8        | N/A        | 78.4                   | 79.1        | 79.6        | 80.3        | 80.7        | N/A        |
| Italy           | 74.9                 | 76.6        | 76.7        | 76.8        | 76.8        | N/A        | 81.3                   | 82.5        | 82.8        | 82.9        | 82.5        | N/A        |
| Latvia          | 60.3                 | 65.0        | 64.8        | 64.8        | 65.7        | 65.5       | 73.1                   | 76.0        | 75.9        | 76.0        | 75.9        | 77.2       |
| Lithuania       | 63.3                 | 66.8        | 66.0        | 66.3        | 66.5        | 66.4       | 75.0                   | 77.4        | 77.5        | 77.5        | 77.7        | 77.8       |
| Luxembourg      | 73.0                 | 74.8        | 75.2        | 74.9        | 75.0        | N/A        | 80.2                   | 81.1        | 80.7        | 81.5        | 81.0        | N/A        |
| Hungary         | 65.3                 | 67.4        | 68.1        | 68.4        | 68.4        | 68.6       | 74.5                   | 75.9        | 76.4        | 76.7        | 76.7        | 76.9       |
| Malta           | 74.9                 | 76.2        | 76.1        | 75.9        | 76.7        | N/A        | 79.5                   | 80.3        | 80.9        | 81.0        | 80.7        | N/A        |
| Germany         | 73.3                 | 75          | 75.5        | 75.4        | 75.7        | 75.7       | 79.7                   | 81.0        | 81.3        | 81.2        | 81.4        | 81.4       |
| Netherlands     | 74.6                 | 75.5        | 75.8        | 76.0        | 76.2        | 76.4       | 80.4                   | 80.5        | 80.7        | 80.7        | 80.9        | 81.1       |
| Poland          | 67.6                 | 69.7        | 70.2        | 70.4        | 70.5        | 70.0       | 76.4                   | 77.9        | 78.3        | 78.7        | 78.8        | 79.2       |
| Portugal        | 71.6                 | 73.2        | 73.5        | 73.8        | 74.2        | N/A        | 78.7                   | 80.0        | 80.3        | 80.5        | 80.5        | N/A        |
| Slovakia        | 68.4                 | 69.1        | 69.5        | 69.8        | 69.9        | 70.3       | 76.3                   | 77.4        | 77.7        | 77.7        | 77.8        | 77.8       |
| <b>Slovenia</b> | <b>70.3</b>          | <b>72.3</b> | <b>72.3</b> | <b>72.6</b> | <b>72.6</b> | <b>N/A</b> | <b>77.8</b>            | <b>79.7</b> | <b>80.3</b> | <b>80.5</b> | <b>80.4</b> | <b>N/A</b> |
| Spain           | 74.3                 | 75.8        | 76.1        | 76.2        | 76.9        | 77.2       | 81.5                   | 82.5        | 82.8        | 82.9        | 83.6        | 83.8       |
| Sweden          | 76.2                 | 77.4        | 77.6        | 77.7        | 77.9        | 78.4       | 81.4                   | 82.0        | 82.1        | 82.1        | 82.5        | 82.7       |
| UK              | 74.0                 | 75.4        | 75.7        | 75.9        | 76.2        |            | 79.2                   | 80.2        | 80.4        | 80.5        | 80.7        | N/A        |

Source: Key indicators on EU policy - Population and social conditions - Demography (Eurostat) (2005).

Figure: Infant mortality per 1000 live-born children in selected European countries, 2003



Source: Eurostat, SORS.

## Health satisfaction

*Health self-assessment is an important indicator, which at the most general level indicates the ability of people to perform their social roles.* The different forms of satisfaction (life, health, financial situation) are assessments and reflect the past and present life situations<sup>1</sup> of individuals. Health self-assessment is strongly related to the intensity of people feeling happy and satisfied with their lives in general (see the indicator: Life Satisfaction). The results of regression analysis (Bernik, 2004) namely show that of all observed factors (self-assessed) health has the greatest impact on people feeling happy; people who feel healthy are happier than people who are not satisfied with their health.

*In the 1995-2005 period the number of people in Slovenia who assessed their health as bad dropped and the number of those who thought that their health was good grew.* Results of the Slovenian Public Opinion Polls<sup>2</sup> show that within ten years the share of those who thought that their health was good grew from 45.7% to almost 50% (see Figure 1), while the share of those who thought that their health was very good fell from 13.2% to 12.3%. The situation is reversed as regards the assessment of one's health as bad; in ten years the share of those who thought that their health was bad dropped from 19.7% to 14.6%, while the share of those who thought that their health was very bad rose from 3% to 3.6%.

*Compared to other European countries the health self-assessment in Slovenia is relatively low.* According to data collected with the European Social Survey (ESS)<sup>3</sup>, in 2002 56.4% of people in Slovenia assessed their health as very good or good, 31.8% of people thought it was satisfactory and 11.8% were not satisfied with their health. The Irish and the Swiss are the most satisfied with their health (almost 90% of them thought their health was very good or good), while people living in the transition countries<sup>4</sup> and in Portugal were the least satisfied with their health; they are closely followed by the Germans (see Figure 2). Average values of health self-assessment are high especially in countries with a high gross domestic product, with favourable economic trends and relatively low levels of social risk. In countries with a low average self-assessment of health people less frequently assess their health with the two extreme values (very good and very bad) and more frequently assess it as satisfactory.

*Health self-assessment correlates with education and income (social status).* Results of the Slovenian Public Opinion Polls show that less educated people on average assess their health lower than more educated and highly educated people (Human Development Report 2002/2003). Over the years these differences have grown; health self-assessment of people with post-secondary education has risen the most and the self-assessment of people with an incomplete elementary education has risen the least. The average household income is becoming an ever more important factor of self-assessed health. Research (Gravelle, 1998)

<sup>1</sup> The self-assessment indicates aspirations and can be an important factor of development policies; perceptions (can) develop faster than objective socio-economic conditions so they have a high forecasting value.

<sup>2</sup> The Slovenian Public Opinion Poll (SJM) is the leading Slovenian empirical social science project. It has been carried out since 1968 by the Public Opinion and Mass Communication Research Centre at the Faculty of Social Sciences in Ljubljana. The survey is intended for monitoring the opinions and conduct of people in Slovenia over several decades. The survey is conducted as a personal interview. The sample covers randomly selected persons from the register of the population with a permanent residence in Slovenia. It is representative of the whole population in Slovenia aged 18 years upwards. The sample size is between 1,000 and 1,100 units.

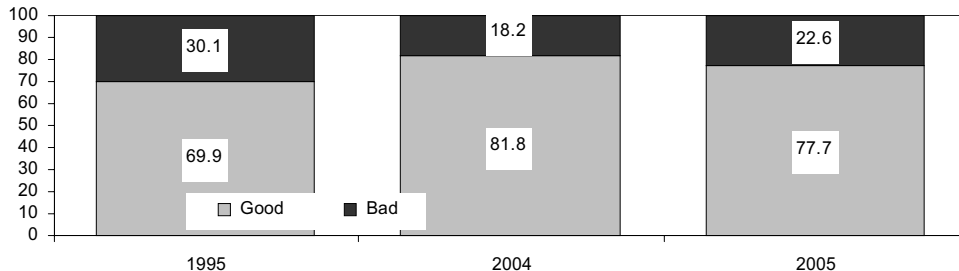
<sup>3</sup> The most recent international survey from which we took data on health self-assessment in Slovenia and other European countries is the European Social Survey. In Slovenia it is conducted by the Public Opinion and Mass Communication Research Centre. The survey covers 22 countries (21 European countries and Israel). The first survey was conducted in 2002, the observation unit was a country and the sample (N) covered 42,358 people aged 18+ (of which in Slovenia 2,222).

<sup>4</sup> Hungary, the Czech Republic, Poland and Slovenia.



shows that income itself is more important than income inequality. Income namely has more impact on health self-assessment when it is very low or very high, but the importance of income as a factor influencing the improvement of health self-assessment is falling (Human Development Report 2002/2003, pp. 38-43); namely, a fall of income has greater negative effects on health than a rise of income has on the improvement of health. The correlation between income and health self-assessment is shown for both women and men and is especially distinctive in the 45-64 age group.

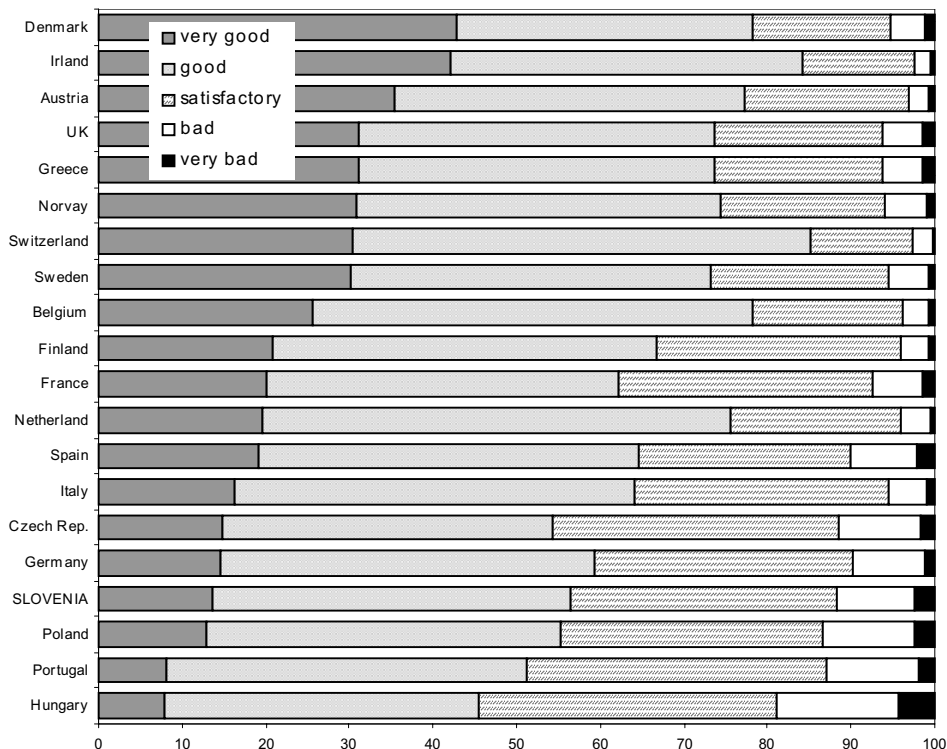
Figure 1: Health self-assessment, Slovenia, sum of answers, %



Source: SJM95/2, SJM04/2, SJM05/1. Ljubljana, FDV, IDV, CJMMK.

Note: The question was: In general, how would you assess your health? The answer »good« is the sum of answers »very good« and »good«, while the answer »bad« is the sum of answers »bad« and »very bad«. The answer »satisfactory« is not included.

Figure 2: Health self-assessment, selected countries, 2002, %



Source: ESS 2002, database. Malnar, B. (2004): *European Social Survey. Final Report*. Ljubljana: FDV, IDV, CJMMK.

Note: The question was: »In general, how would you assess your health?«

## ***Changes in municipal spatial plans***

***In principle, changes in municipal spatial planning documents are seen as positive.*** They namely reflect the capacity of municipalities to react to the needs and initiatives of investors and to update and verify the determination of the public interest. The indicator of the intensity of these changes thus shows the effort and capacity of public actors to manage and direct spatial development.

***According to recent data, the intensity and updating of spatial planning has improved*** (see the figure). Municipalities namely intensified their activities in order to adopt changes in their spatial plans before 20 July 2004, when the Strategy of Spatial Development of Slovenia came into force, which in accordance with the Spatial Planning Act of 2003 stopped the possibilities to change the old plans and launched the preparation of a new planning cycle.

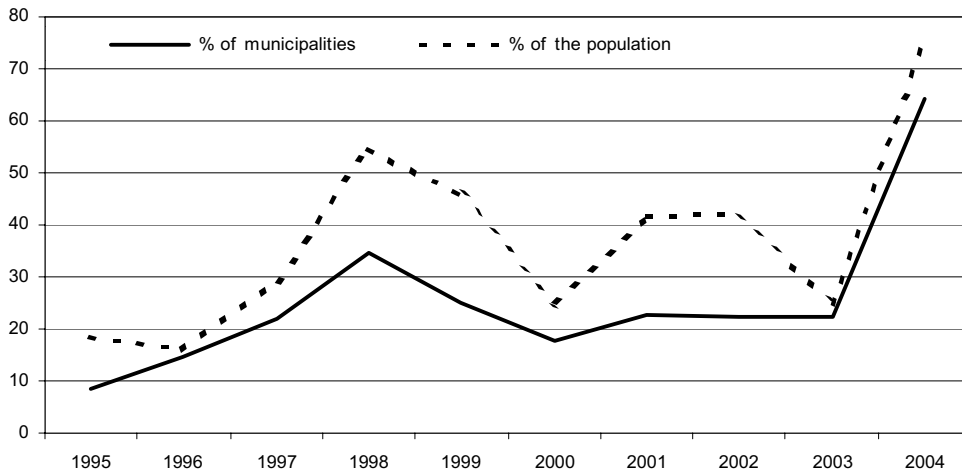
***The intensity and updating of spatial planning was subject to cyclical development, which was more a reflection of changes in legislation than of development needs*** (see the figure). One can see that spatial planning intensified after 1995 when local self-government was enforced and when new municipalities became aware of the importance of spatial plans as instruments of spatial development in a municipality. After peaking in 1998, a year of local elections, when amended municipal planning documents were prepared for more than half of the population in Slovenia, the intensity of spatial planning with planning documents eased off to the level of around 20% of municipalities and 40% of the population annually (when Ljubljana changed its spatial plan). The share of the population included is much less stable than the share of municipalities since it depends on whether in a certain year the urban municipality of Ljubljana changed its spatial plan; its share in the total population is namely over 13%.

***Smaller municipalities tend to change their spatial plans less frequently.*** Data in the database that was used as the basis for calculating this indicator show that smaller municipalities are less capable of reacting to the needs and initiatives of investors. However, it is true that in small, mostly rural municipalities the development dynamics are lower, which means that the need to change is also lower. In the entire period of Slovenia's independence some smaller municipalities have never changed their spatial plans from the times of social property. There is a danger that the new small municipalities that are being established will also not be able to do that if they do not agree on common activities with their neighbouring municipalities when implementing their spatial planning activities.

***The changes in spatial plans prepared by the municipalities are very different in their contents.*** Data in the mentioned database show that changes in spatial plans differed: from the most frequent changes in the intended use of land through to comprehensive changes and supplements in the sense of updating the contents of municipal spatial plans as a whole, including strategy and concepts. However, there is no reason to suppose that there were major differences in time in this respect so we assume that according to the law of large numbers (in this case 193 municipalities) the indicator is statistically representative of the whole country. We can also assume that municipalities used the demanding procedures of changing their plans to verify whether or not more extensive changes in plans are necessary. Having this in mind, we would like to warn that not all changes prepared by the municipalities were in line with the national spatial plan so the Government of the Republic of Slovenia could not approve them or they required some

additional harmonisation activities prior to their adoption. This is, however, only true of a small share of the changes and even in those cases we can say that the municipalities were trying to prepare good spatial plans.

Figure: Shares of changed municipal spatial plans, in %



Source: calculations by IMAD from the record of decisions of the Government of the Republic of Slovenia about the determination of the alignment of municipal spatial plans with the national spatial plan, Ljubljana, MOP 2005.

## ***Issued building permits***

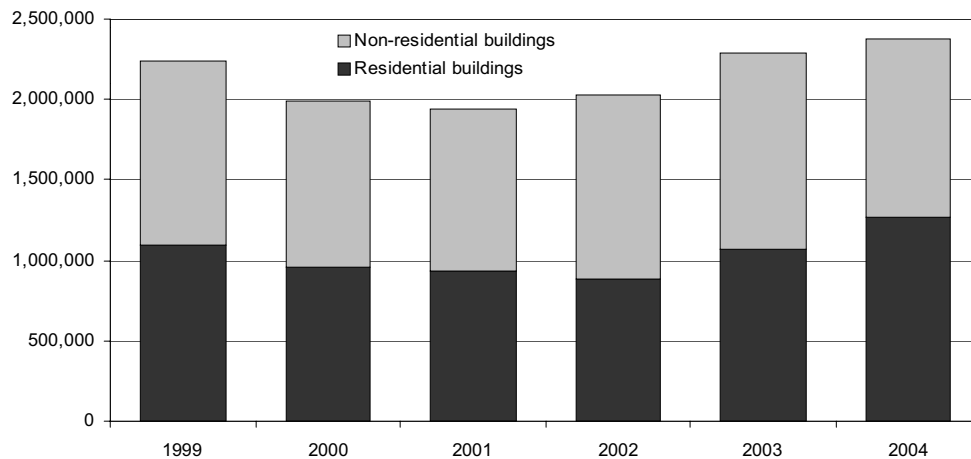
***The floor area of buildings planned by issued building permits is on the rise.*** In 2004 the total floor area of buildings planned by issued building permits grew for the third consecutive year (in three years by 22.6%) and was thus greater than in 1999 (see the figure). In 2003 the floor area jumped by as much as 13.1%, while in 2004 it was up by 3.9%.

***In 2004 the planned floor area grew for residential buildings, especially for three and more dwelling buildings.*** After three years of decline, in 2003 the planned floor area of residential buildings jumped by 20.9%, while a year later it was up by 17.7%. The total floor area grew in all types of residential buildings: in single dwelling buildings by 7.3% (their share in the total floor area was 60.3%), in two-dwelling buildings by 17.0% (their share was 8.1%) and in three or more dwelling buildings by as much as 51.4% (their share was 29.8%). Since 1999 the importance of three and more dwelling buildings has been rising; in five years their share in the structure of dwellings jumped by 21 percentage points.

***The total floor area of planned non-residential buildings dropped in 2004.*** In 2000 and 2001 the total floor area of planned non-residential buildings fell by 9.1% and 3.8%, respectively, while in the next two years it was up by 13.6% and 7.0%, respectively. In 2004 the floor area of planned non-residential buildings decreased again (by 8.4%), but it was still higher than in 2000 and 2001. As much as 7.7 p.p. of the drop was the result of the reduced floor area of planned buildings for commercial and other service activities. Compared to 1999 the share of industrial buildings and warehouses grew the most (by 14.5 p.p. to 33.3%), while the share of administrative and office buildings fell by 19.9 p.p. to 7.4%.

***The number of dwellings planned by building permits issued in 2004 was the highest in the past five years.*** In the 1999-2002 period the number of planned dwellings fell by 9.8%. In 2002 the construction of 5,080 dwellings was planned by issued building permits. In 2003 the number of planned dwellings rose by 20.5% and in 2004 by another 14.4%. In 2004 the construction of 7,002 dwellings was planned by issued building permits. The planned number of dwellings in single dwelling buildings was falling up until 2002, while in the next two years it grew by 13.9%. The dynamics were similar as regards dwellings in two-dwelling buildings where the bottom was reached in 2001, while the planned number of dwellings in three and more dwelling buildings was constantly rising. The average annual growth in the 1999-2004 period was 39.2%. In 1999, dwellings in three and more dwelling buildings represented 14.5% of all planned dwellings, while in 2004 their share was 43.8%. Still, the highest share was that of dwellings in single dwelling buildings, namely 46.1%.

Figure: Floor area of buildings planned by issued building permits, m<sup>2</sup>



Source: SI-STAT – Building permits, 2005.

# Share of road transport in total goods transport

**Road goods transport predominates over other modes of goods transport, which is an unfavourable situation in terms of sustainable development.** In most countries more goods are carried by road than by railway or in inland waterways (lakes, rivers) transport, which can be attributed to the great flexibility of this mode of transport (door to door) and non-internalised external costs<sup>1</sup>. Compared to motorways, railways require less space, transport by railway causes much less pollution per unit of goods carried (less greenhouse gas emissions), uses less energy, causes less noise and is, as a rule, safer (smaller number of accidents). However, railway transport can compete with road transport particularly over greater distances.

**The share of road goods transport is growing more rapidly than in the EU on average.** In the EU the share of road goods transport in total (roads, railways and inland waterways) goods transport reached 70% in the early 1990s, while in Slovenia this did not happen until 2000. Because of the more rapid increase of the share in Slovenia, in 2004 the difference between the Slovenian and average EU share was only 4.3 percentage points (in 1995 it was 7.3 p.p.). In 2004 the share of road goods transport<sup>2</sup> in Slovenia was 72.2%, while in the EU it was 76.5%. Last year the rapid growth of road goods transport in Slovenia continued so that in first three quarters of 2005 the share of road goods transport was already 76.2%. Cross-country differences in the volume of road goods transport are in many respects linked to historical and geographical factors. The Baltic states have the lowest shares of road goods transport (around 50% and less) in the EU-25, while in 10 EU countries over 90% of goods are carried by road. The highest shares (over 95%) of road goods transport are recorded by the small insular countries of Cyprus, Malta, Greece and Ireland. As regards EU member states, in the 1995-2004 period the shares of road goods transport increased the most in some Eastern European countries (Poland by 23 p.p., Czech Republic by 18 p.p., Latvia by 13 p.p. and Lithuania by 10 p.p.). However, despite the affirmation of this mode of transport its share is still below the EU average in these countries. In Slovenia the increase in the share of road goods transport was among the highest (more than 7 p.p.), while in four EU countries the share of road goods transport declined (the most in the UK, by over 4 p.p.).

**Both in the EU and in Slovenia road goods transport is growing faster than economic growth.** Both in the longer period since 1970 as well as in the period since 1995 road goods transport in the EU has been increasing faster than economic growth, while railway transport has been declining slightly. According to the European Commission's data<sup>3</sup>, in the 1970-2002 period road goods transport in the EU-15 was rising by 3.3% per year<sup>4</sup>, while inland waterways transport was growing by 0.6% and railway transport was falling, on average, by 0.6% per year. In the EU-15 the share of road transport in total goods transport rose from 56% in 1970 to 79% in 2002. In Slovenia, in the 1995-2004 period the growth of road goods transport was faster than economic growth (5.2% per year compared to 3.9% per year), while railway goods transport was not increasing nearly as fast (by 1.3% measured in tonne kilometres – tkm).

**Slovenia is ranked among the countries with relatively well-developed road transport.** Measured in tkm per capita, in 2004 by far the greatest volume of transport in the EU was made by carriers from Luxembourg (21,280 tkm per capita), while Slovenian carriers were seventh with 4,513 tkm per capita (the EU average was 3,622 tkm per capita).

<sup>1</sup> If these costs were taken into account in the price of transport, the competitive position of road goods transport would probably decline and the comparative advantages of railway transport would become more evident.

<sup>2</sup> Eurostat, Structural Indicators and Transport. Road transport refers to vehicles registered in a country, while railway and inland waterway transport refer to transport in the territory of a country.

<sup>3</sup> EC, Energy & Transport in Figures 2004.

<sup>4</sup> Average GDP growth in this period was 2.9% per year (estimate according to the source: EC, Economic Forecasts Autumn 2005).

*Regarding the composition of road goods transport, large countries tend to have higher shares of national transport while small inland countries generally have higher shares of international transport.* Hence in Italy, the UK, France, Germany, Finland and Sweden the shares of international road transport in total road goods transport are below 25%. In Slovenia, on the other hand, in 2004 the share of international road goods transport was 75%, which is the third highest share among EU countries (behind Luxembourg with 94% and Lithuania with 82%; see the figure).

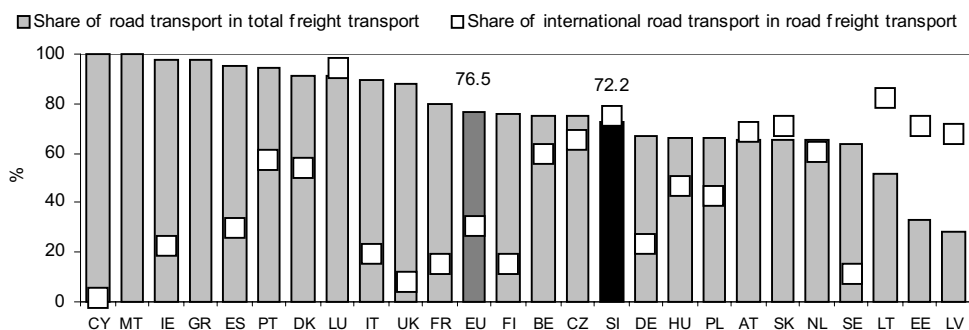
Table: Percentage of road<sup>1</sup> transport in total (roads, railways and inland waterways) goods transport (tkm), %

|                 | 1995        | 2000        | 2001        | 2002        | 2003        | 2004        |
|-----------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>EU</b>       | <b>72.2</b> | <b>74.5</b> | <b>75.5</b> | <b>76.1</b> | <b>76.2</b> | <b>76.5</b> |
| Austria         | 63.5        | 64.8        | 65.9        | 65.8        | 67.4        | 65.6        |
| Belgium         | 77.4        | 77.4        | 78.3        | 77.5        | 76.5        | 74.9        |
| Cyprus          | 100.0       | 100.0       | 100.0       | 100.0       | 100.0       | 100.0       |
| Czech Republic  | 57.5        | 68.0        | 69.7        | 73.3        | 74.5        | 75.2        |
| Denmark         | 91.8        | 92.1        | 91.8        | 92.1        | 92.0        | 91.4        |
| Estonia         | 28.7        | 37.3        | 31.2        | 30.3        | 29.1        | 32.7        |
| Finland         | 72.3        | 75.8        | 75.4        | 76.6        | 75.3        | 76.0        |
| France          | 76.5        | 76.0        | 77.9        | 77.8        | 78.8        | 79.9        |
| Greece          | 97.7        | N/A         | N/A         | N/A         | N/A         | N/A         |
| Ireland         | 90.1        | 96.2        | 96.0        | 97.1        | 97.5        | 97.7        |
| Italy           | 88.2        | 89.0        | 89.4        | 90.4        | 89.5        | 89.5        |
| Latvia          | 15.8        | 26.5        | 27.4        | 29.2        | 27.5        | 28.4        |
| Lithuania       | 41.6        | 46.6        | 51.7        | 52.3        | 50.0        | 51.3        |
| Luxembourg      | 85.9        | 87.8        | 89.6        | 91.5        | 92.0        | 90.9        |
| Hungary         | 58.3        | 68.1        | 67.3        | 65.5        | 65.6        | 65.9        |
| Malta           | 100.0       | 100.0       | 100.0       | 100.0       | 100.0       | 100.0       |
| Germany         | 63.9        | 66.1        | 67.2        | 67.0        | 67.8        | 66.9        |
| Netherlands     | 63.6        | 63.4        | 63.0        | 63.3        | 64.6        | 65.0        |
| Poland          | 42.6        | 56.9        | 61.1        | 62.2        | 63.0        | 65.8        |
| Portugal        | 90.3        | 92.5        | 93.3        | 93.1        | 93.0        | 94.7        |
| Slovakia        | 63.7        | 53.0        | 53.6        | 58.7        | 62.1        | 65.4        |
| <b>Slovenia</b> | <b>64.9</b> | <b>70.0</b> | <b>71.3</b> | <b>68.2</b> | <b>68.3</b> | <b>72.2</b> |
| Spain           | 90.3        | 92.8        | 93.2        | 94.1        | 94.3        | 94.9        |
| Sweden          | 62.0        | 63.9        | 63.6        | 65.6        | 64.5        | 63.9        |
| UK              | 92.3        | 90.0        | 89.3        | 89.7        | 89.8        | 88.1        |

Source: Eurostat, Structural indicators.

Note: <sup>1</sup>in road transport, the statistics cover the volume of carriage by goods vehicles registered in the country, while in railway and inland waterway transport the figures indicate the volume of carriage in the national territory.

Figure: Percentage of road<sup>1</sup> transport in total (roads, railways & inland waterways) goods transport & the percentage of international road transport in total road goods transport (tkm) in 2004



Source: Eurostat, Structural indicators and Transport.

Note: <sup>1</sup>in road transport data refer to vehicles registered in a country, while in railway transport they refer to territory of a country.  
Country abbreviations: AT-Austria, BE-Belgium, CY-Cyprus, CZ-Czech Republic, DE-Germany, DK-Denmark, EE-Estonia, ES-Spain, FI-Finland, FR-France, GR-Greece, HU-Hungary, IE-Ireland, IT-Italy, LT-Lithuania, LU-Luxembourg, LV-Latvia, MT-Malta, NL-Netherlands, PL-Poland, PT-Portugal, SE-Sweden, SI-Slovenia, SK-Slovakia, UK-United Kingdom.

## Energy intensity

*Slovenia consumes less energy per unit of GDP than seven new EU member states from Eastern Europe, while other EU countries have lower energy intensity rates.* In 2004 Slovenia<sup>1</sup> consumed 322 toe (tonnes of oil equivalents) of primary energy to produce EUR 1 m of GDP expressed in constant 1995 prices, as against the 209 toe consumed in the EU-25 in 2003. Slovenia hence consumed 54% more energy than the average EU country to produce one unit of GDP. The differences in the EU countries' energy intensity are large; the ratio between the least energy intensive Denmark and the most energy-intensive Estonia is 1:9.

*Slovenia's relatively high energy intensity can partly be explained by the much lower GDP per capita than the EU average and partly by the high share of manufacturing industries in the economy.* In 2003 Slovenia's energy consumption per capita was just 10% below the EU-25 average, while its level of development in terms of GDP per capita (at constant EUR prices, 1995) was 42% lower. The huge developmental gap was thus one of the reasons for Slovenia's poor ranking according to the energy intensity indicator. The abovementioned seven member states with the highest energy intensity significantly lag behind the EU average as regards their GDP per capita (by 64% or more). On the other hand, Slovenia's high energy intensity is also the result of the economic structure where manufacturing industries hold a 26% share in value added (the second highest share in the EU-25 behind Ireland with 28%). Among manufacturing industries, a large part is taken up by industries in which energy consumption represents a high share of production costs (metal, non-metal, paper and chemical industries). These industries generated 11% of Slovenia's total value added in 2003 or 42% of the value added generated by manufacturing industries. The share of energy consumed by these industries in total energy consumed by manufacturing industries was almost 71%. However, the high share of industry in the economy is only one of the factors of high energy intensity since a comparison with EU countries does not show a high correlation. For example, an exception is Ireland; with an even higher share of industry and a higher share of energy-intensive industries, its energy intensity is a half that of Slovenia's. Of the seven countries with the highest energy intensity rates in the EU, in four the share of industry is above the EU average and in three it is below the EU average.

*Slovenia's energy intensity dropped considerably (by 17%) between 1995 and 2004, but in recent years its reduction has stopped.* In the 1995-2003 period, energy intensity in the EU dropped by 9%. In Slovenia the halt in the reduction of energy intensity has been particularly strong since 1999; in 2001 and 2004 a slight increase in energy consumption per unit of GDP was registered. In 2004 Slovenia's energy intensity was up by 0.5% (GDP grew by 4.2% while primary energy consumption was up 4.7%). Among energy sources, the consumption of hydro-energy was up by 29.9%, while in absolute terms the consumption of fossil fuels increased the most, by 95,000 toe.

*The assumption that energy intensity will decrease the most in countries where levels are high is not being confirmed* (see the figure). For example, in the Czech Republic energy intensity in the 1995-2003 period decreased by less than 8% and is still four times higher than the EU average. In the same period, in Ireland and Denmark, which have very low energy intensity rates, the rate was down by 26% and 13%, respectively.

<sup>1</sup> Data on energy consumption and GDP for Slovenia taken from the SORS; calculations in constant EUR1995 prices by IMAD.



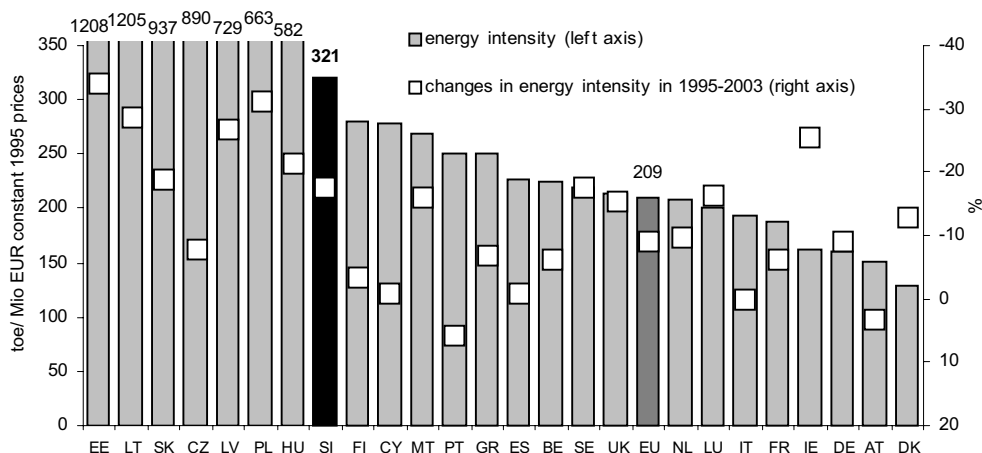
Table: Energy intensity (primary energy consumption per unit of GDP), toe/m EUR<sub>1995</sub>

|                             | 1995         | 2000         | 2001         | 2002         | 2003         |
|-----------------------------|--------------|--------------|--------------|--------------|--------------|
| <b>EU</b>                   | <b>230.4</b> | <b>208.8</b> | <b>209.7</b> | <b>206.5</b> | <b>209.5</b> |
| Austria                     | 145.8        | 134.4        | 142.8        | 139.9        | 150.5        |
| Belgium                     | 238.6        | 236.1        | 228.1        | 213.6        | 223.9        |
| Cyprus                      | 281.0        | 282.3        | 274.4        | 269.9        | 278.6        |
| Czech Republic              | 965.8        | 888.4        | 883.9        | 875.8        | 889.6        |
| Denmark                     | 146.9        | 125.0        | 126.6        | 123.8        | 128.2        |
| Estonia                     | 1,835.2      | 1,214.8      | 1,273.0      | 1,153.2      | 1,208.4      |
| Finland                     | 290.6        | 260.1        | 263.8        | 272.2        | 280.7        |
| France                      | 199.7        | 186.6        | 188.3        | 186.1        | 187.6        |
| Greece                      | 268.5        | 263.6        | 260.6        | 258.0        | 250.1        |
| Ireland                     | 217.0        | 175.1        | 172.5        | 166.1        | 161.7        |
| Italy                       | 192.4        | 186.9        | 184.0        | 184.1        | 192.6        |
| Latvia                      | 994.4        | 756.0        | 816.5        | 750.3        | 728.8        |
| Lithuania                   | 1,691.7      | 1,208.4      | 1,256.8      | 1,272.7      | 1,204.8      |
| Luxembourg                  | 241.2        | 186.6        | 190.7        | 196.7        | 201.5        |
| Hungary                     | 740.6        | 600.5        | 588.6        | 579.6        | 582.0        |
| Malta                       | 320.2        | 303.2        | 266.6        | 263.9        | 269.0        |
| Germany                     | 175.2        | 159.7        | 162.5        | 158.7        | 159.5        |
| Netherlands                 | 231.2        | 198.5        | 200.7        | 201.1        | 208.7        |
| Poland                      | 962.8        | 680.2        | 673.5        | 654.2        | 663.1        |
| Portugal                    | 237.3        | 241.5        | 243.9        | 254.7        | 251.3        |
| Slovakia                    | 1,155.4      | 955.9        | 1015.8       | 976.0        | 937.3        |
| <b>Slovenia<sup>1</sup></b> | <b>388.9</b> | <b>326.7</b> | <b>330.5</b> | <b>327.0</b> | <b>320.8</b> |
| Spain                       | 228.7        | 227.0        | 225.4        | 226.3        | 226.6        |
| Sweden                      | 265.5        | 215.0        | 228.9        | 224.3        | 218.6        |
| UK                          | 251.5        | 227.3        | 223.7        | 214.5        | 213.1        |

Source: Eurostat, Structural indicators; SORS; calculations by IMAD.

Note: <sup>1</sup>data on energy consumption and GDP for Slovenia taken from the SORS; calculations in constant EUR1995 prices by IMAD.

Figure: Primary energy consumption per unit of GDP in Slovenia<sup>1</sup> and EU member states in 2003 and the change of energy intensity between 1995 and 2003 in these countries



Source: Eurostat, Structural indicators; SORS; calculations by IMAD.

Note: <sup>1</sup>data on energy consumption and GDP for Slovenia taken from the SORS; calculations in constant EUR1995 prices by IMAD.  
 Country abbreviations: AT-Austria, BE-Belgium, CY-Cyprus, CZ-Czech Republic, DE-Germany, DK-Denmark, EE-Estonia, ES-Spain, FI-Finland, FR-France, GR-Greece, HU-Hungary, IE-Ireland, IT-Italy, LT-Lithuania, LU-Luxembourg, LV-Latvia, MT-Malta, NL-Netherlands, PL-Poland, PT-Portugal, SE-Sweden, SI-Slovenia, SK-Slovakia, UK-United Kingdom.

## Renewable energy sources

*The use of renewable energy sources (RES) is in accord with the concept of sustainable development since it represents a saving of the reserves of fossil fuels and preserves them for future generations.* Replacing fossil fuels with RES can significantly contribute to the achievement of the Kyoto objectives since the exploitation of solar, wind, geothermal and hydro-energy does not raise the level of greenhouse gases and keeps the pollution levels low. However, the effect on the ecosystem and environment can be important, especially in the case of huge hydro-energy power plants. Because RES are, as a rule, domestic energy sources, a higher share of their consumption means more reliable energy supply and less dependence on imported energy.

*Slovenia is one of the countries with a relatively large share of RES in its total primary energy consumption.* In 2004 RES represented 11.7% of Slovenia's total primary energy consumption<sup>1</sup>, which was twice as much as in the EU<sup>2</sup> (5.9% in 2003). Latvia had the highest RES share (over one-third) in the EU, followed by Sweden (26%), Finland (21%) and Austria (20%). The lowest use of renewable sources (less than 2% in total consumption) was observed in the UK, Luxembourg, Cyprus, Ireland and Belgium. Such large differences mainly depend on the countries' natural conditions.

*In most countries the so-called traditional RES such as biomass, waste and hydro-energy predominate. For Slovenia the abundance of hydro-energy is characteristic.* In 2003 the average structure of RES in the EU was as follows: biomass and waste 66.4%, hydro-energy 24.1%, geothermal energy 5.2%, wind energy 3.7%, and solar energy 0.6%. Slovenia had the following structure of renewable sources that year: biomass, biogas, and industrial and municipal waste 62.9%, and hydro-energy 37.1% (other sources are not covered<sup>3</sup>). As regards the share of hydro-energy in total RES, Slovenia is ranked behind Slovakia (48%), Austria (45%) and Spain (38%). In the EU, since 1995 the use of biomass has increased the most (by 37.7%), while the use of hydro-energy decreased by 6.1%. In Slovenia too the use of hydro-energy is not on the rise (it is changing depending on the water level of rivers), while in the past four years the use of biomass has increased by 9.5%. Although in the EU the use of non-traditional RES such as geothermal, wind and solar energy increased by almost 2.5 times (of which wind energy was up almost 11 times), these types of RES still make up marginal shares (only 0.6%) in the countries' total primary energy consumption. The only exceptions are Denmark, Italy and Cyprus (see the figure).

*Because of the high share of hydro-energy, in Slovenia the dynamics of the share of RES in total primary energy consumption largely depend on the weather conditions which have an impact on the water levels of Slovenian rivers.* While in 2000 the share of RES already achieved 11.9% of the total primary energy consumption, by 2003 it had shrunk to 10.8%. Because of drought, in 2003 electricity production in hydro-electric power plants was 23% lower than in 2000. In 2004 the hydrologic conditions improved substantially and compared to the previous year production in hydro-electric power plants improved by 38%. Thus in 2004 the share of RES increased to 11.7%.

*As regards the present trends, the EU's intention to increase the share of RES to 12% by 2010 seems to be a very distant objective.* In the 1995-2003 period the share of RES in the EU increased from 5.0% to 5.9%. The ambitious objective of the EU to double its share of RES was set to achieve the Kyoto objectives; in this respect the use of RES should be increased the most by countries with favourable natural characteristics. Without radical financial and other measures this objective will not be achieved.

<sup>1</sup> Using the SORS' data on renewable sources that include industrial waste.

<sup>2</sup> Eurostat, Environment and Energy.

<sup>3</sup> Records and statistical data collection for solar, geothermal and wind energy are still incomplete in some EU countries.

*By finishing the new chain of hydro-electric power plants, in the next few years Slovenia should increase its share of RES.* By building new hydro-electric power plants along the Sava river, the exploitation of the technically exploitable hydro-potential in Slovenia would be over 50%. Forests cover a large part of our country, which provides an opportunity to use more biomass. In Slovenia several plans have been made to build wind power plants but the realisation of these plans has been put on hold because of their impacts on the environment.

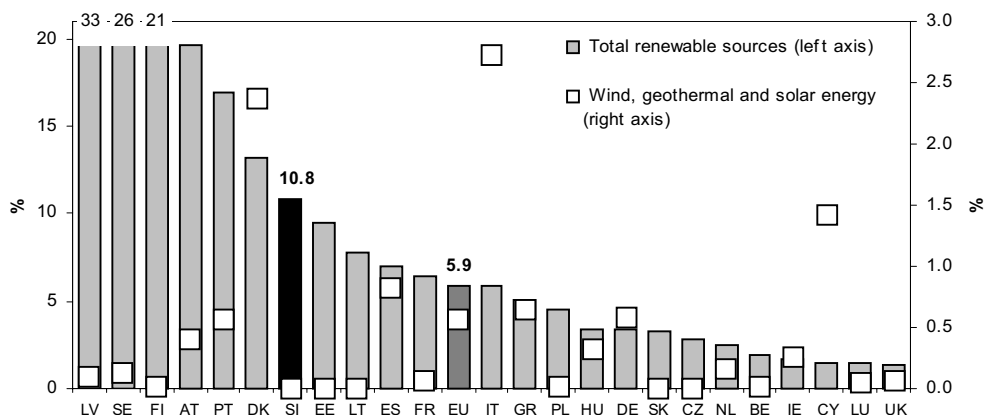
Table: Renewable sources relative to total primary energy consumption, %

|                             | 1995       | 2000        | 2001        | 2002        | 2003        |
|-----------------------------|------------|-------------|-------------|-------------|-------------|
| <b>EU</b>                   | <b>5.0</b> | <b>5.6</b>  | <b>5.8</b>  | <b>5.7</b>  | <b>5.9</b>  |
| Austria                     | 22.0       | 22.7        | 21.8        | 22.3        | 19.6        |
| Belgium                     | 1.4        | 1.3         | 1.4         | 1.6         | 1.9         |
| Cyprus                      | 2.1        | 1.9         | 1.8         | 1.9         | 1.5         |
| Czech Republic              | 1.5        | 1.6         | 1.8         | 2.2         | 2.8         |
| Denmark                     | 7.6        | 10.7        | 11.1        | 12.3        | 13.3        |
| Estonia                     | 9.1        | 11.0        | 10.6        | 10.6        | 9.5         |
| Finland                     | 21.3       | 24.0        | 22.7        | 22.2        | 21.2        |
| France                      | 7.5        | 6.8         | 6.9         | 6.2         | 6.4         |
| Greece                      | 5.3        | 5.0         | 4.6         | 4.7         | 5.1         |
| Ireland                     | 2.0        | 1.8         | 1.8         | 1.9         | 1.7         |
| Italy                       | 4.8        | 5.2         | 5.5         | 5.3         | 5.9         |
| Latvia                      | 27.4       | 34.1        | 34.3        | 34.7        | 33.4        |
| Lithuania                   | 0.4        | 9.0         | 8.5         | 8.0         | 7.8         |
| Luxembourg                  | 1.4        | 1.6         | 1.3         | 1.4         | 1.4         |
| Hungary                     | 0.1        | 1.7         | 1.6         | 3.4         | 3.4         |
| Malta                       | N/A        | N/A         | N/A         | N/A         | N/A         |
| Germany                     | 1.9        | 2.9         | 2.8         | 3.1         | 3.4         |
| Netherlands                 | 1.2        | 2.1         | 2.1         | 2.2         | 2.5         |
| Poland                      | 4.0        | 4.2         | 4.5         | 4.6         | 4.5         |
| Portugal                    | 13.3       | 12.9        | 15.7        | 14.0        | 17.0        |
| Slovakia                    | 2.9        | 2.9         | 4.0         | 3.8         | 3.3         |
| <b>Slovenia<sup>1</sup></b> | <b>8.9</b> | <b>11.9</b> | <b>11.7</b> | <b>11.2</b> | <b>10.8</b> |
| Spain                       | 5.5        | 5.8         | 6.5         | 5.6         | 7.0         |
| Sweden                      | 26.1       | 31.6        | 28.8        | 27.1        | 26.3        |
| UK                          | 0.9        | 1.1         | 1.1         | 1.2         | 1.4         |

Sources: Eurostat, Environment and energy; SORS; calculations by IMAD.

Note: 'SORS' statistics on renewable sources include industrial waste while data on wind, geothermal and solar energy are unavailable.

Figure: Total share of renewable sources and the share of wind, geothermal and solar energy in total primary energy consumption in EU member states in 2003



Sources: Eurostat, Environment and energy; SORS; calculations by IMAD.

Note: 'wind, geothermal and solar energy not included. Country abbreviations: AT-Austria, BE-Belgium, CY-Cyprus, CZ-Czech Republic, DE-Germany, DK-Denmark, EE-Estonia, ES-Spain, FI-Finland, FR-France, GR-Greece, HU-Hungary, IE-Ireland, IT-Italy, LT-Lithuania, LU-Luxembourg, LV-Latvia, MT-Malta, NL-Netherlands, PL-Poland, PT-Portugal, SE-Sweden, SI-Slovenia, SK-Slovakia, UK-United Kingdom.

## Dirty industries

***The high growth of dirty industries' output lowered in the past two years.*** In the 1999-2004 period Slovenia's total output of 'dirty' industries, i.e. sectors that have the highest emission intensity per unit of output<sup>1</sup>, was growing by almost twice as much annually (6.0%) as the output of manufacturing industries as a whole (3.1%). The difference was increasing up until 2003 when it was the biggest in the analysed period (6 p.p.), but in 2004 it decreased to 2.4 percentage points. According to data for 2005, the higher growth of dirty industries' output stopped (see the table). As a result, the share of dirty industries in the total value added (VA) of manufacturing started to rise after 1999. The relatively modest increases in this share observed in 2001 (0.1 p.p.) and 2002 (0.2 p.p.) were followed by a more substantial increment in 2003 (1.9 p.p.). In 2004 the share of dirty industries fell by 0.5 p.p.; this is largely the result of qualitative changes in other manufacturing industries which were reflected in higher value added (VA) growth than production volume growth (higher growth of VA than VA growth in dirty industries). Dirty industries thus created 22.4% of the total VA of manufacturing industries in 2004; within that, only the share of VA created by the manufacture of chemicals was down.

***The energy intensity of manufacturing industries fell after 1994, albeit this downward trend has slowed down markedly in the last few years.*** The consumption of final energy per unit of VA in manufacturing industries, the main energy-related indicator of qualitative changes, fell at an average annual rate of 6.5% in 1995-2001, while in 2001-2004 the average annual rate was only 1.8%. After a big deterioration in 2003 (a 7.5% increase), in 2004 a 9.5% decrease in the consumption of final energy per unit of VA in manufacturing industries was recorded. This was mostly the result of lower energy consumption in textile and chemical industries. The lower consumption of final energy pushed CO<sub>2</sub> emissions from manufacturing down by 9.2% in 2004.

***The Directive on Integrated Pollution Prevention and Control (IPPC Directive) stipulates uniform procedures for permitting the operation of industrial sources of pollution.*** The granting of permits is based on the principle that the best available techniques must be applied in industrial production to prevent environmental pollution. In Slovenia (on the basis of permit applications) there are 203 industrial plants (landfills) which, according to the IPPC Directive, must have integrated permissions for environmental pollution. It is estimated that by the 2007 deadline (exceptions by 2011) most of these plants will align themselves with the standards on the best available techniques. As a result the specific consumption of energy per unit of output should drop on average by 20%.

***As an instrument aimed at reducing greenhouse gas emissions, the Greenhouse Gas Emissions Trading Scheme was launched.*** This scheme is expected to encourage the use of cleaner, energy-efficient technologies. The ministry responsible for environmental protection granted the operators of appliances producing greenhouse gas emissions the right to emit greenhouse gases in accordance with the National Plan for the Allocation of Emission Coupons in 2005-2007. The criteria for determining the total number of emission coupons are adapted to the country's obligations under the Kyoto Protocol and technological potential to reduce greenhouse gas emissions. If an enterprise produces more emissions than allowed by the issued coupons, it must buy more coupons in the market to cover the difference. The European emission coupon market started operating on 1 January 2005.

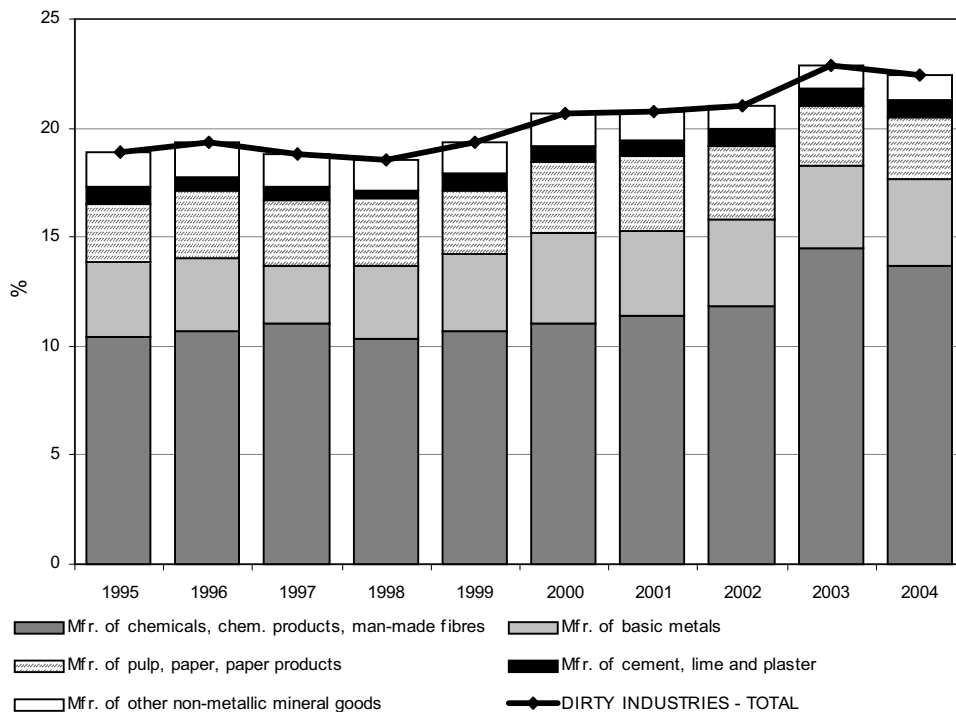
<sup>1</sup> Iron and steel, non-ferrous metals, industrial chemicals, pulp and paper, and non-metal mineral products.

Table: Indices of growth in production volumes and value added in manufacturing and dirty industries

|  | 1995  | 2000  | 2001  | 2002  | 2003  | 2004  | 2005  |
|--|-------|-------|-------|-------|-------|-------|-------|
| Index of manufacturing's value-added growth                                    | 102.5 | 108.9 | 104.8 | 104.8 | 104.0 | 104.2 | 103.2 |
| Index of manufacturing's production volumes growth                             | 102.8 | 107.0 | 102.8 | 102.0 | 101.6 | 104.9 | 103.5 |
| Index of production volumes growth in dirty industries                         | 102.4 | 108.2 | 105.4 | 104.8 | 107.6 | 107.3 | 103.5 |
| Pulp, paper and paper products   | 98.0  | 104.7 | 99.0  | 108.1 | 94.0  | 105.6 | 102.7 |
| Chemicals, chemical products, man-made fibres                                  | 103.2 | 110.4 | 108.1 | 105.9 | 111.8 | 108.8 | 106.4 |
| Other non-metal mineral products   | 101.0 | 96.4  | 100.1 | 100.8 | 100.7 | 101.2 | 92.9  |
| Manufacture of metals  | 103.3 | 111.9 | 104.5 | 102.9 | 106.8 | 108.0 | 103.2 |
| Index of manufacturing's production volumes growth, excluding dirty industries | 102.9 | 106.7 | 102.2 | 101.3 | 100.2 | 104.3 | 103.5 |

Source: SORS; calculations by IMAD.

Figure: Value added of dirty industries as a share of manufacturing's value added in Slovenia



Sources: Calculation of production and primary income 1995–2004, current prices, SI-STAT; Agency for Payments – statistical data on companies' balance sheets.

## ***Agricultural intensity***

***The average production per unit of area sown with the two most important crops in Slovenia, wheat and maize, is much lower in Slovenia than the average of the European countries, even though in 2004 the harvest of these two crops was among the best.*** As in most other European countries, in the period after 1995 the harvests of these two crops have been low because of frequent droughts. However, in 2004 the harvest was much better due to favourable weather conditions. Compared to 2003, in 2004 the average yield of wheat per hectare improved by 31% and for maize by as much as 53%. This was a bigger growth than the average of European countries; however, the harvest in Slovenia was still lower. The average yield of wheat was 4.5 t/ha, which is 23% less than the EU-25 average and 28% less than the EU-15 average. The average yield of maize was 7.8 t/ha, which is 8% less than the EU-25 average and 15% less than the EU-15 average.

***The two indicators used for comparing the pressures on the environment due to livestock production in Slovenia and in other EU countries do not show the same picture: the average number of animals per unit of utilised agricultural area (UAA) is slightly higher in Slovenia and is decreasing, while the average milk yield per animal is much lower and slowly increasing.*** According to the Agricultural Census data, in 2003 Slovenia had 0.93 livestock units (LSU) per hectare of UAA, which is slightly less than in 1997, but still more than the EU average (in EU-25 0.85 LSU and in EU-15 0.89 LSU). The reason for this situation is that natural conditions in the hilly and grassy Slovenia are more favourable for livestock production than for other agricultural activities. Despite the long-term increase, the average milk yield was still relatively low at 4,600 litres per animal, which is 26% less than in the EU-15 and 22% less than in the EU-25. In 2004 the milk yield rose by 5%.

***In Slovenia the consumption of NPP fertilisers per unit of utilised agricultural area is higher than the average of European countries, but in 2004 it continued to decrease.*** In 2004, 63,400 tonnes of NPP fertilisers were used in agricultural production, which is 9% less than a year before. The calculation shows that 129 kg of plant nutrients were used per unit of utilised agricultural area, which is 6% less than a year before. The latest comparable figures with other European countries are available for 2002, when consumption per unit of utilised agricultural area in Slovenia was 31% higher than the EU-15 average and 42% higher than the EU-25 average. Only agriculturally very intensive countries such as the Netherlands, Belgium and Germany had a higher consumption per unit of utilised agricultural area than Slovenia.

***A comparison of pesticide consumption per unit of utilised agricultural area between European countries is inappropriate, but sales in Slovenia increased in 2004.*** Total sales of pesticides in Slovenia, which, however, are not used only in agriculture, vary from year to year. In 2004 they involved 1,500 tonnes of active substances and were thus 7% higher than a year before. The sale of fungicides, which present the largest share in total pesticide use, was up by 32%, while the consumption of herbicides and insecticides dropped by 27% and 19%, respectively. A comparison of pesticide sales among countries is inappropriate because the figures are a sum of active substances with varying levels of toxic intensity. Pesticide sales in Slovenia record a much higher share of biologically weaker pesticides that have less impact on the environment than highly toxic pesticides do.

<sup>1</sup> In organic farming no chemical and synthetic agents that are foreign to nature can be used. In integrated farming their use is reduced to a minimum according to economic acceptability.

***In Slovenia the share of agricultural land controlled for organic and integrated farming in the total utilised agricultural area is higher than the average of European countries; in 2004 is rose yet again.*** In 2004, Slovenian farms which were controlled for organic and integrated farming<sup>1</sup> cultivated over 23,000 hectares of areas using organic methods and over 42,000 hectares using integrated methods; together this represents more than 13% of total utilised agricultural area. Compared to a year before, areas cultivated with integrated methods increased the most, by 3.5 times, because in 2004 measures were adopted to which, beside stimulating integrated production of fruit, vegetables and grapes also stimulate integrated production of field crops. According to estimates, in 2003 the share of certified area in the total utilised agricultural area in Slovenia was 4.2%, while the EU-15 average was 3.9% and the EU-25 average was 3.5%. The highest share was recorded in Austria, three times higher than Slovenia's.

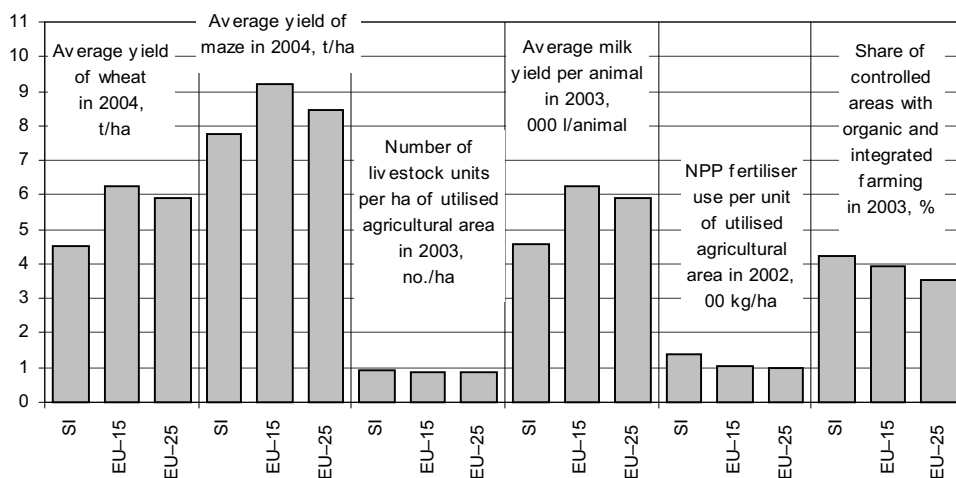
Table: **Agricultural intensity indicators for Slovenia\***

|   | unit       | 1995  | 2000  | 2001  | 2002  | 2003  | 2004  |
|---|------------|-------|-------|-------|-------|-------|-------|
| <b>Production intensity</b>   |            |       |       |       |       |       |       |
| Average yield of wheat  | t/ha       | 4.2   | 4.2   | 4.6   | 4.9   | 3.5   | 4.5   |
| Average yield of maize  | t/ha       | 6.3   | 5.9   | 5.4   | 8.2   | 5.1   | 7.8   |
| No. of livestock units <sup>1</sup> per hectare of utilised agricultural area | no./ha     |       | 0.9   |       |       | 0.9   |       |
| Average milk yield per animal   | t/cow      |       | 4.5   | 4.5   | 5.2   | 4.6   | 4.8   |
| <b>NPP fertiliser use</b>   |            |       |       |       |       |       |       |
| Use per unit of utilised agricultural area                                    | kg/ha      | 131.3 | 146.6 | 141.8 | 138.0 | 137.0 | 129.4 |
| <b>Pesticide sales</b>  |            |       |       |       |       |       |       |
| Pesticide sales - total, active substance                                     | 000 t      |       | 1.5   | 1.4   | 1.5   | 1.4   | 1.5   |
| <b>Inclusion into the control of environmental measures</b>                   |            |       |       |       |       |       |       |
| Controlled areas with organic farming   | 000 ha     |       | 5.3   | 10.8  | 13.8  | 20.0  | 23.0  |
| Controlled organic farms  | no. in 000 |       | 0.6   | 1.0   | 1.2   | 1.4   | 1.6   |
| Controlled areas with integrated farming                                      | 000 ha     |       |       |       | 10.1  | 12.0  | 42.5  |
| Controlled integrated farms   | no. in 000 |       |       |       | 2.1   | 2.9   | 4.6   |

Sources: SORS, Ministry of Agriculture, Forestry and Food, Phytosanitary Administration, calculations by IMAD.

Note: <sup>1</sup>In its IRENA Report (Indicator Reporting on the integration of environmental concerns into Agricultural Policy) the European Union set up 38 agri-environmental indicators. The analysis covers only some of the most important ones. <sup>1</sup>Livestock unit (LSU) is the calculation of the number of animals by their average weight (1 LSU = 600 kg).

Figure: **Some comparable indicators of agricultural intensity in Slovenia and the EU, the last year allowing comparisons**



Sources: SORS, EUROSTAT (Average yield, Number of livestock units), European Commission (Milk yield), FAOSTAT (NPP fertiliser use), Institute of Rural Sciences, University of Wales (Organic and integrated farming).

Note: SI Slovenia.

## ***Intensity of tree felling***

***Forest area, which covers over half of Slovenia's territory, is still expanding, even though this is not planned.*** Remote areas less suitable for agricultural production are namely overgrowing faster than forests in suburban and intensive agriculture areas are shrinking. At the end of 2004 the forest area totalled 1,164,000 hectares, which is 0.5% more than the year before, 6% more than in 1995 and 2% more than planned by forestry plans for 2001-2010 (Forest Programme of Slovenia, Ministry of Agriculture, Forestry and Food).

***The growing forest area is accompanied by higher wood increment and growing stock, while tree felling and its intensity change between the years and in 2004 were again lower (after the improvement a year earlier).*** In 2004 the wood increment rose by 2% and the growing stock by 3%, while removal was down by 2% (see the table). This is why the intensity of tree felling<sup>1</sup> decreased from 41.2% to 39.7%. The level of tree felling was still only 72% of the annual tree felling levels planned in forestry plans for 2001-2010; nevertheless, this was among the best results in the past decade. In the structure of tree felling, trends in the level of tree-tending, which is most vital to forest development, are unfavourable. Tree-tending has been insufficient in Slovenia for decades. In 2004 it dropped by a further 7% compared with the previous year, which is mostly the result of greater sanitation activities in state-owned forests after insect attacks, which have recently caused a lot of damage. In privately-owned forests, where this problem has for several years been the most serious in technically or physically demanding or dangerous thinning operations and where revenues from timber sales do not cover the costs of its acquisition and transport, the tree-tending removal increased in 2004. This is the result of financial incentives for implementing the long-term development policy within the Single Programming Document of the Republic of Slovenia<sup>2</sup>. In 2004 total sanitary removal, which in addition to removal due to insects also includes removal due to wind, disease and fungi, increased by 8%.

***Even though Slovenia is among those European countries with the highest share of forests in its total area, further expansion of forest area in Slovenia is still more rapid than in most of them.*** The intensity of tree felling is low in comparison with most other European countries (the period for which the latest comparable figures are available is 1995–2000; Development Report 2002), but the situation is improving when other related indicators of forest exploitation are taken into account. Slovenia also lags behind in the production of raw wood categories (logs, pulpwood & other industrial wood, and fuel wood) per unit of forest area (Development Report 2003), but in the 1995-2003 period the situation in this area improved more than the EU average. While in this period the production of raw wood categories in EU-15 increased by 9% and in EU-25 by 15%, in Slovenia it was up by as much as 39%; the increase was the fastest in the last year of the analysed period. As regards the growth of this indicator, in the 1995-2003 period Slovenia was overtaken only by three EU-25 countries: Estonia, Latvia and Poland. At the same time, the total forest area in Slovenia is also growing faster than the EU average; EU-25 average is 0.3% per year and Slovenia's average is 0.5% per year. As a rule, from the point of view of climatic, ecologic and economic conditions this is a positive thing, but a (too) large forest area also has negative impact since it reduces the space available for residential, economic, transport and other purposes.

<sup>1</sup> Tree-felling intensity is the ratio of annual removal levels to the annual wood increment.

<sup>2</sup> The measure should contribute to the restructuring of forestry in view of greater ecological stability and economic value of forests as well as exploitation of the production potential of forests. In 2004, 84.6% of funds available under this measure, half of which was financed by the EU, were exploited.



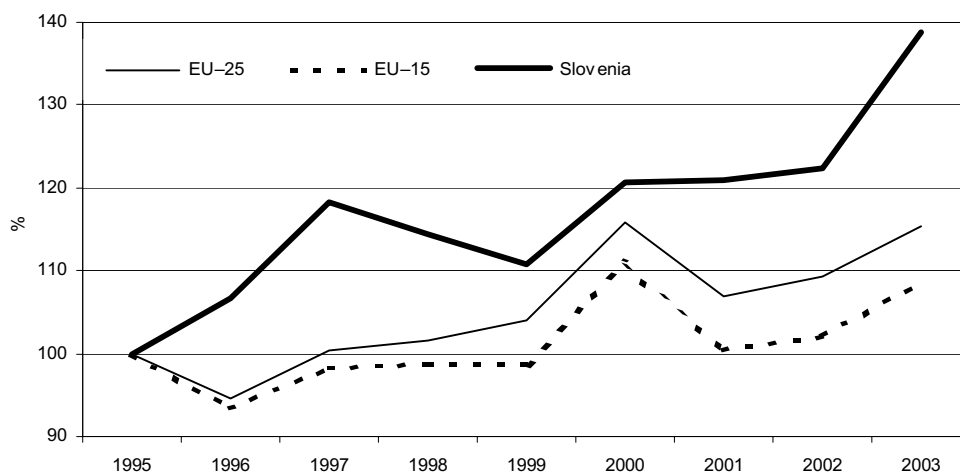
Table: Intensity of tree felling in Slovenia

|  | 1995    | 2000    | 2001    | 2002    | 2003    | 2004    | FP*<br>2001-2010 |
|--|---------|---------|---------|---------|---------|---------|------------------|
| Forest area, thousand hectares             | 1,098   | 1,134   | 1,143   | 1,150   | 1,158   | 1,164   | 1,142            |
| Growing stock, thousand m <sup>3</sup>     | 228,493 | 262,795 | 267,912 | 276,574 | 285,735 | 293,532 | 266,704          |
| Annual increment, thousand m <sup>3</sup>  | 5,995   | 6,872   | 6,925   | 7,102   | 7,290   | 7,446   | 6,923            |
| Annual removal, thousand m <sup>3</sup>    | 2,092   | 2,609   | 2,614   | 2,646   | 3,007   | 2,958   | 4,101            |
| Of which: tending                          | 1,325   | 1,849   | 1,920   | 1,885   | 1,866   | 1,734   | N/A              |
| restoration                                | 12      | 19      | 19      | 18      | 17      | 10      | N/A              |
| protection and sanitation                  | 589     | 553     | 505     | 566     | 976     | 1,055   | N/A              |
| for infrastructure                         | 15      | 40      | 48      | 45      | 45      | 43      | N/A              |
| clearing                                   | 35      | 53      | 52      | 66      | 47      | 71      | N/A              |
| no approval                                | 113     | 91      | 68      | 63      | 54      | 42      | N/A              |
| other                                      | 2       | 3       | 3       | 4       | 3       | 2       | N/A              |
| Intensity of tree felling <sup>1</sup> , % | 34.9    | 38.0    | 37.7    | 37.3    | 41.2    | 39.7    | 59.2             |

Source: SORS, Slovenian Forest Service.

Note: \*Forestry plans for 2001-2010. <sup>1</sup>the ratio of annual removal levels to the annual wood increment.

Figure: Increase in the production of raw wood categories



Source: Eurostat.

# Municipal waste

**Waste represents a potential energy source as well as an important source of pollution and pressures to the environment.** Waste is generated in production, distribution and consumption, but we only concentrate on the last group of waste, i.e. municipal waste, for which internationally comparable data are available. This type of waste represents 14% of all waste generated<sup>1</sup>. Sustainable development in the field of waste, which means breaking the link between economic growth and environmental pressures, primarily involves the reduction of waste generation. The most important waste management methods are the prevention of waste generation and the reuse of waste (recycling, composting). Other methods such as waste recovery (energy production by waste incineration) and waste removal (incineration, landfill), are subordinated. Due to land use, air pollution caused by the release of hazardous substances, and water and soil pollution, both the disposal and incineration of waste create pressures to the environment.

**The generation of municipal waste is growing, especially in developed countries.** The quantity of municipal waste generated in the EU-25 has been growing since 1995, on average by 2% per year; from 457 kg per person in 1995 to 534 kg per person in 2003. Until 2000 its growth followed economic growth, but in recent years a lag has been recorded<sup>2</sup>. However, the increase is primarily the result of the growing waste generation in the EU-15 (from 482 kg in 1995 to 577 kg in 2003), while the quantity of waste generated in new EU member states has been falling since 1999 (from 334 kg in 1995 to 312 kg in 2003). New member states record much smaller quantities of municipal waste, which is the result of the development level of their economies, the size of consumption in these countries and partly probably also the statistical coverage of this phenomenon. The reduction in the quantity of waste generated in Slovenia from 596 kg per person in 1995 to 451 kg in 2003 is in our opinion primarily the result of the changed methodology of data coverage, which is now more in line with Eurostat's methodology.

**In Slovenia most municipal waste is landfilled.** Landfill is still the predominant method of treating municipal waste in the EU, but it is losing in its importance. In 2002 in all new member states except the Czech Republic and Slovakia more than 80% of municipal waste was disposed of in landfills; this was also true for two old member states, Greece and Ireland. In Slovenia 87% of municipal waste was disposed of in 2002. The share of landfilling is lowest in the Netherlands, Denmark and Belgium (less than 12% of all municipal waste). This low share is partly achieved by waste incineration: the highest share of incinerated waste is recorded in Denmark (over 50% of municipal waste). Other countries with high shares of incinerated waste are Sweden, Luxembourg, the Netherlands, Belgium and France. In new member states this method of waste treatment is very rarely applied; in Slovenia there is practically no waste incineration. Waste incineration is controversial because in this process hazardous substances are released that have a very harmful impact on human health.

**The systems of waste management are more sustainable in Western European countries.** With the rise in separate collection of waste, recycling, a type of waste reusal, has doubled since 1995. In Germany more than a third of municipal waste was recycled in 2002. In Slovenia the share was around 10%. Another method of sustainable waste treatment is composting, which has a share of between 15% and 28% of all municipal waste in the most successful countries (the Netherlands, Belgium, Italy, Germany, Spain and Denmark), while in 2002 the share in Slovenia was only 1.4%.

**The system of the separate collection of waste is the most developed in Western European countries and in Scandinavian countries, while in Slovenia it has only just begun to be introduced.** Over 30% of waste is collected separately in the Netherlands, Denmark, Germany

<sup>1</sup> According to the European Environment Agency (EEA).

<sup>2</sup> The target set in the fifth Environment Action Programme – to stabilise the generation of municipal waste at 300 kg per person per year – was not achieved: in the 1960s about 200 kg of waste per person was generated every year, while today the figure is around 500 kg.

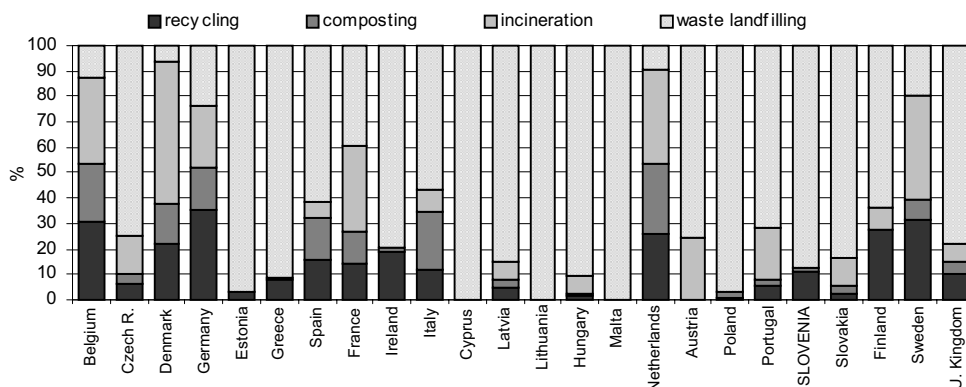
and the Scandinavian countries. With the system of the separate collection of waste the first three countries achieved at least a 50% drop in the quantity of classically collected municipal waste. This was largely achieved through separate collection of organic waste, which is important in terms of the possibility of composting and the implementation of the waste disposal directive. Within the measures to reduce greenhouse gas emissions, this directive stipulates a gradual decrease in the share of disposed biodegradable waste in total municipal waste. Landfill gas (especially methane and carbon dioxide) produced from organic waste by anaerobic metabolism is a very efficient greenhouse gas. In Slovenia the separation of waste at source for the purpose of treating it, including biodegradable fractions, was regulated by setting up the system of treating packaging waste. The deadline was 2004; for kitchen waste it was mid-2004 and for biological waste in municipal waste it was the end of 2005.

Table: Municipal waste generated, kg/person

|                 | 1995       | 2000       | 2001       | 2002       | 2003       |
|-----------------|------------|------------|------------|------------|------------|
| <b>EU-25</b>    | <b>457</b> | <b>520</b> | <b>520</b> | <b>531</b> | <b>534</b> |
| <b>EU-15</b>    | <b>482</b> | <b>554</b> | <b>558</b> | <b>574</b> | <b>577</b> |
| Austria         | 438        | 581        | 578        | 611        | 610        |
| Belgium         | 455        | 468        | 462        | 462        | 446        |
| Cyprus          | 600        | 680        | 703        | 709        | 724        |
| Czech Republic  | 320        | 334        | 273        | 279        | 280        |
| Denmark         | 567        | 665        | 677        | 668        | 675        |
| Estonia         | 357        | 440        | 372        | 406        | 418        |
| Finland         | 414        | 503        | 466        | 457        | 450        |
| France          | 489        | 532        | 545        | 557        | 561        |
| Greece          | 306        | 408        | 417        | 422        | 428        |
| Ireland         | 514        | 603        | 707        | 698        | 732        |
| Italy           | 450        | 502        | 508        | 525        | 523        |
| Latvia          | 263        | 270        | 302        | 369        | 362        |
| Lithuania       | 424        | 309        | 300        | 288        | 263        |
| Luxembourg      | 592        | 657        | 650        | 653        | 658        |
| Hungary         | 460        | 445        | 451        | 457        | 463        |
| Malta           | 338        | 483        | 550        | 474        | 549        |
| Germany         | 533        | 610        | 600        | 640        | 638        |
| Netherlands     | 549        | 616        | 612        | 615        | 599        |
| Poland          | 285        | 316        | 287        | 272        | 260        |
| Portugal        | 385        | 472        | 472        | 447        | 452        |
| Slovakia        | 340        | 316        | 390        | 283        | 319        |
| <b>Slovenia</b> | <b>596</b> | <b>513</b> | <b>479</b> | <b>479</b> | <b>451</b> |
| Spain           | 467        | 595        | 595        | 588        | 609        |
| Sweden          | 380        | 428        | 442        | 468        | 471        |
| UK              | 496        | 569        | 582        | 600        | 610        |

Source: Eurostat.

Figure: Municipal waste treatment in 2002



Source: Eurostat.

## Household expenditure on culture\*

*In Slovenia as much as 60% of all household expenditure on cultural goods and services goes to the media.* The rise in human well-being in Slovenia is also reflected in the higher share of household expenditure on recreation and culture (8.0% in 1995, 9.3% in 2000 and 9.9% in 2004). About a third of total household expenditure on recreation and culture is spent on cultural goods and services. Contrary to total household expenditure on recreation and culture, the share of expenditure on culture was not growing through the whole period under review; in 2001 and 2002 a slight drop was recorded, but in 2003 culture joined the trend for the whole field of recreation and culture. The share of household expenditure on culture rose by more than half a percentage point. In the structure of cultural goods and services, about 60% of expenditure is intended for the media, both printed, and radio and television. As regards the funds spent, in 1995 households still gave priority to printed media while in recent years they have spent more on television and radio, which is the result of the growing supply, especially in the area of television. In 2003 on one hand a large increase in household expenditure on radio and TV subscription was recorded (from 28% in 2002 to 35% in 2003) while, on the other hand, there was a drop in expenditure on scientific books and literature (from 13% in 2002 to 11% in 2003). The share of expenditure on cinema, theatre and concert tickets grew from 2% to 4% as a result of new large cinema theatres having been built in the centres of some Slovenian cities and the rise in theatre attendance levels.

*In 2004 Slovenia had a slightly higher share of household expenditure on recreation and culture than the EU-25 average (Slovenia 9.9%, EU-25 9.6%); this share ranks Slovenia eighth among the EU countries.* Since 2000 the share of household expenditure on recreation and culture has been rising in Slovenia and falling in the EU-25. The highest share of household expenditure on recreation and culture was recorded in the United Kingdom (12.7%), followed by Sweden (11.9%), the Czech Republic (11.8%), Malta (11.1%), Denmark (10.6%) and the Netherlands (10.3%). In the past five years the lowest shares of household expenditure on recreation and culture were recorded in Greece, Portugal, Ireland and Estonia (between 6% and 6.6%). The shares of household

Table 1: Household expenditure on culture by type of goods, %

|   | 1995  | 2000  | 2001  | 2002  | 2003  |
|---|-------|-------|-------|-------|-------|
| Structure of household expenditure by type of cultural goods and services | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Scientific books and literature   | 11.0  | 13.3  | 12.6  | 13.1  | 11.5  |
| Newspapers and magazines  | 35.0  | 28.7  | 29.0  | 28.8  | 24.5  |
| Radio   | 0.5   | 1.2   | 1.4   | 1.6   | 1.2   |
| Hi-fi equipment   | 3.0   | 2.6   | 2.4   | 1.8   | 1.3   |
| TV  | 4.7   | 6.0   | 5.7   | 5.7   | 5.7   |
| Photographic and cinema equipment   | 5.9   | 2.1   | 2.0   | 2.1   | 2.6   |
| Musical instruments   | 2.8   | 1.8   | 1.9   | 2.2   | 1.5   |
| Picture and sound recording media   | 3.6   | 5.0   | 4.6   | 4.5   | 4.2   |
| Repair of audio-video, photo equipment etc.                               | N/A   | 2.0   | 1.7   | 1.8   | 1.6   |
| Cinema, theatre, concert  | 3.3   | 1.3   | 1.7   | 2.0   | 4.4   |
| Museums, galleries, zoo etc.  | N/A   | 1.3   | 1.4   | 1.0   | 0.8   |
| Radio and TV subscription   | 30.3  | 27.9  | 28.7  | 28.4  | 35.4  |
| Other cultural services   | N/A   | 6.8   | 6.9   | 7.0   | 5.4   |
| Household expenditure on culture as % of total household expenditure      | 2.96  | 3.15  | 3.06  | 2.98  | 3.65  |

Source: SORS, calculations by the Ministry of Culture.

Notes: Data for 1995 are collected according to the methodology valid for the Household Budget Survey until 1997; therefore they are not entirely comparable with the data for 2000-2003.

\* This indicator was prepared by Ms Brigita Lipovšek from the Ministry of Culture.

expenditure on recreation and culture have been rising especially in new EU member states (Lithuania from 2.8% in 1995 to 6.2% in 2000, Latvia from 3.6% in 1995 to 5.8% in 2000), while among the EU-15 only the United Kingdom and Greece recorded constant growth in the share of household expenditure on recreation and culture.

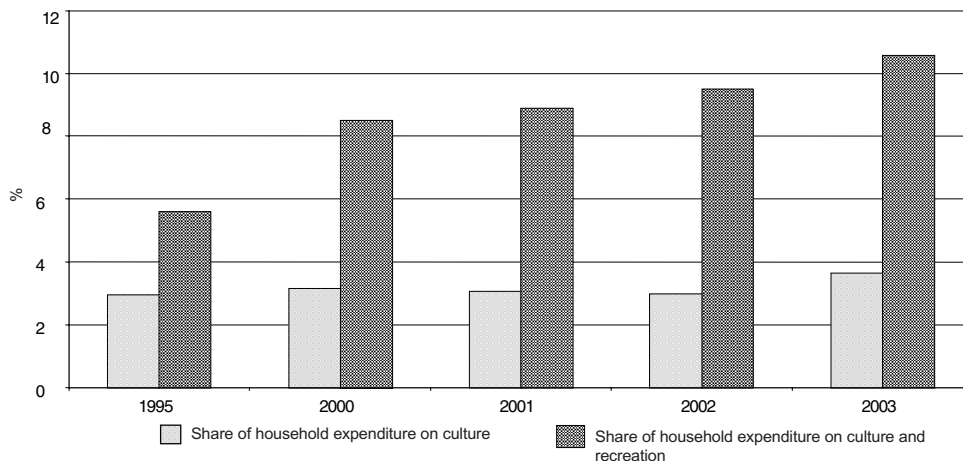
Table 2: Recreation and culture, percentage share of total household expenditure, %

|                 | 1995       | 2000       | 2001       | 2002       | 2003       | 2004       |
|-----------------|------------|------------|------------|------------|------------|------------|
| <b>EU-25</b>    | <b>9.1</b> | <b>9.8</b> | <b>9.7</b> | <b>9.7</b> | <b>9.6</b> | <b>9.6</b> |
| Austria         | 11.1       | 12.0       | 12.0       | 11.9       | 11.7       | 11.7       |
| Belgium         | 9.1        | 10.1       | 9.8        | 9.3        | 9.3        | 9.2        |
| Czech Republic  | 11.0       | 11.5       | 11.6       | 11.8       | 11.4       | 11.8       |
| Denmark         | 10.2       | 11.0       | 10.9       | 10.8       | 10.5       | 10.6       |
| Estonia         | 5.0        | 7.0        | 6.8        | 6.7        | 6.8        | 6.6        |
| Finland         | 10.7       | 11.4       | 11.4       | 11.1       | 11.1       | N/A        |
| France          | 8.5        | 8.9        | 8.9        | 9.0        | 9.0        | N/A        |
| Greece          | 5.1        | 5.6        | 5.7        | 5.8        | 5.8        | 6.0        |
| Ireland         | 7.7        | 7.4        | 7.6        | 7.0        | 6.9        | 7.3        |
| Italy           | 7.3        | 7.5        | 7.5        | 7.5        | 7.3        | 7.4        |
| Latvia          | 3.6        | 5.8        | 6.8        | 6.8        | 7.1        | N/A        |
| Lithuania       | 2.8        | 6.2        | 6.7        | N/A        | N/A        | N/A        |
| Luxembourg      | 8.5        | 7.7        | 8.2        | 8.1        | 8.3        | N/A        |
| Hungary         | 8.0        | 7.5        | 7.6        | 7.7        | 7.8        | 7.9        |
| Malta           | N/A        | 10.6       | 11.1       | 10.8       | 10.6       | 11.1       |
| Germany         | 9.2        | 10.1       | 9.9        | 9.7        | 9.5        | 9.4        |
| Netherlands     | 11.0       | 11.2       | 11.0       | 10.9       | 10.6       | 10.3       |
| Poland          | 8.1        | 8.6        | 7.3        | 7.0        | 7.2        | N/A        |
| Portugal        | 6.3        | 6.6        | 6.6        | 6.6        | 6.6        | N/A        |
| Slovakia        | 7.5        | 8.5        | 9.3        | 9.3        | 8.5        | 8.4        |
| <b>Slovenia</b> | <b>8.0</b> | <b>9.3</b> | <b>9.4</b> | <b>9.4</b> | <b>9.5</b> | <b>9.9</b> |
| Spain           | 8.5        | 8.5        | 8.5        | 8.4        | 8.4        | N/A        |
| Sweden          | 10.4       | 11.9       | 12.1       | 11.8       | 11.9       | 11.9       |
| UK              | 11.5       | 12.1       | 12.1       | 12.4       | 12.6       | 12.7       |

Source: Eurostat.

Note: N/A - not available.

Figure: Household expenditure on recreation and culture and on culture only



Source: SORS, calculations by the Ministry of Culture.

## ***Use of spare time for culture\****

***People in Slovenia spend about 10% of their time on cultural activities.*** According to the Time Use Survey, people in Slovenia spend about half of the day on satisfying their primary needs, 16% at their jobs or at school and on taking care of the household and 20% on various spare time activities. About half of that time is used for so-called cultural activities, most of which (men 80%, women 78%) is watching television. People in Slovenia watch television on average about half as much time as they spend at work or at school (women even much more) and television is watched by the large majority of men and women. In the 2000-2001 period, television was regularly watched by 87% of men (more men regularly watch TV than help take care of the household) and 83% of women, although men spent on average 20 minutes more per day in front of their TV sets than women. As regards the time spent, watching television was followed by the reading of periodicals. In this activity more men than women were also registered and here too men spent more time than women. However, women spent more time reading books (7% of total spare time, men only 3%). Men were more creative than women since they spent more time creating art<sup>1</sup> (music, theatre, painting, photography etc.), while both genders spent about the same amount of time (1% of total spare time) taking part in cultural activities<sup>2</sup> such as attending concerts, theatrical performances etc. A further 1% of spare time was used by both men and women on going to the cinema.

***According to the Time Use Survey<sup>3</sup>, the use of spare time in European countries is similar as in Slovenia.*** The results showed that in all surveyed countries men have more spare time than women. Men spent between four hours and 45 minutes and six hours per day on spare time activities, while women spent between four and six hours. As regards spare time, the best situation was recorded in Germany and the worst in France; Slovenia with its four and a half hours (women) and five and a half hours (men) per day is ranked somewhere in the middle. However, Slovenian men and women are highly unequal in terms of their daily amounts of spare time; in this respect Slovenia can only be compared to Hungary and Estonia. In all other countries spare time is much more evenly distributed between the genders. Like in Slovenia, in other EU member states a high share of spare time is spent watching television – women between 29% and 56% and men between 34% and 51%. Men watch TV at least two hours a day (the most in Hungary, close to 3 hours, and the least in Sweden and Germany), while women watch TV for about an hour and 45 minutes (the most in Hungary and the least in Sweden, Germany and Slovenia). Slovenian citizens spend around 10% of their time on culture each day. As regards taking part in cultural and entertainment activities, Slovenia is ranked last but one among the surveyed countries (on average, women spend only 4 and men 5 minutes per day); Germany and Belgium stand out, while other countries have similar averages. The least time is spent on cultural and entertainment activities in Hungary. For reading periodicals and books people spend about 10% of their spare time, on average between 23 and 46 minutes per day. People in Finland spend by far the highest share of their spare time reading, while women in Hungary read the least. Like in Slovenia, women spend more time reading than men in Sweden and Finland, while in Belgium and Hungary men read more than women. In any case, in all countries women read more books than men and men spend more time reading periodicals. As regards the time spent on reading, Slovenia is ranked last but one among the surveyed countries, which means that more attention will have to be focused on strengthening the culture of reading.

\* This indicator was prepared by Brigita Lipovšek from the Ministry of Culture.

<sup>1</sup> Art covers the following activities: art (unspecified), visual art (activities related to creating pictures, photos, statues, ceramic products, engravings, pottery etc., at home or in a club; including visual art created by using computers), theatre and music (singing, drama, playing music, either alone or in a group; producing music; including theatre and music created by using computers), literary art (writing novels, poetry, diary etc.; including literary art created by using computers), and other specified art.

<sup>2</sup> Culture covers the following activities: theatre and concerts (including opera, musicals, light opera, ballet, dance shows, live concerts, street performances etc.), artistic exhibitions, museums and libraries.

<sup>3</sup> Data are shown for all those countries in which the methodology is in line with Eurostat's recommendations.

Table 1: Time use in Slovenia (10 years or more) - average time per day by main activities, minutes

|                                    | Men                          |                  |                         | Women                        |                  |                         | Total                        |        |                  |                         |
|------------------------------------|------------------------------|------------------|-------------------------|------------------------------|------------------|-------------------------|------------------------------|--------|------------------|-------------------------|
|                                    | Av. time of all interviewees | Share of diaries | Av. time of participant | Av. time of all interviewees | Share of diaries | Av. time of participant | Av. time of all interviewees | %      | Share of diaries | Av. time of participant |
| Total time used for primary needs  | 683                          | 100              | 683                     | 682                          | 100              | 682                     | 683                          | 47.4   | 100              | 683                     |
| Total time used for work or school | 261                          | 48               | 485                     | 197                          | 40               | 437                     | 228                          | 15.8   | 44               | 463                     |
| Total household work               | 171                          | 82               | 208                     | 290                          | 95               | 307                     | 232                          | 16.1   | 88               | 262                     |
| Cinema                             | 1                            | 1                | 112                     | 1                            | 1                | 109                     | 1                            | 0.1    | 1                | 111                     |
| Culture                            | 1                            | 1                | 89                      | 1                            | 1                | 66                      | 1                            | 0.1    | 1                | 75                      |
| Art                                | 3                            | 2                | 133                     | 1                            | 2                | 80                      | 2                            | 0.1    | 2                | 108                     |
| Reading periodicals                | 17                           | 30               | 55                      | 12                           | 25               | 47                      | 15                           | 1.0    | 27               | 51                      |
| Reading books                      | 5                            | 7                | 73                      | 10                           | 14               | 72                      | 8                            | 0.6    | 11               | 72                      |
| TV                                 | 132                          | 87               | 151                     | 110                          | 83               | 133                     | 121                          | 8.4    | 85               | 142                     |
| Radio                              | 7                            | 13               | 53                      | 6                            | 12               | 56                      | 7                            | 0.5    | 12               | 54                      |
| Total spare time                   | 317                          | 98               | 324                     | 266                          | 97               | 275                     | 291                          | 20.2   | 97               | 299                     |
| Other                              | 2                            | 6                | 32                      | 2                            | 7                | 33                      | 2                            | 0.1    | 6                | 32                      |
| Total                              | 1440                         |                  |                         | 1440                         |                  |                         | 1440                         | 1000.0 |                  |                         |

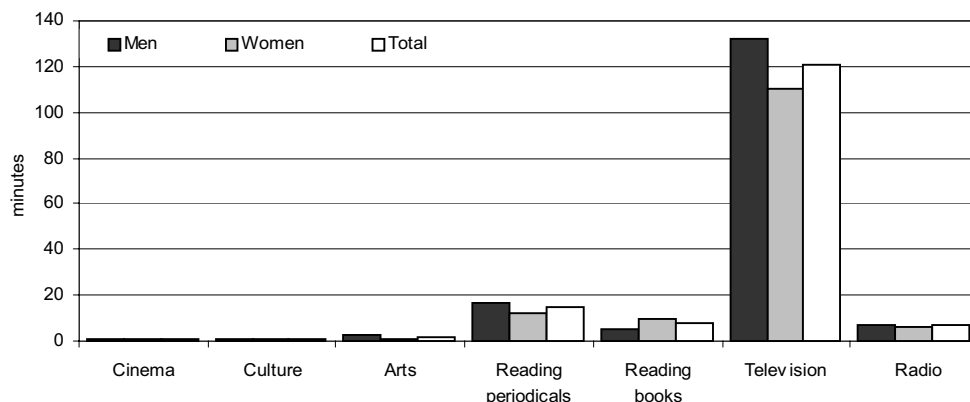
Source: Time Use Survey carried out by the Statistical Office between April 2000 and March 2001.  
 Note: Average time use is the time calculated on the basis of diaries of those people who participated in an individual activity.

Table 2: Use of spare time in the EU by gender by type of spare time activities, % of total average spare time per day<sup>1</sup>

|                 | Television and video |           | Socialising |           | Reading  |          | Sports & recreation |           | Resting   |           | Hobbies & games |          | Volunteer work |          | Culture & entertainment |          | Other    |          |          |
|-----------------|----------------------|-----------|-------------|-----------|----------|----------|---------------------|-----------|-----------|-----------|-----------------|----------|----------------|----------|-------------------------|----------|----------|----------|----------|
|                 | W                    | M         | W           | M         | W        | M        | W                   | M         | W         | M         | W               | M        | W              | M        | W                       | M        | W        | M        |          |
| Belgium         | 45                   | 44        | 17          | 13        | 9        | 10       | 5                   | 7         | 10        | 8         | 5               | 8        | 3              | 3        | 3                       | 3        | 3        | 3        | 4        |
| Germany         | 32                   | 34        | 22          | 18        | 12       | 11       | 9                   | 8         | 6         | 5         | 8               | 12       | 5              | 5        | 4                       | 4        | 3        | 3        | 3        |
| Estonia         | 48                   | 48        | 13          | 11        | 14       | 12       | 6                   | 9         | 7         | 7         | 2               | 3        | 5              | 5        | 2                       | 2        | 4        | 4        | 4        |
| France          | 47                   | 45        | 18          | 15        | 9        | 8        | 9                   | 13        | 2         | 2         | 5               | 6        | 6              | 6        | 2                       | 2        | 2        | 2        | 3        |
| Hungary         | 56                   | 51        | 14          | 15        | 8        | 8        | 5                   | 16        | 8         | 8         | 3               | 4        | 3              | 4        | 1                       | 1        | 3        | 2        | 2        |
| <b>Slovenia</b> | <b>39</b>            | <b>40</b> | <b>21</b>   | <b>18</b> | <b>9</b> | <b>7</b> | <b>10</b>           | <b>11</b> | <b>11</b> | <b>12</b> | <b>3</b>        | <b>5</b> | <b>2</b>       | <b>3</b> | <b>2</b>                | <b>2</b> | <b>4</b> | <b>4</b> | <b>4</b> |
| Finland         | 39                   | 41        | 17          | 14        | 15       | 12       | 9                   | 10        | 6         | 7         | 4               | 6        | 5              | 5        | 2                       | 2        | 4        | 4        | 4        |
| Sweden          | 34                   | 37        | 23          | 18        | 11       | 10       | 8                   | 10        | 8         | 7         | 6               | 10       | 4              | 4        | 2                       | 2        | 3        | 3        | 3        |
| UK              | 44                   | 49        | 21          | 16        | 9        | 8        | 4                   | 6         | 8         | 5         | 5               | 8        | 5              | 3        | 2                       | 2        | 3        | 3        | 3        |

Source: Eurostat.  
 Note: Data refer to the 1998-2002 period and cover people aged 20-27 years; total available spare time = 100%.

Figure: Use of time in Slovenia for cultural activities – average time per day by main activities, minutes



Source: SORS.





***Final Assessment***



## ***Country rankings according to development level***

*In view of the large number of indicators (69), we are developing a method of ranking countries according to their development level by combining different indicators with two approaches.* According to the first approach (see Tables 1 and 2), we evaluate development results (the level) achieved predominantly in 2004 (for some important indicators we also take the most recent data available before 2004 into account) and trends in the 2000-2004 period (or changes between 2000 and 2004). We thus rank countries according to their results. The achieved ranks in the various indicators are aggregated according to the development priorities they explain. Countries ranked at the top of individual indicators are also ranked high when the priorities are aggregated.

*The indicator gross domestic product per capita at purchasing power standards shows that in 2004 Slovenia was 16<sup>th</sup> in the EU in terms of economic development (79% of the EU average) and was ranked one place higher than in 2000. In the 2000-2004 period Slovenia's development level rose by 6 percentage points compared to the EU average. The greatest positive changes in the development of this indicator were achieved by Greece and Ireland (11 p.p.), Luxembourg, Estonia and Lithuania (10 p.p.), Latvia (8 p.p.) and Hungary (7 p.p.), while the same improvement as in Slovenia was registered by Spain and the Czech Republic. According to the improvement achieved in the 2000-2004 period Slovenia is ranked between eighth and tenth places.*

*As regards the first priority, 'competitive economy and faster economic growth', in 2004 Slovenia was ranked in the middle; according to macroeconomic indicators<sup>1</sup> it was ranked 12<sup>th</sup> and according to competition indicators<sup>2</sup> it was ranked 20<sup>th</sup>. As regards macroeconomic indicators, Slovenia was 5<sup>th</sup> for government debt and only 21<sup>st</sup> for the inflation rate<sup>3</sup>. As regards the sum of all indicators, all EU-15 countries are better than Slovenia, while among new member states only Lithuania is ahead of our country, followed by Estonia. Trends in macroeconomic indicators in the 2000-2004 period were relatively favourable since in terms of their improvement Slovenia was 7<sup>th</sup>. The greatest improvement was recorded with the inflation rate (2<sup>nd</sup> place) while the smallest progress was seen in government debt, where Slovenia is only in 18<sup>th</sup> position; the reason for this low ranking is that because of the relatively low debt no special measures to reduce it were needed in Slovenia. More rapid positive changes in microeconomic indicators than in Slovenia were recorded in Ireland, Slovakia, Denmark, Estonia, Lithuania and Belgium. As regards*

<sup>1</sup> In analysing the situation the following indicators were taken into account: inflation rate, general government sector balance, government debt and the balance of payments, and in the analysis of trends also the GDP growth indicator.

<sup>2</sup> In analysing the situation the following indicators were taken into account: labour productivity, export structure (high-tech-intensive production), share of gross fixed capital formation, share of exports and imports in GDP, inward FDI, outward FDI, total assets of banks, insurance premiums and equity market capitalisation, and in the analysis of trends also the unit labour costs indicator.

<sup>3</sup> In 2005 the inflation rate dropped substantially but Slovenia would still only be ranked between 15<sup>th</sup> and 17<sup>th</sup> places.

*competition indicators*, in 2004 Slovenia was 8<sup>th</sup> in the fixed capital formation indicator and the worst for inward FDI (22<sup>nd</sup>), the total assets of banks (21<sup>st</sup>), labour productivity and equity market capitalisation (18<sup>th</sup>) and outward FDI (17<sup>th</sup>). The sum of all competition indicators shows that only the following countries are worse than Slovenia: Poland, Latvia, Lithuania, Slovakia and Greece. On the other hand, the most favourable sums of competition indicators were recorded by Ireland, Luxembourg, the Netherlands, Belgium and the United Kingdom. In the 2001-2004 period positive trends in Slovenia were relatively rapid in two financial market indicators (equity market capitalisation and insurance premiums) and FDI indicators (inward and outward); however, the data show that in 2005 inward FDI again fell considerably. As regards trends in other indicators (except fixed capital formation), Slovenia is ranked in the second third of EU member states. The sum of indicators shows that in the 2000-2004 period changes were rapid (4<sup>th</sup> place) due to the relatively balanced improvement of most indicators<sup>4</sup>, but slower than in the Baltic States. Except for Malta, all new EU member states are ranked among the top ten which means that in these countries rapid economic transformation is taking place.

*As regards the second priority, 'efficient use of knowledge for economic development and high quality jobs'<sup>5</sup>, Slovenia is ranked in the first half of EU countries, while according to the changes in the 2000-2004 period it is ranked in the last third.* As regards the composite result, Slovenia is ranked 11<sup>th</sup> while as regards individual indicators it is ranked 1<sup>st</sup> for expenditure on education per student, which is the result of the high expenditure seen at primary and secondary levels but not also at the tertiary level, 6<sup>th</sup> in public expenditure on education and 17<sup>th</sup> in the number of people with a tertiary education. Among EU member states, the highest places are occupied by the three Nordic countries, Belgium, the United Kingdom and France. Among new member states, Slovenia is behind Estonia. It is interesting that Belgium, the United Kingdom and France have high values of indicators that show the level of development of a knowledge-based society, while the Nordic countries (and Slovenia) have high values of indicators showing public and private expenditure on the development of such a society. In the 2000-2004 period trends in Slovenia were far below the average since our country was only 23<sup>rd</sup>-24<sup>th</sup>, together with France, while the last place was occupied by Sweden. Public expenditure on education was lowered in Slovenia, while in other countries it was raised. As a result, Slovenia is the last, in 25<sup>th</sup> place. Our country occupies another very low place, 22<sup>nd</sup>, as regards the number of graduates of technical sciences. On the other hand, the growth of R&D expenditure was favourable since Slovenia was 7<sup>th</sup> as regards this indicator. Among EU member states the highest places in view of the development of second-priority indicators are occupied by Estonia, Cyprus, Portugal, the United Kingdom and Poland.

<sup>4</sup> It is characteristic for Slovenia that it improved the value of all indicators evenly (around 8<sup>th</sup> place), while other countries mostly improved only some indicators (with places in the first third of countries); therefore in the sum total Slovenia is ranked much higher than other countries.

<sup>5</sup> In analysing the situation the following indicators were taken into account: share of the population with a tertiary education, total public expenditure on education, annual expenditure on public and private educational institutions per student, expenditure per participant in tertiary education, science and technology graduates, gross national expenditure on R&D and internet use, while in the analysis of trends because of the incomparable data two indicators – expenditure per student in tertiary education and internet use – were not taken into consideration.

The third priority, 'an efficient and cheaper government' is marked by the relatively poor ranking of Slovenia and relatively modest changes in the 2000-2004 period.<sup>6</sup> According to the situation that evaluates the tax burden and general government expenditure, Slovenia is ranked 15<sup>th</sup> while according to trends it is between 8<sup>th</sup> and 12<sup>th</sup> places. By general government expenditure as a share of GDP, Slovenia is in the middle of the classification (13<sup>th</sup> place), but with an inadequate structure; it is burdened by high expenditure on public administration, public order, safety and defence, which do not have an important impact on economic growth, and has very low expenditure on dwellings and economic activities. As regards the tax burden, due to high taxes Slovenia is lower (16<sup>th</sup> place) especially as regards the high tax burden on labour (17<sup>th</sup> place). In the sum total among EU member states the first five places are occupied by Ireland, Latvia, Lithuania, Spain and Slovakia, while among the new member states only Hungary is worse than Slovenia (16<sup>th</sup> place). Favourable developments in the 2000-2004 period were registered in Spain, Greece, Austria, Sweden and Denmark (first five places), which means that in these countries public finance had been restructured or was being restructured.

*As regards the fourth priority, 'modern welfare state and higher employment', Slovenia is ranked very high in the third place while, according to trends in the 2000-2004 period, it is the first<sup>7</sup>. Slovenia is ranked among the top third of EU countries in six of the ten indicators; its worst place is 16<sup>th</sup> for the part-time employment indicator. The situation is better than in Slovenia only in the Netherlands and Sweden, while Denmark and Luxembourg are immediately behind our country. As regards trends in the 2000-2004 period, Slovenia is among the top EU countries in all indicators except for social protection expenditure where our country is 20<sup>th</sup>. The composite indicator has Slovenia first, followed by Italy and the Baltic States; the latter mostly due to the rapid improvement of the labour market situation. Separate calculations of the level and trends in the labour market and welfare state show that as regards the labour market situation in 2004 Slovenia is 8<sup>th</sup>, while according to trends in the 2000-2004 period it shares first place with Italy; as regards the welfare state Slovenia is ranked first by the level and second (behind Lithuania) by the trends.*

*The fifth priority, 'integration of measures aimed at sustainable development' is composed of several indicators; Slovenia's ranking according to demographic indicators is very bad, as regards health it is favourable, while in terms of integrating environment policies into economic development Slovenia is ranked in the middle<sup>8</sup>.*

<sup>6</sup> In analysing the situation the following indicators were taken into account: general government expenditure, general government expenditure on basic functions of the State, capital transfers and investment, total tax burden and tax burden on labour. In the analysis of trends the following indicators were taken into account: general government expenditure, general government expenditure on basic functions of the State, capital transfers and investment.

<sup>7</sup> In analysing the situation the following indicators were taken into account: employment rate, unemployment rate, part-time employment, temporary employment, social protection expenditure, jobless households, long-term unemployment, poverty after social transfers, poverty before social transfers and the gender pay gap. The analysis of trends is based on the same indicators as the analysis of the levels, except for the gender pay gap.

<sup>8</sup> Demography (level and trends) is assessed by three indicators: the population aged 65 and over, the birth rate and net migration. Health is assessed by the indicators of male life expectancy and infant mortality rate. The integration of environment policies into economic development is assessed by six indicators: energy intensity, renewable energy sources, share of road transport in total goods transport, use of NPK fertilisers, organic and integrated agricultural land (only the situation) and municipal waste.

As regards the demographic situation, Slovenia is 22<sup>nd</sup>, as regards demographic trends it is last but one. As regards the level, the birth rate (the lowest) and net migration (18<sup>th</sup> place) are the lowest ranked, while in terms of the number of the population aged 65 and over Slovenia's ranking is much better (9<sup>th</sup> place). Trends show a very rapid rise in the number of the population aged 65 and over (21<sup>st</sup> place), with the birth rate (18<sup>th</sup> place) and net migration (19<sup>th</sup> place) also showing unfavourable trends. The demographic situation is worst in new EU member states, except in Cyprus and Malta, but the situation is rapidly improving in the Czech Republic and Slovakia. Among old member states, the demographic situation is slightly worse only in Italy and Germany, whereas in Ireland, Luxembourg, Denmark and the Netherlands it is very good. As regards health, the level of which is shown by just two indicators, Slovenia is ranked 9<sup>th</sup>, while as regards health trends in the 2000-2004 period our country is 14<sup>th</sup>. There are obvious differences between the two indicators since Slovenia's ranking is incomparably better in the infant mortality indicator than in the male life expectancy indicator. As regards the level of health, the highest placed EU countries are Sweden, Spain, Cyprus, France and Greece, while the lowest placed ones are the Baltic States. As regards the pace of improvement, Hungary, Ireland, Greece, Portugal and Slovakia are the best. According to the integration of environment policies into economic development, Slovenia is ranked 13<sup>th</sup>; it is the worst ranked in the use of nitrate fertilisers (21<sup>st</sup> place) and in energy intensity (18<sup>th</sup> place) and the best ranked for renewable energy sources (7<sup>th</sup> place). In terms of environmental integration, the best situation is recorded in Austria and Sweden, followed by the Baltic States and Finland. As regards the speed of changes, in the 2000-2004 period Slovenia was 9<sup>th</sup>; environment policies were integrated most successfully in the field of the use of nitrate fertilisers and the least successfully in the percentage of road transport in total goods transport (19<sup>th</sup> place). In the mentioned period, the integration of environmental policies into economic development was improved the most in Belgium, Malta, Denmark, Hungary and Greece.

*Because the first approach (country rankings) does not take into account normative differences in the value of indicators towards the EU average, we are designing a different approach based on a mathematical model<sup>9</sup> that calculates the appropriate relative rankings of countries in respect of their achieved EU average and with allows faster and more accurate development assessment.* The advantage of this model is that it also takes into account variations of individual country indicators from the EU average and thus enables several recalculations and systematisations, which we will be able to develop gradually. Preliminary results of the model confirm the basic findings of the first approach, but not also of individual country rankings because variations from the EU average (which the first approach does not take into account) are large and heterogeneous.

*Development in 2004 estimated with the model shows that Slovenia is ranked 11<sup>th</sup> if all indicators are taken into account<sup>10</sup>.* First place is occupied by Sweden, followed by Luxembourg, the Netherlands, Ireland, Denmark and Finland (see Table 3). Estonia, which is according to the first approach among the most successful new

<sup>9</sup> The author of this model is Slaven Mićković, who prepared the first calculations.

<sup>10</sup> The arithmetic mean of the assessment of individual priorities is taken into account.

member states, is only 16<sup>th</sup> according to this approach. Placed at the end of the ranking are Hungary, Malta, Italy, Poland and Slovakia. The high ranking of Slovenia in the aggregate indicator derives from its good rating in second-priority indicators (9<sup>th</sup> place) and fourth-priority indicators (8<sup>th</sup> place), which mostly include labour market indicators. Slovenia is ranked worse (14<sup>th</sup>) in the first priority, which is primarily the result of the low value of competition indicators; even worse is Slovenia's ranking for the third priority (16<sup>th</sup> place) which means that Slovenia is highly burdened by taxes and the structure of taxes and by the high and inadequately structured general government expenditure. Slovenia is ranked the worst for the fifth priority (17<sup>th</sup> place), which is the result of the very bad values of demographic indicators; at this stage of development of this model a more detailed commentary is impossible because the contents covered by the fifth priority are very heterogeneous. The model's assessment of trends in the first priority indicators in the 2000-2004 period showed that Slovenia also made strong progress as regards the competitiveness of its economy<sup>11</sup> since it climbed from 19<sup>th</sup> place in 2000 to 14<sup>th</sup> place in 2004. However, the progress made by Slovenia was not the fastest; in this respect our country was outperformed by Sweden, Spain and Latvia, while Denmark and Greece recorded the same pace of progress as Slovenia.

***Among the forty indicators used in the model, in half (22) of them Slovenia is above the European average.*** As regards the number of above-average indicators, Slovenia is 10<sup>th</sup>. The countries with the greatest number of above-average indicators are Luxembourg, Ireland, the Netherlands, Sweden and Belgium, while the countries with the smallest number are Latvia, Poland and Slovakia (see Figure 1). The most and the least developed countries also have the greatest number of indicators with extreme positive and negative values<sup>12</sup>. Slovenia is among the countries with the smallest number of extreme values, which means that it is ranked in the middle according to its development level. Extreme values of indicators are characteristic for Latvia, Luxembourg, Estonia, Poland, Ireland and Sweden. In addition to Slovenia and the Czech Republic, smaller numbers of extreme EU values were recorded by larger EU-15 countries (see Figure 2).

***Both approaches show that Slovenia's development is unbalanced.*** The country's economic development lags behind the integration of environmental contents into economic development and even further behind social development. Trends in the 2000-2004 period indicate that development variations are not being eliminated but deepened since social development is the fastest. Other EU member states have different development patterns, but as a rule more developed countries tend to accelerate their social and environmental development while less developed countries tend to accelerate their economic development. Among less developed countries, a similar development pattern as in Slovenia (rapid social and environmental development) is recorded by Portugal. The main difference between these two countries is that in the 2000-2004 period the gap relative to the EU average in GDP per capita in PPS in Slovenia narrowed by 6 p.p. while in Portugal it widened by 9 p.p.; this is why in 2003 Slovenia overtook Portugal as regards economic development.

<sup>11</sup> Combined macroeconomic indicators and competition indicators.

<sup>12</sup> A country is ranked among the top or bottom three countries.

Table 1: Level of development according to Slovenia's development strategy priorities; numbers indicate ranks

| Country         | Development level       | First priority |             | Second priority | Third priority     | Fourth priority                 | Fifth priority |          |                         |
|-----------------|-------------------------|----------------|-------------|-----------------|--------------------|---------------------------------|----------------|----------|-------------------------|
|                 | GDP per capita (by PPS) | Macroeconomics | Competition | Knowledge       | General government | Labour market and welfare state | Demography     | Health   | Environment integration |
| Austria         | 4                       | 9              | 17          | 9               | 21                 | 6                               | 8              | 11-14    | 1                       |
| Belgium         | 6                       | 7              | 4           | 4               | 24                 | 19                              | 14             | 15       | 21                      |
| Cyprus          | 14                      | 19             | 12-13       | 12              | 9-10               | 8                               | 2              | 3        | 25                      |
| Czech Rep.      | 18                      | 16             | 14          | 22              | 13                 | 13                              | 19-21          | 11-14    | 22                      |
| Denmark         | 5                       | 1              | 7           | 2               | 23                 | 4                               | 5              | 19       | 11                      |
| Estonia         | 22                      | 14             | 8           | 7               | 8                  | 24                              | 23             | 23       | 4                       |
| Finland         | 9                       | 2              | 12-13       | 3               | 22                 | 9-10                            | 9-10           | 7        | 5                       |
| France          | 10                      | 13             | 9-10        | 6               | 20                 | 9-10                            | 11-12          | 4        | 15-16                   |
| Greece          | 15                      | 24             | 21          | 25              | 14                 | 21-22                           | 16-17          | 5        | 7                       |
| Ireland         | 2                       | 3-5            | 1           | 15              | 1                  | 17                              | 1              | 18       | 24                      |
| Italy           | 12                      | 17             | 19          | 20              | 18-19              | 12                              | 19-21          | 6        | 9                       |
| Latvia          | 25                      | 20             | 24          | 17              | 2                  | 20                              | 24-25          | 25       | 3                       |
| Lithuania       | 24                      | 10             | 23          | 14              | 3                  | 21-22                           | 24-25          | 24       | 6                       |
| Luxembourg      | 1                       | 3-5            | 2           | 16              | 6-7                | 5                               | 3              | 10       | 23                      |
| Hungary         | 20                      | 25             | 16          | 21              | 16                 | 15-16                           | 16-17          | 21-22    | 15-16                   |
| Malta           | 19                      | 23             | 6           | 24              | 6-7                | 18                              | 4              | 11-14    | 20                      |
| Germany         | 11                      | 11             | 15          | 10              | 18-19              | 14                              | 18             | 11-14    | 14                      |
| Netherlands     | 3                       | 6              | 3           | 8               | 17                 | 1                               | 6              | 8        | 18                      |
| Poland          | 23                      | 22             | 25          | 19              | 11                 | 23                              | 19-21          | 21-22    | 12                      |
| Portugal        | 17                      | 18             | 18          | 18              | 12                 | 7                               | 9-10           | 16       | 8                       |
| Slovakia        | 21                      | 21             | 22          | 23              | 5                  | 25                              | 15             | 20       | 10                      |
| <b>Slovenia</b> | <b>16</b>               | <b>12</b>      | <b>20</b>   | <b>11</b>       | <b>15</b>          | <b>3</b>                        | <b>22</b>      | <b>9</b> | <b>13</b>               |
| Spain           | 13                      | 15             | 11          | 13              | 4                  | 15-16                           | 11-12          | 2        | 17                      |
| Sweden          | 7                       | 3-5            | 9-10        | 1               | 25                 | 2                               | 13             | 1        | 2                       |
| UK              | 8                       | 8              | 5           | 5               | 9-10               | 11                              | 7              | 17       | 19                      |

Source: Values of individual indicators. Calculations by IMAD.



Table 2: Speed of changes in development in the 2000-2004 period according to Slovenia's development strategy priorities; numbers indicate ranks

| Country         | Development level       | First priority |             | Second priority | Third priority     | Fourth priority                 | Fifth priority |              |                         |
|-----------------|-------------------------|----------------|-------------|-----------------|--------------------|---------------------------------|----------------|--------------|-------------------------|
|                 | GDP per capita (by PPS) | Macroeconomics | Competition | Knowledge       | General government | Labour market and welfare state | Demography     | Health       | Environment integration |
| Austria         | 19-20                   | 18             | 8           | 12-13           | 3-4                | 21                              | 2              | 7-8          | 24                      |
| Belgium         | 16                      | 6              | 11          | 14              | 21                 | 22                              | 11-12          | 10           | 1                       |
| Cyprus          | 14-15                   | 17             | 7           | 2               | 22-23              | 9                               | 15             | 5-6          | 23                      |
| Czech Rep.      | 8-10                    | 14             | 5           | 12-13           | 17                 | 17-18                           | 1              | 14-16        | 15                      |
| Denmark         | 21-22                   | 3              | 17-18       | 15-16           | 5                  | 24                              | 5              | 14-16        | 3                       |
| Estonia         | 3-5                     | 4-5            | 2           | 1               | 16                 | 4                               | 21             | 13           | 11-12                   |
| Finland         | 17-18                   | 13             | 22          | 17-18           | 8-12               | 11                              | 9              | 11           | 16-18                   |
| France          | 21-22                   | 24             | 17-18       | 23-24           | 8-12               | 12                              | 10             | 7-8          | 20                      |
| Greece          | 1-2                     | 8-9            | 16          | 19              | 2                  | 15                              | 14             | 3            | 5                       |
| Ireland         | 1-2                     | 1              | 15          | 20-21           | 8-12               | 13                              | 11-12          | 2            | 16-18                   |
| Italy           | 24-25                   | 21             | 19-20       | 7-8             | 6-7                | 2                               | 4              | 23           | 11-12                   |
| Latvia          | 6                       | 16             | 3           | 17-18           | 8-12               | 5                               | 18             | 21           | 22                      |
| Lithuania       | 3-5                     | 4-5            | 1           | 9               | 20                 | 3                               | 23             | 25           | 21                      |
| Luxembourg      | 3-5                     | 20             | 14          | 10              | 18-19              | 8                               | 13             | 17           | 25                      |
| Hungary         | 7                       | 8-9            | 10          | 11              | 25                 | 6                               | 16             | 1            | 4                       |
| Malta           | 23                      | 22             | 19-20       | 22              | 24                 | 17-18                           | 25             | 24           | 2                       |
| Germany         | 19-20                   | 25             | 23          | 20-21           | 18-19              | 25                              | 19-20          | 22           | 13                      |
| Netherlands     | 11-12                   | 15             | 21          | 6               | 6-7                | 23                              | 17             | 12           | 9-10                    |
| Poland          | 14-15                   | 12             | 6           | 5               | 15                 | 20                              | 19-20          | 19           | 7                       |
| Portugal        | 24-25                   | 23             | 12          | 3               | 22-23              | 16                              | 22             | 4            | 8                       |
| Slovakia        | 11-12                   | 2              | 9           | 15-16           | 13-14              | 14                              | 7              | 5-6          | 16-18                   |
| <b>Slovenia</b> | <b>8-10</b>             | <b>7</b>       | <b>4</b>    | <b>23-24</b>    | <b>8-12</b>        | <b>1</b>                        | <b>24</b>      | <b>14-16</b> | <b>9-10</b>             |
| Spain           | 8-10                    | 10             | 13          | 7-8             | 1                  | 7                               | 6              | 9            | 14                      |
| Sweden          | 17-18                   | 11             | 24          | 25              | 3-4                | 19                              | 3              | 18           | 19                      |
| UK              | 13                      | 19             | 25          | 4               | 13-14              | 10                              | 8              | 20           | 6                       |

Source: Values of individual indicators. Calculations by IMAD.

Table 3: Model development assessment

| All indicators |                |                                | 1 <sup>st</sup> development priority indicators |                |                                | 2 <sup>nd</sup> development priority indicators |                |                                |
|----------------|----------------|--------------------------------|---|----------------|--------------------------------|---|----------------|--------------------------------|
| Place          | Country        | Develop-<br>ment<br>assessment | Place   | Country        | Develop-<br>ment<br>assessment | Place   | Country        | Develop-<br>ment<br>assessment |
| 1              | Sweden         | 61.03                          | 1   | Luxembourg     | 91.59                          | 1   | Sweden         | 78.26                          |
| 2              | Luxembourg     | 60.88                          | 2   | Ireland        | 69.74                          | 2   | Finland        | 73.43                          |
| 3              | Netherlands    | 59.91                          | 3   | Netherlands    | 58.01                          | 3   | Denmark        | 71.15                          |
| 4              | Ireland        | 59.53                          | 4   | Denmark        | 56.48                          | 4   | UK             | 66.32                          |
| 5              | Denmark        | 58.60                          | 5   | Finland        | 55.17                          | 5   | France         | 65.36                          |
| 6              | Finland        | 58.36                          | 6   | Sweden         | 54.39                          | 6   | Belgium        | 60.66                          |
| 7              | Spain          | 55.46                          | 7   | Spain          | 54.13                          | 7   | Netherlands    | 59.94                          |
| 8              | Austria        | 54.47                          | 8   | Estonia        | 53.32                          | 8   | Austria        | 57.06                          |
| 9              | UK             | 53.81                          | 9   | Malta          | 52.74                          | 9   | Slovenia       | 56.85                          |
| 10             | France         | 53.45                          | 10  | UK             | 51.99                          | 10  | Germany        | 56.14                          |
| 11             | Slovenia       | 50.99                          | 11  | Latvia         | 51.77                          | 11  | Estonia        | 55.40                          |
| 12             | Cyprus         | 50.02                          | 12  | Czech Republic | 51.61                          | 12  | Cyprus         | 50.17                          |
| 13             | Portugal       | 49.31                          | 13  | Belgium        | 50.22                          | 13  | Ireland        | 50.10                          |
| 14             | Czech Republic | 49.11                          | 14  | Slovenia       | 49.75                          | 14  | Czech Republic | 48.94                          |
| 15             | Germany        | 48.78                          | 15  | Germany        | 49.47                          | 15  | Spain          | 48.65                          |
| 16             | Estonia        | 48.38                          | 16  | Lithuania      | 49.34                          | 16  | Portugal       | 47.81                          |
| 17             | Greece         | 47.83                          | 17  | Austria        | 48.73                          | 17  | Luxembourg     | 46.70                          |
| 18             | Latvia         | 47.09                          | 18  | Greece         | 47.23                          | 18  | Lithuania      | 43.74                          |
| 19             | Belgium        | 46.66                          | 19  | France         | 46.93                          | 19  | Poland         | 40.41                          |
| 20             | Lithuania      | 44.77                          | 20  | Cyprus         | 44.26                          | 20  | Italy          | 38.72                          |
| 21             | Hungary        | 43.09                          | 21  | Poland         | 42.28                          | 21  | Greece         | 38.37                          |
| 22             | Malta          | 42.93                          | 22  | Hungary        | 40.49                          | 22  | Latvia         | 38.18                          |
| 23             | Italy          | 42.20                          | 23  | Italy          | 38.56                          | 23  | Hungary        | 38.12                          |
| 24             | Poland         | 40.26                          | 24  | Slovakia       | 36.64                          | 24  | Malta          | 32.78                          |
| 25             | Slovakia       | 36.26                          | 25  | Portugal       | 34.65                          | 25  | Slovakia       | 31.07                          |
|                | <b>Average</b> | <b>50.5277</b>                 |   | <b>Average</b> | <b>51.1794</b>                 |   | <b>Average</b> | <b>51.7731</b>                 |

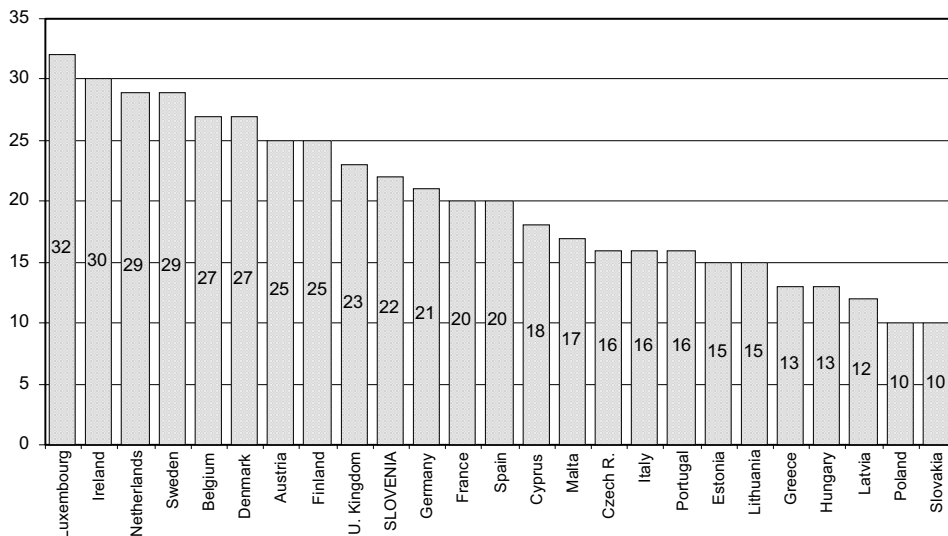
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Table 3: Model development assessment

| 3 <sup>rd</sup> development priority indicators |                |                                | 4 <sup>th</sup> development priority indicators |                |                                | 5 <sup>th</sup> development priority indicators |                |                                |
|---|----------------|--------------------------------|---|----------------|--------------------------------|---|----------------|--------------------------------|
| Place   | Country        | Develop-<br>ment<br>assessment | Place   | Country        | Develop-<br>ment<br>assessment | Place   | Country        | Develop-<br>ment<br>assessment |
| 1   | Luxembourg     | 67.77                          | 1   | Netherlands    | 83.98                          | 1   | Cyprus         | 65.46                          |
| 2   | Ireland        | 67.00                          | 2   | Spain          | 67.44                          | 2   | Sweden         | 61.00                          |
| 3   | Greece         | 62.36                          | 3   | Denmark        | 65.28                          | 3   | Ireland        | 60.82                          |
| 4   | Czech Republic | 54.30                          | 4   | Portugal       | 65.02                          | 4   | Austria        | 59.21                          |
| 5   | Hungary        | 52.34                          | 5   | Sweden         | 62.72                          | 5   | Finland        | 57.98                          |
| 6   | France         | 51.18                          | 6   | Austria        | 57.70                          | 6   | France         | 56.73                          |
| 7   | Spain          | 50.86                          | 7   | UK             | 55.97                          | 7   | Spain          | 56.24                          |
| 8   | Netherlands    | 50.13                          | 8   | Slovenia       | 55.68                          | 8   | Denmark        | 53.71                          |
| 9   | Slovakia       | 49.70                          | 9   | Finland        | 55.65                          | 9   | Portugal       | 51.65                          |
| 10  | Austria        | 49.66                          | 10  | Luxembourg     | 54.82                          | 10  | Latvia         | 51.50                          |
| 11  | Finland        | 49.56                          | 11  | Cyprus         | 54.23                          | 11  | UK             | 51.37                          |
| 12  | Estonia        | 48.82                          | 12  | Latvia         | 51.15                          | 12  | Malta          | 49.71                          |
| 13  | Sweden         | 48.77                          | 13  | Ireland        | 49.99                          | 13  | Slovakia       | 49.43                          |
| 14  | Portugal       | 47.39                          | 14  | Germany        | 49.67                          | 14  | Greece         | 47.70                          |
| 15  | Lithuania      | 46.75                          | 15  | France         | 47.05                          | 15  | Netherlands    | 47.48                          |
| 16  | Slovenia       | 46.42                          | 16  | Czech Republic | 46.50                          | 16  | Poland         | 46.32                          |
| 17  | Denmark        | 46.37                          | 17  | Lithuania      | 46.14                          | 17  | Slovenia       | 46.24                          |
| 18  | Italy          | 46.15                          | 18  | Greece         | 43.50                          | 18  | Estonia        | 45.84                          |
| 19  | UK             | 43.41                          | 19  | Hungary        | 43.02                          | 19  | Germany        | 45.60                          |
| 20  | Germany        | 43.04                          | 20  | Italy          | 42.93                          | 20  | Italy          | 44.66                          |
| 21  | Latvia         | 42.88                          | 21  | Belgium        | 39.37                          | 21  | Czech Republic | 44.20                          |
| 22  | Poland         | 41.51                          | 22  | Malta          | 38.73                          | 22  | Luxembourg     | 43.53                          |
| 23  | Belgium        | 41.46                          | 23  | Estonia        | 38.49                          | 23  | Belgium        | 41.61                          |
| 24  | Malta          | 40.71                          | 24  | Poland         | 30.77                          | 24  | Hungary        | 41.47                          |
| 25  | Cyprus         | 35.98                          | 25  | Slovakia       | 14.47                          | 25  | Lithuania      | 37.89                          |
|   | <b>Average</b> | <b>48.9814</b>                 |   | <b>Average</b> | <b>50.4104</b>                 |   | <b>Average</b> | <b>50.2943</b>                 |

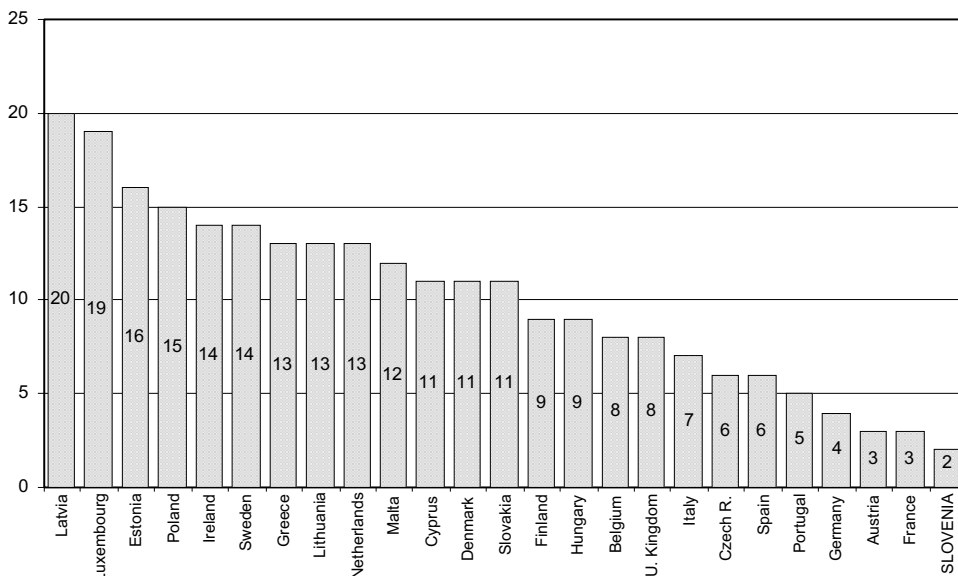
Source: Mičković Slaven. Estimates of the development of the Republic of Slovenia for the needs of the Development Report.

Figure 1: Number of indicators with values exceeding the EU average



Source: Mičković Slaven. Estimates of the development of the Republic of Slovenia for the purpose Development Report.

Figure 2: Number of extreme values of indicators



Source: Mičković Slaven. Estimates of the development of the Republic of Slovenia for Development Report.

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