Analysis, Research and Development
ISSN 1581-6907

DEVELOPMENT REPORT

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http://www.gov.si/zmar/

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Layout: Sandi RADOVAN, studio DVA

Printed by: JA Grafika
Circulation: 350

Ljubljana, June 2003

Development Report 2003

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Foreword

The ***Development Report*** has been designed to monitor implementation of the Strategy for the Economic Development of Slovenia (SEDS) adopted in July 2001. The Report aims to assess the extent to which the country's development follows the goal of the sustainable improvement of Slovenian citizens' welfare and how much the development factors and mechanisms set out in the SEDS have been reinforced. The Development Report 2002 (DR 2002) focused more on evaluating the starting point of development, while this year's Report attempts to assess actual implementation of the endorsed strategic development orientations.

The Report is largely based on the ***list of indicators designed to monitor development***, which began to be formulated during preparation of the SEDS. The selection was made on the basis of the SEDS' content and data provided by the Statistical Office of the Republic of Slovenia (SORS) as well as other institutions. We aimed for maximum compatibility with the structural indicators developed by the European Union to monitor the Lisbon Strategy. This year's list of indicators differs little from last year's. Some indicators, such as Regional Disparities in GDP, have not been updated because no new data were provided or because some indicators are too complex to be updated every year (e.g. the Balanced Development Index). Some indicators have been replaced, while new ones have also been introduced. Structural indicators drawn up by the SORS for the EU (Eurostat) were also used in preparing the Report, especially in parts where they were instrumental in supporting our findings. The list of indicators will continue to be scrutinised and supplemented where necessary.

Public presentations were organised in 2002 for those experts directly or indirectly involved in preparing the SEDS, as well as for the general public. We managed to obtain some useful recommendations that we took into consideration in this year's Report as much as possible.

As pointed out by the SEDS, its implementation crucially depends on the broadest possible consensus on the main development orientations and goals. Agreement can be reached within the framework of open dialogue between the actors involved in development, with the government taking the main initiative and responsibility. Another condition necessary to achieve a common agreement is **reliable, comprehensive and publicly accessible information**. The institution responsible for monitoring and evaluating development and assessing the needs of economic and development policies is the Institute of Macroeconomic Analysis and Development. Its formal status provides for its independence in dealing with professional and methodological issues and in interpreting the results. This Development Report was made on the basis of the latest official figures, however, they cover varying periods of time (some of the latest data are relatively old), while some figures could not be updated because this year's Report was made earlier than last year's. Hence, this Development Report does not present an overall picture of development up to 2003. Instead, it provides an assessment based on data available up to 23 January 2003, or up to 26 February 2003 in the macroeconomic area.

In addition to the reliability of information and findings, the Report also paid close attention to ***clarity and comprehensibility***. Hence, every chapter first summarises the main orientations of the SEDS and the main findings of that chapter. The analysis itself tried to be as clear as possible so some detailed numbers and methodological explications may be found lacking. Details of each individual indicator are presented in the Analytical Appendix, while detailed information about the methodology is presented on special methodological sheets which you can find at http://www.gov.si/zmar/projekti/arr/arr-pr.html. The Report also used a number of different analyses made by the IMAD alone or in co-operation with other institutions. They are listed in the Bibliography. The main findings and policy recommendations are brought together in the Summary, allowing a quick glimpse of the Report's substance.

The Development Report 2003 ***includes a new chapter*** that attempts to assess the suitability of policies and measures taken by the government to steer development using general government finance data. Since these policies are also part of the SEDS, the new chapter allows for the more comprehensive monitoring of the SEDS' implementation as well as a quantitative and to some extent qualitative evaluation of the existing policies and measures.

Summary of the main findings

Development results

(1) The Development Report's main finding is that the **principle of sustainable development is being gradually realised, however, some weaknesses and imbalances continue in each of its three components**. As far as the economy is concerned, the relatively fast catching up with the EU has been sustained – the gap behind the EU average narrowed further in 2001, and Slovenia overtook Greece among the EU member-states to draw closer to Cyprus among EU candidate-countries. The results have also improved in the areas of social and environmental development, as shown by the Human Development Index and the Genuine Savings Index. National competitiveness has also improved, as measured by the World Economic Forum methodology, mainly in the area of microeconomic competitiveness and partly in the area of growth potential. Slovenia is therefore no longer listed in the group of countries whose long-term growth potential can be undermined by microeconomic reforms, but has joined the group of countries where microeconomic reforms represent important, albeit not yet fully exploited, growth potential. The deterioration in balanced regional development seen from 1996 to 1999 (evaluated in 2000) continued in 2001 according to unemployment figures. However, certain other indicators suggest a narrowing of regional disparities so the gap between the most and least developed region is estimated not to have changed significantly. Apparent weaknesses have been seen in all three areas of sustainable development, so the currently favourable trends may be jeopardised in the future. In the area of economic development, the weaknesses mainly involve pending structural reforms and knowledge-based competitiveness. In the area of social development, change is most urgently needed in the health sector and social security benefit entitlements. Finally, environmental development raised some concerns in the area of changes in the economic structure, primarily involving the rise in the energy intensity of gross domestic product.

(2) Positive **shifts in the economic structure** as measured by the composition of GDP (which does not include all structural changes) were sustained in 2001. Slovenia's economic structure is gradually approaching the structure of advanced industrialised economies as the importance of agriculture and industry is diminishing and the role of services is growing. The fastest-growing segment within the GDP structure is public services, suggesting that the public sector is growing too fast compared to the private sector. The services of wholesale and retail trade, hotels and restaurants, and transport are close to the EU average, while large gaps behind advanced economies are seen in business and financial services. The restructuring process continues in manufacturing, however, this is too slow especially in the area of strengthening technology-intensive industries.

Macroeconomic and institutional prerequisites of the development strategy

(3) **Macroeconomic policies** (monetary, incomes and fiscal policies) performed their stabilising role relatively effectively up to 1999, while the favourable economic outcomes after 1999 were achieved on account of pronounced macroeconomic imbalances. In 2001 and 2002, economic growth slowed down below the average of the previous few years partly due to the faltering export market growth in advanced trading partners, the cyclical developments in domestic demand aggregates, which had emerged as early as in 2000, and the unfinished structural reforms. Unlike prices and public finances, where no significant improvement has been seen in the last few years, the balance of payments was brought back into balance in 2001 and turned into a relatively large surplus in 2002. However, it is questionable whether this closing of the investment-savings gap is beneficial for development because, given the improved structure of inflows in the capital and financial account, any wider deficit would not have undermined the potential sustainability of the current account. The persistence of inflation at a relatively high level has for the last three consecutive years primarily stemmed from the pending structural reforms, mainly involving the slow restructuring of the non-tradable sector, the rigid structure and volume of general government expenditure, and indexation mechanisms. After the macroeconomic balance between wage and productivity growth levels had been undermined in 2001, the real gross wage per employee again rose below the rate of labour productivity growth in 2002. While positive employment trends had been sustained for three years, employment growth eased in 2002, especially in manufacturing, and unemployment began to drop more slowly as a result of dampened economic growth.

(4) Slovenia is characterised by the relatively slow **implementation of transitional reforms**. As a result, Slovenia managed to catch up with those countries whose reform efforts were most vigorous as late as in the final years of the 1990s. Transitional reforms in Slovenia are still unfinished, with the main deficiencies being recorded in the areas of corporate sector reform, non-banking financial sector reform, and the application of competition policy. Slightly more progress has been made in the areas of privatisation and infrastructure. In its reports on progress towards EU accession, the European Commission assessed Slovenia's progress as positive but pointed out the setbacks detected in the areas of reducing the backlog of court cases and land register entries, privatisation of the banking and insurance sectors, boosting the economy's competitiveness, lifting administrative barriers, manufacturing's restructuring, small and medium-sized enterprises, inflation, unbalanced public finances, and the administrative capacity to implement the EU's law.

Quality of development factors

(5) The most important mechanism for realising Slovenia's development strategy is the transition to a **knowledge-based society**. In the field of education and training, quantitative shifts were seen in youth education, while adult education and lifelong learning made too little progress. The adult population's education structure is improving, however, what remains critical is the low level of adult enrolment in

education, the low percentage of people who have finished tertiary education, and the low level of functional literacy. Over the last year, Slovenia has made little progress or faltered in the areas of investment in research and technological development and innovation in enterprises. In the context of dynamic global changes, this contributes neither to further development or realisation of the knowledge-based society nor to the SEDS' objective of raising the share of research and technological development in GDP to around 2% before 2006. The gap between Slovenia and the EU in Internet use, which has emerged in the last year, suggests that Slovenia is late in systematically encouraging the information society. This has partly resulted from the inefficient market structure, however, it also reflects the small share of the population, who have finished tertiary education who are the most frequent users of the Internet.

(6) Another set of development strategy mechanisms aims to **bolster the economy's competitiveness**. Rehabilitation of large loss-making enterprises has been completed, while ownership consolidation and the introduction of efficient ownership structures in privatised enterprises was accelerated in 2001 and 2002, suggesting these processes continued to take place in the context of transition processes rather than in the context of the ongoing transformation seen in market economies. It therefore seems that the post-privatisation ownership consolidation has not yet been concluded. Nevertheless, the Slovenian corporate sector's competitiveness is increasingly based on the process of offensive restructuring. There have been some clear positive shifts towards higher productivity and lower costs per unit of value added. Other positive developments include resumed growth in Slovenia's market share in the main international markets and growth in inward and outward foreign direct investment. However, it is obvious that Slovenia's corporate sector is facing significant structural problems and rigidities reflected in the slowing labour productivity growth, the unfavourable and persisting composition of merchandise exports with factor inputs, and the falling share of innovative enterprises. Low productivity growth was mainly the result of slow restructuring towards stimulating high value-added activities whose competitiveness stems from the created production factors. This may render Slovenia's current export structure unsustainable in the long run. It is becoming evident that Slovenia's gradualist approach to structural reforms has caused some imbalances that still need to be dealt with.

(7) As far as the **financial sector's** reform is concerned, the SEDS' guidelines are being effectively implemented in the areas of regulation, supervision and harmonisation with EU standards, but there are some backlogs in the area of establishing competitive structures. As a result, the financial sector continues to be one of the least developed segments of the economy. Looking at the banking sector's development level, Slovenia is behind not only the least developed EU members, but also some EU candidate-countries, while Slovenia's insurance sector records a smaller development gap behind the EU countries. The biggest gaps behind advanced industrialised countries have emerged in the capital market. Other countries in transition are facing about the same gaps as Slovenia because their capital markets also began to develop only about ten years ago.

(8) The building of **economic infrastructure** was dynamic in 1995-1999, in 2000 and 2001 growth was only seen in investment in telecommunications and

environmental protection infrastructure, while in 2002 investment in transport infrastructure is estimated to have revived again. Liberalisation of economic infrastructure was launched by passing the basic legislation allowing this process to occur in the first place, as well as by taking initial steps in the telecommunications and electricity markets. Liberalisation and the establishment of independent regulatory agencies will be followed by privatisation. Private capital is still not involved in the building of infrastructure, while liberalisation has yet to produce any better quality services or lower prices.

(9) As far as **the state's role** is concerned, we have seen some improvement compared to last year's Report. Relevant institutions have responded to the mounting backlog of court cases; aggregate figures show its reduction, however, the backlog is still growing in a number of areas. From the point of view of economic efficiency, the most critical areas remain compulsory enforcement and the land register. Competition policy continues to be pursued without a comprehensive understanding of its objectives on the part of economic agents and law courts, as well as without an underlying strategic document. Growth in general government expenditure relative to GDP has been arrested, the state's intervention and management of the economy have eased, yet general government expenditure will have to be reduced and further restructured. The same goes for state aid. Some legal and organisational foundations have been provided to increase the state's efficiency and improve the implementation of development policies whereas regions, representing the key step in decentralising the country, have still not been established. The legitimacy of government institutions has been assessed as relatively favourable. Areas most critical in terms of their impact on national competitiveness remain the regulation of competition and respective legislation, labour market flexibility, where institutional solutions have been introduced but have still not produced any satisfactory results, the capital market, the legal framework regulating contract enforcement, the extent of bureaucracy, and weaknesses in the implementation of decisions.

(10) The **regional and spatial development** indicators reveal that measures of institution-building taken in each area have not yet produced satisfactory results because they can only be seen in the long run. Changes in agricultural policy have been very intensive over the last few years, and the first results can already be seen in some areas (the land structure, organic farming).

Environmental and social components of development

(11) An analysis of the main indicators and policies shows that the **condition and development of the environment** are improving if examined historically, or in terms of institution-building. Signs of improvement are evident not only in particular priority areas but also in whole sectors. However, in the context of increasingly tight legislation and ambitious objectives the overall improvement is still unsatisfactory. Problems are mainly evident in the umbrella projects of instituting sustainable development, with results being particularly poor in indicators that concern more than one area (economic development and environmental protection). This is the result of not only the varying degrees of observing environmental rules and standards (micro-integration at the level of enterprises by raising business

efficiency), but also of the lack of macro-integration (environmental, social and economic aspects of development).

(12) Slovenia earmarks a similar share of GDP for **social security** as the EU member-states. In the period of transition, Slovenia managed to maintain its social security systems, which provided a buffer against the impact of the necessary changes in the economic system. In 1999, the poverty rate fell slightly compared to 1997 and was lower than in EU countries, while the risk of poverty among elderly generations dropped markedly from 1993. Income inequality measured by quintile ratios has not increased since 1997. Slovenia has already carried out its pension reform so the percentage share of pension expenditure relative to GDP has stopped growing. Slovenia has also regulated and updated its social security system and family benefits, meaning that the poorest are better provided for and family care is uniformly regulated and upgraded. Changes will also be necessary in the systems of maintaining and improving the level of health and ameliorating adults' functional literacy, while reviewing the efficiency of instruments designed to ensure that social benefits are allocated to those who in fact need them.

The state's developmental role

(13) The **state's functioning** in accordance with the SEDS' guidelines and objectives is assessed on the basis of the public spending structure for the period up to 2001. Evidence shows that, at least up to 2001, the government's developmental function was not performed sufficiently in line with the new needs and the SEDS' objectives. Instead, it mainly pursued activities that turned out to be inappropriate or insufficient to achieve balanced economic, social and environmental development, improve the quality of human resources, or bolster the economy's competitiveness. Estimates and activities for 2002 and 2003-2004 point to some positive shifts, however, it is too early to assess them in terms of the SEDS' objectives due to a lack of data.

Guidelines to implement the development strategy

These guidelines should be divided into two parts. One relates to implementation of the development paradigm and the other to achieving economic development. The development **paradigm** stems from Slovenia's pattern of development during transition, which was characterised by the gradualism of reforms. This facilitated stable economic growth without any major macroeconomic imbalances and with more favourable outcomes in social and environmental development compared to the country's level of economic development. This is confirmed by the Report's findings, yet what these findings also suggest is the need to finish the remaining structural reforms, especially as regards the efficiency of the non-tradable sector, and to enhance the integration of development policies in order to step up the state's developmental role in stimulating modern factors of development and bolstering national competitiveness. Integration is impossible without consensus reached through dialogue. This dialogue could take place within the (Sustainable) Development Council, which could in turn accelerate the preparation of a long-term development document called the Vision and Scenarios of Slovenia's

Development, putting the concept of sustainability into the wider context of long-term development. As far as **economic development** is concerned, Slovenia is gradually drawing close to advanced industrialised countries. Some weaknesses and setbacks identified last year have increased further, clearly showing that the transition process is still underway in Slovenia and that some economic reforms aimed at bolstering competitiveness are way too slow. This, in turn, is posing a growing threat to development. The biggest weaknesses in the area of industrial policy involve: development of the knowledge-based society; acceleration of competitiveness and structural changes in the economy; and the completion of transitional and other reforms. As regards macroeconomic policies, the most important areas are the reduction of inflation, restructuring of general government expenditure, and the balancing of public finances.

Guidelines set out within industrial policy are divided into three main sections: (1) development of the knowledge-based society (education, research and technological development, and information and communication technologies); (2) corporate sector competitiveness, with accelerated restructuring aimed at increasing value added and raising the technological complexity of products; and (3) acceleration of transitional and other reforms, primarily in the financial sector and infrastructural services. These goals should be pursued so that regional disparities are reduced and the balance of economic, social and environmental development is respected. Further, these goals can only be achieved through a comprehensive industrial policy. As explained in last year's Development Report, we believe that this comprehensiveness can be provided by the National Development Programme (NDP), an implementing document of the SEDS. Without the continued preparation of the NDP, it will be hard to formulate a comprehensive national development policy. It might be advantageous to separate preparation of the NDP from the budgetary procedure and place it in the Structural Policy Council. The NDP should also be monitored in terms of implementation and results. Further, this process should incorporate all major government investment projects and state aid even though they are not part of the NDP.

In recent years, favourable economic results have been achieved on account of undermined *macroeconomic balances*, which are particularly evident in the areas of prices and public finances. They have also largely resulted from the slow and pending structural reforms. In order to create and maintain stable macroeconomic frameworks, Slovenia will have to accelerate implementation of its structural reforms as well as tighten some macroeconomic policies. In the opposite case, these imbalances will deepen and seriously jeopardise the realisation of the SEDS' objectives.

The SEDS' guidelines and objectives correspond to Slovenia's current development level and imbalances. However, the strategy will have to be upgraded with the objectives of the Lisbon strategy in light of the rapid changes in the world and Slovenia's imminent integration with the EU.

Development Report

Editor in Chief:

Ana MURN

1. Development results

The new development concept endorsed in the document called **Slovenia in the New Decade: Sustainability, Competitiveness, Membership in the EU** – Strategy for the Economic Development of Slovenia 2001-2006 (SEDS) – is described in two different and separate parts. The first one focuses on the long-term balanced development of different and inter-related development components, which is given form in the new development paradigm. The second part sets the course of economic development for the next medium-term period (up to 2006) and provides measures to gradually bring Slovenia's level of development and its economic structure closer to advanced economies.

1.1. Balanced economic, social and environmental development

THE SEDS' OBJECTIVE: The new development paradigm is based on the equal treatment of the economic, social and environmental aspects of welfare[1] and on sustainable development, which ensures that the needs of current generations are met without impeding future generations in meeting theirs to the same extent. Sustainable development is expressed in structural, temporal, and spatial dimensions – the respective issues are the three sources or components of welfare, inter-generational aspects, and balanced regional development. Given the current levels of advancement in each of the three welfare components, the SEDS gives priority to reducing the economy's development gap, which should be achieved without increasing the relatively narrower gaps in social and environmental development.

THE REPORT'S FINDINGS: The Development Report's main finding is that the principle of sustainable development is being gradually realised, however, some weaknesses and imbalances continue in each of its three components. As far as the economy is concerned, the relatively fast catching up with the EU has been sustained – the gap behind the EU average narrowed further in 2001, and Slovenia overtook Greece among the EU member-states to draw closer to Cyprus among EU candidate-countries. The results have also improved in the areas of social and environmental development, as shown by the Human Development Index and the Genuine Savings Index. National competitiveness has also improved, as measured by the World Economic Forum methodology, mainly in the area of microeconomic competitiveness and partly in the area of growth potential. Slovenia is therefore no longer listed in the group of countries whose long-term growth potential could be undermined by microeconomic reforms, but has joined the group of countries where microeconomic reforms represent important, albeit not yet fully exploited, growth potential. The deterioration in balanced regional development seen from 1996 to 1999 (as evaluated in 2000) continued in 2001 according to unemployment figures. However, certain other indicators suggest a narrowing of regional disparities so the gap between the most and least developed region is estimated not to have changed significantly.

[1] Welfare means the comprehensive satisfaction of needs, therefore creating the possibility of leading and enjoying one's life.

Weaknesses appeared in all three areas of sustainable development, hence the currently favourable trends may be jeopardised in the future. In the area of economic development, the weaknesses mainly involve pending structural reforms and knowledge-based competitiveness. In the area of social development, change is most urgently needed in the health sector and social security benefit entitlements. Finally, environmental development raised some concerns in the area of changes in the economic structure, primarily involving the rise in the energy intensity of gross domestic product.

ANALYSIS: The **main finding of last year's Development Report** was that the principle of sustainable economic, social and environmental development was not realised sufficiently in the period up to 2000, as the value of the Balanced Development Index fell in the transition period (1990-1998). Significant differences were detected between individual components of development and between the periods before and after 1995. In the given period as a whole, economic development was more favourable than in other EU candidate-countries and also more advantageous than in the EU on average, meaning the development gap narrowed, as envisaged by the SEDS. As regards social development, there was inevitable deterioration during the transition depression, however, the situation again improved in the second period of transition. That improvement was due to the active social policy and efforts to maintain social security systems during transition. Environmental development, on the other hand, largely remained non-integrated into the common realisation of goals (especially in the environmental, financial and agricultural departments), except in the area of environmental protection, mainly concerning legislation, development programmes, and harmonisation with the EU. As a result, environmental improvement in the first period of transition was largely the side effect of defensive economic restructuring, while economic development in the second period of transition was achieved to the detriment of environmental development. Different indicators have shown that the environment is no longer Slovenia's advantage compared to the EU. Regional disparities have increased. Slovenia's national competitiveness lagged behind that of EU member-states and some candidate-countries, while the biggest weakness was revealed in the area of government and institutional efficiency, which should otherwise facilitate a competitive business environment.

One year is too short a period to see any significant changes, especially because Slovenia recorded no major social, economic and environmental changes nor did it totally mismanage its policies. The balance of all three components of development is assessed through a system of synthesised indicators[2]. The Balanced Development Indicator, which brings all three components of development together, is not available this year.

As regards **GDP per capita in purchasing power standards** (PPS)[3], the Eurostat

[2] The selected indicators are: GDP per capita in Purchasing Power Standards, Human Development Index, Genuine Savings Index, National Competitiveness Index, and Variation of Unemployment across Regions.

[3] PPS is an artifical general reference value used in the EU to express the volume of economic aggregates in order to make comparisons between countries and regions. We can arrive at economic aggregate volumes expressed in PPS by transforming the original values expressed in national currencies into an artificial currency called a purchasing power standard (a currency that eliminates the effect of different price levels).

published revised data[4] and collected data for all countries for 2000 and 2001 on the basis of a single methodology. The revised GDP per capita figures for *2000* put Slovenia in the group of countries achieving 50%-75% of the EU average (Slovenia recorded 67% of the average) together with Greece and Portugal. As far as candidate-countries are concerned, the gap between Cyprus and Slovenia narrowed markedly. Provisional figures for *2001* show that Slovenia improved its position relative to the EU average by 3 percentage points, overtook Greece and drew very close to Portugal (a gap of one percentage point). Achieving 70% of the EU average, Slovenia remained in second place behind Cyprus, the first-ranking candidate-country, lagging behind 4 percentage points, and was 11 percentage points ahead of the third-ranking Czech Republic.

The value of the **Human Development Index (HDI)** and related rank have improved slowly but steadily since 1992, when the first calculation was made for Slovenia, despite some methodological changes[5]. The latest calculations for 2000 brought about a minor change in the HDI value compared to the year before, while the rank underwent a greater change. Slovenia was again put in 29th place, thus remaining at the lower end of countries that enjoy a high level of human development. As far as the HDI components are concerned, Slovenia ranked highest in the Gross Enrolment Ratio (23rd place), it was graded 30th in the GDP Index, and was positioned lowest in the Life Expectancy Index, reaching 34th place, even though life expectancy is increasing. The gradual, albeit slow, improvement in the values of the index and its components points to a slow and steady upward development trend, which should bring Slovenia close to the maximum value. Countries closest to this value in 2000 were Norway, Sweden and Canada[6].

The **sustainable** development paradigm requires that the irreversible exploitation of economic resources should not exceed their irreversible creation in the long run. Realisation of sustainable development is measured through the Genuine Savings Index (GSI). The main aspect of the index is the stock of economic resources, which is examined through an indicator that measures changes in the present value of the welfare inflow. The GSI value for Slovenia improved markedly, going up from 12.9% of GDP in 1999 to 17.2% in 2000. It should be noted that annual data may show a rapid or significant change in the index. The average of 1997-2000 reveals that Slovenia's international ranking was poor, recording an annual average of 13.1% of GDP compared to 14% of the neighbouring countries and 15% of the EU average. This was due to the greater destruction of resources than in most other countries that are not oil exporters, or because of lower net savings than elsewhere.

Regional disparities measured by registered unemployment rates[7] did not narrow

[4] It was in 2000 that most countries participating in the European Comparison Programme (ECP) first took PPS weights from their national accounts in the light of the ESA95 methodology. The data for the period before 2000 are distorted and incomparable because the introduction of ESA95 was not synchronous between individual countries. As a result, figures include a multitude of minor or major breaks in the time series, which negatively affected the comparability over time or even between countries within one given year.

[5] The most important change was seen in the GDP Index. The latest formula is based on logarithmic values.

[6] Canada was the first country to exceed the HDI value of 0.9.

[7] The SORS has still not calculated regional disparities in GDP per capita for 2000.

in 2001. On the contrary, they widened as shown by the ratio between regions with the highest and the lowest registered unemployment rates (1:3 in 2000 and 1:3.1 in 2001) and by the variation coefficient (30.46 in 2000 and 32.26 in 2001). Other indicators, such as personal income tax per capita and the level of regional infrastructural equipment, suggest that disparities are narrowing so we may assume that development gaps between regions recorded no profound changes over the last year.

As regards **national competitiveness** determined by the World Economic Forum's methodology **(WEF)** for *2001-2002*, Slovenia was put in 31st place in the Growth Competitiveness Index (GCI),[8] joining the group of countries with strong growth potential (together with Estonia), and in 32nd place in the Microeconomic Competitiveness Index (MICI)[9]. Given the significant gap between the MICI and the GDP per capita indicator (26th place), Slovenia has joined the group of countries whose current level of income will be unsustainable in the future unless microeconomic reforms are completed. In *2002-2003*, Slovenia's national competitiveness improved, the most in the area of microeconomic competitiveness, whereas growth potential in the next medium-term period also increased. Out of 80 countries assessed, Slovenia was in 28th place in the GCI and in 27th place in the MICI. As the gap between the MICI and GDP per capita narrowed, Slovenia should leave the group of countries where the pending microeconomic reforms undermine long-term sustainable growth and should join the group of countries where the created microeconomic foundations provide important, albeit not fully exploited, growth potential. A comparison of Slovenia with nine selected EU member-states and candidate-countries[10] reveals that Slovenia recorded the most positive shifts in its national competitiveness in the last year. Slovenia's ranking determined by the IMD,[11] which applies a different methodology to measure national competitiveness, was much less favourable, as explained in last year's Development Report.

1.2. Changes in the economic structure

THE SEDS' OBJECTIVE: The SEDS does not deal with sectoral policies directly. It does, however, point to some basic changes in the production structure of GDP expected to be brought about by Slovenia's economic development and its integration with the EU. The SEDS takes into account globalisation processes, the integration of European markets, intensive technological progress, and the transition to a knowledge-based society. This chapter aims to identify the structural changes in

[8] The GCI measures a country's growth potential in the next medium-term period (5 to 8 years).

[9] The MICI, replacing last year's Current Competitiveness Index (CCI), measures a country's potential for current productivity.

[10] The selection includes candidate-countries that border Western Europe (Hungary, Czech Republic, Slovakia, Poland and Estonia), EU members that are close to Slovenia's level of economic development measured by GDP per capita (Greece, Portugal), and the neighbouring countries of Austria and Italy.

[11] Slovenia's national competitiveness measured by the IMD's methodology was ranked 39th among 49 countries in *2001* after it had reached 36th place the year before. In the aggregate index, Slovenia was only ahead of Poland among *candidate-countries* and lagged behind all *EU members*. The best score was achieved in the area of business efficiency, while poor scores were seen in infrastructure, economic performance, and particularly government efficiency. Between 2000 and 2001, Slovenia fell in economic performance and infrastructure, rose in government efficiency, and stagnated in business efficiency.

the Slovenian economy seen over the five-year period from 1995 to 2000, as well as in 2001. Further, it tries to establish whether these changes will provide a solid basis for achieving the SEDS' goals.

THE REPORT'S FINDINGS: Positive shifts in the economic structure as measured by the composition of GDP (which does not include all structural changes) were sustained in 2001. Slovenia's economic structure is gradually approaching the structure of advanced industrialised economies as the importance of agriculture and industry is diminishing and the role of services is growing. The fastest-growing segment within the GDP structure is public services, suggesting that the public sector is growing too fast compared to the private sector. The services of wholesale and retail trade, hotels and restaurants, and transport are close to the EU average, while large gaps behind advanced economies are seen in business and financial services. The restructuring process continues in manufacturing, however, this is too slow especially in the area of strengthening technology-intensive industries.

ANALYSIS: Changes in the economic structure can be viewed from different aspects. This chapter will focus on changes in the production structure of GDP which, however, do not reflect all major structural changes in the economy. Some of these, including changes in the composition of exports by factor inputs or the use of electricity, will be dealt with in other parts of the report. **Changes in the structure of GDP** seen from the second half of the 1990s brought Slovenia gradually closer to structural changes of advanced economies. While the shares of services and construction increased in the period from 1995 to 2000, the importance of industry and agriculture decreased. Similar trends continued in 2001: services gained another percentage point in the structure of GDP (a total of three structural points in the period from 1995 to 2001), while the shares of industry and agriculture dropped by 0.3 and 0.2 of a percentage point, respectively. After a sharp rise from 1995 to 2000, and boosted by the construction of roads and railway infrastructure particularly in 1999, construction recorded falls in both 2000 and 2001. However, its share was still above that noted in 1995.

The role of **public services** has strengthened the most in the last six years, going up by nearly two percentage points. After this sector's expansion slowed down in 1998-1999, its share in GDP once again increased sharply in 2000 and 2001, going up by 0.7 of a percentage point in 2000 and 0.6 of a percentage point in 2001. In 2001, the strongest rises were seen in the shares of public administration, compulsory social insurance and education, as well as health and social security. Just like in previous years, the rise in public administration and compulsory social insurance resulted from a fast rise in the number of employees[12], as new institutions were set up as part of preparations for EU membership. Measured by the number of employees, higher education and adult education were the fastest growing segments of education. The share of social security increased the most within health and social security, chiefly due to the sharp rise in the activity of sheltered workshops[13].

[12] The number of employees in public administration, defence and compulsory social insurance rose by 3.8% in 2001, a record within the past few years.

[13] Noting that social security is not the main line of business of sheltered workshops, 2002 saw a change in their statistical classification. These companies will now be listed under the business they actually perform, which is to be reflected in the structural changes within health and social security in 2002.

The share of **predominantly market-oriented services** grew much more slowly than that of public services; a rise of around one percentage point in the structure of GDP was noted in the period from 1995 to 2001, with an increase of 0.3 of a percentage point in 2001. This growth was primarily fuelled by business and financial services, whereas the shares of traditional services – wholesale and retail trade, hotels and restaurants, and transport – remained unchanged. Although slow, the strengthening and development of business and financial services, which complement production services, is important because they can boost the competitiveness of the economy. Compared with international trends, the Slovenian economy's structure reveals that Slovenia is lagging most strongly behind the EU average in its share of business and financial services relative to GDP. What is more, the gap even widened from 9.6 percentage points in 1995 to 10.5 percentage points in 2000 and 2001, which highlights the need to encourage the development of knowledge-based services. In the same period, Slovenia's share of public services nearly caught up with the EU average, as did the shares of wholesale and retail trade, hotels and restaurants, and transport in GDP.

The role of **industry** in Slovenia remains significantly above the average of EU member-states despite deindustrialisation in the past decade. Its role even increased in comparison with the EU average in the period from 1995 to 2001, namely from 6 percentage points in 1995 to 6.8 percentage points in 2000 and 2001. Manufacturing is the sector of industry whose role has diminished the most, losing nearly one percentage point in the GDP structure in the six-year period, and 0.3 of a percentage point in 2001. Mining is on the decrease as well (see Table 1), primarily because of the gradual closure of brown coal mines. On the other hand, the supply of electricity, gas and water reveals a steady upward trend. After increasing from 4.3% in 1995 to 5.3% in 2000, the share of construction in GDP dropped to 5.2% in 2001.

Restructuring of the **manufacturing** sector aimed at increasing its productivity is essential for improving the economy's competitiveness. The indicator of structural changes intensity[14] reveals that the intensity of restructuring slowed down in the 1990s as measured by changes in the structure of value added and the structure of employment. Nevertheless, slight fluctuations from the long-term trend can be noticed in several years. After 1995, the intensity of structural changes somewhat strengthened in 1999 and 2000 only to slow down again in 2001, when the indicator was at its lowest level: for instance, it was 1.1 in 1995 and 0.3 in 2001 as regards value added. The intensity of structural changes in 1999 and 2000 was very likely encouraged by the relatively strong fluctuations in domestic and foreign demand.

[14] $S = \sqrt{\sum_{i=1}^{n} \left[\left(sh_{i_{t+1}} - sh_{i_t} \right)^2 \cdot \left(\frac{sh_{i_t}}{100} \right) \right]}$

sh_i: the share of i from among n sub-sectors (departments, groups) in the entire value added or in employment in manufacturing. If the value of the indicator is low (close to 0), then the intensity of structural changes in manufacturing in time is small.

Table 1: **The structure of gross domestic product in 1995, 2000 and 2001**

Activities		Share in gross domestic product, % (current prices)			Structure of persons in employment, %		
		1995	2000	2001	1995	2000	2001
A.	Agriculture, forestry, hunting	3.9	2.9	2.7	6.9	5.6	5.2
B.	Fishing	0.0	0.0	0.0	0.0	0.0	0.0
C.	Mining and quarrying	1.2	0.9	0.8	1.0	0.7	0.7
D.	Manufacturing	24.6	24.0	23.7	34.4	29.4	29.3
E.	Supply of electricity, gas, water	2.6	2.8	2.9	1.5	1.4	1.4
F.	Construction	4.3	5.3	5.2	6.6	7.9	7.9
G.	Wholesale and retail; repair of motor vehicles	10.5	10.0	10.1	13.0	13.6	13.6
H.	Hotels and restaurants	2.6	2.8	2.9	4.1	4.3	4.3
I.	Transport, storage and communications	6.7	7.0	6.9	5.9	6.0	6.0
J.	Financial intermediation	3.5	3.9	3.9	2.2	2.4	2.4
K.	Real estate, renting and business activities	10.1	10.5	10.7	5.7	6.7	6.9
L.	Public administration, defence, compulsory social insurance	4.6	5.0	5.2	4.2	5.2	5.4
M.	Education	4.9	5.1	5.3	5.8	6.4	6.5
N.	Health and social security	4.6	4.8	5.0	5.3	6.4	6.6
O.	Other community, social and personal services	2.9	3.3	3.4	3.4	4.0	4.1
	FISIM	-2.0	-1.9	-1.7			
A+B	Agriculture, forestry, fishing	3.9	2.9	2.7	6.9	5.7	5.2
C...F	Industry and construction	32.6	33.1	32.6	43.6	39.4	39.2
C…E	Industry	28.3	27.7	27.4	2.6	2.1	2.0
G..O	Services	50.2	52.3	53.2	49.5	54.9	55.6
G...K Predominantly market-oriented services		33.3	34.1	34.4	30.8	33.0	33.2
L...O PPredominantly non-market oriented services		16.9	18.2	18.8	18.7	21.9	22.5

Source of data: SORS, calculations by the IMAD (Autumn Report 2002).

On the basis of the shift-share analysis[15] it has been established that structural changes did enhance productivity in manufacturing in 1995-2001, albeit to a relatively limited extent. Productivity was most strongly boosted by growth in value added per employee in individual sectors (the inter-sector component of productivity growth). Another element that also raised productivity was the fall in employment, however, the contribution of employment losses to productivity growth had been dropping since 1996. In 2001, productivity measured by value added per employee first increased against the background of employment growth.

[15] A shift-share analysis is based on three components of productivity growth: (i) the inter-sector component which defines the economy's ability to shift production resources from low- to high-productivity sectors; (ii) the inter-action component which reflects the ability to redistribute resources to those sectors with fast-growing productivity; and (iii) the intra-sector component which measures the contribution of productivity growth within individual sectors weighted with the share of the employees of these sectors within overall employment in an industry.

Manufacturing industries that most increased their shares in the structure of value added in the second half of the 1990s were largely capital-intensive and highly innovative[16] industries and heavily export-oriented industries (making more than 60% of their earnings abroad): chemical industry, manufacture of basic metals and metal products, manufacture of machinery and equipment, and electrical products industry. A contraction within the overall structure was recorded in labour-intensive industries such as the textile, leather and wood-processing industries. Sharing relatively low value added per employee, these industries are failing to grow at the fast rate enjoyed by technologically more advanced industries. With the lifting of import restrictions on final textile products and shoes, and the reduction of quota restrictions on imported textile products, the textile and leather industries faced the toughest competition in the domestic market in the second half of the 1990s. Moreover, export orientation of the textile industry has declined over the last few years, while in the leather industry the share of revenues earned in foreign markets dropped the most in 1998 and also edged down in 2001. The role of the food-processing industry shrank rapidly after 1996. This industry was faced with the gradual elimination of foreign trade protective measures, while its restructuring has so far been relatively slow. Its poor business results were the result of both the liberalisation of international trade in agricultural and food products and the vertical competition from the wholesale and retail sector (Kuhar, 2001). The structural changes typical of the second half of the 1990s largely continued in 2001. In addition to the fast-growing industries mentioned above, the manufacture of vehicles and the rubber industry also increased their shares in value added in 2001. As regards industries whose shares dropped most significantly in the period from 1995 to 2000, the share of the textile industry stopped falling in 2001, while the share of the leather industry remained unchanged for the fourth year in a row. In both industries, special state-sponsored restructuring programmes have been underway in recent years.

All structural changes that the country underwent in 1995-2001 have resulted in the **narrowing of Slovenia's gap** with Austria, Italy, Belgium and Denmark, the four EU member-states whose industrial structure is the most comparable with that of Slovenia[17]. One can therefore conclude that the structural changes in the analysed period were favourable. However, a question arises of whether they were carried out at the right pace. Comparisons show that the intensity of restructuring in Slovenian manufacturing (the indicator of restructuring intensity for 1995-2000 was 1.51) was stronger than in 11 out of 13 EU members in the second half of the 1990s[18] (more intensive changes in the structure of value added were recorded in Finland: 5.5 and Denmark: 2.1) and slower than in three transition countries for which data are available (Hungary 3.7, Czech Republic 3.0, Slovakia 3.3)[19]. Slovenia's slower restructuring compared to some other countries in transition is usually explained by the fact that the Slovenian economy was relatively open to Western European markets before transition and was, as early as the beginning of the 1990s, structurally closer

[16] For further treatment, see the Analytical Appendix, the indicator Innovative Enterprises in Manufacturing.

[17] Given the great differences in the structure of manufacturing among European states, it makes sense to compare Slovenia with those that have a similar industrial structure.

[18] No data are available for Ireland and Spain.

[19] The indicators of Czech Republic and Slovakia refer to the period from 1993 to 1999.

to Western European countries than other economies in transition. Despite this, Slovenia is already lagging behind several transition countries as regards the share of high-technology-intensive industries[20]. Intensive structural changes in the Hungarian and Finnish manufacturing sectors have revealed that, in order to improve one's competitive edge, major changes are needed. These changes must be based on technological restructuring as well as large-scale investment in research and development, information and communication technologies and innovation. Moreover, a significant role should be attributed to knowledge-based services.

[20] Based on the OECD methodology, the shares of high-technology intensive industries in 1999 were as follows: Slovenia 6.6%, Hungary 26.3%, Czech Republic 8.8%, Poland 6.4%, Slovakia 5.9%. Slovenia's share in 2001 was 8.2%, while there is no fresh data for the other countries.

2. Prerequisites for implementing the development strategy

According to the SEDS, the prerequisites for implementing the development strategy include the provision of macroeconomic stability and the completion of institutional reforms. The first is implemented through classical macroeconomic (monetary, incomes and fiscal) policies, while the second requires the establishment of a functioning market economy.

2.1. Macroeconomic stability

THE SEDS' OBJECTIVE: The stability of the main macroeconomic frameworks is the key requirement for efficient implementation of the SEDS' objectives, and their achievement is one of the primary tasks of classical macroeconomic policies: monetary, income and public finance policies. The main goal of monetary policy is to gradually reduce inflation to the level required for accession to the EMU. In accordance with the practice hitherto and the EU's Broad Economic Policy Guidelines, incomes policy aims at keeping real growth in the gross wage per employee below labour productivity growth; thus, it will help reduce inflation and create the conditions in which enterprises are able to increase their investments in technology, markets and human resources, and consequently strengthen competitiveness and raise the employment rate. The key strategic guideline of fiscal policy is the restructuring of those public finance expenditures and revenues that will have a positive impact on economic competitiveness and will, in the medium term, facilitate the gradual balancing of public finances without increasing their share in GDP.

THE REPORT'S FINDINGS: Macroeconomic policies (monetary, incomes and fiscal policies) performed their stabilising role relatively effectively up to 1999, while the favourable economic outcomes after 1999 were achieved on account of pronounced macroeconomic imbalances. In 2001 and 2002, economic growth slowed down below the average of the previous few years partly due to the faltering export market growth in advanced trading partners, the cyclical developments in domestic demand aggregates, which had emerged as early as in 2000, and the unfinished structural reforms. Unlike prices and public finances, where no significant improvement has been seen in the last few years, the balance of payments was brought back into balance in 2001 and turned into a relatively large surplus in 2002. However, it is questionable whether this closing of the investment-savings gap is beneficial for development because, given the improved structure of inflows in the capital and financial account, any wider deficit would not have undermined the potential sustainability of the current account. The persistence of inflation at a relatively high level has for the last three consecutive years primarily stemmed from the pending structural reforms, mainly involving the slow restructuring of the non-tradable sector, the rigid structure and volume of general government expenditure, and indexation mechanisms. After the macroeconomic balance between wage and productivity

growth levels had been undermined in 2001, the real gross wage per employee again rose below the rate of labour productivity growth in 2002. While positive employment trends had been sustained for three years, employment growth eased in 2002, especially in manufacturing, and unemployment began to drop more slowly as a result of the dampened economic growth.

ANALYSIS: In the period following Slovenia's independence, the macroeconomic policies (monetary, incomes and public finance policies) carried out their stabilising task with relative success. Until 1997, economic growth was achieved without causing any major public finance imbalances, and until 1999 also without a major deficit in the current account of the balance of payments. The reduction of inflation also had a substantial role in stabilising the whole economy. The **indicators of macroeconomic stability**[21] show that the relatively favourable economic results after 1999 were accompanied by pronounced macroeconomic imbalances; given the increased instability of the international environment, these imbalances reflected domestic discrepancies of a persisting structural nature or, in other words, they were the result of the postponed and slow implementation of structural reforms.

In 2001 and 2002, **economic growth** fell below the average of several preceding years and this was the expected result of the slower growth of the export markets in developed trading partners in both years. In 2001 and 2002, economic growth in the EU and USA dropped considerably: in the EU from 3.4% in 2000 to 1.5% in 2001, and to 0.9% in 2002 (preliminary data published by Eurostat); in the USA from 3.8% in 2000 to 0.3% in 2001. In 2003 the USA already saw its economic growth strengthen to 2.4%, but this improvement was not yet reflected in GDP growth in the countries of the EU. The impact of subdued economic growth in the developed trade partners was absorbed well because Slovenia managed to retain an above-average export growth rate to the countries in transition, and also to increase its market shares in EU countries. This growth of market shares in the EU suggests possible positive developments in export competitiveness which, compared to other countries in transition, improved slowly in the previous years because of the belated implementation of structural reforms, thus preventing exports from growing faster and contributing more to economic growth[22]. The slower economic growth in 2001 and 2002 was to some extent the result of a domestic cyclical factor – the movements of domestic consumption aggregates. This had already been recorded in 2000 and was expected in view of the high levels attained in 1999. However, the growth cycle of investment consumption went deeper and that of private consumption lasted slightly longer than expected, the latter primarily because of changes in the structure of the consumption of disposable income in favour of savings. Investment consumption even dropped in real terms in 2001 and this was not only the result of the cyclical trend but, to a large extent, also of public finance restrictions and their indirect and direct impacts on investment in infrastructure. Assisted, amongst others, by counter-cyclical economic policy measures, 2002 saw the faster recovery of investment activity in infrastructure, although the available data still do not suggest

[21] Indicators of macroeconomic stability: 1) Gross Domestic Product Growth; 2) Inflation; 3) Balance of Payments; 4) External Debt; 5) Public Finance Balance; 6) General Government Debt; 7) Employment Rate; 8) Unemployment Rate: 9) Country Risk.

[22] For a detailed treatment of the structural backlog of Slovenian exports competitiveness, see Chapter 3.2.1.

an upturn in residential construction or significant strengthening of investment in the private sector. Therefore, the structure of investment is changing, both institutionally and in terms of economic purpose (a bigger share in financing by the public sector and more infrastructural investment than envisaged on a medium-term basis). The inadequacy of financial system mechanisms to channel funds into productive investment is reflected in the private sector's investment growth, especially in view of the high financial inflows from abroad and high liquidity of the domestic banking system in 2002. Due to the high returns on the central bank's securities, connected with measures taken to limit financial inflows from abroad, the structure of the bank's assets is changing in favour of the latter and to the detriment of investment in the economy, partly resulting from the crowding-out effect and partly from unfavourable borrowing terms due to indexation applied to long-term financial contracts. Hence, the slowdown of economic growth and changes in the GDP structure, compared to the medium-term projections of the SEDS, are not only the result of the changed conditions in the international environment and domestic as well as foreign cyclical factors, but they also again reflect the slow implementation of structural reforms.

The unfinished structural reforms are another important factor that has influenced the macroeconomic imbalance in the area of **inflation**, which has persisted at relatively high levels for three years in a row. The negative effects primarily derive from slow restructuring in the non-tradable sector, the relatively rigid structures and scope of public finance expenditure, and indexation. The slow restructuring in the non-tradable sector led to inflexibility and faster wage growth in this sector, which put upward pressure on inflation through raising the administered and non-administered prices of services, and maintained inflation at the existing level. In fiscal policy, the unfinished reform contributed to upholding the high share of the public finance sector in GDP (to a large extent this was also connected with the growth of expenditure on wages in the public sector); as a result, the need to increase the tax burden mounted and further pushed inflation up. Combined with increased price pressures from abroad and the relatively uncoordinated economic policies, these effects kept inflation at a level that is too high to ensure stable economic growth or join the ERM2.

After 2000, subdued economic growth caused growth in compulsory public finance revenues to lag behind GDP growth. Slack domestic consumption, the movements of imports, expressed in tolars, and trade agreements coming into force mainly diminished indirect taxes (VAT, customs duties), creating pressures to increase the tax burden and to search for other sources. The share of public finance expenditure in GDP gradually climbed after 1996 and in 1999 reached a level of over 44%, thereby exceeding fiscal capacities. In 2000 and 2001, public finance expenditure continued to grow faster than compulsory taxes; the **public finance deficit** climbed from 0.6% GDP in 1999 to 1.4% GDP in 2000-2002. The structure of public finance expenditure did not change essentially after 2002. The biggest increase was recorded by the share of expenditure on wages and interest, while the share of pensions, material expenses and subsidies dropped. The share of capital expenditure and transfers ranged around 4.2% of GDP, except in 2001 when it rose to 4.4% of GDP. The economic policy measures for 2002, adopted in the last months of 2001, were therefore aimed at restructuring public finance expenditure in favour of investments.

On the revenue side of public finances, VAT rates and excise duties were raised at the beginning of 2002. The structure of public finances thus changed as the share of indirect taxes increased, while those of direct taxes and social security contributions fell, a development that was also brought about by the changed payroll tax which slightly disburdened labour costs. The new macroeconomic trends and consequently lower forecasts led to a revision of the national budget in mid-2002, which adjusted budget expenditures to the lower inflows and helped in maintaining the current public finance deficit at around 1.5% of GDP in 2002.

The lion's share of **general government debt,** which climbed to 27.5% of GDP in 2001, is central government debt. In the entire period following 1997, central government debt was higher every year, mainly because of the autonomous growth and financing of the budget deficit. In 2002, the government carried on its strategy of financing budget requirements as much as possible in the domestic financial market, thus strengthening its role in that market. The government's simultaneous implementation of a policy aimed at extending the maturity of nominal financial instruments contributed to the de-indexation of the economy and the development of domestic primary and secondary markets of government securities. The programme on how to utilise the proceeds from the sale of the state's capital share in Nova Ljubljanska banka envisaged them being used to reduce the public debt in a way that would ensure maximum long-term fiscal effects, given its monetary effects and impact on the domestic financial system.

Unlike price and public finances, where no major improvement has occurred in recent years, the balance of payments was restored to equilibrium in 2001 and turned into a relatively high surplus in 2002 – the highest after 1994. The positive current account position was partly due to the structure and subdued domestic consumption growth, reflected in low real import growth and sustained high export growth. The latter was the result of strong export growth to the markets of Eastern and South-east Europe, also connected with increased investment activity of Slovenian companies and, in 2002, also stimulated by stronger growth in services exports and the expansion of market shares in the European Union. Taking into account the improved structure of inflows on the capital and financial accounts of the balance of payments – the improvement is the result, on one hand, of bigger inflows of direct foreign investments and, on the other, of the relatively modest level of new loans taken out abroad by banks and companies – the question arises of how favourable the narrowing of the investment-savings gap (which corresponds with the current account of the balance of payments) really is in development terms. Indeed, the structure of the inflows on the capital and financial account means that an even higher deficit would not pose a threat to the sustainability of the current account. The surplus, basically just as much a reflection of macroeconomic imbalance as a deficit, hence draws attention to the discrepancy between savings and investments; this discrepancy is, on one hand, the result of the abovementioned lack of mechanisms to direct funds into investments but, on the other hand, it may also be the result of the relatively scarce investment projects within the corporate sector, which only recently has seen changes in the direction of offensive restructuring.[23] The high surplus on the current account of the balance of payments

[23] See Chapter 3.2.1.: Raising the corporate sector's competitiveness.

also suggests the option to consider depreciation of the tolar. This would reduce import costs (because of the lower costs of exporters' imported components the net impact of slow depreciation on the volume of exports and the position of exporters would be relatively minor) but, much more importantly, it would help reduce inflation[24].

Pressures to increase **wages in the public sector** subsided in 2002, since the active measures taken by the economic policy-makers managed to halt the negative trends that had disrupted the macroeconomic balance between wages and productivity in 2001. The wave of higher wage supplements, driven by corresponding changes in the sectoral collective agreements and the professional collective agreement for doctors, had started in 1998 and, in 2001, resulted in a sharp rise in wages per employee in the public sector; in addition, employment increased during the entire period and the total value of gross wages increasingly burdened public finance resources. The Annex to the Collective Agreement for the Public Sector settled the wage policy in the public sector for the 2002-203 period, and the negotiations on the wage policy in the private sector at the national level were concluded with the Agreement on Wage Policy for 2002-2004, a separate document of the Social Agreement. The agreements reached in both sectors took account of the main objective of incomes policy: the real growth of the gross wage per employee should be one percentage point lower than labour productivity on average during this period. To achieve the objective of slower growth of the gross wage per employee in the public sector, the mechanism agreed in the Annex, and which adjusts basic wages in line with the consumer price index, is slightly more restrictive than in the private sector. Wage growth in the public sector in 2002 was indeed lower than that in the private sector and essentially contributed to the re-establishment of a sustainable macroeconomic ratio between wage growth and productivity growth.

In 2002, the **labour market** reflected the impact of subdued economic growth in 2001 and 2002, and after three years of favourable trends negative ones appeared. As the expected revival of the world's economy was delayed, the dynamics of employment growth and reduction of unemployment slowed down. Employment even dropped in manufacturing industries in 2002, because their strong integration into the international environment makes them highly vulnerable to the effects of economic trends in Slovenia's trading partners.

In spite of the slowdown of economic growth and the persisting high public finance imbalance and inflation, Slovenia's country risk ranking by Moody's agency improved when the accession negotiations with the EU concluded. Its further improvement in the rankings of this agency and other relevant agencies primarily depend on the dynamics of implementing structural reforms, which would allow Slovenia to meet the convergence criteria for joining the ERM2 and later the EMU, because this would automatically mean the lowest risk level or highest ranking.

[24] According to the IMAD's estimate, a slowdown in the exchange rate's nominal growth by about half could result in reducing year-on-year inflation in twelve months by 0.4 to 0.6 of a percentage point (Autumn Report 2002, p. 17).

In its rating of national competitiveness, the World Economic Forum (WEF) ranked Slovenia eleven places lower in 2002 than in 2001 in the **macroeconomic environment index** (2002: 50th, index value 3.95; 2001: 39th, index value 4.02). The sharpest fall, by 8 places, was recorded by Slovenia's already low ranking in the government expenditure sub-index (from 60th down to 68th place, by sub-index value from 2.61 to 2.21); competitiveness also dropped in the field of macroeconomic stability (from 32nd to 35th place, or from 4.41 to 4.36). Within the macroeconomic environment index, Slovenia's ranking only improved in the credit rating sub-index (from 27th to 26th place, or from 4.63 to 4.88).

2.2. Completion of institutional reforms from the transition period

THE SEDS' OBJECTIVE: Given the institutional reforms that remain uncompleted from the transition period, the Slovenian economy is still dominated by direct political influence while individual economic sectors and labour market segments are over-regulated. In such circumstances, the conditions for the existence of an implementation gap[25] have been maintained. In order to carry out the transition's institutional reforms, the SEDS envisages the completion of the transitional restructuring of the corporate and financial sectors, the completion of reforms relating to public utilities, the labour market, pension reforms, regional policy and other crucial reforms where deficits are recorded.

THE REPORT'S FINDINGS: Slovenia is characterised by the relatively slow implementation of transitional reforms. As a result, Slovenia managed to catch up with countries whose reform efforts were most vigorous as late as in the final years of the 1990s. Transitional reforms in Slovenia are still unfinished, with the main deficiencies being recorded in the areas of corporate sector reform, non-banking financial sector reform, and the application of competition policy. Slightly more progress has been made in the areas of privatisation and infrastructure reform. In its reports on progress towards EU accession, the European Commission assessed Slovenia's progress as positive but pointed out the setbacks detected in the areas of reducing the backlog of court cases and land register entries, privatisation of the banking and insurance sectors, boosting the economy's competitiveness, lifting administrative barriers, manufacturing's restructuring, small and medium-sized enterprises, inflation, unbalanced public finances, and the administrative capacity to implement the EU's law.

ANALYSIS: The course of most reforms will be dealt with in the following chapters; here, a general assessment is made based on the transition index and the assessment of Slovenia's reforms by the European Commission in its fifth Regular Report on Progress towards Accession.

The European Bank for Reconstruction and Development (EBRD) has since 1994 published Transition Reports containing its findings about the course of the

[25] The implementation gap is the difference between the formally adopted measures and their actual functional implementation, between the formally regulated and the actual influence of different social players.

Table 2: **Values of the EBRD indexes for Slovenia**

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Price liberalisation	3.0	3.0	3.0	3.0	3.0	3.0	3.3	3.3	3.3	3.3	3.3
Exchange rate system and trade liberalisation	3.0	3.0	4.0	4.0	4.0	4.3	4.3	4.3	4.3	4.3	4.3
Privatisation of small enterprises	3.0	3.0	4.0	4.0	4.0	4.3	4.3	4.3	4.3	4.3	4.3
Privatisation of large enterprises	1.0	1.0	2.0	2.0	2.7	2.7	3.0	3.0	3.0	3.0	3.0
Reform of the corporate sector	1.0	1.0	2.0	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
Competition policy	1.0	1.0	2.0	2.0	2.0	2.0	2.0	2.3	2.3	2.7	2.7
Reform of the banking sector	1.0	2.0	3.0	3.0	3.0	3.0	3.0	3.0	3.3	3.3	3.3
Reform of non-banking financial institutions	2.0	2.0	2.0	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
Infrastructural reform			1.7	1.7	1.7	2.0	2.0	2.7	3.0	3.0	3.0
Legal extensiveness[1]							3.0	3.0	4.0	4.0	3.7
Legal effectivenes[2]							4.0	3.0	4.0	3.7	4.0
AVERAGE OF ANNUAL VALUES OF EBRD INDEXES	1.9	2.0	2.6	2.8	2.9	3.0	3.1	3.1	3.4	3.4	3.4

Sources of data: EBRD Transition Reports 2000 and 2002.
Notes: [1] legal extensiveness - the indicator shows to what degree the legislation meets minimum international legal standards; [2] legal effectiveness - the indicator shows to what extent legally acknowledged rights can be realised through legal action.

transformation process in the 27 countries in which the bank operates. The progress of reforms is measured with a special **transition index**[26]. Though the EBRD cautions that the quality of the collected data differs from country to country, its database is undoubtedly one of the most comprehensive and detailed ones on transition. Its biggest advantage is the length of its time series, because estimates have been provided at annual levels from 1991 onwards, and for some factors even from 1989.

A comparison of the **average transition index** (as the non-weighted arithmetic mean of the eleven indicators) between the eight most progressive transitional countries[27] shows that in 2001 (most recent data) Hungary was closest to the level of a developed market economy, but the differences between the other countries were relatively small (index values between 3.2 and 3.5). Slovenia ranked in the middle of the eight countries under study with an index value of 3.4. Considering the entire transitional period, Slovenia's level of progress lagged behind that of Hungary and Poland and, after 1994, also behind Estonia. In 1997 Slovenia caught up with and overtook Slovakia; two years later the level of its reforms equalled that of the Czech Republic and the average level of the eight countries. Slovenia thus

[26] The transition index and its 11 indicators cover 6 key reform areas (liberalisation, privatisation, companies, infrastructure, financial institutions, and the legal environment). Every individual indicator is a synthesised assessment of progress in a particular area, established on the basis of different data, descriptive information about reforms and their analyses. The indicators have whole values from 1 to 4 and a plus or minus sign can be added to the basic value. In such cases and for the requirements of quantitative analyses, 0.3 is added to or subtracted from the basic value. An index value of 1 means that a country is still at the level of a centrally planned economy in a particular aspect of transition; an index value of 4.3 means that a country has achieved the level of a market economy.

[27] The comparison includes the Czech Republic, Estonia, Latvia, Lithuania, Hungary, Poland, Slovakia, and Slovenia.

ranks among those countries with a relatively slow-paced implementation of reforms and managed to reduce its backlog behind those countries which are carrying out reforms more intensively only in 1999.

The analysis of the individual indicators included in the calculation of the transition index (Table 2) shows that Slovenia's *main backlogs* in implementing reforms are found in the corporate sector, the non-banking financial sector, and the introduction of competition policy. The assessment of progress in privatisation and infrastructure reform is slightly better. For the areas of the liberalisation of international trade, the exchange rate system, and the implementation of an effective legal system, the transition process is all but completed.

In its annual **Regular Report on the Progress towards Accession to the EU,** the European Commission assessed Slovenia's progress in the last year as positive in all areas, pointing out areas where decisive progress had been achieved and others where delays and backlogs are recorded. Slovenia has also completed its accession negotiations with the European Union.

In the field of *political criteria*, the European Commission especially commended the adoption of the **Civil Servants Act** which sets out the legal framework for reforming the state administration. Concerning reform of the courts, the Commission criticised its slow pace because only partial progress has been achieved in eliminating the backlog of pending court cases, while the number of those involving the land register is on the increase.[28] Concerning *economic criteria,* the Commission's assessment was that Slovenia is a functioning market economy capable of coping with the competitive pressure of the European market – if the reforms are pursued further. The Commission, however, noted that reform is too slow in some areas, in particular regarding the closure of the Slovenian Development Corporation, privatisation in the insurance sector and completion of privatisation in the banking sector. The Commission's assessment of *macroeconomic stability* determined that the fundamental causes of persisting inflation pressures and, consequently, high inflation rates derived from the flexible monetary policy, continuing modest depreciation of the tolar's exchange rate, and the lack of competition in some areas of the economy. While some progress was achieved in the liberalisation of prices, administered prices continue to contribute more to inflation than their share in the consumer price index. As part of the medium-term fiscal policy aimed at balancing public finances, the Commission commended the adoption of a two-year national budget since it contributes to the transparency and control of public finance. The Commission, however, pointed out that the credibility of budgets covering several years requires the scope and number of changes to be limited. In order to adjust public finances in the medium term and to increase fiscal flexibility, the cost pressure on public finances, caused by the high share of the budget's compulsory commitments and the wage growth in the public sector, have to be reduced. Slovenia's dependence on its trade with the EU is still high, though the share of Slovenia's trade with its principal trading partners has subsided in recent years, while exports to the countries of former Yugoslavia have increased as a result of the stabilisation and growth of

[28] For more, see Chapter 3.3: Increasing the efficiency of the state and the formulation of policies for integration into the single European market – Rules of economic activity.

their markets, but not because the Slovenian economy's competitiveness improved. The *business climate* in Slovenia was assessed positively because it improved following the adoption of more flexible labour laws, the continuing elimination of administrative barriers, the initiation of the de-indexation of interest rates and progress in wage adjustments, and the gradual liberalisation of financial markets. These developments also led to higher foreign investments, although estimates show that political opposition to them continues in certain sectors. Referring to the further improvement of the business climate, the Commission advised the elimination of the highly bureaucratic and lengthy procedures and difficulties in obtaining building permits and work permits, and in hiring and firing workers; all these factors have a negative impact, in particular on investment growth. As far as *changes in the economic structure* are concerned, progress was made in reducing the share of manufacturing and agriculture in GDP in favour of services; however, due to the slow restructuring of manufacturing industries, industries with low value added continue to prevail. The significance of small and medium-sized enterprises is diminishing as they are still struggling to resolve certain transitional and administrative problems; owing to the lack of specific financial resources, few of them are innovative, knowledge-based, hi-tech companies. The adoption of the 'Action programme to promote entrepreneurship and competitiveness' achieved some progress, but there are still shortcomings in the co-ordination between ministries and in the public administration's co-operation with the business sector; if these are eliminated, small and medium-sized enterprises will be better prepared for accession to the EU. Regarding the *transfer and implementation of the acquis communautaire*, the Commission highly commended the progress made in the free movement of persons, fisheries, the Economic and Monetary Union, employment, social, regional and environmental policies, and financial control. In *administrative capacities,* progress was made, but not sufficient for complete adoption of the *acquis*. Some shortcomings (e.g. construction legislation, public sector wages, increasing market shares in the main trading partners, adoption of legislation to eliminate the difficulties involved in obtaining work permits and in hiring and laying-off workers), put forward by the European Commission, were resolved by the end of 2002.

3. Development strategy's implementing mechanisms

The underlying principle of the mechanisms designed to bring the development strategy into reality is complex national competitiveness. As pointed out in Chapter 1, national competitiveness has improved over the last year. The SEDS set out the main mechanisms to bolster complex national competitiveness, which relate to structural and development policy guidelines in the following fields: (i) transition to a knowledge-based society; (ii) strengthening the economy's competitiveness; (iii) state efficiency; (iv) integration into the EU's internal market; and (v) balanced regional and spatial development.

3.1. Transition to a knowledge-based society

THE SEDS' OBJECTIVE: The knowledge-based society is characterised by a number of interconnected factors of development, such as the creation of knowledge (investing in education, research, technological development, innovations) and the transfer of knowledge (transfer of research results, application of knowledge and information communication technology) to all spheres of the economy and society. The parallel development of all the above factors can contribute, on a long-term basis, to supporting the knowledge-based society and thus to accomplishing sustainable development as defined by the SEDS.

THE REPORT'S FINDINGS: The most important mechanism for realising Slovenia's development strategy is the transition to a knowledge-based society. In the field of education and training, quantitative shifts were seen in youth education, while adult education and lifelong learning made too little progress. The adult population's education structure is improving, however, what remains critical is the low level of adult enrolment in education, the low percentage of people who have finished tertiary education, and the low level of functional literacy. Over the last year, Slovenia has made little progress or faltered in the areas of investment in research and technological development and innovation in enterprises. In the context of dynamic global changes, this contributes neither to further development or implementation of the knowledge-based society nor to the SEDS' objective of raising the share of research and technological development in GDP to around 2% before 2006. The gap between Slovenia and the EU in Internet use, which has emerged in the last year, suggests that Slovenia is late in systematically encouraging the information society. This has partly resulted from the inefficient market structure, however, it also reflects the small share of the population who have finished tertiary education, who are the most frequent users of the Internet.

ANALYSIS: At the start of the new millennium, advanced industrialised countries are intensifying their efforts to strengthen the key factors of the knowledge-based society and are increasing the competitiveness of their economies: education (in particular tertiary education); research, development and innovation; and the intensive use of information communication technologies. These three factors are

inextricably connected and only co-ordinated efforts in all spheres can yield good results – as indicated by the activities of the European Commission.

Education and training

Knowledge and education are the key factors of success at the individual, corporate and national levels, and are crucial for the development of a knowledge-based society. The increase in the average number of years in schooling of people in employment, estimated at 11.3 years in 2002, suggests a modest and gradual improvement of Slovenia's educational capital. The highest levels of education are registered in the public administration, education and other services, where the average number of years of schooling saw the highest increase in the 1995-2002 period.[29] Data on the education structure of the employed and unemployed reveal that employment is increasing among the better-educated job-seekers and falling among job-seekers with a lower education[30].

The high **participation of young people in education** mainly fuelled the rising level of education. It increased further in 2002: in the 16-19 years age group participation in secondary education rose from 82% (1995) to 94.3% (2002); in the 20-24 years age group participation in undergraduate education programmes climbed from 30.1% (1995) to 52.4% (2002). The **net enrolment ratio** after completed compulsory education and up to age of 17 exceeds 90%, and it is higher than in the EU and OECD countries in the age groups up to 29 years. In older age groups, the net enrolment ratio drops considerably below the EU and OECD averages. In the 30-39 years age group, for instance, it is 3% (5% in the EU), and over 40 years only 0.4% (1.3% in the EU) (Bevc et al., 2002). The latter figures reveal the low participation levels of adults in formal education programmes.

Given that the number of secondary school and university students completing their studies is increasing, although adult participation in education remains insufficient, Slovenia lags behind some developed countries, and even behind the Czech Republic and Poland, in terms of the **share of the population (over 25) with a secondary or tertiary education**. The backlog behind the EU countries is particularly evident from the indicator of the share of the population with a tertiary education. While this share is increasing – the share of the population over 25 with a tertiary education climbed from 12.8% in 1995 to 14.8% in 2002 – it could increase faster in the future if the number of dropouts were reduced. Research on the success rate of tertiary-level students (Bevc et al., 2001), which monitored the generation of students enrolled in 1991/1992, indeed shows that only 50% of the students completed their studies within 8 years. The **lifelong learning rate,** measured by the participation of adults in education and training, is also considerably below the European level (structural indicator, SORS, 2003).

[29] The surge in the average number of years of schooling in health and social care in 2002 resulted from the re-classification of those employed in sheltered workshop into other activities.

[30] The result is a high long-term unemployment rate in European terms (structural indicator, SORS) and a higher number of unskilled job-seekers, although the unemployment rate is relatively low.

Slovenia allocates a significant share of public funding to education. In the 1995-2002 period, **public expenditure on education** (including pre-school education) ranged between 5.5% and 5.7% of GDP, which is more than the 1998 averages in the EU and the OECD countries. The exceptionally fast rise in the number of students in the 1990s was not appropriately met by an increase of public finance for funding tertiary education nor did the educational staff expand. According to data from the Ministry of Finance, the share of expenditure on tertiary education ranged between 1.1% and 1.2% of GDP in the 1995-2000 period – slightly below the 1998 average in the OECD and EU-15 (1.3% of GDP). Along with the fast growth in the number of students, these discrepancies led to discussions on the financing of higher education and also to ideas about introducing tuition fees for regular students. The increase of the number of students per academic teacher, combined with the low functional literacy of the population, poses questions about the quality of education.

Research, technological development and innovation

In the fields of **investing in research and technological development** (R&TD), Slovenia continues to lag behind the EU countries. In the second half of the 1990s the country failed to increase the share of expenditure on R&TD in GDP; moreover, the share stagnated at 1.52% in 2000, whereas the average in the EU countries stood at 1.93%. Although this indicator and the number of researchers per 1000 persons in employment rank Slovenia first among the EU candidate-countries, and while some positive shifts in investing in R&TD did occur in the 1995-2000 period, reflected above all in accelerated investing by the corporate sector, the present situation maintains many shortcomings and does not enable the faster enhancement of the Slovenian economy's competitiveness. The structure of government expenditure in R&TD considerably worsened in 2000, compared to the previous year, to the detriment of the share of applied research and experimental development, which together receive only about a quarter of government expenditure in R&TD, additionally impeding co-operation between the academic research sphere and the corporate sector. In 2000, the corporate sector's share, when compared to 1999, decreased due to the reduction of investments in R&TD in real terms and, at the same time, the number of researchers employed in the corporate sector fell. This means that the corporate sector will have to increase its share in total expenditure in R&TD in the future. The experiences of the technologically advanced countries show that the corporate sector is the main driver of technological development. In Slovenia, the corporate sector allocates a considerably lower share of its total product to R&TD than in the EU countries (Bole Kosmač, 2002).

Investments in R&TD are closely linked with **innovations**, but they do no suffice to increase innovations in the economy. The key factors of innovation policy are: the environment which supports innovations and entrepreneurship, mechanisms which enable and promote the application of innovations, networking between companies, and networking between companies and the public sector. The latest measures adopted by some OECD countries involve higher tax exemptions for the expenditure of companies on R&TD thus stimulating private investment in R&TD (OECD, 2002a). That Slovenia is stagnating in the field of investing in R&TD, and that the existing mechanisms for the transfer of scientific achievements to medium-

sized and small companies are inefficient or inadequate is reflected in the low innovation level of companies in manufacturing compared with that in EU countries. In the 1999-2000 period the share of innovative companies in Slovenian manufacturing industries even dropped, from 33% to 28%, though this was partly the result of changes in the methodology[31]. An even greater backlog behind the EU countries is recorded in innovations in service companies which are increasingly significant in promoting innovations in the entire economy in view of the prevailing share of services in GDP (Stare, Bučar, 2002). The slow increase of R&TD expenditure and the poor level of innovations in companies are reflected, on one hand, by the deteriorating competitiveness of manufacturing in foreign markets and, on the other hand, by the low share of hi-tech exports in total exports (European Commission, 2002); in the latter, Slovenia lags not only behind the EU average, but also behind some candidate-countries. The abovementioned linkages stress the key significance of the co-ordinated functioning of different policies in the formulation of mechanisms and measures aimed at promoting innovations and, consequently, promoting the Slovenian economy's competitiveness. Further, they can only be implemented efficiently if all the actors operate in this co-ordination.

Use of information communication technologies (ICT)

The production of information communication equipment and services has a dynamic impact on the economy owing to the rapid expansion of demand for these products and to the employment of highly trained staff. However, the efficiency and competitiveness of the economy and the quality of life benefit more from the ever wider use of information communication equipment and services[32] because it is not limited to one segment of the economy and permeates all fields of the corporate and public sectors.

The number of indicators for measuring ICT use is growing parallel to the development of new technologies, but even those used most frequently reveal problems of methodological discrepancies and the use of different units of observation among the different organisations or sources of data, and this hinders international comparisons. Compared to the other candidate-countries, Slovenia started to use some ICT elements quite early, achieving quick progress and a high usage rate (e.g. in mobile telephony). **Use of the Internet**[33] also spread fast, although slowdowns have occurred in the growth. In 2001 the share of Internet users climbed from 23% to about 30% of the entire population, in 2002, however, the growth in users of 5 percentage points (total: 35% of the population), was the same in absolute

[31] See the indicator of the share of innovative companies in manufacturing industries in the Appendix.

[32] The ways of using ICT continue to spread with the progress of technologies, increasing numbers of users of different elements of information-communication technologies and, based on modern infrastructure, the efficiency of ICT use also increases. Intensive use of ICT requires new skills, a better educated and trained labour force and this demands fast responses from the formal and informal education spheres to provide specific information skills.

[33] The measurement of Internet use depends on the definition of the user (e.g. every day, weekly, monthly, over the last three months) and on the selected population (e.g. all inhabitants, those over 12 or 15 years of age, between 15 and 65 years). Use of different variables calls for caution when monitoring the indicator or its international comparisons. See the Internet use indicator.

terms in spite of the expected slower growth. The comparable figure for the EU is 51% in 2002 and reveals the substantial backlog of Slovenia (RIS, January 2003). This backlog may partly be the result of the lower share of the population with a tertiary education, which uses the Internet most intensively. Nevertheless, Slovenia is the second most successful country, behind Estonia, among EU candidate-countries with regard to Internet penetration rates (Deiss, 2002).

The data from the second most frequently used indicator, showing the **number of secure servers** per million inhabitants, are quite favourable for Slovenia: with 51 secure servers per million inhabitants in 2000 the country is only slightly behind the EU average. Secure servers, the protection of privacy of personal data, access costs and the reliability of systems are highly significant for the expansion of e-commerce which is still in its initial phase of development in Slovenia. In 2001, Slovenia recorded a drop in the share of those Internet users who used e-shopping in comparison with the previous year (from 16% to 12%), but their share rose again considerably in 2002 – to 21% (RIS). The other indicators of ICT use show that Slovenia's progress is inadequate. In 1999, Slovenia still had a **number of computers** per 100 inhabitants that was quite comparable to the average number in EU countries (25 computers per 100 inhabitants), but growth here slowed down in 2000 and 2001 although the country is staying ahead of other future members (Deiss, 2002). The indicator of the number of computers per 100 inhabitants is gradually losing its significance and being replaced by the indicator of household access to the Internet (in Slovenia 38% of all households had access to the Internet in December 2002). A poor starting-point for the transition to a knowledge-based society is above all Slovenia's big gap behind the EU average regarding the number of computers per 100 pupils in primary and secondary schools (Basic indicators of e-Europe+).

In spite of its relatively favourable position in terms of ICT use, which is particularly obvious when compared to other future EU member-states, Slovenia has to make faster progress in ICT use compared with the present EU member-states.

3.2. Strengthening the economy's competitiveness

Pursuant to the SEDS' objectives, strengthening economic competitiveness includes: (i) the creation of a competitive ***corporate sector*** capable of rapidly responding to changes in technology and world markets, achieving competitiveness by increasing human-resource-intensive products and reducing energy- and natural-resource-intensive products; (ii) internationalisation of the corporate sector; (iii) co-operation and links between small and medium-sized enterprises; (iv) the development of an efficient ***financial system***; (v) the establishment of an efficient ***public sector*** by enhancing the role of private service providers and through the individualisation of supply; and (vi) the establishment of an efficient ***non-tradable sector*** through price regulation, licensing and concessions.

3.2.1. Raising the corporate sector's competitiveness

THE SEDS' OBJECTIVE: The SEDS presents the following measures to strengthen the competitiveness of the corporate sector: (i) completing transition restructuring through ownership consolidation, establishing of an efficient ownership structure and assertion of the 'real' long-term owners of enterprises; (ii) conclusively resolving the problem of loss-makers with no prospects; (iii) creating the conditions for offensive development of the competitive corporate sector, especially by encouraging new domestic and foreign entries to the market, eliminating administrative barriers to investments, promoting both internationalisation of the economy and the development of small and medium-sized enterprises.

THE REPORT'S FINDINGS: Another set of development strategy mechanisms aims to bolster the economy's competitiveness. Rehabilitation of large loss-making enterprises has been completed, while ownership consolidation and the introduction of efficient ownership structures in privatised enterprises was accelerated in 2001 and 2002, suggesting these processes continued to take place in the context of transition processes rather than in the context of the ongoing transformation seen in market economies. It therefore seems that the post-privatisation ownership consolidation has not yet been concluded. Nevertheless, the Slovenian corporate sector's competitiveness is increasingly based on the process of offensive restructuring. There have been some clear positive shifts towards higher productivity and lower costs per unit of value added. Other positive developments include resumed growth in Slovenia's market share in the main international markets and growth in inward and outward foreign direct investment. However, it is obvious that Slovenia's corporate sector is facing significant structural problems and rigidities reflected in the slowing labour productivity growth, the unfavourable and persisting composition of merchandise exports with factor inputs, and the falling share of innovative enterprises. Low productivity growth was mainly the result of slow restructuring towards stimulating high value-added activities whose competitiveness stems from the created production factors. This may render Slovenia's current export structure unsustainable in the long run. It is becoming evident that Slovenia's gradualist approach to structural reforms has caused some imbalances that still need to be dealt with.

ANALYSIS :

Gradual completion of the corporate sector's transitional restructuring

The SEDS divides the economic policy relative to the completion of transition restructuring in the corporate sector into two parts: (i) speeding up the process of ownership consolidation and establishment of an efficient ownership structure; and (ii) restructuring of the big, non-privatised, loss-making enterprises.

The process of restructuring big, non-privatised enterprises ended formally with the liquidation of the Slovenian Development Corporation and with the completion of the rehabilitation and restructuring of the Slovenian Ironworks at the end of

Table 3: **Ownership structure of enterprises (in %)**[1]

Owner groups	After privatisation N=183	End 1999 N=183	End 2001 N=51
State	**7.75**	**3.06**	**5.5**
Capital and Compensation Fund	21.60	12.58	5.0
Authorised Investment Companies -I	19.38	17.25	15.0
TOTAL Funds	**40.98**	**29.84**	**20.0**
Internal owners - management	3.86	9.03	15.5
Internal owners - employees	29.23	27.04	18.5
Internal owners - former employees	11.05	11.40	6.3
TOTAL Internal owners	**44.14**	**47.47**	**40.3**
Financial investors - domestic	4.80	8.53	6.2
Financial investors - foreign	0.03	0.18	0.0
TOTAL Financial investors	**4.83**	**8.71**	**6.2**
Strategic owners - domestic	2.00	9.90	25.5
Strategic owners - foreign	0.30	1.02	2.5
TOTAL Strategic	**2.30**	**10.92**	**28.0**
Total (all groups)	**100.00**	**100.00**	**100.0**

Sources of data: (a) for the structure after privatisation, and for 1999: survey among 183 companies privatised in accordance with the Ownership Transformation of Companies Act; (b) for the structure in 2001 and the 'desirable' structure: survey among 51 companies privatised in accordance with the Ownership Transformation of Companies Act.
Note: [1] calculated as the average ownership shares per individual group of owners in the surveyed companies.

2001. The process of ownership consolidation, on the other hand, was much more intense in 2000 and 2001 than in previous periods. This increase in intensity clearly indicates that the processes of ownership consolidation in Slovenia's corporate sector are still and to a large extent taking place within the context of transition, and only to a lesser extent as normal continuous changes in the ownership structure. The process of ownership consolidation is reflected in both the changing ownership structure of enterprises and the concentration of ownership in the enterprises that have been privatised[34].

The changes in the ownership structure of privatised companies (Table 3) in two periods, from 1994 (when primary privatisation more or less ended) until 1999, and in the 2000-2001[35] period, and a comparison with the 'desirable' ownership structure as seen by managers (i) show that changes to the ownership structure speeded up in 2000 in 2001, and (ii) they herald further intensive changes to the

[34] In Slovenia three typical groups of companies were established by the primary (distribution) privatisation (which more or less ended in 1994)**:** listed companies are those quoted on the stock market; internal, non-listed companies are not quoted on the stock market and are in the majority ownership of internal owners; external, non-listed companies are not quoted on the stock market and are not in the majority ownership of internal owners.

[35] The ownership structure of privatised companies after privatisation and in 1999 is based on a survey carried out in 183 companies; the ownership structure in 2001 and the 'desirable' ownership structure as seen by managers is based on a survey involving 51 companies. Given that the sample of companies in 2001 was much smaller than in 1994 and 1999, caution is required in interpreting the results and they should be considered as tendencies, not absolute facts (CEEPN 2002. *Investicije in financiranje podjetij - 2002*. Ljubljana: Central and Eastern European Privatisation Network).

ownership structure of Slovenia's corporate sector. In summary, the changes to the ownership structure had the same scope in just two years (2000 and 2001) as in the entire preceding five-year period (1994-1999). The ownership shares that decreased most between the end of 1999 and the end of 2001 were those of the Capital and Compensation Fund (from 12.6% to 5%), of the employees (from 27% to 18.5%), and the former employees (from 11.4% to 6.3%). The shares of employees and former employees were primarily transformed into greater shares of the management (from 9% to 15.5% in 2001). Besides the management, domestic strategic owners increased their share substantially (from 9.9% to 25.5%). In view of what the managers see as a 'desirable' ownership structure, further intensive changes to the ownership structure of companies can be expected in the future. They are expected to result in a further shrinking of the shares of the Capital and Compensation Fund, the Authorised Investment Funds and former employees, and to expand the shares of the management (to 26%), foreign strategic owners (to 10%) and, to some extent, also domestic strategic owners (to 28%). These expanded management shares are expected to bring positive economic effects. In view of the legitimacy of this concentration of ownership by individuals, it is important that the process is carried out in a transparent way and at fair market prices. The data show that the process of strengthening management ownership is carried out most intensively in areas where no real transparency exists in the secondary equity market (that is, in non-listed internal and external companies), while managers find it harder to increase their shares in listed companies.

Another aspect of the process of ownership consolidation in Slovenia's corporate sector is the **concentration of ownership**. By itself, ownership concentration has never been the principal problem in the establishment of an efficient ownership structure in Slovenia. Primary privatisation indeed established relatively concentrated ownership**, given that after** privatisation the five biggest shareholders owned on average 52.5% of the capital of the privatised companies[36]. The real problem in the establishment of an efficient ownership structure was the absence of strategic owners amongst these major shareholders. That is because the main shareholders were the two para-statal funds or authorised investment funds and, secondly, ownership was concentrated within groups with different interests (primarily internal against external owners). In the period following privatisation, the ownership concentration process continued and speeded up in particular after 1999. In the 1994-1999 period, the ownership concentration of the five biggest shareholders increased from 52.5% to 61.8%, in the 2000-2001 period even to 73%. At the end of 2001 the highest ownership concentration was registered in external companies (76.9%), followed by internal companies (70.5%), and listed companies (66.2%). After 1999, not only the process of ownership concentration in privatised companies has accelerated, but changes have also occurred in different categories of companies. In the first period, concentration grew fastest in internal companies and slowest in external companies; but in the second period ownership concentration grew fastest in listed companies while the process of concentration in external companies also accelerated.

[36] The data stem from a sample including 385 companies in which distribution privatisation was carried out (sources: Central Securities Clearing Corporation and the Privatisation Agency).

Strengthening the corporate sector's competitiveness through offensive restructuring

Along with the gradual completion of transition restructuring, more emphasis is being given to offensive restructuring with increased competitiveness as the main objective. **Strengthening the corporate sector's competitiveness through offensive restructuring** is monitored using the competitiveness indicators of the corporate sector, structural changes, and internationalisation.

One of the main **indicators of an economy's competitiveness** is **labour productivity**. **Labour productivity,** which increased in Slovenia in the 1993-2000 period at an average annual rate of over 4% (in manufacturing over 7%), rose by only 2.4% in 2001 (in manufacturing by 4.4%) – the lowest growth rate of labour productivity since 1993. The slowdown was, on one hand, brought about by subdued economic growth and, on the other hand, by employment growth. As productivity growth slowed down in the EU in 2001, Slovenia's lagging behind average productivity in the EU did not worsen, and the gap even narrowed (2000: 44%, 2001: 45% of average productivity in the EU). In the first half of 2002, Slovenia again recorded a fall of employment in manufacturing and trade, while productivity increased by 2.9% (preliminary data) compared to the first half of 2001. Although productivity growth rose in the first half of 2002 and its slower growth seen in 2001 was at least partly of a cyclical nature, the future pace of its growth will primarily depend on the speed at which the economy is restructured in favour of activities with higher value added per employee. The current trends are not promising (Bednaš, Jurančič, Rojec, Šušteršič, Vasle; 2002). **Unit labour costs,** an alternative indicator, show that the competitiveness of the Slovenian economy increased in the 1995-2000 period because labour costs per unit of value added in the economy generally fell by 11.3%, and in manufacturing by 17.5%. These trends of falling costs continued in 2001 (in the entire economy by 0.7%, in manufacturing by 1.3%). Compared with the member-countries of the EU and the candidate-countries, the competitiveness of both the Slovenian economy and manufacturing improved. In the 1995-2000 period better trends than Slovenia were recorded only in Ireland and Latvia, in 2001 only by Spain, Greece, Lithuania, and Estonia. The increased competitiveness, revealed by preliminary indicators, was however poorly reflected in increased **market shares** abroad until 2001. The shrinking of Slovenia's market shares in its main trading partners (1995: 0.60%; 2000: 0.49%) shows that the significant growth of Slovenian goods exports in the 1995-2000 period (up 46.8% in real terms) was, at the aggregate level, the result of growing export markets and not of improved competitiveness. In 2001, the share of Slovenia's goods exports increased in the imports of the main trading partners to 0.51%, and climbed to 0.55% in the first nine months of 2002. This trend was brought about by the growth of Slovenia's market shares in Germany, France, Austria, Russia, Croatia, and CEFTA-4. A comparison with the candidate-countries clearly shows that they are much more successful in conquering market shares abroad than Slovenia. Hungary, for instance, increased its market share in the EU by about 130% in the 1995-2000 period, Slovakia by 90%, the Czech Republic by approximately one-third, and Poland by a fifth. In the first nine months of 2002, the growth of Slovenia's market share in the EU lagged behind the growth of the market shares of the Czech Republic, Hungary, Poland, and Slovakia (Slovenia: 5.3%, CEFTA-4: 8%), but less than in 2001 (Slovenia: 5.1%; CEFTA-4: 14.4%).

The main ***indicator of structural changes*** is **investment activit**y. When the transition depression ended in 1993, investment activity in Slovenia expanded significantly, reaching its peak when the share of gross investment in fixed assets in GDP was 27.4% or 6 structural points higher than in 1995. In 2000, investment activity slowed down (a 26.7% share) and fell to 24.9% in 2001. The slowdown of investment activity in 2000 was related to the fall in housing investment and fiscal restrictions in the investment field, while the drop in investment activities in 2001 was connected with lower housing investment and reduced activities in the construction of transport infrastructure. The growth of investment in equipment and machinery slowed down in 2001 as the result of cyclical trends according to the estimates, but it was still positive. In spite of the slowdown and even drop in 2000 and 2001, investment activity is still relatively high in Slovenia; it is higher, as one would expect, than in most EU countries (with the exception of Portugal), but also higher than in the other EU candidate-countries except for Slovakia, the Czech Republic, Latvia and Estonia. In terms of the SEDS' objectives, the structure of investment is more problematic in the sense that the share of the corporate sector's investment activity is too low, in particular investment in machinery and equipment.

The analysis of the **factor structure of merchandise exports**[37] shows some positive trends in favour of growth in the share of exports based on created factors of competitiveness (technologically-intensive products and products with a significant input of human resources), and a reduction in the share of exports based on the primary factors of competitiveness (natural resources and labour). In the 1995-2000 period, the share of products based on created factors of competitiveness increased in Slovenia's commodity exports from 60.0% to 64.7%. In 2001, these positive structural trends were interrupted, but the data for the first nine months of 2002 are promising (an increase by 1.4 structural points compared with 2001). The **structure** of Slovenia's merchandise exports **broken down by industry's technological complexity** reveals some positive trends as the share of hi-tech industries is gradually increasing (1999: 6.6%; 2001: 8.2%). The SEDS' objective to increase exports of technology-intensive products, i.e. products with a higher input of human resources, is being implemented, but the fact that the growth trends are slower than in other candidate-countries, and even slower than in some EU member-countries, gives cause for concern. The slow restructuring of Slovenia's exports towards a higher share of products whose competitiveness is based on created production factors is also connected with the low share of **innovative companies in the economy**[38]. The share of innovative companies in Slovenia's manufacturing industries hardly changed in the 1994-1998 period and was 33% in 1998 (in the EU 51% in 1996). In the 1999-2000 period, the share of innovative companies even fell to 28%.

The SEDS considers internationalisation as being indispensable to the development and strengthening of the corporate sector's competitiveness. **The shares of exports and imports and of inward and outward foreign direct investments (FDI) in GDP** are the main indicators of an economy's ***internationalisation***. The share of inward foreign direct investment stock relative to GDP rose from 9.4% to 17.1% in 1995-2001, and the share of outward foreign direct investment stock from 2.6% to

[37] Also see the chapter on the transition to a knowledge-based society and the chapter on structural changes.

[38] Also see the chapter on the transition to a knowledge-based society.

5.0% in the same period. 2001 saw major shifts in the field of inward foreign direct investment and a considerable increase in outward FDI. Exceptionally high inflows of inward FDI occurred in 2002, when the share of FDI stock increased by nearly two-thirds and drew close to 25% in GDP. This clearly shows the increased significance of FDI for the inward and outward internationalisation of Slovenia's economy. In spite of the big increase in FDI inflows to Slovenia in 2001 and 2002, when there was a significant drop in FDI flows around the world, Slovenia remains the country with the lowest percentage share of inward FDI stock in GDP compared to EU member-states and candidate-countries. In 2000 the share of inward FDI stock in GDP in the EU as a whole was 30.3%, yet in Slovenia it was 16.0%. Of the EU member-states, only Italy and Greece had lower shares than Slovenia, while Austria attracted about the same share. Among the EU candidate-countries, Slovenia had the lowest share of inward FDI stock in GDP. In spite of the sharp increase in FDI stock in 2002, Slovenia will remain among the countries with a relatively low share of FDI stock in GDP. Compared with the other candidate-countries, Slovenia has a better position in outward FDI, albeit Estonia and Hungary are recording much faster growth. As expected, Slovenia is far behind the present EU member-states in terms of its share of outward FDI stock in GDP. This means that in spite of the fast growth of inward FDI in 2001 and 2002 – a development in line with the SEDS' objectives – the country remains among those with a relatively low level of internationalisation through FDI (0.0469% of the world's inward FDI stock, 0.0145% of the world's outward FDI stock). The country's degree of internationalisation or integration into the world economy is, however, much better in exports: in 2002 Slovenia's share in world exports was 0.152%.

3.2.2. Financial sector

THE SEDS' OBJECTIVE: The gradualist approach in carrying out reforms, which is typical of Slovenia, is also seen in the ***reform of the financial sector,*** *where it has an inhibiting effect due to the excessive slowness experienced in the last few years. The main purpose of the process aimed at establishing an efficient financial system is to improve its international competitiveness to provide for successful integration and functioning in the common EU financial market. In order to accomplish the above purpose, the balanced development of all elements of the financial market is necessary. The SEDS distinguishes between three groups of measures for further restructuring: (i) establishment of a competitive structure and completion of the restructuring process, including privatisation; (ii) completion of the process of enforcing regulation and control; and (iii) harmonisation of the related legislation with the acquis communautaire.*

THE REPORT'S FINDINGS: As far as the ***financial sector's*** *reform is concerned, the SEDS' guidelines are being effectively implemented in the areas of regulation, supervision and harmonisation with EU standards, but there are some backlogs in the area of establishing competitive structures. As a result, the financial sector continues to be one of the least developed segments of the economy. Looking at the banking sector's development level, Slovenia is behind not only the least developed EU members, but also some EU candidate-countries, while Slovenia's insurance sector records a smaller development gap behind the EU countries. The biggest*

gaps behind advanced industrialised countries have emerged in the capital market. Other countries in transition are facing about the same gaps as Slovenia because their capital markets also began to develop only about ten years ago.

ANALYSIS: One of the SEDS' objectives aimed at establishing an efficient financial system is to increase its international competitiveness to a level that ensures the sector's successful integration and functioning in the common European market. This objective requires the balanced development of all the fields of financial intermediation and, in particular, the role of traditional banking[39] to be reduced and that of the other segments of the financial sector to be enhanced.

In spite of the adopted reforms, the financial sector remains one of the least developed sectors of the economy. The gradual reduction of the differences in the values of the financial sector's development indicators[40] between the EU member-states and Slovenia shows some improvement, but it is very slow.

By developing the **banking sector,** expressed as the share of total assets of the banking system compared to GDP (86.5% in 2001), Slovenia lags behind not only the developed EU member-states, but also some candidate-countries (in the Czech Republic the value of this indicator exceeded 100% in 2001). The partial privatisation of Slovenia's biggest bank in 2002 provided new options to expand the volume of business, increase efficiency, more rapidly introduce new banking services, obtain competitive financing sources in international financial markets, and options to expand as well as strengthen the banking market. Parallel to privatisation, the consolidation processes between banks[41] and the take-overs of private banks by foreign banks continue[42].

Significant progress – although not exclusively connected with banking – was the start of de-indexation in the financial field because it has an important effect on the structure of banks' resources, assets and business results. On 1 July 2002, the indexation of short-term liabilities and claims was abolished and, by issuing securities with a nominal interest rate and extending the average maturity of nominal instruments, the government encouraged the banks to also introduce nominal interest rates for long-term liabilities and claims. Some banks have already introduced nominal interest rates for long-term loans and tried to establish a reference interest rate which should replace the tolar indexation clause.

The continuing reform process in the banking sector should be aimed at improving competitiveness, reducing operating costs and increasing efficiency not only in the newly privatised banks, but also in those which have been in private ownership for a longer time. Important tasks are the continued introduction of information technologies in the banking sector and the expansion of electronic banking operations.

[39] Noting the relatively faster growth of non-interest income from 'non-traditional' new banking activities than that of interest income. Special importance is also attributed to reducing bank operating costs.

[40] Total bank assets relative to GDP, the share of market capitalisation relative to GDP and insurance penetration.

[41] Banka Vipa merged with Abanka on the last day of the year.

[42] At the beginning of 2002, the Italian bank SanPaolo IMI took over Banka Koper, and the Austrian banking group Raiffeisen Zentralbank took over Krekova Banka.

In the **insurance sector,** Slovenia's development lag compared to the EU member-states is minor: the share of written insurance premiums compared to GDP was 5% in 2001, that is above the level of some less developed member-states of the EU (Greece). Nevertheless, the insurance sector faces important tasks which will have to be completed before accession to the European Union. The key issue is the ownership transformation of the biggest insurance company which still has not been concluded. Further, in view of the related EU directives concerning capital adequacy, capital requirements will increase and the insurance sector will have to ensure additional capital through capital injections. The increasing business volume will confront insurance companies with the issue of how to invest their assets because the limited investment and diversification options available in the domestic market will require investment abroad.

Slovenia's **banking and insurance sectors** are characterised by a relatively high concentration that will be further strengthened by consolidation processes. Recently, the banking and insurance sectors have become increasingly interconnected and this development enables improved synergetic effects. Given Slovenia's small financial market, this concentration is to some extent logical because a large number of small financial institutions would have limited diversification options for their investments. The establishment of a financial system with several equal providers of financial services is therefore sensible.

The biggest differences in development between Slovenia and the developed countries are recorded in the **capital market**. In 2001, the share of the market capitalisation of shares in GDP was 18.6% (the EU average in 2001 was 86.8%), and a similar backlog behind the developed countries is typical of the other countries in transition because, as in Slovenia, their capital markets started to develop only about a decade ago. The high growth of stock exchange indices in Slovenia and the falling value of world stock exchange indices in 2002 reduced the backlog somewhat in the past year, according to estimates. That the capital market is not well developed is indicated by the lower values of the indicators of market capitalisation of shares compared to GDP, but also by the low liquidity of the capital market measured by the share turnover ratio (the ratio of turnover to market capitalisation). Another indicator of the capital market's low level of development is the poorly developed primary capital market. Development of this segment of the capital market, which plays an increasingly significant role in providing financial assets to companies in developed countries, is to some extent hampered in Slovenia by the modest size of the Slovenian economy. Given the high issuing costs, only a few companies are big enough to issue their own securities. Another problem is the deficient knowledge about such financing methods and the lack of financial institutions and underwriters which guarantee the buying of such securities.

The financial market is expected to develop faster in the coming years. In 2002, falling deposit interest rates and the high return on funds invested in the capital market led to a notable change in the saving habits of Slovenians, who transferred a large part of their funds to the capital market, in particular to mutual funds. Life insurance, additional pension schemes, and the National Housing Savings Scheme are improving long-term saving options. On the other hand, they also provide the population with options for taking out more loans to finance building or purchasing

housing; further progress in this direction would be easier access to mortgage-secured loans which the banks could refinance by issuing mortgage bonds, but a liquid capital market is clearly indispensable for this purpose.

3.2.3. Infrastructure

THE SEDS' OBJECTIVE: A strategic goal of developing Slovenia's economic infrastructure is to provide the reliable and cost-efficient supply of services in the fields of energy, transport and telecommunications, and utility services. Priorities here are as follows: (i) continuation of the programmes of economic infrastructure building; (ii) the liberalisation and privatisation of infrastructure; (iii) the entry of private capital in the building and financing of infrastructure; and (iv) the provision of a quality supply of economic infrastructural services to companies and the population at large.

THE REPORT'S FINDINGS: The building of economic infrastructure was dynamic in 1995-1999, in 2000 and 2001 growth was only seen in investment in telecommunications and environmental protection infrastructure, while in 2002 investment in transport infrastructure is estimated to have revived again. Liberalisation of economic infrastructure was launched by passing the basic legislation allowing this process to occur in the first place, as well as by taking initial steps in the telecommunications and electricity markets. Liberalisation and the establishment of independent regulatory agencies will be followed by privatisation. Private capital is still not involved in the building of infrastructure, while liberalisation has yet to produce any better quality services or lower prices.

ANALYSIS: **Investment in infrastructure** recorded dynamic growth in 1995-2000, in particular in transport infrastructure. As far as transport investment is concerned, the most significant increase was seen in investment in telecommunications; its share in total investment was 2.6 structural points higher in 2000 than in 1995. On average, 2.5% of GDP or 10.2% of total investment was for the construction of other transport infrastructure (excluding telecommunications), mostly for the construction of the road network (2.1% of GDP). The share of investments in the road network varied in the 1997-2001 period as a result of the different budget appropriations intended for the construction of motorways. According to the forecast, the growth in gross fixed capital formation in 2002 largely derived from the public sector's investments in economic infrastructure in transport and communications in accordance with the expanded budget appropriations for these investments in 2002.

In past years Slovenia began to **liberalise network industries**[43] in order to increase the number of competitors and provide a wider choice to consumers. The liberalisation is to force companies to rationalise and improve the quality of their

[43] Network industries are activities which deliver products or services to final users through a 'network infrastructure' which connects supply and consumers. Any economic assessment of network industries must take into account their dual nature. On the one hand, they constitute an important segment of the economy (in the EU they contribute about 6% to GDP and employment). The prices of network industries have an indirect and direct effect on the prices of the entire economy and on the economy's competitiveness. On the other hand, services have a direct impact on the welfare of the population.

services, and the main objective is to cut the prices of services through competition[44]. The effects of liberalisation are not yet obvious in Slovenia as the process only started two years ago.

In **telecommunications**, Slovenia abolished the monopoly in fixed telephony by law in 2001, but in practice *competition* was still not established in 2002. A concession to provide fixed telephony services was granted to a second operator (in addition to the existing monopolist), but the company has not yet entered the market. The principal barrier faced by potential providers in the fixed telephony market is the price discrepancies inherited from the past and the high prices of network interconnections. In May 2002, the Telecommunications, Broadcasting and Postal Agency started to act as an independent regulatory body. The Agency's key goal in this phase is to enable potential operators to enter the market through the establishment of cost-recovery prices. To this end, the Agency started lowering the prices of network interconnections in 2002. To improve the efficiency of service supply, establishing competition is crucial, especially the provision of equal conditions to enter the market of telecommunication services. The privatisation of the monopolist operator in fixed telephony[45] is to start when conditions in the global telecommunications market improve.

The theory and practical experience of other countries show that the liberalisation of telecommunications services leads to lower *prices* in the long run, but short-term effects (the gradual introduction of competition, the elimination of price discrepancies) may result in higher prices. In Slovenia, the impact of these factors, especially the establishment of cost-recovery prices, on the prices in fixed telephony has been notable in the last two years. From the beginning of 2001 to the end of 2002, growth in the prices of fixed telephony services which are included in the consumer price index[46] was three times higher than the average growth in consumer prices. In mobile telephony, where competition is already established[47], prices have dropped on average in the last two years.

In 2001, Slovenia opened up the internal **electricity market** to eligible customers[48] of whom there are now around 9,000 and who account for 65% of total electricity consumption. The external market was opened up on 1 January 2003. Owing to the

[44] Analysing the effects of the liberalisation of network industries is a relatively complex undertaking. It is hard to estimate the contribution of individual segments to the total turnover of network industries because some segments may be liberalised, while monopolist structures prevail in others. For instance, the structure of the energy production market influences price levels, but the positive effects of liberalised production could remain invisible if the monopolies of transmission and distribution are preserved. Further, due to the qualitative nature of the effects of liberalisation individual effects are hard to measure; and how to measure effects is, last but not least, also impeded by technological changes because it is difficult to differentiate between the results of liberalisation and those of technological change.

[45] The state has a 62.5% majority share in Telekom, and Telekom owns Mobitel, the biggest mobile telephony operator.

[46] The prices of calls and the subscription fee.

[47] In 2002 three operators and one service reseller operated in the mobile telephony market.

[48] Eligible customers are consumers with connection power of over 41 kW at one offtake point, and power distribution companies.

limited transmission connections with foreign countries, the share of imported electricity was limited to 25% of total consumption in 2003. After ELES issued tenders for imports and exports of electricity in 2003[49], 16 eligible customers obtained the right to import electricity from Austria, and 5 producers to export electricity to Italy.

Following a proposal by the Energy Agency, a restricted-price method of fixing the price for electricity network use was adopted for 2003-2005[50]. The basic price covers the costs of infrastructure and network losses, and provides network operators with suitable returns. In this regulatory period, the price changes annually in accordance with the producer price index and the required productivity growth. The government will continue to regulate the prices of tariff consumers; within the network-use price the government will regulate the shares for priority distribution, operations of the regulatory body (the Agency) and market operators (Borzen), and the share for system services; the Agency is responsible for the network-subscription fee. It seems that liberalisation of the electricity market will initially provide somewhat lower prices to the biggest consumers who were successful bidders for the import tender, but in the rest of industry the positive effects are uncertain (the distribution companies compete sharply for customers but at the same time they try to compensate for the restricted profits in the tariff system by charging higher prices to industrial consumers). The prices for tariff-system consumers (households represent about 70% of these) will increase by about 7% due to the increased basic network-subscription fee.

The **natural gas market** will not see such intensive opening up since there are only three sources for the EU market (Russia, Algeria, Norway). As of 1 January 2003, eligible consumers are free to choose between suppliers if their annual consumption exceeds 25 million m^3; in 2008 this limit will be reduced to 5 million m^3. In spite of the possibility to opt for a supplier from abroad, it looks like most eligible consumers will stay with the present supplier, Geoplin, in 2003.

The railway services market will open up upon Slovenia's accession to the EU, when Slovenian railway lines will be open to foreign railway companies. At present, Slovenian Railways is in a very adverse position (large current losses and indebtedness, inadequately educated or trained staff) and hardly prepared for any foreign competition. The rehabilitation programme[51] that has been elaborated has met with opposition from the trade unions involved in the company, who demand that the company remains undivided and state-owned.

The conditions of **local utility providers** (waste management, water and heat supply, wastewater treatment etc) were worsened by the reform of local self-government because the new municipalities started to establish their own local utility companies

[49] In accordance with the 'Rules on the method and conditions for allocating access to cross-border transmission capacity and the criteria thereof.'

[50] 'Rules on setting prices for the use of electricity networks and criteria for the justification of costs.'

[51] The rehabilitation programme was elaborated pursuant to the 'Restructuring of the public company Slovenske Železnice d.d. Act' (which envisages the preservation and development of successful cores and the state retaining a majority share in infrastructure and passenger traffic).

or departments, covering all local utility services. This weakened the existing providers, destroyed the price policy, deteriorated the infrastructure that is used to keep the land registers, and worsened investment options. The present organisation of the services is irrational, the number of companies participating in the market is very high, and most of them not only engage in all local utility services but also carry out market activities, while their information system is underdeveloped. Like with other infrastructure activities, local utilities will have to undergo a reform that will lead to quality services at lower prices through adequate organisation, liberalisation, and the establishment of proper regulatory bodies. The first phase of this reform will have to set up at least appropriate information systems and the necessary land registers.

Administered prices in infrastructure

The share of prices under various regimes of regulation was about 30% of the consumer price index in the 1992-1997 period; in 1998 it dropped to about 17%, and in 2000 to about 14%. An important share of administered prices in the entire period was represented by prices relating to infrastructural activities; e.g. in 1995 the share of electricity for households, local utilities, telecommunications services, and transport services was slightly under 9 percentage points, and by 2002 the share had dropped to about 7 percentage points of the total consumer price index.

In the same period, the growth of administered prices of infrastructure services fell (1995: 18%; 2002: 12%), but still exceeded the total growth of consumer prices (in 1995 by 9.1 percentage points, in 2002 by 4.8 percentage points). In both years, the prices of local utility services grew fastest. The effects of the liberalisation of infrastructure have not yet involved any lower prices for the final consumers (the population).

3.3. Increasing the efficiency of the state and the formulation of policies for integration into the single European market

*THE SEDS' OBJECTIVE: The **state** exercises its developmental role in **three main ways**: (i) it sets and enforces the main rules of economic activity by ensuring the protection of economic agents' rights and guaranteeing the execution of contracts (economically efficient legislation) and by establishing a framework for the market's efficient functioning (competition policy); (ii) it manages economic resources directly as the owner or supervisor of public and mixed companies, as the manager of public systems (health, education etc) and as the manager of public resources (general government revenues and expenditure, and indirectly through regulations and financial instruments regulating free economic initiative and influencing the allocation of resources; and (iii) it tries to be internally capable of efficiently managing and co-ordinating economic and development policies and to function at the lowest possible cost. The **SEDS' principal objectives** are to: (i) reform the*

administration (efficient public management, depoliticisation, elimination of administrative barriers, appropriate organisation for designing and monitoring development policy, partnership between the state and the citizens); (ii) decentralise and regionalise the state; (iii) reduce the state's role in managing economic agents; and (iv) enhance the developmental role of public finance (reduce public finance expenditure to around 43% of GDP and restructure expenditure to support technological modernisation and investment in human capital; reduce the tax burden on labour-related income; increase the role of private financing and the provision of services).

THE REPORT'S FINDINGS: As far as the state's role is concerned, we have seen some improvement compared to last year's Report. Relevant institutions have responded to the mounting backlog of court cases; aggregate figures show its reduction, however, the backlog is still growing in a number of areas. From the point of view of economic efficiency, the most critical areas remain compulsory enforcement and the land register. Competition policy continues to be pursued without a comprehensive understanding of its objectives on the part of economic agents and law courts, as well as without an underlying strategic document. Growth in general government expenditure relative to GDP has been arrested, the state's intervention and management of the economy have eased, yet general government expenditure will have to be reduced and further restructured. The same goes for state aid. Some legal and organisational foundations have been provided to increase the state's efficiency and improve the implementation of development policies whereas regions, representing the key step in decentralising the country, have still not been established. The legitimacy of government institutions has been assessed as relatively favourable. Areas most critical in terms of their impact on national competitiveness remain the regulation of competition and respective legislation, labour market flexibility, where institutional solutions have been introduced but have still not produced any satisfactory results, the capital market, the legal framework regulating contract enforcement, the extent of bureaucracy, and weaknesses in the implementation of decisions.

ANALYSIS[52]:

Rules of economic activity

The SEDS emphasises the importance of the quality and efficient protection of property and other rights which empirical data show to have an impact on economic efficiency[53]. The Report on the Progress of the Republic of Slovenia towards Accession to the European Union (June 2002) concludes that Slovenia has made progress in adopting the *acquis communautaire*, but that **court backlogs** remain an acute problem that is also evident from the court statistics[54]. The number of pending court cases increased in *higher courts* by 0.8% in 2001 (mostly in commercial and

[52] In last year's Report, not enough data were available to accurately analyse the state's efficiency. Therefore, this year's detailed analysis is based on various sources (court statistics, indicators of national competitiveness, survey data on corruption and on citizens' trust and satisfaction, the state aid survey). This report summarises the findings of these analyses; they will be available in detail in the journal IB Revija 2003.

[53] See Keefer, 2001, Pistor et al., 2000, La Porta et al., 1998.

criminal cases); in *district courts* the backlog of cases was reduced by 10.2% (mostly in commercial and civil cases, while they increased by 178% in court register cases); while in *county courts* the backlog grew by 1% (it was reduced in litigious, non-litigious and probate cases, and it increased in criminal and land register cases).[55] Considering all the abovementioned courts, we estimate that the *backlog of court cases remained at about the same level* in 2001 as it was in the previous year.[56] The backlog in those cases where a judge participates directly (excluding land register and court register cases) was reduced by about 13% in 2001. Based on the high share of land register cases in the district courts (42%), it is estimated that the backlog in the entire judiciary will be reduced by 10% in coming years as a result of the introduction of information technology in the land register. The total number of **unresolved cases** increased by 2% in all courts in the first half of 2002; but, if we take into account only the 'important cases', the number of unresolved ones dropped by 8.8% (in 2001 unresolved cases dropped by 0.04%, important ones by 8%).[57] The falling trend in the number of unresolved civil and commercial cases in the district courts is quite satisfactory.

The institutions responsible have already responded to the court backlogs and unresolved cases, which are in part the result of the reorganisation of courts in 1995 and the uncertainty that accompanied that reorganisation, as well as the changing procedural and material legislation which has become much more rigorous during transition. Among measures so far adopted, mention must be made of the out-of-court settlement of disputes in criminal cases (introduced in 1995 by the Criminal Procedure Act), the introduction of court compulsory composition proceedings (the amended Civil Procedure Act) and the project concerning the out-of-court settlement of disputes in the District Court in Ljubljana. The amendments to the Judicial Service Act adopted in 2002 improved the flexibility to transfer judges, their motivation to eliminate backlogs and their promotion options, while regulating the supervision of judges so as to protect their independence. The report on court backlogs (May 2002) also emphasises the need to increase judges' productivity.[58]

[54] The court statistics for 2001 and the first half of 2002 show some improvement, although the backlog has not been eliminated; moreover, in some areas and courts the number of unresolved cases and backlogs is increasing. A distinction must be made between *unresolved cases* and *court backlogs.* According to the definition (Article 50 of the Court Rules), cases are considered court backlogs only if certain deadlines have been exceeded; otherwise, they are unresolved cases.

[55] Owing to the changed filing rules, the figures for the enforcement courts are only estimates.

[56] The estimate takes into account that the data on court backlogs are incomplete. On average, a backlog is identified in 84% of all cases, measured by the annual number of cases filed with the courts. The calculation of the average backlog took account of the corresponding weight, because the county courts receive about 370,000 cases annually, the district courts 115,000, and the higher courts 26,000.

[57] According to the applicable methodology for keeping statistical data, important cases are monitored separately from other cases. *Important cases* before county and district courts are those in which these courts have the authority to make a final decision. The higher courts and the Supreme Court are seen as only dealing with important cases. The division is questionable because the 'other' cases include, for instance, compulsory enforcement and land register cases which have an impact on the transaction costs in society, if they are resolved with a delay and thus reduce legal certainty.

[58] Today's higher number of judges (and professional staff) resolves fewer cases on average than in 1990. This is also confirmed by a comparison with foreign judiciaries, because the number of judges in Slovenia per capita is among the highest in Europe.

In our opinion, the most **critical areas,** at least in terms of their impact on the economy, are compulsory enforcement and the land registers in the county courts, the administrative cases before the Supreme Court and the civil and commercial cases in the higher and district courts. The increased backlog of court register cases also gives cause for concern. It is the result of the adjustment of data after the Companies Act was amended, the deletion of companies from the court registers pursuant to the Financial Operations of Companies Act, and the fact that the courts were not prepared for this additional workload. The backlogs and the number of unresolved cases in these areas prolong the procedures in the courts, reduce legal certainty and increase transaction costs. They thus have a negative impact on economic efficiency. It would therefore be worth considering changes to the legislation, especially the regulations which govern the internal organisation of the bodies participating in court procedures, and how to increase the motivation of economic agents to undertake out-of-court settlements. Such solutions were partly adopted in 2002.[59]

As far as the **land register** is concerned, the measures adopted are yielding some initial progress since the land register courts are resolving more cases than they receive, and it appears that the court backlogs will be resolved in the next three to four years according to the plan.[60] In spite of the existing plan, the backlogs still give cause for concern because the number of unresolved land register cases in the first half of 2002 totalled 197,667. In general, institutional support for the development of the real estate market is still deficient. Among the positive developments are the adoption of the Spatial Planning Act and the Construction Act, which considerably modernise the regulations; in preparation are the Estate Agents Act, the Housing Act, legislation on the taxation and assessment of real estate and mortgage loans, while a project to upgrade real estate registers has also been announced. The latter, however, falls short of what is required and the critical issues remain the state's services and responsibilities: the land register and the cadastre, evidence of the prices of real estate, and the indicators of spatial development. All these issues indeed involve a significant part of the nation's capital that is thus insufficiently used for development purposes.

The backlog in **the enforcement courts** (including compulsory enforcement) causes concern because enforcement procedures are the last step in the efficient protection of rights[61]. Primarily in order to reduce the backlog, an amendment to the Compulsory Enforcement Act was adopted at the end of 2002 aimed at eliminating the Act's deficiencies and, in particular, the procedures' long duration and delays.[62]

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[59] Amendments adopted in 2002 to the Civil Procedure Act, the Compulsory Enforcement Act and Insurance of Claims Act, and the Judicial Service Act.

[60] The workload has almost doubled because, in addition to carrying out the regular procedures, the data have to be computerised and the land register has to be adjusted in line with the cadastre.

[61] Even when the court grants a certain right to a subject (e.g. in a civil procedure), the subject cannot obtain that right or only after a long time, that is after the enforcement court recovers the granted right (e.g. payment).

[62] Summarised following Galič, Jan and Jenull, 2002. The essential novelty is that the enforcement court itself is now authorised to decide on the appeal of the debtor against compulsory enforcement, even where the case is based on disputed facts; the enforcement court can reject the debtor's appeal without a full and time-consuming hearing of the evidence and continue the enforcement procedure. The debtor can resort to a civil procedure and

By establishing and enforcing appropriate regulations, and by monitoring and supervising the effects of the behaviour of market players, the state institutions provide the socially desired 'efficient competition'.[63] Owing to the absence of other data, the efficiency of the market as an institution was estimated through a selection of indicators from the IMD yearbook for 2001 (Chiaiutta, 2002). A reference group of 13 selected countries revealed that Slovenia's gap behind the average assessment of the group (the comparison was made through the standard deviation of individual scores) is bigger in the area of **competition policy** than in the legal framework area. Particularly negative was the assessment of the capital market conditions (foreign financial institutions' access to the domestic market, regulation of foreign direct investment, the cost of capital), as was Slovenia's competition legislation, which was judged not to prevent unfair competition. In our opinion, the implementation of competition policy still encounters significant levels of ignorance about its goals by both economic agents and the courts. This is also due to the absence of a basic strategic document about the policy, even though some decisions in the past year have conveyed a clear message about its criteria, in particular regarding the common EU market as the usually appropriate framework to assess the influence of business mergers on competition.

Management of economic resources

Unfortunately, no new data are available on the share of the public sector in the economy[64] but it is estimated that **the state's indirect influence on the economy** weakened slightly in 2002, primarily because of the partial privatisation of the biggest commercial bank and the sale of public funds' shareholdings in some big domestic companies[65]. The legal basis for the privatisation of insurance companies was also established. The decision in favour of a more gradual privatisation programme for the banks, and the formation of a domestic financial group through the privatisation of the only bank in which the state still has a majority stake, can be seen as a response to the political debate on the advantages of public ownership – or domestic private ownership intertwined with public ownership – as a way of safeguarding national interests.

The growth in the **volume of public finance expenditures** compared to GDP, a typical feature of the 1996-1999 period, was halted partly as a result of the revised budget in mid-2002. In 2002, the share of expenditure on wages and interest still

request that the compulsory enforcement be proclaimed inadmissible, but the civil procedure case does not affect the course of the enforcement procedure. Two other major novelties are the accumulation of executive means – a compulsory enforcement may start and be continued with all admissible means of enforcement – and a better definition of the position of executors and means of enforcement. They are expected to make the compulsory enforcement procedure less costly, simpler and faster.

[63] There are many definitions of efficient competition. Modern competition policies emphasise the monitoring (assessment and evaluation) of the effects of market players' behaviour on the processes of competition, prices and consumers, and not only on the market structure.

[64] Our only reference is thus the SORS' estimate already referred to in last year's Report, namely that the public sector contributed about a quarter (26.2%) of total value added in 1999.

[65] Read more about this issue in the chapter 'Strengthening the competitiveness of the corporate sector'.

increased to the detriment of subsidies and investment expenditure. To implement the SEDS' objectives, public finance expenditure will have to be reduced in the coming years and, at the same time, more room will have to provided for expenditures which strengthen key development factors. Significant measures must be taken in the areas of incomes policy (restrictive implementation of the Public Sector Wages Act, further de-indexation), reducing interest payments on public debt and improving the efficiency of public management.

The volume of **state aid**[66] compared to GDP fell slightly in 2001 and is comparable to that of the EU, if it is taken into account that in the EU more aid is allocated at the supranational level (the common agricultural, structural and cohesion policies of the EU). It is also clear that, after accession, Slovenia will not achieve the level of state aid in GDP that is now current in the EU's less developed member-states. There should be no difficulties in meeting the conditions for allocating aid because Slovenia already allocates a higher share of aid than the member-states by the horizontal criteria, and the transition aid for rescuing and restructuring enterprises is time-limited. Should difficulties occur in making full use of the available funds, then the main reason will be insufficient application of the regional criterion. Though the share of this type of aid increased slightly last year, it is still very low and reveals deficiencies in industrial policy which could raise the corporate sector's competitiveness through greater application of the regional criteria.

Efficient organisation and the state's functioning

National competitiveness indicators show that the efficiency of the state and its institutions improved in 2002. In spite of this improvement, the IMD methodology reveals that this is the area with the biggest development backlog. However, the WEF's calculations show this is no longer Slovenia's biggest development weakness (the public institutions index is even the area where Slovenia's assessment improved the most). The most problematic areas remain the regulation of competition and competition legislation, labour market and employment flexibility, the legal framework for enforcing contracts, the extensiveness of bureaucracy, and the lack of determination in implementing decisions. Efficiency of the public sector will be stimulated by new legislation adopted in 2002 (Public Servants Act, Public Agencies Act, Public Sector Wages Act), which will enter into force in the course of 2003 and 2004.

The emphasis on the partnership between the state and other social players and on a broad development consensus requires the **high legitimacy** of the state institutions and main actors involved. Legitimacy can be monitored in several ways.[67] A survey

[66] See more about this issue in the chapter on the state's developmental role.

[67] We have to distinguish between the state as an institution which primarily has constitutive and sanctioning functions and is responsible for reducing uncertainty, and the state as an organisation which carries out executive responsibilities and strives to achieve the planned objectives (Rus, 2002). Based on the reciprocal relationship between the state and the citizen, the state can be deemed efficient if its development vision and regulations are in an optimum relationship with the visions of its autonomous subsystems. More reciprocity in the relationship means that the citizens will be more honest taxpayers, more reasonable and loyal voters, and more content users of government and public services. From this point of view, it is worth analysing the data on citizens' trust in the

about trust in institutions in Slovenia revealed that it was at the lowest point in the 1993-1995 period, and that the lowest growth in trust in the three following years concerned the parliament, while trust in the government also remained relatively low. International comparisons show that the level of trust in government institutions and decision-makers is high in Slovenia compared to the other countries in transition. Slovenia is ranked first or second in every aspect, but lags behind the EU member-states. The most significant deviation from the EU average concerns trust in the courts and the police.[68] Although the available data show that corruption exists in Slovenia and that it primarily affects small and medium-sized enterprises, comparatively speaking it is not one of the country's biggest problems.[69] The WEF's findings similarly assess the areas of tax fraud and the black-market economy.

3.4. Balanced regional and spatial development

THE SEDS' OBJECTIVE: According to the SEDS, balanced regional and spatial development forms part of integrated development goals. The main strategic guideline in regional development is that national development is subject to regional harmony, while the main goal of regional policy is to improve locally-controlled development potential, focusing on people's increased welfare in all Slovenian regions, with priorities in those spheres where deviations from this goal are currently the biggest. The main goal in spatial development is to activate space as a production factor and protect it from irrational use with the relevant systemic, institutional and instrumental bases.

As envisaged by the SEDS, Slovenia's regional and spatial development will be ensured through a mix of policies, including spatial planning and land policy, agricultural policy and rural development, and the conservation of cultural and natural heritage which, combined with the greater independence of the regions in stimulating their own development, will help reduce the gaps in the levels of regional development. Given the changing (reduced) role of agriculture in economic development, this activity is becoming increasingly significant in the regional, spatial and social aspects. Therefore, the SEDS does not deal with agriculture separately as in the case of other economic sectors, but emphasises its importance from all aspects.

institutions and decision-makers, electoral turnout, the scope of the black-market economy and tax honesty, and the extent of corruption.

[68] Rus 1999; for international comparisons, see Rose-Ackermann, 1998. Please note that these data are relatively old and should only be taken as an illustration. However, the results of the political barometer in 2003 confirm the finding that people's trust in the courts, parliament and government is relatively low.

[69] The ranking according to the WEF's corruption sub-index is not worse than the total ranking and, according to the IMD, the corruption ranking is above-average. In a survey on the economic and business environment, business ethics, and unofficial payments commissioned by the Office for the Prevention of Corruption and largely based on the methodology of two World Bank surveys (World Business Environment Survey – WBES, and Business Environment and Enterprise Performance Survey – BEEPS), about a quarter of the respondents stated that corruption is a significant obstacle to business, and that a certain percentage of the contractual value has to be paid to the public servants responsible in order to obtain a contract. The prevailing forms of corruption, according to the respondents, were patronage or nepotism and corruption in the area of public procurement and contracts. An interesting finding is that approximately an equal share of managers (between 40% and 50%) states that corruption is a problem and thinks that it is an inevitable aspect of the economic system.

*THE REPORT'S FINDINGS: The **regional and spatial development** indicators reveal that measures of institution-building taken in each area have not yet produced satisfactory results because they can only be seen in the long run. Changes in agricultural policy have been very intensive over the last few years, and the first results can already be seen in some areas (the land structure, organic farming).*

ANALYSIS:

Balanced regional development

The main indicators used to assess balanced regional development are GDP per capita and the registered unemployment rate. In the absence of recent data on GDP per capita, the analysis focuses on the registered unemployment rate[70]. An analysis is also made of the gross income tax base per capita, though it cannot be used to replace the indicator of GDP per capita.

The **gross income tax base per capita** does not reveal any wide differences between regions[71]: in 2001, the ratio between the region with the lowest and highest income tax per capita was 1:1.5. Viewed over several years, the ratio does not vary much (in 1997 it was 1:1.6) or even narrows. The fact that the differences between regions are narrowing is also evident from the coefficient of variation, going down from 15.04% in 1997 to 14.19% in 2001. From its initial use (in 1992), the indicator's value has always been lowest in Pomurje (80% of the national average in 2001). The difference between the eastern, relatively less developed, and the western, relatively more developed, halves of the country are quite evident: above-average values are recorded by Central Slovenia, Obalno-kraška, Goriška and Gorenjska, while Notranjsko-kraška is very close to the national average. Nevertheless, the regions with below-average values are closing their gaps behind the national average. In 1997, South-eastern Slovenia recorded the biggest narrowing of the gap, reaching an index level of 94.2 in 2001 compared to the 90.3 seen in 1997.

The **registered unemployment rates** continue to show substantial differences. The trend which saw an increase in regional disparities and which was typical of the 1997-2000 period continued in 2001. The coefficient of variation between regions climbed from 30.46% in 2000 to 32.26% in 2001. The values of the indicator split

[70] The registered unemployment rate at the regional level is measured by the ratio between registered unemployed persons and the active population, including the population in employment and registered unemployed people. Internationally, the indicator is not comparable and has been available since 1997. In the EU, the indicator is that of survey unemployment based on the ILO's methodology.

[71] The relatively small interregional differences in the gross income tax base are no surprise. The principal source of income tax is personal income, that is wages. Slovenia's wages policy is aimed at preventing inequality from increasing and at levelling out the distribution of wages in the public and private sectors by setting minimum wages. The small regional differences in the distribution of wages are above all the result of the umbrella system of collective agreements – the general collective agreement at the national level for the public and private sectors, and a system of collective agreements at the branch level which are valid for activities throughout the country. The differences between the regions thus mainly derive from their different economic structures, the education structure of the employed, and consequently from the general development level of individual regions (for more, see the Human Development Report, 2001).

Slovenia into two parts: the western part of the country, where the registered unemployment rate is substantially lower and below the national average, and the eastern part which exceeds the national average.

Compared to 2000, the unemployment rate fell in all statistical regions in 2001, except in Spodnjeposavska. The highest unemployment rate was once again recorded in Podravska, and was above the national average in Pomurska, Zasavska, Spodnjeposavska and Savinjska. The lowest registered unemployment rate was again recorded in Goriška, and also was very low in Central Slovenia and Obalno-kraška. Though the registered unemployment rate fell in absolute terms, the relative differences between the regions did not decrease, but even increased in some cases. Compared to the national average, Spodnjeposavska improved its position the most; negative deviations increased in all regions that have an above-average registered unemployment rate (Podravska, Pomurska, Savinjska and Zasavska), and in two regions with a below-average registered unemployment rate (Obalno-kraška and Koroška).

Structural unemployment, which is not only a feature of regions with high registered unemployment rates, but also of regions with low unemployment rates, continues to be widespread. The high share of low-skilled or unskilled unemployed is typical of Zasavska, Spodnjeposavska and Pomurska, but also of South-eastern Slovenia which otherwise ranks among those regions with a below-average registered unemployment rate. Due to their limited employment opportunities, these people often join the category of the long-term unemployed, which is highest in South-eastern Slovenia (65.4%) and above-average in Podravska and Zasavska. Another significant category of unemployment is permanent redundancies. One-quarter of permanent redundancies, the highest rate in all the regions, is recorded in Gorenjska, about one-fifth in Central Slovenian and Goriška. Gorenjska and Central Slovenia also record an above-average share of unemployed persons over 40 years of age. The number of young unemployed people continues to fall in all the regions. Their number is about 30% in Pomurska and Zasavska, and about 27% in Savinjska and Obalno-kraška. Most of the young unemployed are first-time job-seekers, a typical phenomenon in Podravska and Zasavska. The share of women among the unemployed is also high, and highest (about 55%) in Notranjsko-kraška, Zasavska and Gorenjska.

Unemployment is one of the key determinants of **poverty and social exclusion**. There are no regional data on poverty, but the distribution of above-average registered unemployment rates largely correspond to the regional distribution of social assistance recipients. The highest number of social assistance recipients (according to data from October 2002) is recorded in Pomurska, which exceeds the national average more than twofold; other regions with a high above-average share are Podravska, Zasavska, Savinjska, and Spodnjeposavska. The other regions, most of them in the western part of the country, record fewer recipients, with Goriška recording the lowest number (only a quarter of the national average). Taking into account the recipients of unemployment assistance and unemployment benefits, regions that deviate from the average are also Koroška and Gorenjska. Both had below-average unemployment rates, but recorded a high number of social assistance recipients as a result of the low income of the population (Koroška) and the specific

structure of the unemployed (permanent redundancies and older unemployed in Gorenjska).

Regional policy reform, which should bring to a halt the growing regional disparities by 2006, was initiated by the adoption of the Balanced Regional Development Act (1999) and the adoption of the National Regional Development Strategy (2001). The reform has not yet yielded the expected results because the processes of institution-building were completed only in 2002. The main development planning and promotion instrument is regional development programmes (which have been elaborated for all the regions, except for Podravska which has adopted its strategic part). At the end of 2002, regional policy became target-oriented, meaning that funding intended for regional development directly or indirectly should be systematically channelled to priority areas.[72]

The implementation of regional policy is connected with **regionalisation**. The main premises for regionalisation were adopted in mid-2001, laying down the following: the regions will constitute the second level of local self-management; they will have the status of legal entities; they will have their own property and financial means; the municipalities will not be subordinated to them; the regions will have their own powers determined in accordance with the principles of subsidiarity and decentralisation; they will steer development based on the regions' own development potential. In 2002, activities were pursued within three project groups. The first two groups prepared systemic legislation, while the third group made proposals for possible forms of regionalisation[73].

Balanced spatial development

The findings of last year's Development Report are still valid in the sense that it is hard to detect, in just a few years, any major changes in Slovenian territory in terms of approximation to the SEDS' goals or deviations from them. Spatial processes are long-term processes and there are no statistical indicators to annually monitor spatial phenomena. Next year, we will not have to resort to repeating this statement because the results of the population and housing census will be available, and targeted research programmes have been initiated that will enable us to set up certain indicator bases. If, for the time being, we use synthesised media information for our estimates, a rough assessment would be that a slight improvement of the developmental function of space has occurred in the past year. The main aspect of this improvement is the continuation of the motorway construction programme, but the efforts of municipalities to establish industrial and crafts zones are also not negligible. No significant deterioration of the social and environmental effects caused by spatial processes have been noted.

[72] Namely, into those regions with the biggest development backlogs as determined in the 'Decree on the conditions and criteria for allocating incentives for regional development'.

[73] A number of partial analyses and studies emerging from the overall project have been collected in a brochure entitled 'The Project of Introducing Regions in Slovenia' and they include three alternative substantiated proposals for six, eight or twelve regions.

Important changes have, however, occurred at the institutional level and will have an impact on spatial development this year. After long preparations, the Spatial Planning Act and the Construction Act were passed at the end of 2002; they are both integral components of the programme aimed at eliminating administrative barriers and they reform spatial planning in Slovenia. The core novelties of the first act that must be mentioned here are: instead of a national spatial plan, the new legislation introduces the Spatial Development Strategy of Slovenia and the Spatial Order of Slovenia; the act further introduces the regional level of spatial planning in order to shorten the procedure of adopting spatial planning documents and to encourage the activation of private capital in building-land development. Another novelty is the introduction of spatial data systems and the elaboration of Spatial Reports every four years. Among the main novelties in the Construction Act are the abolition of the location permit, meaning that only a building permit is now required to build. By laying down short deadlines for issuing (technical) approvals, the time needed to obtain a building permit should be reduced. Introduction of this reform will take several years as it requires the elaboration of a considerable number of implementing regulations. The deadline for the adoption of the Spatial Development Strategy is the end of 2003, for the Spatial Order one year after the strategy is adopted, and for the corresponding municipal spatial documents three years after the Spatial Development Strategy is adopted at the national level. The reform introduced by these two acts is in accordance with the SEDS' objectives and will improve the developmental function of spatial planning in the long term. It will also promote economic growth. In the short-term period, that is this year and in the following years, the reform entails two primary types of risk. Interventions in space may be postponed until the implementing regulations are adopted and, on the other hand, some interventions may be carried out and cause damage to the environment only because the bodies responsible for issuing approvals will not be able to process applications in the prescribed time period. It would therefore make sense to dedicate more attention and funds to introduction of the reform and to increase administrative capacities.

Rural development and the agricultural policy reform

The SEDS devotes special attention to rural development and acknowledges the important role of agriculture. This role is evident from the fact that agriculture corresponds to goals of wider social significance, for instance by shaping and preserving the cultural landscape, natural resources, biodiversity, and the level of settlement. For several years now, Slovenia has been implementing measures of agricultural structural policy and rural development policy and, after the adoption of the agricultural reform policy, these measures have become one if its fundamental pillars. The new programmes and increased funds should at least to some extent restrain some of the negative trends in the countryside that are connected to structural changes in agriculture, for instance the overgrowing of land, environmental pollution, deterioration of traditional landscapes, and depopulation. An important role will be played by compensatory payments for areas with difficult farming conditions, and by the agricultural environmental (*eco*) payments. Subsidies to programmes aimed at integrated rural development will have a similar role.

The effects of agricultural policy and other processes are already visible. The positive ones are connected with the structural transformation of Slovenia's agriculture through the gradual increase of the average size of farms, while the negative effects draw attention to the unfavourable age and education structure of the agricultural workforce.[74] The positive and negative effects reveal that the agricultural reform is too slow, both in terms of restructuring agricultural production as in protecting the environment, and promoting rural development. Production here has negative effects that are evident from the unfavourable indicators on the use of mineral fertilisers per unit of cultivated agricultural area, which is increasing and exceeds the EU average, and the use of pesticides which showed a growth tendency up to 1999 (latest available data). Both indicators refer to intensified agricultural production, a development that is not in accordance with the other goals attributed to agricultural policy by the SEDS nor with the objectives of the reform of Slovenia's agricultural policy. The number of farmers who opt for organic agriculture, one of the goals of the agricultural environmental programme, is increasing quite rapidly. In 2002, 1.3% of all farms were included in the control programme, but this was far below the shares of EU member-states where organic production encompassed an average of 3.2% of agricultural areas in 2001, nearly one-third more than in Slovenia (2.4%). In 2002, organic farms included 3.4% of all arable land in use, 93% of which was grasslands, indicating that stockbreeding prevails. Most of the family farms engaged in organic farming or are about to do so have an area of less than 10 hectares.

[74] For more, see more last year's Development Report.

4. Environmental development

THE SEDS' OBJECTIVE: Environmental development is defined here as the improved utilisation of natural resources with the aim of achieving greater prosperity. Environmental capital[75] is given significance by environmental services: growth, reproduction, differentiation and other environmental services that maintain and preserve the animate and inanimate worlds. Hence, there is a great difference between ***protecting*** *and* ***developing the environment****, since the former is primarily concerned with managing excess loads on the environment, while the latter refers to the management of environmental capital with a view to maximising renewable environmental resources in the long term.*

Although Slovenia is more developed environmentally than economically, the SEDS opted for sustainable development – a number of countries have done the same, but for different reasons. According to the SEDS' objectives, the environmental policy of regulating access to environmental capital will be complemented by optimising its use with the aim of achieving greater prosperity. In the investment part, infrastructural measures are to be targeted at improving the infrastructure of local public services; in the non-investment part, they are to be directed to the institutional strengthening of an environmental development policy which is distinct from traditional environmental protection policies in that it not only tries to minimise damage to the environment but also optimises the prosperity return of environmental capital.

THE REPORT'S FINDINGS: An analysis of the main indicators and policies shows that the **condition and development of the environment** are improving if examined historically, or in terms of institution-building. Signs of improvement are evident not only in particular priority areas but also in whole sectors. However, in the context of increasingly tight legislation and ambitious objectives the overall improvement is still unsatisfactory. Problems are mainly evident in the umbrella projects of instituting sustainable development, with results being particularly poor in indicators that concern more than one area (economic development and environmental protection). This is the result of not only the varying degrees of observing environmental rules and standards (micro-integration at the level of enterprises by raising business efficiency), but also of the lack of macro-integration (environmental, social and economic aspects of development).

ANALYSIS: Two main sources have been used when assessing the state of the environment and development perspectives: the state of the environment is summarised from the draft 2002 State of the Environment Report, while development perspectives have been assessed with the help of a system of indicators that displays the overall achievement of goals set by the SEDS.

The **state of the environment** is represented by indicators from the 2002 State of the Environment Report (Table 4), which were selected on the basis of the

[75] By altering the development paradigm and opting for sustainable development, the SEDS introduced terminology that did not previously exist (environmental capital, environmental development etc.), which is described in the IB Review 4/2001 and 4/2002.

Table 4: **Indicators of the Ministry of the Environment, Spatial Planning and Energy used for the draft 2002 State of the Environment Report**

			REFERENCE PERIOD				ACHIEVE-MENT[1]
			1st half of the 90s	mid-90s	2nd half of the 90s	Last year (2000+)	
Water[1] = ☹		Use of water sources			1997-2001		😐
		Treatment of waste waters			1998-2001		😐
		Watercourse quality	1992-2000				😐
		Nitrates in groundwater water				2000	😐
		Pesticides in groundwater				2000	☹
		Quality of drinking water			1999-2001		☺
		Quality of bathing waters			1996-2001		😐
Air, climate change[1] = 😐		SO_2: emissions	1990-1999				☺
		NO_x: emissions	1990-1999				☹
		SO_2: frequency of exceeded limit values	1992-2000				☺
		Ozone: frequency of exceeded limit values	n.p.				☹
		Ozone: use of ozone-layer-thinning substances	1989-2000				☺
		Greenhouse gas emissions			1999		😐
Soil, nature, diversity[1] = ☹		Soil use and land cover		1995			☹
		Implementation of nitrate directive				2002	😐
		Development of protected areas	1992-2002				😐
		Damage to forest and crown defoliation	1985, 1991-2001				😐
Waste[1] = ☹		Production of municipal waste			1995-99		☹
		Production of hazardous waste			1998 - 2001		☹
		Imports and exports of hazardous waste			1995 - 2001		☺
Econ.-environ. integration[1] = 😐	Agricul-ture	Agricultural environmental measures				2001	☺
		Use of plant-protection agents	1992-1999				☹
		Use of mineral fertilisers	1990-2000				😐
	Energ.	Use of end energy	1990-1999				☺
		Production of electricity from renewable sources	1990-1999				☺
	Trans-port	Average age of car pool			1995-2002		☺
		Emission-compliant car pool	1990-1999				☺
		Means of transporting cargo			1995-2001		☹
Financial sources: Environmental duties					1999-2001		☺
Total, last year [1,2]						**2000+**	☺☺☺☺
Total, last state [1,2,3]					**at turn of decade**		☺☺☺

Source of data: Draft 2002 State of the Environment Report, http://www.sigov.si/mop/vsebina/angl/index.htm; last year & state added; calculations by the IMAD.
Notes: [1]the IMAD according to the following procedure: improvement = ☺ = 1 point; unchanged = 😐 = 0 points; deterioration = ☹ = -1 point, [2]The same values have been taken into account for years and periods, [3]Regardless of which year is last.

significance of changes in the environment. Due to the different periods to which the changes refer, and despite unfavourable results in the quality of underground water, ozone, the use of soil etc, the general assessment is that the state of the environment is improving in Slovenia. We can give a positive assessment for reporting on the state of the environment (2002 State of the Environment Report)

which, in some sectors, has achieved satisfactory integration and quality of data (climate changes, waters, biodiversity). In other areas, too, improvements have been positive compared to the previous report. However, there are still weaknesses in areas concerning public access to information on the environment.

The worst deterioration in the state of the environment has been recorded in **soil** depletion. In the past decade, some intensive farming techniques have expanded, putting a serious additional load on the quality of groundwater in a mere decade; in exposed water-protected areas, they even jeopardise the quality of groundwater, one of our greatest natural resources. Intensive farming often has a negative impact on the environment, primarily by putting excessive stress on soil and groundwater with the use of pesticides[76], the excessive concentration of stockbreeding and the resulting liquid manure, and overabundant soil fertilisation with mineral fertilisers. Nitrate concentration in Slovenian surface waters is still relatively low, although they are already increasing in individual watercourses. The average annual nitrate concentration is highest in the Mura river watershed as a result of intensive farming. The currently highest recorded nitrate concentrations in Slovenian rivers have not exceeded 25µg/l. On the other hand, nitrate concentration in subsoil waters in certain areas of intensive farming is already exceeding ceiling values. The state of **waters** still did not deteriorate in the analysed period according to the analysed indicators, since the effects are temporally delayed, particularly in subsoil waters, as compared to air. In addition, the gradual completion of municipal infrastructure is slowly starting to contribute to an improvement of the overall state. Improvements have also been recorded in **noise** levels, however, it has to be noted that this is one sphere of environmental policy that is still characterised by poor data coverage.

Even small emissions of substances into the air cause considerable **air pollution** in Slovenia due to the dynamic relief coupled with the wind-protective Alps, whereby the prevalent winds are moderate in the most densely populated basins, and temperature inversions are common. In the 1986-1996 period, there were considerable structural changes in emissions: emissions increased in the public sector and households (60%), with the biggest increase noted in road transport (over 100%). 80% of all air emissions are caused by the electricity use of the biggest polluters. The main reasons for the increase in air pollution are the expansion of road traffic and the high level of coal-powered thermoelectric power plants, which occasionally increase production. Partial improvements (e.g. installation of waste treatment facilities at the Šoštanj thermoelectric power plant, the ban on leaded gas and ozone-damaging substances (CFC) etc) have covered up the actual deterioration of air quality in Slovenia in recent years since there is still no appropriate transport policy or measures targeted at promoting energy-efficient technologies.

Due to its orographic and climatic features, Slovenia is one of the more endangered countries in terms of **climate change**. The World Bank has assessed that, at the cost

[76] Since there is no new data on pesticide use in Slovenia (the latest data published by the SORS are for 1999; see Development Report 2002, pp. 176-177), this indicator is not treated separately this year. The problem of pesticide use is acute due to the inappropriate use of pesticides not only in agriculture, but also in parks, playgrounds, roads and railways. Although a gradual drop in pesticide concentration in groundwater has been recorded, the average concentrations of pesticides are still higher than the admissible 0.5 µg/l in Prekmurje, at Dravsko Polje and at Ptujsko Polje. Atrazine and its degradable components are especially problematic.

of EUR 20 per tonne for reducing CO2 emissions, Slovenia is already implicitly carrying an unpaid burden of 0.6% of GDP due to excess emissions with respect to the Kyoto target (reducing emissions below the 1986 level). The state has started tackling the issue with changes to the tax on CO2 emissions, which is aimed at speeding up investments intended to reduce emissions. In the long term, one of the solutions might include the systematic forestation of overgrown farmland that can no longer be used economically for agriculture.

The general long-term goal of preserving **natural and biotic diversity** is that no species should be in an unfavourable position due to human activity, although it is increasingly used and its contribution to prosperity has constantly increased. According to the SEDS, biodiversity is important from the point of view of affecting the diversity and sustainability of overall prosperity. In the past 50 years, no species of mammals have become extinct in Slovenia (36% are endangered, of which 8 species are endangered globally and 41 regionally); 3 species of nesting birds have become extinct (49% of all species are endangered, of which 4 species are endangered globally and 48 regionally); 72% of amphibians are also endangered (1 species globally and 14 regionally); 2 species of indigenous fish have disappeared (48% of fish species are endangered, of which 4 species globally and 40 regionally); about 10% of all species of higher plants are also endangered. Only about 20% of watercourses are sustainable. There are many ways of preserving biodiversity, ranging from protecting individual species to protecting entire areas and regulating the terms of their use.

Indicators of the state of the environment thus provide an entirely different insight into environmental issues than environmental development indicators (see Table in annex)[77]. In 1998, Slovenia slowed down in its outpacing of the EU average in terms of environmental development, which is quite unfavourable given Slovenia's high environmental potential for development. Slovenia's comparative advantages in the environment dropped at the end of the transition, which was expected since transition was primarily concerned with closing the economic gap with the most developed countries. What is much more critical, however, is that even after transition has been wrapped up, the **process of restructuring the economy, in particular manufacturing industries which are not propitious to environmental protection**, is still being implemented. '**Dirty industries'**, namely, sectors that according to international definitions rank highest in terms of the intensity of emissions per unit of product (iron and steel, non-ferrous metals, industrial chemicals, pulp and paper, and non-metal mineral products), are responsible for over 86% of the total estimated emissions by the manufacturing sector in Slovenia. In the 1995-2001 period, the total volume of production in these industries increased faster on average (3.4%) than in manufacturing as a whole (2.5%); in the first nine months of 2002, production growth in dirty industries was almost three times higher (5.3%) than in manufacturing as a whole (1.9%). **Natural-resource-intensive products** (low value added per

[77] The discrepancy is possible because, whereas the evaluation of achievements in the State of the Environment Report is historical, it is prospective in the Development Report (in terms of development priorities) as well as overlapping (comparison with other countries at the same time). Due to the representation of transition phenomena in five- to ten-year averages, fundamental changes taking place within the respective period are easily disguised, as evident from the indicator on end-energy use; while it regressed in the first half of the period, it grew strongly in the second half (the indicator used shows an improvement).

product, high content of natural resources, simple production technologies – food, beverages, raw materials, mineral fuels, animal and vegetable fats, leather, veneer and other processed wood, iron and non-ferrous metals) held a 15% share in the first nine months of 2002, which is 0.4 of a percentage point less than the year before. Slovenia currently has too many big users of raw materials and energy, but they are relatively environmentally inefficient. This is a serious remainder of the latent structural problem of economic development: due to the inflexibility of 'dirty industries' in coping with the environmentally changing business environment, the problem could escalate at the slightest restriction of environment standards and policies or increases in the price of raw materials. Another example of inappropriate restructuring is the aspect of high **energy intensity**. Slovenian energy intensity in end-energy – use per unit of GDP – is about 80% higher than the EU average. From 1996 to 2000, the intensity of energy use decreased by 17% (by 8% in the EU), but increased again in 2001 as the use of primary energy jumped up by 3.9% at a GDP growth of 3.0%. Energy intensity is high in the most environmentally problematic way, since the energy sources have a high CO2 content. Every increase in energy use therefore rapidly and directly increases the trend of growth in emissions and further deteriorates the state of the environment. If the high intensity was only based on non-problematic energy sources (water, wind, sun), the problem of high energy intensity would be much less acute in terms of its impact on the environment. **Renewable energy potential**, too, is being poorly used considering the natural resources, and three natural resources indicators (see table in the annex) suggest that the situation is deteriorating. The share of **road transport in total road and rail transport of goods** suggests that transport restructuring has also been inadequate. In the period from July 1997 to June 1998, the share of road transport amounted to 59.8%, in 2001 it climbed to 66.0% while in the first half of 2001 it dropped again to 61.8%. In the EU, it exceeded 80% in the early 1990s, totalling 84.4% in 2000. Yet the amount of cargo transport relative to GDP is considerably lower in the EU than in Slovenia (structural indicator, SORS). Restructuring in **agriculture** has not been directed towards expanding sustainable farming and improving environmental protection, as also stipulated in a special environmental agricultural programme, but towards increasing the intensity of agricultural production. In 2001, Slovenia used 2.3% more mineral fertilisers than the year before. A comparison of the use of NPK fertilisers in Slovenia with the average use of these fertilisers in EU countries reveals that the difference shrank from 1997 to 2000. On average, EU countries used 19% less NPK per unit of farmland than Slovenia.

The **implementation of the SEDS' priorities** in environmental development can be assessed in different terms. Measures to improve public-finance effectiveness and the efficiency of generating and distributing environmental funds were not implemented sufficiently in 2002 due to the failure to integrate the newly introduced taxes and funds, and because of the allocation of environmentally damaging subsidies. Further, certain weaknesses exhibited by executive regulations and inspectoral services have resulted in the insufficient implementation of systemic efforts to make environmental arguments affect the drafting of development guidelines, programmes and measures. Improvements have been noted in the implementation of systematic monitoring, analysing and projecting changes in the state of the environment; the implementation of the national programme and policies on environmental protection; the monitoring of the developmental functionality of the environment; and the use

of integrative instruments (studies about the vulnerability of the environment, strategic environmental assessments etc). Since the framework legislation[78] has been successfully upgraded, there are less fundamental systemic reasons for the non-integration of environmental policy.

The **World Economic Forum's environmental sustainability index (ESI)**, which is updated every other year, is a highly aggregated indicator[79] used for the international comparison of performance in the environment, which is very diversified. In 2001, Slovenia placed 24th among 122 countries according to the joint ESI, and took 14th place among the EU22 (current EU members plus candidates; no data for Cyprus, Luxembourg and Malta). In 2002, Slovenia placed 4th in the enlarged EU22, with an excellent performance in terms of the lesser vulnerability of people to deterioration of the environment and new loads on the environment. In terms of social and institutional capacities to implement changes, Slovenia performs worse, placing only 13th. In addition to the comparatively worse environmental policy, Slovenia's overall ESI placement is most heavily affected by the poor placement regarding the country's global concern for the realisation of sustainable development.

[78] In 2002, environmental policy made important progress in upgrading the *systemic* regulation of environmental protection both in the normative (regulations) and programme (development) areas. Key systemic pieces of legislation were passed, namely the Nuclear Safety and Protection against Radiation Act; the Construction Act; the Spatial Planning Act (the spatial plan was also adjusted); the Waters Act; and the Use of Gene Technology Act. The Kyoto Protocol was also ratified as planned. A lot of attention has been paid to institutional – implementation – capabilities (personnel, records, equipment, institutions etc.), but achievements are largely only visible in individual areas.

[79] For additional information about the methodology of calculating the environmental performance index, see the methodological sheet of the indicator at www.gov.si/zmar/projekti/arr/arr-pr.html or see Environmental Performance Measurement, The Global Report 2001-2002, 2002, pp. 97-102.

5. Social development

THE SEDS' OBJECTIVE: The SEDS notes three basic conditions which, if fulfilled, lead to an increase in people's welfare and facilitate human development: a long and healthy life, education and information, and access to the resources needed for an adequate standard of living. In addition to highlighting the rising number of unemployed women, the SEDS points to the problem of increasing differences in wage levels among different social groups, generations and regions. It moreover sets solid social security and social cohesion as the goals of social development policy.

THE REPORT'S FINDINGS: Slovenia earmarks a similar share of GDP for ***social security*** *as the EU member-states. In the period of transition, Slovenia managed to maintain its social security systems, which provided a buffer against the impact of the necessary changes in the economic system. In 1999, the poverty rate fell slightly compared to 1997 and was lower than in EU countries, while the risk of poverty among elderly generations dropped markedly from 1993. Income inequality measured by quintile ratios has not increased since 1997. Slovenia has already carried out its pension reform so the percentage share of pension expenditure relative to GDP has stopped growing. Slovenia has also regulated and updated its social security system and family benefits, meaning that the poorest are better provided for and family care is uniformly regulated and upgraded. Changes will also be necessary in the systems of maintaining and improving the level of health and ameliorating adults' functional literacy, while reviewing the efficiency of instruments designed to ensure that social benefits are allocated to those who in fact need them.*

ANALYSIS: Social security and social cohesion[80] are of the utmost importance in enabling and securing welfare. Apart from having secured basic living conditions (such as a flat, a job, education, childcare and health care), a person needs to have their social, cultural, spiritual and other, non-material, needs satisfied. While there are several definitions of social security, this concept can be viewed from two main aspects. Firstly, social security enables a person to participate in the social environment and to be mobile within it. Secondly, a **system of social security** is a public system which, through financial and non-financial benefits, redistributes income, narrows social differences and enables the deprived[81] to have a suitable income or access to services.[82] Indirectly, the social security system also strengthens

[80] The basic elements of social cohesion are contact with another human being and their integration with the social environment where they can contribute to its development equally and mutually, while at the same time enhancing and developing their own abilities. A key prerequisite for social cohesion is the material security of a person and their family.

[81] The deprived are those who do not have sufficient income, but have been excluded from work for various reasons (ill people, the disabled, unemployed), have not yet started working because of their young age or have stopped working due to old age or do not have sufficient means to survive for other reasons.

[82] The European statistical office has developed a special method of monitoring the development of social security by which it also sustains the blueprints from the Maastricht Treaty about the encouragement of high-level social security and the development of economic and social cohesion. This is the ESSPROS method (the European System of Integrated Social Protection Statistics), which enables comparisons between European countries despite their different systems of social security. The Statistical Office of the Republic of Slovenia started collecting social

Table 5: **Social security expenditure in individual areas 1996-2000 * as a % of GDP**

Programmes / Areas	1996	1997	1998	1999	2000
Sickness/health care	7.9	8.0	8.0	8.0	7.9
Disability	2.2	2.2	2.2	2.3	2.3
Old age	11.3	11.4	11.4	11.2	11.2
Survivors	0.5	0.5	0.5	0.5	0.5
Family/children	2.2	2.2	2.1	2.3	2.4
Unemployment	1.1	1.3	1.4	1.2	1.1
Other forms of social exclusion	0.5	0.5	0.4	0.4	0.4

Source of data: SORS, Rapid Reports No. 143, July 2002.
Note: * accommodation data is not included due to its incompleteness.

and sustains the informal social security net. Such an interwoven system is a solid basis for political stability and social cohesion, and boosts economic growth at the same time. Advanced systems of social security[83] are an integral part of the European social model and a necessary basis for implementing the Lisbon Strategy.

In 2000, Slovenia earmarked 26.6% of its GDP for **social security expenditure**, coming very close to the EU average. Unlike the EU, where the share of this expenditure in GDP is decreasing on average, (1996: 28.6%, 1999: 27.6%), it is rising in Slovenia. Calculated per capita, 68.6% of the EU's average purchasing power was allocated for this purpose in Slovenia in 1999 (61% of the average in 1996), which is more than is allocated by Luxembourg, Italy, Greece, Spain, Ireland or Portugal.

When looked at in a short period of time, the proportions between individual fields of social security in the **structure of all social security expenditure** remain more

security data in the second half of the 1990s.
This method is based on the social security data on financial and non-financial benefits given by the state to help households or individuals in cases of certain risks or needs. Classified in eight groups, the (financial and non-financial) benefits are intended for maintaining income in the event of sickness, disability, old age, survivors, unemployment, assistance for accommodation, assistance to children or the family, and assistance in cases of other forms of social exclusion. One unit that is looked at is programmes of social security, with funds from compulsory insurance (contributions of employers and employees) and the budget (general taxes) being the sources of funds for benefits. Programmes are not defined by the social groups they are intended for, but by their goals or risks (risks in the cases of old age, sickness, disability etc). For instance, care for the retired can be found under the sections of old age, disability, survivors or under sickness/health care. Just like in most countries, in Slovenia the areas of old age, disability and survivors are integrated into a national pension and disability system. The section sickness/health care – part of the health care system in Slovenia – does not include all funds intended for health. It chiefly includes financial benefits as well as hospital and outpatient clinic health care. Excluded are, for instance, investment, preventive campaigns, examinations paid for by the employer etc.

[83] There are two primary models of social security in Europe. The Bismarckian system is based on insurance and involves the compulsory participation of all employees (social insurance – contribution scheme). The other is the Beveridge system, which is not based on insurance but takes an expressed need and residence (non-contribution scheme) as the basis for being entitled to assistance. No country resorts to just one model, but countries do combine both, with the elements of 'insurance' and 'social benefits'" models prevailing alternately. With nearly 70% of social security funds coming from the contribution scheme, Slovenia is a country with a prevailing insurance model. Also in this group are Germany, Austria, Italy, France, Spain, and Switzerland.

or less unchanged. The bulk of funds is intended for old age, while other forms of social exclusion get the smallest amount. In 1999, Slovenia gave a greater share than the EU for old age, sickness and health care, family and children, and disability payments. A smaller share went for unemployment and survivors. Benefits in cash represent the bulk of all social security funds (69%), with benefits in kind making up just 31% (services, deferred payments etc).

As much as 81.8% of *health care* expenditure goes for direct hospital care (treatment in a hospital or health resort) and outpatient care (medicines and pharmacy services, basic health care, specialist treatment at outpatient clinics and the operations of social security institutes). The share of direct hospital care has dropped somewhat since 1996, whereas that of outpatient care has increased. Health care is organised as a public service carried out by private and public institutions. It is financed from compulsory health insurance, the national budget, voluntary health insurance, and from funds donated by citizens, companies, public utilities and non-governmental organisations.[84] With health services being financed and carried out by both public and private institutions, access to health care is differentiated for service users. Moreover, this has unequal economic consequences for health care institutions as well as inhabitants. It would be inappropriate to increase the premiums of supplementary (voluntary) health care insurance and the share of insurance due to social reasons; the types and volume of rights from compulsory health insurance as well as the level of solidarity in paying for services will therefore have to be defined anew. The unequal economic position of health care institutions – which results from the inappropriate ways of keeping records and accounts, as well as of payments – should be replaced by a more sophisticated system bringing a more competitive way of thinking into the health service and creating the conditions for more effective cost management.

Making up 90% of all funds for social security benefits for *old age (11.2% of GDP)*, pensions are the most important benefit (10.2% of GDP). 2.3% of GDP was allocated to *disability* in 2000, of which over one-half went to disability pensions. The share of disability pensions within disability expenditure dropped by 6.6 percentage points in the period from 1996 to 2000, with the share of funds for the economic integration of the disabled increasing (representing 23.1% of all disability expenditure in 2000).

Child benefits are the single largest item within the expenditure for *children and family* (46.7% in 2000). Its share increased by 9 percentage points from 1996 to 2000. Nearly one-third of all expenditure for children and family goes on nursery education, 23% for the compensation of salaries during maternity and parental leave as well as for parental benefits. Due to demographic trends, the share of salary compensations went down 5 percentage points in the period from 1996 to 2000.

[84] Compulsory health insurance is founded on the solidarity of all insured persons, involving practically all inhabitants of Slovenia (universal health insurance). Insured persons have different statuses and the level of rights (financial and non-financial benefits) emerging from compulsory insurance differ. However, all statuses guarantee at least insurance against the (partial or full) payment of health care services. Due to the participation of almost all insured persons in it, supplementary (voluntary) health insurance, which involves an additional payment for a service, is in fact universal health insurance. There must be a strong link between compulsory and voluntary insurance; while they have to be treated and regulated as a complex system, they have to function as a single system. Other forms of health insurance (parallel, substitute or additional) still need to be developed.

Over one-half of all funds intended for *unemployment* goes to unemployment benefits. As for *other forms of social exclusion*, over 60% of all funds available is allocated to financial benefits, chiefly for the poorest members of society. The value of these benefits has fallen somewhat in real terms, particularly due to the unsuitable method of harmonisation which, however, has been done away with by amendments to the Social Protection Act.

The main **source of funds for social security programmes** is social security contributions, more than one-half of which comes from insured persons. Over the past few years, employers' contributions have dropped by 5.4 percentage points, while general taxes and the contributions of those insured have increased by 3.4 and 0.8 percentage points, respectively. Employers' contributions in Slovenia were considerably lower in 1999 compared to the EU, whereas those of the insured persons were substantially higher. The share allocated by the state from the budget for social security is dropping in Slovenia, while the share of social security contributions is growing. The situation is reversed in the EU, chiefly as a result of the different social security systems involved.

The volume of social security expenditure is an indicator of how the state cares for the poor; consequently, EU states with a low share of social security expenditure usually have a high poverty rate (Ireland, Greece, Spain and Portugal). In the case of Slovenia, its relatively high level of social security expenditure keeps the **poverty risk rate** relatively low. Moreover, the rate has pursued a downward trend since 1997, and is lower than the EU average. The country's poverty risk rate[85] stood at 13.6% in 1999 (14.0% in 1997), 14.2% among women and 13.0% among men. The gap of poverty risk, the best indicator of how severe poverty is, shows the amount of income an individual lacks in order to hit the poverty line. The gap of poverty risk has also decreased. While people lacked 22.2% of income to hit the poverty line in 1999, the figure was as high as 25.2% in 1993. If there had been no social transfers, the poverty risk rate would have increased in that period; with the help of social transfers, it has fallen. According to the available data, people's activity was too weak to have been able to adequately alleviate these poverty risks. Having dropped to a certain extent in 1999 from 1997, **income inequality** is below the EU average. The quintile bracket ratio was 3.6 in 1999 (3.7 in 1997).[86]

Positive trends can also be observed in the **indicators of welfare and living conditions**. After briefly stagnating in the early stages of transition, *life expectancy* started becoming prolonged soon after 1995, for men even a little faster than for women. It further extended in 2000 and 2001, namely to 72.1 years for men and 79.6 years for women. However, the difference in life expectancy for men and women first dropped to as little as 7.2 years in 2000, but then rose again in 2001, still lagging behind the EU average of 6.1 years in 2000. The *infant mortality rate* first dropped to some 5 deaths before the first year of age per 1,000 live babies until 1995. It then fell further in 2000 and 2001, hitting its lowest ever point in 2001 with 4.3 dead babies per 1,000 live ones. In 2000, Slovenia's infant mortality rate achieved the EU's average with 4.9 deaths, with 8 EU members having a lower infant mortality

[85] Calculated per capita; income in kind excluded.

[86] It is 3.2 if income in kind is included (EU: 4.6) (Structural indicator, SORS).

rate and 7 members a higher one.

Slovenia's social policy is relatively successful in achieving its goals. However, its established patterns and rules could, due to the growing need for social security programmes, excessively burden the active population with taxes and contributions[87]. If not altered, they could well sideline from public funding certain other expenditures intended for creating the conditions for better economic results.

[87] Slovenia also has a problem of the overtaxation of those who receive low wages; while the level of taxation dropped in 2001, it is still substantially above that of the EU (2001, Slovenia: 43.6%, EU: 37.8%) (Structural indicator, SORS).

6. The state's developmental role

THE SEDS' OBJECTIVE: Appropriations for development and other purposes are an important state mechanism for stimulating development. According to the SEDS, general government expenditure should not exceed 43% of GDP. Further, expenditure should be restructured in order to allow more spending on education, research and development, information technologies, and the active employment policy. Slovenia should also provide sufficient funding for projects that may be co-financed by EU funds. The same goes for state aid. The SEDS envisaged no general cuts in expenditure on state aid, however, it called for its restructuring so as to allocate more funding for horizontal and regional objectives and to strengthen state aid's role in promoting technological development.

THE REPORT'S FINDINGS: One factor showing that the state is working in line with the SEDS' guidelines and objectives is the structure of public spending up to 2001. Evidence shows that, at least up to 2001, the government's developmental function was not performed sufficiently in line with the new needs and the SEDS' objectives. Instead, it mainly pursued activities that turned out to be inappropriate or insufficient to achieve balanced economic, social and environmental development, improve the quality of human resources, or bolster the economy's competitiveness. Estimates and activities for 2002 and 2003-2004 point to some positive shifts, however, it is too early to assess them in terms of the SEDS' objectives due to the lack of data.

ANALYSIS:

6.1. The state's developmental role seen through public expenditure and state aid allocation

The state's developmental role seen through public expenditure

Two distinct periods can be identified in the area of public spending. After being systematically reduced from 1993 to 1996 (43.1% of GDP in 1995 and 42.4% of GDP in 1996), consolidated **general government expenditure** began to rise after 1996 (44.1% of GDP in 2000 to 44.5% of GDP in 2001). From 1995 to 2000 it climbed by 22.6% in real terms and by another 4.7% in 2001 over the year before. The state's role in economic, social and environmental development can be clearly shown by the **functional classification of general government expenditure**. It was only in 2002 that public finance statistics began to compile public expenditure figures in line with expenditure functions, however, flows were only consolidated for the central government budget and the budgets of the health and pension insurance funds, but not for local government budgets[88]. The unconsolidated flows were not large, however, because they differed from function to function (e.g. local

[88] The unconsolidated flows amounted to 3.5% of all general government expenditure in 1995, 3.1% in 2000, and 2.7% in 2001.

Table 6: **Central government expenditure and expenditure of health and pension funds broken down by functional classification**

ITEMS	Structure, %			Real growth index	
	1995	2000	2001	2000/1995	2001/2000
TOTAL EXPENDITURE	100.0	100.0	100.0	120.5	104.4
STATE-BUILDING FUNCTIONS	15.3	14.8	15.3	116.1	107.5
1. General public services	8.4	8.1	7.9	116.0	102.2
2. Defence affairs and services	3.2	2.8	3.1	100.9	117.0
3. Public order safety affairs	3.6	3.9	4.2	130.1	111.9
SOCIAL STANDARDS, THE ENVIRONMENT	70.3	71.5	71.6	124.1	103.2
4. Education affairs and services	10.0	10.4	10.7	125.3	108.1
5. Health affairs and services	13.7	14.3	14.5	133.7	99.5
6. Social security and welfare affairs and services	43.9	44.3	43.5	121.6	102.5
7. Housing & community amenity affairs and services	1.0	0.9	1.2	110.6	139.4
8. Recreational, cultural, religious affairs & services	1.7	1.6	1.6	110.7	105.4
ECONOMIC DEVELOPMENT	11.4	9.9	9.2	104.0	97.4
9. Fuel and energy affairs and services	0.4	0.3	0.4	101.2	128.5
10. Agriculture, forestry, fishing and hunting affairs and services	1.8	2.1	2.1	134.8	104.5
11. Mining & mineral source affairs & services, other	1.0	0.2	0.2	19.7	124.8
12. Transport. & communications affairs & services	5.4	4.9	4.3	110.1	89.9
13. Other economic affairs and services	2.8	2.4	2.3	96.6	100.6
EXPENDITURE NOT CLASSIFIED BY MAJOR GROUPS (mainly interest payments)	2.9	3.8	3.9	157.4	108.4

Source of data: calculations by the IMAD made on the basis of data from Slovenia: Government Finance Statistics 1992-2001 (according to the GFS, the IMF's questionnaire), Ministry of Finance, Ljubljana, July 2002.

governments only perform certain functions) they only allowed limited and provisional conclusions and disabled international comparisons. Figures on *central government, health and pension expenditure* (Table 6) show that real expenditure[89] on state-building functions, social development, and environmental protection rose fast in 1995-2000 and in 2000-2001, while expenditure on economic development rose slowly or even stagnated in real terms in the recent period.

Local government expenditure broken down by functional classification rose faster in real terms than consolidated central government expenditure and expenditure of pension and health funds, which was partly due to the creation of new municipalities (local authorities).

Expenditure is one of the main but not the only means of performing government functions. Some activities are carried out through tax allowances and relief, public borrowing, debt guarantees, and property management. Slovenia has intensified the use of these sources by passing special development laws. However, from the point of view of spending efficiency, such expenditure may be questionable due to the lack of transparency.

[89] Expenditure has been classified into four groups, depending on the functions performed by the state.

The state's developmental role seen through state aid allocation

The implementation of industrial policy measures can be examined comprehensively through **state aid**, which involves public expenditure as well as other financial instruments[90] and institutions (state funds and similar institutions, including the Slovenian Development Corporation). In 2001[91], state aid represented 2.03% of GDP, about the same as in 2000 and 0.85 of a percentage more than the annual average of EU member-states in 1997-1999. Total state aid per employee was 2.5% below the EU average (5.9% in 2000), and as much as 41.5% below the average if agriculture is excluded. If we add the supranational aid in EU member-states (aid from structural funds), Slovenia's state aid relative to GDP equalled that of the EU average but, if we exclude agriculture, Slovenia's aid relative to GDP was 0.18 of a percentage point below the EU average (1.03% of GDP in Slovenia and 1.21% of GDP in the EU).

An analytical survey of state aid broken down by activities (Table 7) shows that almost 30% of total aid was allocated to agriculture, 22% to manufacturing, and 17% to business services[92]. Other activities were allocated close to a third of all state aid (a solid 31%). The intensity of aid relative to gross value added and persons in employment was particularly high in agriculture and surprisingly low in manufacturing. It seems that the state was not actively involved in the process of restructuring manufacturing industries.

The government is in charge of two-thirds of allocated state aid, for which it has also devised minimum two-year plans; this aid is mainly given through central government expenditure. Aid that is most transparent is grants because they are usually given on the basis of business plans, which also set out the desired effects of aid. The control over other instruments is not as efficient. The effectiveness of aid given in the form of tax relief is questionable because recipients are all entities that meet the given criteria. Aid given through loans and guarantees is particularly unpredictable, especially if given to ailing enterprises. Such aid can be received more than one time in the form of debt write-offs, the conversion of debt to equity, or the payment of guarantees due.

[90] In 2001, 68% of all allocated state aid pushed up current expenditure, 2% of state aid pushed up capital expenditure, while 12% of allocated aid reduced public expenditure. About 4% of state aid was allocated through borrowing, 12% through ownership, and less than 1% through potential public debt. From the point of view of public expenditure, the actual amounts of state aid allocated through borrowing (including the deferral of tax and contribution payments) and guarantees were substantially higher because the principles of benefit to the recipient and the state's market-oriented behaviour are applied in state aid instead of the total amount of transferred state aid.

[91] Analytical data on state aid are only available for 2001. Regular annual state aid surveys break state aid down by groups of competition policy rules and therefore do not allow any in-depth analysis of industrial policy. Data are collected at the national level only so no information is available at the level of municipalities (local authorities).

[92] Three-quarters (76%) of state aid was given for corporate and business consultancy and holding management, and it was mainly intended for the defensive restructuring of large non-privatised holdings.

Table 7: **State aid in 2001 broken down by activities**

Activity		State aid structure (%)	State aid relative to gross value added (%)	State aid relative to a person in employment (SIT thousand)
A.	Agriculture, forestry, hunting	29.9	22.4	667.8
B.	Fisheries	0.0	2.2	51.2
C.	Mining	0.0	0.1	5.6
D.	Manufacturing	21.9	1.9	86.4
E.	Electricity, gas and water supply	0.0	0.0	2.5
F.	Construction	0.8	0.3	12.4
G.	Wholesale & retail trade, repair of motor vehicles	3.7	0.7	34.6
H.	Hotels and restaurants	1.7	1.2	53.1
I.	Transport, storage and communications	8.0	2.4	153.3
J.	Financial intermediation	0.2	0.1	9.7
K.	Real estate, renting and business activities	16.7	3.2	318.1
L.	Public administration, defence and social security	4.9	1.9	99.8
M.	Education	1.7	0.7	29.4
N.	Health services and social work	3.4	1.4	56.2
O.	Other community, social and personal services	4.7	2.9	169.8
Unknown		2.3		
TOTAL		100.0	2.3	119.3

Sources of data: calculations by the IMAD made on the basis of data from the analytical data by state aid recipients, Ministry of Finance, materials for internal use; value added by activities and gross domestic product, Autumn Report 2002, IMAD, p. 142; persons in employment by activities, Republic of Slovenia, January-December 2001, SORS.
Notes: (1) persons in employment include the employed, self-employed and farmers. (2) Out of the 10% of total state aid (public administration, education and health) as much as 76% was given for agricultural objectives, meaning this aid was given to these activities for further allocation to final recipients or allocated for special purposes. Only 24% of state aid, mainly from education and health, was allocated to final recipients from these activities.

Education

THE REPORT'S FINDINGS: A comparison of general government expenditure and state aid with the results achieved in education[93] and the SEDS' objectives reveals that priority tasks were not carried out primarily in the areas of adult education and training, improving the quality of education, and lifelong learning. A sufficient amount of general government expenditure is earmarked for education, however, too little is given for tertiary and adult education and workforce training.

ANALYSIS: Within **central government expenditure and expenditure of pension and health funds**, expenditure on education (10.0% of total expenditure in 1995 and 10.7% in 2001) recorded one of the fastest growth rates in real terms (up 25.3% in 1995-2000 and 8.1% in 2000-2001). Within education, the fastest growth was seen in expenditure on pre-primary and primary education. These activities are the responsibility of local authorities, however, this growth can be explained by preparations for the introduction of the nine-year primary school and substantial

[93] The results are shown in Chapter 3.1: Transition to a Knowledge-based Society – Education and Training.

investment made in primary schools. The lowest real growth rates, albeit higher than the average growth in central government, pension and health expenditure, were recorded in tertiary education even though enrolment in higher education has surged over the last ten years. *Local government expenditure* on pre-primary and primary school education, the most important item within total local government expenditure, varied from year to year, partly depending on grants from the central government budget that are largely given for investment.

In 2001, employee training accounted for just 1.7% of total **state aid**. This aid is divided between employee training in companies (45%) and consultancy, training and knowledge expansion. In both cases, aid was given through grants. While aid for employee training was evenly distributed between all activities, consultancy aid was concentrated in manufacturing (78%), primarily in the textiles and leather industries.

Research and development

THE REPORT'S FINDINGS: General government expenditure on research and development increased gradually, albeit very slowly, in real terms. However, growth was way too modest when compared to the SEDS' objectives and the actual results[94]*. Similarly, the relationship between basic and applied research was not in line with the SEDS' guidelines – these favour the creation of an environment conducive to technological development and co-operation between the corporate and research sectors – since there should be more applied research. What was also at odds with the Strategy's objectives was the predominant allocation of funding to research and education institutions, which in turn failed to create links and bolster co-operation between the research and production sectors. This would stimulate enterprises to earmark more funding for research and development as well as accelerate innovation and technological advancement.*

ANALYSIS: Instead of treating research and development separately, the **functional classification of general government expenditure** divides R&D into groups and sub-groups. Most basic research and services are classified under general public services, i.e. under the state-building functions. From 1993 to 1996, expenditure on basic research from the *central government budget and health and pension funds* fell steeply and, in 1996, amounted to just 62.2% of the real value of 1993. This expenditure increased after 1996 and in 2001 reached the real value of 1993. Similar trends were seen in multi-purpose development projects, which are listed under other economic affairs (economic development). Up to 1996, expenditure dropped to a third of the real value seen in 1993, it then climbed subsequently, but ranged at a level about half of the 1993 value in real terms.

In 2001, 5.5% of **state aid** was given for research and development, 47% of which was earmarked for basic research, 26% for pre-competitive R&D activities, and 27% for industrial and other research. Basic research was allocated state aid through a special instrument of basic research, while other research activities were mainly

[94] The results are shown in Chapter 3.1: Transition to a Knowledge-based Society – Research, Technological Development and Innovations.

funded through grants. The recipients of state aid for basic research were research institutions from business services, education, and health. In other types of research, only a third of all direct state aid recipients were outside the research and education institutions.

Competitiveness of the economy

THE REPORT'S FINDINGS: The rapid decline in general government expenditure on economic development shows that the government is marginalising its developmental function in the economy, with the exception of agriculture and transport. In transport, expenditure was mainly earmarked for motorway construction – this expenditure should gradually decline with the participation of private funding, as set out in the SEDS – and for railway subsidies. The rapid rise in general government expenditure and state aid on agriculture is more the result of harmonisation with the EU's common agricultural policy than the progress envisaged in the SEDS or actual outcomes[95]. Slovenia is still below the EU average as regards structural and state aid allocated for agriculture, however, other areas that also lag significantly behind the EU average are disadvantaged as a result. Aid to agriculture is still primarily given for production (as revealed by the re-allocation of aid within and outside agriculture), while minimum funding is given for structural changes and rural development, identified as priorities by the SEDS. Aid allocated to other activities is minimal and gradually moving to other, less transparent instruments. The role of this aid is primarily that of rehabilitation, as revealed by the types of recipients and purposes. While there are a number of measures to promote competitiveness in line with the SEDS, the amounts of this aid are minute. Data on aid recipients also reveal that this policy is inappropriate – the SEDS gives priority to measures aimed at accelerating business investment, stimulating growth and the development of high-technology and export-oriented companies, and measures aimed at rapid rehabilitation of the vital parts of ailing companies. Within manufacturing, just 1.7% of aid was given to high-technology-intensive industries[96], 18.5% to medium-technology-intensive, and as much as 79.8% to technology-non-intensive industries. As far as export orientation is concerned[97], 16.4% of aid was given to highly-export-oriented, 47.2% to medium-export-oriented, and 36.4% to non-export-oriented industries. The results of such policy are partly revealed in the level of the economy's competitiveness[98]. As far as employment policy is concerned, the SEDS prioritises a shift from passive to active policy and its regionalisation. The intensity of the move from passive to active employment policy is difficult to assess because

[95] The results are shown in Chapter 3.4: Balanced Regional and Spatial Development – Rural Development and the Agricultural Policy Reform.

[96] High-technology-intensive industries were (the SCA classification) 24.4, 30.0, 32.1, 32.2, 32.3, 35.3; medium-technology-intensive industries were 24.1, 24.2, 24.3, 24.5, 24.6, 24.7, 29.1, 29.2, 29.3, 29.4, 29.5, 29.6, 29.7, 31.1, 31.2, 31.3, 31.4, 31.5, 31.6, 33.1, 33.2, 33.4, 33.5, 34.1, 34.2, 34.3, 35.2, 35.4, 35.5.

[97] Highly-export-oriented industries are those that generate over 70% of their revenues in foreign markets. They were (the SCA classification) 23, 24, 27, 29, 31 and 34, while medium-export-oriented industries generate 50% to 70% of their revenues in foreign markets. According to the SCA classification, they were 17, 18, 19, 20, 21, 25, 28, 32, 33, 35 and 36.

[98] The results are shown in Chapter 3.2.1: Raising the Corporate Sector's Competitiveness.

we have too little reliable information. According to state aid evidence, employment policy is still insufficiently target oriented – most aid is given unselectively through exemption from contribution payments – the number of targeted measures is on the increase, however, they are under-funded and given too few grants. Employment policy, as well as the policy of bolstering new investment, is not sufficiently regionalised, as shown by the results of regional development[99].

ANALYSIS: Within the framework of the **functional classification of expenditure**, the economy's competitiveness can be measured by the items of economic development. They include energy, agriculture, mining, transport and communications, and other economic affairs. In 1995, these objectives represented 11.5% of *central government expenditure and expenditure of the health and pension budgets,* and just 9.2% in 2001. More than half was represented by expenditure on transportation and communications affairs – while it increased moderately up to 2000 this expenditure dropped significantly in 2001 in real terms as a result of the reduced financing of motorway construction as well as lower expenditure on railway and other transport. After 1996, and especially after 1999, expenditure on agriculture surged; the share increased from 16% in 1995 to 22.3% in 2001. A substantial real fall was seen in expenditure on manufacturing; large subsidies were provided for this sector in 1993-1996, but they were cut significantly in 2000 and only represented less than one-tenth of expenditure in 1993 and 1996. Despite a marked increase in 2001, real expenditure was still below the levels seen before 2000. Similar trends were recorded in expenditure on labour affairs. The high amounts in 1993, representing 21.8% of total expenditure on economic development in 1993, began to fall and recorded the lowest level in 1997, representing just 9.3%. Expenditure on labour affairs began to rise again afterwards to reach an 11.2% share in 2001. *Local government expenditure* on economic development rose steeply as a result of the above-average real growth in expenditure on agriculture, transport and communications (road transport) and other economic affairs and services.

The steep rise in public expenditure on agriculture was also reflected in **state aid** on *agriculture*. In 2001, 49.4% of all state aid was provided for agriculture or special agricultural schemes. Most state aid for agriculture (53.5%) was registered under other aid to agriculture. It was mainly intended for direct payments, reflecting the EU's common agricultural policy (CAP), the only difference being that EU aid is granted through the supranational agricultural fund, while Slovenia's aid is given from the national budget. Excluding direct agricultural payments, aid for agriculture represented 26.4% of all state aid, as against the annual average of 16% in the EU in 1997-1999. Representing a 17.6% share, the second most important agricultural objective was compensation for the damage caused by drought. Aid to forestry and fisheries totalled 2%. Other agricultural objectives were allocated 22.3% of aid: just 8.2% of aid was provided for development – investment in agricultural holdings and the processing and marketing of agricultural products, while investment in the development of off-farm activities was small – and 14.1% of aid was provided for regular operations, a large part of which was given to farms with limited capacity for agricultural production and a gene programme of animal husbandry; there were a number of other objectives although their funding was minimal.

[99] The results are shown in Chapter 3.4: Balanced Regional and Spatial Development – Balanced Regional Development.

Agricultural aid was distributed in almost all activities. A solid one-half of aid (56.9%) was given to direct recipients in agriculture (89% of which went to farmers), 11.3% was given to manufacturing, of which almost all went to the food-processing industry, 4.7% of aid was provided for distributive trades, 10% for public administration, mainly involving the redistribution of public funding at the local level, 6.2% of aid was given to education, mainly higher education, and health, mainly veterinary services, and 8.5% to other community, social and personal services, mainly business and professional associations. Most agricultural aid (96.5%) was provided through grants and 2.5% through reduced social security contributions.

As far as *non-agricultural objectives* are concerned, aid was also given to *transport*, representing 6.2% of total state aid in 2001. This was intended for combined transport and compensation for providing a public service. All aid to railways was provided through grants. The economy's competitiveness (excluding agriculture and transport) was bolstered through state aid for regular operations, employment, and investment.

In the area of *regular operations*, representing 18.5% of all aid, two objectives were the most important, namely aid for restructuring (64%) and aid for financial rescue (29.5%). *Aid for restructuring* was granted through various instruments, 80% of which was represented by the conversion of debt to equity, thereby avoiding a compulsory settlement. Only a solid 5% of aid was provided through grants. Most aid for restructuring (72%) was given to business services related to finalising the process of restructuring large loss-making enterprises. The rest of aid for restructuring was allocated to other activities, with a large part being given to manufacturing (14%), mostly to the motor vehicle, paper and textile industries. As far as *financial rescue* is concerned, the most important instrument was the conversion of debt to equity, followed by the payment of guarantees due, loans to ailing companies, and the write-off of debt under a compulsory settlement. Almost all aid was allocated to business services and manufacturing, with the latter primarily involving the leather, electrical, motor vehicle and furniture industries. *Other aid to exporters* represented 6% of total aid for regular operations and was given in the form of tax relief to the transport sector (transhipment and storage).

As regards *employment*, representing 5.3% of all aid, as much as 88% of aid was granted for job creation, primarily through the reduction of social security contributions, while a minor part came through grants. Aid was distributed to all activities. Other objectives were as follows: improving the employability of people with low employment prospects, job retention, and job creation in disadvantaged regions, however, the amount of this aid was minimal and mainly given through grants.

Aid for investment, representing 6.1% of all aid, is divided into general investment (54%) and start-up investment (according to regional objectives). A solid half of aid for *general investment* was granted through the instruments of grants and interest subsidies, with two other important instruments being capital investment and soft loans. Half of aid was allocated to manufacturing and the other half mainly to hotels and restaurants and business services. *Start-up investment in disadvantaged regions* was given through grants and, to a lesser extent, through capital investment and other instruments. Most investment was allocated to manufacturing and business services.

State-building functions

THE REPORT'S FINDINGS: General government expenditure on state-building functions was in line with the SEDS' guidelines, however, the amounts and effectiveness of spending were not transparent. Growth in expenditure on the operations of law courts helped reduce the backlog of court cases[100], while moderate growth in expenditure on general public services still did not reflect the SEDS' objective to exclude non-administrative functions from the direct competence of the state. The SEDS' guidelines seemed to have been followed in the area of bolstering the expertise and professionalism of the state administration, as evidence shows the highest level of expertise among civil servants.

ANALYSIS: According to the **functional classification of expenditure**, the state-building functions include general public services, defence, and public order and safety affairs. This expenditure accounted for a solid 15% of *central government expenditure and expenditure of the health and pension funds*. The strongest real rise was seen in expenditure on public order and safety affairs, up by 30.1% from 1995 to 2000 and by 11.9% from 2000 to 2001, of which law courts saw the biggest increase as a result of efforts to reduce the backlog of court cases. In 2001 over the year before, a strong real increase was seen in expenditure on defence, related to the restructuring of Slovenia's armed forces, and police protection, related to the Schengen border control to be assumed after Slovenia's accession to the EU. From 1995 to 2000, *local government budgets* recorded the biggest increase in expenditure on state-building functions. Strong growth was recorded in each of the three groups, the most in public order and safety and defence.

Environmental development and housing

THE REPORT'S FINDINGS: Even though no clear picture of expenditure on environmental protection is available due to non-consolidation of the two types of general government expenditure, it is safe to assume that environmental protection expenditure was on the increase. However, state aid provided to establish environmental standards was relatively low, with most of it being given through tax relief (the tax on CO_2 emissions) mainly to large polluters. The SEDS paid particular attention to housing policy, where the government should play an important role. Expenditure increased gradually, however, it lagged behind actual needs. The only objective that was realised was the expansion of financial networks (the national housing savings scheme).

ANALYSIS: According to the **functional classification of general government expenditure**, expenditure on housing and community amenity services was marginal (1.0% of total *central government expenditure and expenditure of the health and pension funds* in 1995 and 1.2% in 2001). However, strong growth was seen in 2001 over the year before, up 39.4% in real terms, as a result of the increased expenditure on water supply and sanitary services. This may be accounted for by the increased concern for environmental protection. Significant amounts of *local*

[100] The results are shown in Chapter 3.3: Increasing the Efficiency of the State and the Formulation of Policies for Integration into the Single EU Market – Rules of Economic Activity

government expenditure were earmarked for housing and community development (23.2% in 1995 and 17.4% in 2001). This expenditure recorded strong real growth up to 2000, but dropped by a quarter in 2001 because expenditure on water supply services halved in real terms.

State aid is also provided for environmental protection (6.5% of all aid in 2001). As much as 78.6% of *environmental protection* state aid was provided through tax relief, with most of it being given to manufacturing (the paper industry). Aid for adjustment to new environmental standards and aid for environmental protection were given through grants and soft loans. Aid for energy-saving measures was surprisingly low.

Social development

THE REPORT'S FINDINGS: The SEDS' guideline is to maintain and upgrade social standards and maintain the level of development already achieved, while ensuring that such development is financially sustainable. The second part is unfortunately not being realised. General government expenditure on social security increased rapidly, while new pressures to raise contributions began to undermine the economy's competitiveness. Growth in expenditure helped increase the level of social security and reduce poverty, meaning that reform efforts were effective and that the SEDS' objectives were realised (more funding provided for traditional social security schemes). Less progress was made in the areas of reducing the risk of social exclusion, increasing the range and quality of social security services, and tailoring them to the needs of the individual. The latter particularly involves health services, where public expenditure rose substantially, as did pressures to further increase expenditure.

ANALYSIS: According to the **functional classification of expenditure**, social work activities were the most important item within *central government expenditure and expenditure of the health and pension funds* in 1995-2000 and slightly less in 2001 over the year before (43.9% of total expenditure in 1995, 44.3% in 2000, and 43.5% in 2001). From 1995 to 2000, expenditure on social work activities rose faster than general government, pension and health expenditure, while this growth slowed down in 2001 in real terms. The second most import item was human health activities, holding a 13.7% share in 1995 and a 14.5% share in 2001. This expenditure climbed by as much as 26.0% in real terms from 1995 to 2000, and by 5.5% in 2001 over the year before. In 1995-2000, health expenditure grew particularly fast in clinics and other health services and public health, but it rose less in hospitals, albeit still above the average growth rate of central government expenditure and the expenditure of the health and pension funds. In 2001, expenditure on hospitals recorded stronger growth than total health expenditure. *Local government expenditure* recorded sustained high growth in social security expenditure, up by 54.4% from 1995 to 2000 and by 33.8% in 2001 over the year before.

6.2. Formulating the state's developmental function

At the start of economic reforms and adjustment to a market economy of the Western European type, Slovenia's development planning was expected to be more effective and limited to functions where market forces cannot perform their role. At the state level, this mainly involved medium-term development strategies, the co-ordination of macroeconomic policies, and long-term planning in the public sector. Today, 'optimal' development can be upgraded to the single concept of sustainability by means of the state's developmental function. This was one of the objectives of the SEDS from 1995, opting for sustainable economic development that takes into account environmental, social, national and cultural concerns.

In addition to the SEDS-95, a number of sectoral strategies, national programmes and other strategic documents emerged. They were poorly co-ordinated at the national level itself. Sectoral development documents, which differed significantly in terms of substance and methodology, generally ignored the ultimate objective to co-ordinate the SEDS with Slovenia's spatial plan and respect the financial framework set in the Budget Memorandum. Such planning led to the adoption of limited plans based on particular pieces of legislation (following the same procedure as used in passing laws) as well as to a large gap between the needs and macroeconomic reality (Murn A., 1996). This system was applied up to 1999 when the new Public Finance Act was passed. The Public Finance Act regulates this issue by introducing four-year development plans for all budget spending units. Currently, legislation (Public Finance Act) best regulates budget planning, however this is limited to macroeconomic and short-term aspects. The Public Finance Act and its implementing regulations also partly regulate development planning (Strategy of Economic Development, National Development Plan, development programmes) and try to integrate the EU's policies (Pre-accession Economic Programme, Single Programming Document). Shortcomings are primarily evident in co-ordination between different documents, between the budget and development programmes, and in implementing and monitoring particular projects. Sectoral development programmes seem to be detached from the overall strategic orientations: they are regulated by sectoral legislation so they differ significantly in terms of their methodology and substance. They are prepared and passed separately on the basis of relevant legislation. The mismatch with the budget is regulated by the budget implementation acts passed each year, stating that financial obligations from national programmes and development acts should not exceed the amounts set in the national budget. This regulation is highly counter-development-oriented and institutionalises a total absence of strategy in budget planning. Balanced regional development is also partly regulated by law, as laid down in the Balanced Regional Development Act and its implementing regulations. However, some methodological and substantive shortcomings emerged while drawing up regional documents.

The underlying weaknesses of Slovenia's current regulation of development planning relate to substantive and methodological discrepancies between individual documents, the lack of a prescribed common foundation, the crude system of substantive, methodological and financial harmonisation, and the lack of monitoring, measuring and reporting the outcomes of development. The inappropriate planning system is then reflected in the poor performance of the state's developmental function.

7. Guidelines for implementing the strategy

These guidelines follow the Strategy's two-part structure. The first part, the new development paradigm, sets development goals (a sustainable increase in welfare), promulgates a modern understanding of development factors, and accounts for the need to shift development policy's orientation towards efforts to strengthen these factors. Since this is a conceptual part of the Strategy, it is difficult to measure its implementation or set any concrete guidelines. The second part of the Strategy primarily concerns the promotion of economic development and the related areas of environmental and social development. Most figures and findings compiled in this report relate to the second part, as do these guidelines.

The **SEDS' new development paradigm** stems from the fact that Slovenia's development pattern during transition involved the gradualism of its reforms, whose positive results were stable economic growth without any major macroeconomic imbalances and better outcomes in social and environmental fields compared to the level of economic development. This provided a basis for formulating a new development strategy: (i) given the achieved level of development, it is necessary to focus efforts on reducing the gap in the economic field; (ii) in view of Slovenia's accession to the EU, it is necessary to make a qualitative shift in development policy so that it helps bolster the modern factors of competitiveness, primarily development of the knowledge-based society and a competitive economy; (iii) the integration of different government policies should be intensified, thereby increasing the state's efficiency in performing its developmental role; and (iv) the processes of institutional reforms and macroeconomic stabilisation should be completed.

Two years after the new development paradigm was formulated, figures compiled in this report should reveal the results brought about by this new development pattern. Despite the significant deterioration in international economic conditions, Slovenia has managed to achieve relatively strong economic growth and reduce the gap in the level of its economic development, while maintaining good results in social development. The concept of balanced economic, social and environmental development is being realised, however, problems primarily concern the integration of individual areas and the relationship of cause and effect between different policies.[101] Figures on the general government expenditure structure and state aid show that no major shift occurred in the state's developmental role. These two findings show that it will be necessary to intensify the integration and harmonisation of different development policies in order to achieve the development objectives. Following the code of good practice established in the process of preparing the National Development Plan and the Single Programming Document, it will be necessary to further build an efficient institutional mechanism for formulating, harmonising and monitoring development policies.

[101] The acceleration of economic development to the detriment of environmental development (the emergence of new polluters, environmental and spatial degradation, excessive exploitation of natural resources) is reflected in the reduced natural resource potential and increased costs of environmental rehabilitation. This may eventually have a negative effect on economic growth. Social policy may demotivate people from re-integrating into active life, thereby discouraging them from ensuring their social security through employment. This may, in turn, overburden the active population and negatively affect the economy's competitiveness.

Even though the SEDS' central issue was not macroeconomic stabilisation and the completion of institutional reforms, focused on a qualitative shift in development policy, the persistence of inflation at relatively high levels which has mainly been due to structural factors suggests this area will have to be given more attention. One main reason for the high inflation is the relatively inefficient non-tradable sector[102] and the growing expenditure on public-sector wages (this was brought to a halt in 2002, but it had already significantly strained public expenditure). Pressure exerted by the non-tradable sector on the national economy's costs is also cooling down the dynamics of corporate sector restructuring together with the inflexible labour market and the under-developed financial sector.[103] Since the SEDS was adopted, important results have been achieved in the area of institutional reform: new laws regulating labour and public-sector wages have been passed (they are still being implemented so it is too early to evaluate the results); the partial privatisation of banks has increased the need to consolidate and improve the financial sector's efficiency; restructuring of non-privatised enterprises has been completed under the Slovenian Development Corporation; competition and price regulation in the telecommunications sector have stimulated expansion of the Internet and other services; the opening-up of the electricity market has facilitated cost-efficiency and restricted further price rises for industrial consumers; and progress has been made in the areas of lifting administrative barriers and raising the efficiency of the legal framework regulating business. Nevertheless, it will be necessary to step up the dynamics of structural reforms and strengthen the state's developmental role in order to boost national competitiveness and achieve macroeconomic stability before accession to the EU.

In the pre-accession period, Slovenia's development policy is faced with two important challenges. The first one relates to the EU's Lisbon strategy. It was formulated at about the same time as Slovenia's Strategy for Economic Development, laying down similar development objectives and stressing the importance of similar development factors. While monitoring the Lisbon strategy's implementation, the EU identified a number of shortcomings so efforts to implement the Strategy are likely to be intensified and more attention paid to the key objectives and policies. Slovenia will have to examine the extent to which its Strategy is harmonised with the EU's Strategy, take advantage of the possible synergetic effects, and also pay sufficient attention to specific national objectives. The second challenge relates to the formulation of a new strategy for the period after 2006, which should provide a basis for Slovenia's integration with the EU's structural policy. Given the expected narrowing of the development gap in the economic field, a new important issue will involve the possibility of devising a comprehensive strategy of social development based on a long-term vision of objectives and development. All aspects of development can only be integrated through dialogue that brings all relevant social players together. This dialogue could take place within the *Development Council*,[104]

[102] See the Report's findings about productivity and labour cost trends in the tradable and non-tradable sectors, the share of the public sector in gross domestic product, movements in the prices of services and administered prices.

[103] See the Report's findings about the structure of Slovenia's exports and innovative enterprises, the relatively low investment activity despite savings, and the offensive restructuring and ownership consolidation in the corporate sector.

[104] The IMAD's views on these issues are given in a document called A Proposal for the Regulation of the System of Planning and Steering Development.

Table 8: **Overall evaluation of development achieved in individual areas**

AREA	IMPROVEMENT	WEAKNESSES
Changes in the economic structure (measured by the structure of GDP)	The shares of agriculture and manufacturing declined, the share of services increased; the share of public services reached the EU level.	Business and financial services are lagging behind; manufacturing is changing too slowly towards higher value added and technology-intensive production.
Macroeconomic stability	Balance of payments in equilibrium.	Economic growth hampered by the slow structural changes; inflation is high; the level and structure of general government expenditure are inappropriate.
Transition reforms	International trade and the exchange rate system liberalised; the legal order instituted; state administration reformed, and the business environment improved.	Reforms are too slow as regards: the corporate sector, the financial sector, competition policy, backlog of court cases, manufacturing's restructuring, the number of small and medium-sized enterprises.
Education	Youth education.	Adult education and training; lifelong learning.
Research and development;Information society	Business sector's investment increased; the number of secure servers is high.	Expenditure on R&D is too low; weak links established between the research and corporate sectors; the number of innovative enterprises fell; slow growth recorded in particular segments of the Information Society.
Corporate competitiveness	Rehabilitation of large non-privatised enterprises completed; efficient ownership structures and ownership consolidation established in privatised enterprises; unit labour costs fell; FDI increased.	The structure of merchandise exports is unfavourable in terms of factor inputs; the share of innovative enterprises is small; restructuring towards higher value added and technology-intensive production is slow.
Financial sector	Conditions for raising the financial sector's competitiveness created; growth of mutual funds.	Efficient ownership structures in insurance companies still not instituted; the capital market needs to be developed further.
Infrastructure	The energy and telecommunications sectors began to be liberalised.	Public utilities in the area of communal services; restructuring of Slovenian Railways too slow.
The state	State administration reform and the lifting of administrative barriers.	Backlog of court cases (enforcement of judgements, land register); competition policy; restructuring of general government expenditure; lack of strategic decisions made within competition policy.
Regional development	Regional policy reform - institution-building.	Regional policy reformed to slowly.
Environmental development	Institution-building; the Environmental Protection Report prepared and implemented.	The sustainability orientation insufficiently realised; economic activities restructured to the detriment of the environment.
Social development	Most social security reforms completed; poverty reduced.	Health reforms prepared too slowly.

which is to emerge from the current Sustainable Development Council; its present organisation is appropriate to cover all components of sustainable development. The Council should collect initiatives and proposals, organise public discussions, co-ordinate work with other relevant institutions, ensure the preparation of studies and, finally, draw up a proposal for an umbrella development document (a vision of development). The transfer of the Council's operational management to the minister for regional development was the first step towards facilitating the substantive work of the Council. It will also be necessary to launch activities that will bring all three aspects of development under the auspices of the Council and step up preparation of the *Vision and Scenario of Slovenia's Development*, a long-term development strategy. This document should define the long-term concept of sustainability and set out the path of Slovenia's long-term development – Slovenia should become a country whose international recognition is based on its high level of economic and environmental development and high social standards.

As far as **economic development** is concerned, Slovenia is gradually drawing close to industrialised nations, with positive shifts also being recorded in particular areas. Some weaknesses and setbacks identified last year have increased further and they clearly show that the transition process is still underway in Slovenia and that some economic reforms aimed at bolstering competitiveness are way too slow. This, in turn, is posing a growing threat to development (see Table 8). The biggest weaknesses in the area of *industrial policy* involve: (i) development of the knowledge-based society; (ii) acceleration of competitiveness and structural changes in the economy; and (iii) the completion of transitional and other reforms. As regards *macroeconomic policies*, the most important areas are: (i) the reduction of inflation; and (ii) restructuring of general government expenditure and the balancing of public finances.

7.1. Industrial policy

Industrial policy (also referred to as sectoral/development policy) is generally defined as the aid and co-ordination provided by the state to the corporate sector in order to raise the productivity and competitiveness of all activities (not just manufacturing) and sectors. It is implemented through a wide range of government instruments, mainly microeconomic ones, which should improve international competitiveness in many different ways. The best results can be achieved by a holistic approach, while parts of industrial policy, such as competition, competitiveness, employment, labour market and other policies, can be pursued individually. Competitiveness and competition policies differ significantly – the former aims to raise the economy's competitiveness by stimulating entrepreneurship, knowledge, technological progress etc, while the latter aims to ensure the functioning of market mechanisms (prevention of undesired market structures: monopolies, concentration). When referring to industrial policy's comprehensiveness, we mean the co-ordinated pursuing of policies by individual ministries – satisfactory results can only be achieved through co-ordination because some measures can work against each other.

Guidelines proposed under industrial policy are divided into four parts: (i) three key areas of fast development; (ii) reduction of regional disparities and rural development; (iii) balanced development from the environmental, social and economic perspectives; and (iv) comprehensive and transparent policies.

Development priorities

The SEDS' main priority is the **knowledge-based society**, where weaknesses have still not been eliminated.

One of the main issues in raising the economy's competitiveness is a *qualified labour force*. Positive trends should be accelerated by allocating more public funding for tertiary and adult education, lifting the public sector's investment in know-how, improving the quality of education and training at all levels, and implementing lifelong learning.

In March 2000, the Lisbon European Council set an objective that the EU will

become the most competitive and dynamic knowledge-driven economy by 2010, and adopted another objective in Barcelona in March 2002, calling on EU member-states to raise expenditure on research and technological development (R&TD) to 3% of GDP by 2010. Being an EU applicant-country, Slovenia will have to move in the direction of these objectives, first by implementing the SEDS' goal of raising investment in R&TD to about 2% of GDP by 2006 – this calls for measures and priorities that will create an appropriate institutional environment, provide incentives to the corporate sector to increase investment in R&TD, raise corporate investment in R&TD, improve the quality of research activities, and improve the exchange of know-how and research between the academic-research and corporate sectors. This last aspect can be achieved by changing the relationship between basic and applied research to the benefit of the latter, and by relocating state aid for applied research from research institutions to enterprises.

Even though Slovenia recorded positive results in the use of information and communications technologies (ICT), especially when compared to other applicant-countries, Slovenia will have to accelerate progress in this area in order to catch up with the EU. Evidence from advanced industrialised countries shows that the number of Internet users rises as the cost of access falls (OECD, 2002b), so it is necessary for Slovenia to align Internet-access costs with the level of EU member-states. Some progress has already been made in this area. Further, Slovenia must introduce new and quality infrastructural solutions in ICT use, e.g. broadband access to the Internet that is affordable for all users. Competition should facilitate this process, leading to lower prices of leased lines and inter-network connections. A factor that may also stimulate the use of ICT is the growing number of web pages in the Slovenian language, which should attract all strata of society and reduce the risk of the digital divide.

The corporate sector's competitiveness should primarily be stepped up by creating a favourable business environment that facilitates market entries and exits at minimum costs, ensuring an ownership structure that favours offensive restructuring, and by internationalising the economy. The first task can be realised by further lifting administrative barriers, building infrastructure and by providing a sufficient number of suitable business locations. The second task involves regulation of the status of investment funds and management companies, and allowing more room for owners to launch offensive restructuring; this is primarily a business decision, while the government can support the restructuring process within the state aid rules (provided that good business plans are proposed). The third task should be carried out by accelerating exports and, initially, by increasing inward and outward foreign direct investment. The government's role is limited in this area because of restrictions imposed on the direct promotion of exports, however, the range of measures is wide enough for the government to step in actively. The volume of state aid should not be reduced any further if Slovenia is to raise the economy's competitiveness, which is still lagging behind that of the EU. As regards state aid measures and instruments, they should be redirected from less desirable objectives of rescue and restructuring to objectives that lift competitiveness. They should facilitate the entry of new small enterprises, the introduction of technologically more complex products and production processes in existing enterprises, and improve competitiveness in foreign markets. The latter is particularly relevant for companies

which have not been faced directly by foreign competition. In the least developed regions, some industries may be rescued by regional aid (aid for regular operations).

Transitional and other reforms involve the corporate sector as well as other sectors that play an important role in industrial policy, i.e. the financial sector and infrastructural services.

Countries with advanced *financial systems* have a wide range of instruments and mechanism at their disposal; they support the corporate sector's competitiveness and technological advancement and enable innovation in enterprises (including small and medium-sized enterprises). In Slovenia, like in other countries in transition, the financial sector is under-developed in terms of stimulating innovation (e.g. risk capital funds, investment banking), so support for innovation and technological advancement primarily comes from the state and other public institutions. Given the growing development gap of the financial sector, both in the contexts of Slovenia and the EU, it is necessary to step up processes that ensure a rapid rise in the efficiency and competitiveness of this sector.

From the point of view of industrial policy and competitiveness, development and liberalisation of *infrastructure* are needed to ensure a sufficient and quality supply of services at competitive prices. Investment in infrastructure (mainly the construction of motorways) should gradually be financed more by private than public funding.

Reducing regional disparities and rural development

Industrial policy should incorporate the **regional dimension**, meaning that priority should be given to investment and other business activities, including job creation (with quality projects) in those regions where development gaps are widest. Regional policy should primarily create an environment conducive to entrepreneurship, activate the exploitation of local resources, and make sure that activities already taking place within industrial policy are not duplicated (development of small and medium-sized enterprises and rural investment). We believe this is the main reason for the implementation gap in the area of regional state aid. Given that regional aid should be implemented through the EU's structural funds[105] as early as 2004, a narrow understanding of regional policy and regional aid may disperse the EU's structural aid into several small projects without producing the desired effects. Evidence from other EU countries shows that regional aid was also used to rehabilitate large ailing companies. Some change may also be brought about by the new minister for regional development appointed in 2002 and the Government Office for Structural Policy and Regional Development. Regions should also take responsibility for their own development and establish dialogue between local authorities, which will be vital for implementing the EU's structural policy.

The SEDS assigned **agriculture** the role of stimulating rural development and preserving settlement and cultural landscape. Agriculture's production function is specific in Slovenia because of the ownership structure and labour force. The

[105] After accession to the EU, Slovenia is expected to receive EUR 404 million from the EU budget in 2004-2006, EUR 236 million from structural funds and EUR 168 million from the Cohesion Fund.

dispersed ownership structure is one of the factors behind agriculture's low productivity, however, this is given too little attention due to the problems of inheritance and related ownership issues. The qualifications of agricultural workers are well behind the requirements of modern agriculture, however, no steps have been taken to train farmers in any organised way. The central issue is still agricultural state aid – they are below the EU average (if both state and structural aid are taken into account), but not the lowest when compared to individual EU members. Measures taken in agriculture primarily have a distributive and not a development function (even though national programmes have already been adopted); they should be aimed more at production restructuring, environmental protection and rural development. The policy's weak development function is revealed by the conditions for applying for the EU's aid. The EU allocates aid to those farmers who have a sufficient agricultural area in use (owned or leased) and have the appropriate qualifications. Since the number of such applicants is likely to be low (as revealed by previous tenders for projects), the EU's structural aid may go unexploited, while pressure on national expenditure for agriculture may build (especially after accession to the EU). Slovenia's capacity for agricultural financing is limited, so agricultural policy-makers will have to distribute the available funding effectively.

Balanced environmental and social development

Harmonised economic and **environmental development** calls for a more sustainable exploitation of natural resources, mainly domestic renewable resources, biomass (heating oil tends to replace wood even in forested areas) and water (small areas under irrigation, exploitation of water for electricity generation), the better exploitation of the economic potential of biotic diversity, and efficient spatial management. It is necessary to introduce various instruments for the integrated operation of environmental and industrial policies, especially those designed by the OECD. Environmental protection has also given rise to the need for more public funding, which is to be used in dealing with the biggest polluters. Evidence shows that the volume of general government expenditure on environmental protection is increasing, while Slovenia has also received the EU's pre-accession assistance. This is why we believe the main problem lies in the selection of appropriate environmental protection projects and the review of economic development projects (investment and state aid) that have an environmental impact and not in the volume of funding. The corporate sector could reduce pollution by using state aid for technological modernisation, which should reduce energy consumption and improve implementation of environmental protection standards, and by providing state aid to the recycling industry. On the other hand, publicly-funded corporate investment in dirty and energy-intensive industries should be limited (or no public funding should be supplied for these projects).

Social development is related to industrial policy in the area of activating the working-age population[106]. The population's participation rate should be increased since the current rates cannot help reduce the risk of poverty. All changes in the social security system should be planned and implemented in a way that further

[106] Slovenia's labour force is slightly lower than that of the EU (63.8% and 64.1%, respectively in 2001), however, it increased by one percentage point over 2000 (the SORS' structural indicator).

growth in public expenditure on social security is prevented – this would not put any additional pressure on employees nor reduce the economy's competitiveness. Private funding should also be employed in an organised and non-discriminatory way. This would enhance the opportunities of people capable of earning income to look after their social security themselves.

Transparency and comprehensiveness of policy

Slovenia needs a comprehensive **industrial policy whose goals and guidelines are clearly defined and measures broken down by programmes, sub-programmes**, and instruments. The **National Development Plan** (NDP), the Strategy's implementing document passed in 2001, should reduce discrepancies between objectives and appropriations. Its positive feature is that it contains concrete inter-sectoral and financially evaluated programmes and that its public funding requirements[107] are aligned with the adopted national budget. Parallel to drawing up the NDP, we devised a method of its co-ordination through the Structural Policy Council, launched activities to monitor its implementation, and carried out horizontal harmonisation through the strategic evaluation of its impact on the environment and health. The NDP's weakness is that its priorities were defined as much on the basis of the SEDS as on the basis of the structure of financial sources from the EU. The **Single Programming Document** (SPD) was devised on the basis of the NDP for the purpose of Slovenia's integration with the EU's structural funds; as a result, the NDP's content shrank, as might the level of funding, depending on the outcome of negotiations with the EU. The SPD does not incorporate some important development programmes, while it includes some that are not as important but are financed by EU funds. From the point of view of a comprehensive national development policy (and planning), it is necessary to continue preparing the NDP, while the document might represent Slovenia's industrial policy and replace the current development programme plan from the national budget (it is incomplete in terms of state aid instruments). The NDP should be harmonised within the **Structural Policy Council**, where priorities would be aligned with the financial plan – the total volume of the required funding would match funding from the budget and other public finance budgets. The NDP should also be monitored in terms of implementation and results. Further, this process should incorporate all major government investment projects and state aid even though they are not part of the NDP. All other development programmes (regional, sectoral and EU programmes) should be aligned with and subject to the NDP in terms of content and finance. The transfer of management of the Structural Policy Council to the minister for regional development was the first step towards facilitating efficient inter-departmental co-ordination.

[107] Programmes financed from the budget only take into account budget expenditure and ignore sources from government funds. Further, programmes which are allocated public funding as state aid do not take into account other instruments, which account for about one-third of total state aid.

7.2. Macroeconomic policy

In recent years, favourable economic results have been achieved on account of undermined macroeconomic balances, which are particularly evident in the areas of prices and public finances. They have also largely resulted from the slow and pending structural reforms. In order to create and maintain stable macroeconomic frameworks, Slovenia will have to accelerate implementation of its structural reforms as well as tighten up some macroeconomic policies. Otherwise, these imbalances will deepen and seriously jeopardise realisation of the SEDS' objectives.

The indicators of macroeconomic stability and findings of the Autumn Report 2002 (IMAD, 2002) have drawn attention to deviation from the SEDS' medium-term macroeconomic scenario (IMAD, 2002). The **GDP structure** underwent some changes, particularly in 2001 and 2002 – a lower share of investment relative to GDP, changes in the structure of spending disposable income – which will influence the dynamics of economic growth recovery after 2004 and realisation of the GDP growth scenario from the SEDS, along with the delayed revival of export markets and economic growth in 2003. Despite the relatively strong impact of the international environment on Slovenia's economy, the pending structural reforms, affecting the quality of the exports structure and the channelling of savings to productive investment, remain the main reason for the deviation from the SEDS' scenario. The envisaged real GDP growth is between 5.3% and 5.7% for 2005 and 2006. The trend of accelerating economic growth envisaged by the SEDS should therefore be realised later than expected, resulting in the delayed bringing of economic growth to a higher medium-term level.

The persistence of **inflation** at a relatively high level and the analysis of factors fuelling inflation point to the urgency of the co-ordinated implementation of more restrictive monetary, exchange rate, prices and fiscal policy measures. In January 2003, the government adopted a plan of administered prices for 2003, according to which regulated prices should not rise above the general inflation level (5.1%), and also passed a decision to restrict tax changes that influence inflation. As the contribution of administered prices to inflation is falling and wages are rising below the rate of productivity growth (laid down in wages policy agreements for the private and public sectors for 2003), monetary and exchange rate policies will become the main levers of dragging inflation down to the level of EU member-states. A more restrictive exchange rate policy aiming at a slower rise in the targeted nominal exchange rate is therefore a crucial element of the co-ordinated mix of economic policies targeting a faster reduction of inflation. Such a policy would also keep growth in the monetary aggregates down and indirectly narrow the gap between foreign and domestic interest rates, which largely depend on the anticipated inflation. This more restrictive policy should also hold back inflationary expectations of economic entities that set prices and interest rates, it should reduce demands to directly or indirectly raise regulated prices, and influence demands made in wage bargaining. Inflation can also be reduced by the de-indexation of interest rates, therefore reducing inflation's inertia. The first step towards de-indexation in the financial sector was the abolition of the tolar indexation clause for all new financial contracts with a maturity of less than one year as of July 2002. This did not push nominal interest rates up, so some banks began to introduce nominal interest rates

for contracts of a longer maturity in the second half of 2002 and early 2003. They also examined possible solutions for a reference interest rate. Another important contribution to de-indexation was the adjustment of the central government debt structure by introducing fixed and nominal interest rates, which should be pursued further in 2003 and the upcoming years. The easing of inflationary expectations and reduction of inflation in 2003 should bring inflation down to 4%-4.5% in 2004, provided that macroeconomic policies remain restrictive and structural reforms are further pursued primarily in infrastructural sectors, financial services (mainly as regards the use of indexation mechanisms and functioning of the financial market) and the labour market (greater flexibility). 2004 is also the year Slovenia is expected to become an EU member and integrate into the related exchange rate mechanism. Hence, inflation should fall gradually this and next year, but the rate is expected to exceed the level set by the Maastricht criteria on the anticipated date of entry into the ERM2 (1.5 percentage points above the average level of the three member-states with the lowest inflation rates). This forecast includes the estimated effect of different levels of labour productivity growth in Slovenia and the EU (the Balassa-Samuelson effect, Spring Report 2001, IMAD), due to which the difference between Slovenia and the EU's inflation is being maintained. Given the current trends in the productivity growth of tradable and non-tradable sectors, the Balassa-Samuelson effect is estimated to contribute 1 to 2 percentage points to inflation in the next few years.

Fiscal policy's strategic goal is to restructure general government revenue and expenditure, which should help boost the economy's competitiveness and bring public finances into balance without increasing the share of expenditure in gross domestic product in the medium term. Fiscal policy is trying to realise this goal by targeting the budget deficit, however, this is also building up pressure to increase the tax burden and/or curb budget expenditure against the background of dampened economic growth. Recent rises in indirect taxes have fuelled inflation, while the curbing of budget expenditure has largely led to lower capital expenditure as a result of the rigid expenditure structure. This has had a pro-cyclical effect on economic activity. In the conditions of dampened economic activity and its impact on long-term economic performance and prices, it is sensible to consider the possibility of allowing a higher cyclical budget deficit. This might be achieved by instituting automatic fiscal stabilisers;[108] this is limited in Slovenia due to restrictions imposed on expanding the statutory deficit. A better solution would be to abandon the budget-deficit targeting and set strict quantitative criteria for the level of general government expenditure relative to GDP (anchoring). At the same time, this would involve restructuring of general government expenditure in terms of strengthening its developmental role.

The sustained general government deficit in 2002 and the reasons behind it stressed the need to ensure stable financing sources and the urgency of restructuring general government expenditure. The fiscal policy guideline laid down in the Budget Memorandum for 2003 and 2004 is to further restructure general government revenue

[108] The impact of the automatic fiscal stabiliser on economic activity is counter-cyclical and allows, to some extent, an automatic levelling-out of cyclical developments. This is important for the balanced public finances in the medium term. The actual effect of automatic stabilisers on the public finance balance and the fluctuating economic activity depends on the tax system and social transfer regulations.

so that the tax capacity is increased without putting additional tax burdens on labour. Tax policy is primarily based on direct tax reform, i.e. corporate income tax, where the effective tax rate is much lower than the prescribed rate due to a number of tax exemptions, and the reform of personal income and property tax. Amendments to the Corporate Income Tax Act were passed in 2002, while the two other laws are envisaged to enter into force in 2004. Following these amendments, the structure of general government revenue will change slightly; as far as direct taxes are concerned, the volume of collected corporate income tax will increase, while personal income tax will drop. In order to achieve sound public finance positions and restrict general government expenditure relative to GDP, as well as the state's role in the economy, a crucial role will also be played by curbing real growth in public expenditure and its restructuring. Implementation of the following fiscal policy measures will be crucial:[109] identify priority programmes clearly and selectively, where the role of the Structural Policy Council should be strengthened; economise with public funds by reviewing costs and imposing technical and technological standards on budget-spending units; examine the economic accountability of expenditure; introduce a more efficient and flexible human resource management, exercise restraint in employment policy, and introduce stimulating promotions in state administration; reorganise public enterprises and public utilities (the application of economic principles, gradual privatisation, greater participation of institutional investors in financing infrastructural projects on the basis of concession agreements); reduce public debt and the cost of its financing.

The policy of borrowing and **public debt** management for 2003 and 2004, which pursues the goal of reducing public debt and the cost of its financing, is largely based on the efficient use of proceeds from the sale of the NLB bank; this involves a combined approach using early debt repayment and the exchange of part of the debt portfolio for new and cheaper instruments, combined with the deposit of funds saved with the Bank of Slovenia. Provided that a sustainable budget deficit is maintained, this policy should reduce central government debt relative to GDP and have a favourable effect on the level of domestic interest rates.

The Public Sector Wage Act, which was passed in early 2002 and will come into force on 1 January 2004, should improve the transparency of public-sector wages, representing a significant part of general government expenditure. This law will introduce a more centralised public sector wage system, preventing any partial wage increases and enabling greater wage flexibility in terms of the link between wages and work efficiency. Assuming that inflation drops to 4%-4.5% in 2004, **wages policy** should also reformulate the current wage indexation mechanism in the public sector in order to cut inflation further. The wages policy agreement for 2002-2004 has already announced changes in the adjustment mechanism for private-sector wages for 2004. The social agreement for 2003-2005 will have to define in detail how to implement this adjustment mechanism, which should incorporate consumer price trends as well as new additional criteria.

[109] The Budget Memorandum for 2003 and 2004.

Bibliography and Sources

1. Agencija za kmetijske trge in razvoj podeželja, 2002, Spletna stran.
2. ARSO, 2001, Pregled stanja biotske raznovrstnosti in krajinske pestrosti v Sloveniji, Ljubljana.
3. Bavec, M. in ostali, 2002, Ekološko kmetijstvo – slovenska priložnost v Evropski uniji, Zbornik XVII. tradicionalnega posveta Kmetijske svetovalne službe, Bled, 25. – 26. november.
4. Begon M., 1996, Ecology: individuals, populations and communities, Blackwell Science Ltd.
5. Bevc, M., Bovha Padilla S, Padilla Mayer H., 2002, Education, V: Benchmarking Slovenia, Inštitut za ekonomska raziskovanja, Ljubljana, draft, oktober.
6. Bevc M., Dolenc D., Ložar B., Novak T., Perič-Mulac O., Smrekar T., 2001, Ekonomska učinkovitost in pravičnost izobraževanja v Sloveniji in potrebne informacijske podlage za njuno kvantifikacijo, Inštitut za ekonomska raziskovanja in Statistični urad R Slovenije, Ljubljana.
7. Bole Kosmač D., 2002, Kazalci za spremljanje nacionalnih raziskovalnih politik, Izračuni za Slovenijo, Republika Slovenija, Ministrstvo za šolstvo, znanost in šport.
8. CEEPN, 2002, Investicije in financiranje podjetij – 2002, Ljubljana, Central and Eastern Europe an Privatisation Network.
9. Council directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control (IPPC).
10. Deiss R., Information Society Statistics, Data for Candiadte Countries, Statistics in Focus, Theme 4-17/2002.
11. Dudley N., Hockings M., Stolton S. and Kiernan M., 1999, Effectiveness of forest protected areas - A paper for the IFF intercessional meeting on protected areas in Puerto Rico, March.
12. EEA, 1998, Europe's Environment: The Second Assessment. Prepared by European Environment Agency, OPOCE, Luxemburg.
13. EEA. 2002. Environmental Signals 2002 - Benchmarking the Millenium. Koebenhaven: European Environment Agency; Environmental assessment report No. 9.
14. Environmental Performance Measurement, 2002, The Global Report 2001-2002, Oxford, Oxford University Press.
15. European Commission, 2002, Towards a European Research Area: Science, Technology and Innovation-Key Figures 2002.
16. European Commission, 2002, Innovation & Technology Transfer, Special Edition – A Directory of European Innovation.
17. European Commission, 2001. On the sixth environment action programme of the European Community 'Environment 2010: Our future, Our choice' - The Sixth Environment Action Programme.
18. European Innovation Scoreboard, 2002, Technical Paper No. 2, Candidate Countries,

European Trendchart on Innovation, 2002, http://trendchart.cordis.lu/Reports/Documents/report2.pdf.

19. European commission, Agriculture and environmnet, http://europa.eu.int/comm/agriculture/envir/
20. Eurostat, 2001, Statistics in focus, Environment and energy, Organic Farming. Theme 8 – 5/2001.
21. Eurostat. 2002, Yearbook.
22. Gliha, M., 2000, Empirična ocena o stanju tehnološkega razvoja v predelovalnih dejavnostih. IER, Ljubljana.
23. Globevnik L., 2002, Voda kot strateško bogastvo ali problem? Delo, Priloga Znanost, avgust.
24. Human Development Report, 2002, UNDP, New York/Oxford, Oxford University Press.
25. Human Development Report, 2001, UNDP, New York/Oxford, Oxford University Press.
26. Human Development Report, 2000, UNDP, New York/Oxford, Oxford University Press.
27. Human Development Report, 1999, UNDP, New York/Oxford, Oxford University Press.
28. http://www.redefiningprogress.org/programs/sustainability/ef/efbrochure.pdf.
29. IMD, 2002, The World Competitiveness Yearbook 2002, IMD, Lausanne.
30. Izhodišča za uvedbo davčnih olajšav za vlaganja v raziskave in razvoj s predlogi dopolnitev Zakona o davku od dobička pravnih oseb, 2002, MŠZŠ, Ljubljana.
31. Keating M., 1995, Agenda za spremembo s Srečanja na vrhu, Agenda 21 in drugi sporazumi iz Ria de Janeira v razumljivem jeziku, Ljubljana, Umanotera.
32. Keuc A., 2002, Kako ravnanti z odpadki – vodič po zakonodaji o odpadkih v Sloveniji in EU, Umanotera, Slovenska fundacija za trajnostni razvoj, Ljubljana, marec.
33. Krajčič D., 2000, Razmerje med potencialom in donosi v slovenskih gozdovih. Zbornik gozdarstva in lesarstva, 61.
34. Kuhar A., 2001, Aktualna vprašanja prestrukturiranja slovenske živilskopredelovalne industrije: Vertikalni odnosi v agroživilski verigi: Zakonodaja na področju proizvodnje hrane, Gospodarska zbornica Slovenije, Združenje agroživilstva, Ljubljana.
35. Landesmann M., 2001, Structural Developments in Central and Eastern Europe, The Vienna Institute for International Economic Studies (WIIW), Dunaj.
36. Majcen B., 1999, Kritična analiza metod merjenja carinske zaščite, Doktorska disertacija, Ekonomska fakulteta, Ljubljana.
37. Mavsar R., Kovač M., 2002, Total Economic Value of Slovenian Forests. V: Merlo, M., Croitoru, L. (ur.): Mediterranean Forests and People: Towards the Total Economic Value (draft version). Padua, Padua University Press.
38. McConnell International, 2000, Risk E-Business: Seizing the Opportunity of Global

E-Readiness.

39. Mednarodni inštitut za potrošniške raziskave, 2001, Izvensodno reševanje potrošniških sporov na področju e-poslovanja, Ljubljana.
40. MOPE, 2002, Poročilo o udeležbi delegacije Republike Slovenije na Svetovnem vrhu o trajnostnem razvoju (WSSD) od 26. avgusta do 4. septembra 2002 v Johannesburgu, Južna Afrika, 18. IX.
41. MOPE, 2002, Osnutek poročila o okolju 2002, http://www.sigov.si/mop/index.htm.
42. MOPE, Agencija RS za okolje, 2002, Strokovne podlage za razglasitev ogroženosti podzemne vode v RS, dokument v pripravi.
43. MOPE, 2002, Obrazložitev uredbe o spremembi CO2 takse.
44. MOPE, 2002, Bilten okolje in prostor, št. 79-87.
45. Novak P., 2002, Ali potrošniška družba omogoča trajnostni razvoj? Delo, Priloga Znanost, avgust.
46. Novinarska konferenca Agencije RS za regionalni razvoj, 2002, interno gradivo ARR, december.
47. OECD Science Technology and Industry Outlook, 2002a, OECD.
48. OECD, Measuring the Information Economy, 2002b, OECD.
49. Organic Europe. http://www.organic-europe.net.
50. Poročilo o izvajanju regionalne politike v letu 2001, 2002, Poročevalec št. 60/02.
51. Pravilnik o ravnanju z odpadki, 1998, Uradni list RS: št. 84-4330/98.
52. Projekt uvedbe pokrajin v Sloveniji, 2003, http://www.gov.si/loksam/index.html.
53. Proračunski memorandum za obdobje leti 2002 in 2003.
54. Proposal for a decision of the European parliament and of the Council laying down the Community Environment Action Programme 2001-2010. Brussels, COM (2001) 31 final, 2001/0029 (COD)
55. Radej B., 2003, Electricity market liberalisation as an issue of (un)sustainability in Slovenia - is national welfare identity wasted for higher business growth? Preparred for the conference of Globe Slovenija, Ljubljana, February.
56. Radej B., 2003, Uvod v ekonomiko okolja, Ekonomska fakulteta, Ljubljana, rokopis.
57. Radej B., 2002, Vojna kot zadovoljevanje potreb, v Gregorčič M., Kovačič G., Ne NATO – mir nam dajte, Mirovni inštitut, Zbirka Svete krave, Ljubljana.
58. RIS, 2003, http://www.ris.org/indikatorji/si eu2.html.
59. RIS 2002, Primerjava Slovenija - EU, januar 2003.
60. Simoneti M., 2002, Vrtnarjenje je doma tudi v mestu, Delo, Priloga Znanost, november.
61. Slabe Erker R., 2003, Ocenjevanje okoljske trajnosti za učvrstitev konkurenčnosti – grožnje in priložnosti, Fazno poročilo k Ciljnem raziskovalnem projektu V5-0730-0502-02. Inštitut za ekonomske raziskave, Ljubljana.
62. Slovenski nacionalni komite, Svetovni energetski svet, 2001, Različna gradiva za

pripravo Nacionalnega energetskega programa, Ljubljana.

63. Stare M., Bučar M., 2002, Innovation in Services in Accession Countries: Double Trouble, 12th International Conference of RESER, Services and Innovation, Manchester, 26th-27th September.
64. Šubic J., 2002, Zavod za varstvo narave, intervju ob peticiji za gozdove, december.
65. Temeljni indikatorji e-Europe+, 2003, www2.gov.si/mid/mid.nsf, 8.1.
66. The Global Competitiveness Report 2001-2002, WEF; Global Competitiveness Report 2002-2003; http://www.weforum.org/site/homepublic.nsf/Content/; The World Competitiveness Yearbook, 2002 IMD, Lausanne.
67. Tomšič M., 2002., Odločitve o energiji: optimalne, potratne ali trajnostne? Delo, Priloga Znanost, avgust.
68. UNECE, 2001, Assessment of progress in sustainable development since Rio 1992 for member states of the United Nations economic commission for Europe, ECE/AC.22/2001/3.
69. UNCSD, 2002, World summit on sustainable development. Johannesburg; 26.VIII–4.IX.2002. Facts about… (voda, energija, narava, globalizacija, gozdovi, finance, zdravje, vzorec proizvodnje, vzorec potrošnje, dosežki po konferenci v Riu).
70. Varuh človekovih pravic, Letno poročilo varuha človekovih pravic, za različna leta.
71. Vehovar, Vukčevič, 2001, Digitalni razkorak – Slovenija 2001, Fakulteta za družbene vede Center za metodologijo in informatiko, Projekt RIS, Ljubljana.
72. Verša D., 2002, Varstvo narave kot ustvarjalec zaposlitvenih možnosti - primer Triglavskega narodnega parka, Magistrska naloga, Fakulteta za družbene vede, Ljubljana.
73. VGI, 2000, Kategorizacija voda – pomembnejših vodotokov – po naravovarstvenem pomenu – poročilo MOP – Uprava RS za varstvo narave, Ljubljana.
74. Vodopivec M., 2003, Povabite v razred jazz trio: Kako reformirati visoko šolstvo v Sloveniji, Predvidoma objavljeno v Ib-revija, Vol. 37, št. 1,
75. WB, 1998, Slovenia: Trade Sector Issues. WB: European and Central Asia Regional Office – Powerty Reduction and Economic Management Unit.
76. WB, 2002, World Development Indicators 2002,. Washington, The World Bank.
77. Weizsäcker, von E. U., Lovins A. B., Lovins L. H., 1997, Factor 4: Doubling Wealth – Halving Resource Use. The New Report to the Club of Rome, London: Earthscan Publications Ltd.
78. World Economic Forum , 2001, The Global Competitiveness Report 2001-2002.
79. World Economic Forum, 2002, The Global Competitiveness Report 2002-2003.
80. Zakotnik I., Radej B., 2002, Environmental degradation from exports of goods - case of Slovenia, EADI General Conference: EU enlargement in a changing world - Challenges for Development Co-operation in the 21st Century, Ljubljana, 19-21 September.
81. Zavod za gozdove Slovenije, 2002, Poročilo o gozdovih za leto 2001.
82. Zavod za gozdove Slovenije, 2002, Gozdnogospodarski načrti gozdnogospodarksih

območij za obdobje 2001-2010.

The IMAD's publications

1. Jesensko poročilo, 2002, Urad RS za makroekonomske analize in razvoj, Ljubljana.
2. Kraigher T., 2001, Ocenjevanje in projekcija izobrazbenih tokov in izobrazbene sestave prebivalstva, Delovni zvezek, Urad RS za makroekonomske analize in razvoj, Ljubljana, (X)3.
3. Mihevc B., 2003, Country, jazz Ali »new kids on the block«: Kako reformirati visoko šolstvo v Sloveniji. Predvidoma objavljeno v Ib-revija, Vol. 37, št. 1,
4. Murn A., 2002, Industrijska politika in državne pomoči v Evropski uniji in v Sloveniji, Delovni zvezek, Urad RS za makroekonomske analize in razvoj, Ljubljana, (XI) 2.
5. Murn A., 1998, Javnofinančne obveznosti, ki izhajajo iz dokumentov razvojnega načrtovanja in posebnih razvojnih zakonov, Delovni zvezek, Urad RS za makroekonomske analize in razvoj, Ljubljana, (V)4.
6. Pečar J., 2002, Regionalni vidiki razvoja Slovenije (in poslovanje gospodarskih družb v letu 2000), Delovni zvezek, Urad RS za makroekonomske analize in razvoj, Ljubljana, (X) 6.
7. Pobuda za ureditev sistema načrtovanja in usmerjanja razvoja, 1993, Urad RS za makroekonomske analize in razvoj, Ljubljana, interno gradivo.
8. Poročilo o človekovem razvoju, 2000-2001, Hanžek, M., Gregorčič M. (ur.), UNDP & UMAR, Ljubljana.
9. Poročilo o človekovem razvoju, 1999, Hanžek, M. (ur.), UNDP & UMAR, Ljubljana.
10. Poročilo o človekovem razvoju, 1998, Hanžek, M. (ur.), UNDP & UMAR, Ljubljana.
11. Radej B., 2000, Od gospodarskega k trajnostnemu razvoju in od varstva k razvoju okolja - Strategija gospodarskega razvoja Slovenije do leta 2006. IB revija, Urad RS za makroekonomske analize in razvoj, Ljubljana, (XXXIV)3-4.
12. Radej B., 2001, Uvod v ekonomiko trajnostnega razvoja, IB revija, Urad RS za makroekonomske analize in razvoj, Ljubljana (XXXV)4.
13. Radej B., 2001, Od konvencionalnega ekonomskega razvoja k trajnostnemu - implementacijske teze, IB revija, Urad za makroekonomske analize in razvoj, Ljubljana, (XXXV)4.
14. Radej B., 1998, Razvoj indikatorjev za vrednotenje okoljske kakovosti gospodarske rasti, Delovni zvezek, Urad RS za makroekonomske analize in razvoj, Ljubljana, (V) 8.
15. Radej B., 2002, Delovna skica za opredelitev ekonomskih pojmov trajnostnega razvoja in razmerij med njimi, IB revija, Urad RS za makroekonomske analize in razvoj, Ljubljana, (XXXVI)4.
16. Radej B., 2002, Vojna kot zadovoljevanje potreb, v Gregorčič M., G. Kovačič. 2002. Ne NATO – mir nam dajte, Mirovni inštitut, Zbirka Svete krave, Ljubljana.
17. Sicherl P., 2002, Poročilo o razvoju – mnenje in sugestije glede krovnega sistema

indikatorjev za spremljanje SGRS, IB revija, Urad RS za makroekonomske analize in razvoj, Ljubljana, (XXXVI)2-3.

18. Slovenija v novem tisočletju: trajnost, konkurenčnost, članstvo v EU, Strategija gospodarskega razvoja Slovenije, 2001, Povzetek, Urad RS za makroekonomske analize in razvoj, Ljubljana.

19. Strategija gospodarskega razvoja Slovenije: Razvojni scenarij, 2001, Urad RS za makroekonomske analize in razvoj, Ljubljana, marec.

Analytical Appendix

Indicators

Editor:

Rotija KMET

List of Indicators

SYNTESISED DEVELOPMENT INDICATORS:

ECONOMIC DEVELOPMENT:

Macroeconomic stability

Knowledge-based society

Competitiveness of the economy

Development role of the state

ENVIRONMENTAL DEVELOPMENT:

SOCIAL DEVELOPMENT:

GDP per capita in purchasing power standards

In December 2002, the Eurostat published **revisions** of GDP per capita figures expressed in terms of purchasing power standards for **2000** and **2001**. The data for the period from 1995 to 2000[1] are distorted and incomparable because the introduction of ESA95 was not synchronous between individual countries. As a result, figures for the years before 2000 include a multitude of minor or major breaks in the time series, which negatively affected the comparability over time or even between countries within one given year. It was in 2000 that most countries participating in the European Comparison Programme (ECP)[2] first took PPS (purchasing power standards) weights from their national accounts in the light of the ESA95 methodology. The revised figures revealed no significant changes as regards the distance between individual countries and the EU average, while changes between countries were more pronounced and the United Kingdom and Germany have become closer than ever.

According to **preliminary figures for 2001**, the Eurostat divided countries into six groups as regards their GDP per capita in purchasing power standards: **group I** (≥125% of the EU average): Norway and Luxembourg; **group II** (≥110% and <125% of the EU average): Austria, Iceland, the Netherlands, Denmark, Switzerland, and Ireland; **group III** (≥90% and <110% of the EU average): Sweden, Italy, France, the UK, Germany, Finland, and Belgium; **group IV** (≥75% and <90% of the EU average): Spain; **group V** (≥50% and <75% of the EU average): Hungary, the Czech Republic, Greece, Slovenia, Portugal, and Cyprus; **group VI** (<50% of the EU average): Turkey, Romania, Bulgaria, Latvia, Lithuania, Estonia, Poland, and Slovakia. **Slovenia** was put in the same group as the two least-developed EU member-states, Greece and Portugal, and significantly improved its position relative to these two countries in 2001. In 2000, Slovenia and Greece reached 67% and Portugal 70% of the EU average in terms of GDP per capita in PPS. In 2001, however, Portugal and Slovenia reduced their gap behind the EU average by 1 and 3 percentage points, respectively (71% and 70%), while Greece increased its gap by 3 percentage points (64%). So from 2000 to 2001, **Slovenia's development gap behind the EU average** narrowed from 67% to 70%. The bridging of this development gap is one of Slovenia's strategic orientations, which will require further acceleration of the Slovenian economy's productivity growth.

The revised figures on GDP per capita in PPS revealed a significant change relative to previous data **between Slovenia and Cyprus**, the most developed candidate-country; the relationship fell from 82% : 72% to 74% : 70%. According to provisional data for 2001, Slovenia remained the second-most developed **EU candidate-country**, reaching 70% of the EU average, and lagged behind the first-placed Cyprus by just 4 percentage points. Apart from Cyprus, Bulgaria and Turkey also fell relative to the EU average, and together with Romania they were the least-developed candidate-countries. The gap behind the EU average shrank the most in Hungary, narrowing by 4 percentage points from 49% in 2000 to 53% in 2001.

[1] Countries participating in the European Comparison Programme should revise their data on purchasing power standards for 1995-2000 in 2003.

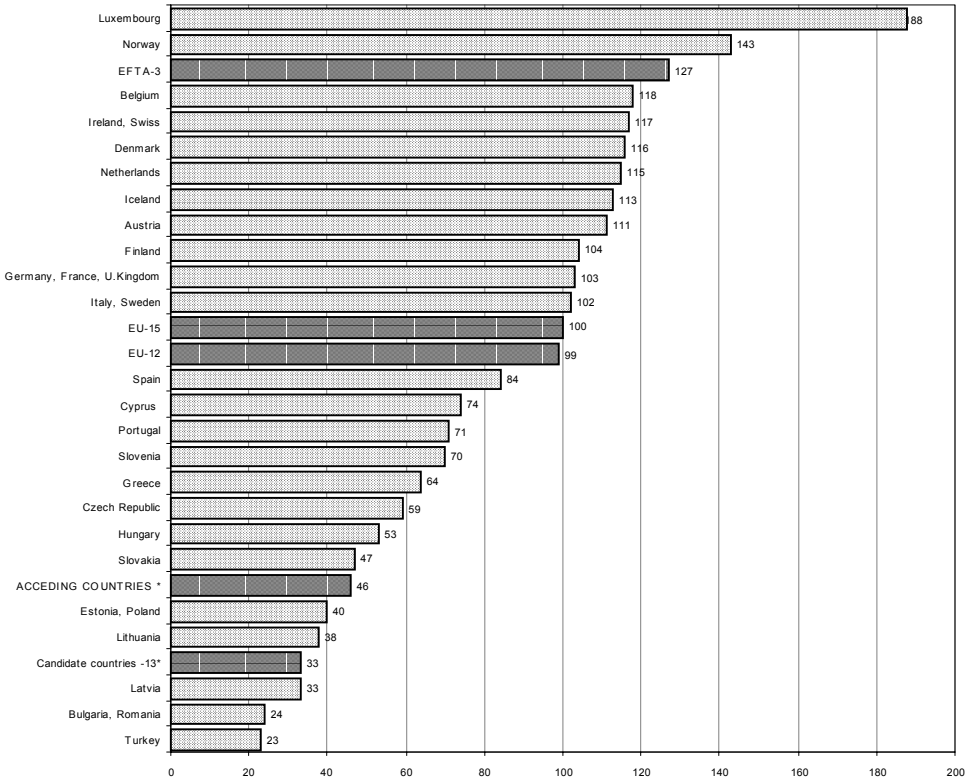
[2] The Statistical Office of the Republic of Slovenia (SORS) participates in the International Comparison Programme (ICP) in the areas of gross domestic product in terms of purchasing power standards and price levels. This programme is known in Europe as the European Comparison Programme (ECP). In Europe, the Programme is run by international institutions (Eurostat, OECD, ECE-UN) and the Austrian Statistical Office (ASCO). A pan-European comparison is generally made every three years since research for one particular year takes two to three years.

Table: **Price level indices and GDP per capita in PPS[1] of EU candidate-countries compared to the EU average (EU-15=100) for 2000 and 2001**

	2000 (final results)		2001 (preliminary results)	
	Price level index, EU-15=100	GDP per capita in PPS, EU-15=100	Price level index, EU-15=100	GDP per capita in PPS, EU-15=100
EU-15	100	100	100	100
Bulgaria (BG)	29	25	34	24
Cyprus (CY)	81	75	85	74
Czech Republic (CH)	43	56	45	59
Estonia (EE)	45	40	49	40
Hungary (HU)	44	49	46	53
Latvia (LV)	47	31	47	33
Lithuania (LT)	43	36	43	38
Poland (PL)	50	40	56	40
Romania (RO)	34	23	36	24
Slovakia (SK)	38	46	39	47
Slovenia (SL)	**65**	**67**	**65**	**70**
Turkey (TR)	56	25	45	23
EU-13 candidate-countries[2]	49	33	42	33

Source: Eurostat, Statistics in focus, Theme 2-56/2002.
Notes: [1]PPS is the artificial common reference currency unit used in the EU to express the volume of economic aggregates for the purpose of spatial comparisons. Economic volume aggregates in PPS are obtained by dividing their original value in national currency units by the respective PPPs (the effect of different price levels is eliminated), [2]the data for Malta are not included in this publication. Malta is currently undertaking a revision of its National Accounts in order to adapt ESA95. The revision results are expected to become available in summer 2003.

Chart: **GDP per capita in PPS terms in EU candidate-countries in 2001** (preliminary data)



Source: Eurostat.
Note: * excluding Malta; applicant-countries are candidate-countries for EU membership that will join the European Union in 2004 (excluding Bulgaria, Romania and Turkey). CC-13 – candidate-countries for the EU (excluding Malta), Bulgaria (BG), Cyprus (CY), Czech Republic (CZ), Estonia (EE), Hungary (HU), Latvia (LV), Lithuania (LT), Poland (PL), Romania (RO), Slovakia (SK), Slovenia (SI), Turkey (TR), Greece (EL).

Human development index

Indicators that comprise the human development index (HDI) generally change little in one year. Unless there are major social and economic changes or unfavourable social impacts caused by inappropriate policies, no significant change is noticed even in the course of several years. A look at Slovenia's HDI shows that its value and rank have improved slowly but steadily since 1992 (when it was first calculated for Slovenia) despite methodological changes[1] (see graph). The relatively steep rise in the HDI seen in the **1990s** was mainly underpinned by gross domestic product growth and rises in the gross enrolment ratio (see table). Despite its continuous improvement, life expectancy had a minor contribution to improvement of the HDI.

The latest calculations of the HDI for **2000** (the latest data available from the UNDP) brought about a minor change in its value compared to the year before, while its rank remained unchanged for the third year running. Slovenia was put in 29th place, the same as before, however, this was achieved in a group of 173 countries. So Slovenia retained its place among the countries enjoying a high level of human development.

In 2000, Slovenia was ranked highest in the **gross enrolment ratio**, reaching 23rd place; it remained in 30th place in the **GDP index**, between Portugal and Malta (the Czech Republic drew closest out of all transition countries, reaching 38th place), and it was placed lowest in the **life expectancy index**, 34th place, between Portugal and Chile (all other EU candidate-countries lagged behind Slovenia). Even though the HDI values are increasing, in global terms Slovenia recorded the biggest gaps in the synthetic health indicator.

The HDI itself should not be a synonym for development. Human/social development is much more comprehensive and complex than the quantified elements determining it. This is why the index is just an attempt to cover and compare these key elements. However, on the basis of the indices covered in the HDI, we can conclude that Slovenia's position as a whole has remained relatively favourable. A gradual and steady improvement in values suggests a slow but firm and positive development trend in the elements/indicators comprising the HDI, which is also one of the goals of the Strategy for the Economic Development of Slovenia. Both the HDI and its components are persistently drawing closer to the maximum values. However, Slovenia is still far from the maximum level of human development (=1), to which Norway, Sweden and Canada drew closest[2].

[1] Most changes were seen in the area of calculating the GDP index. The latest formula is based on logarithmic values, so the asymptote starts relatively late and countries with medium-high income are not disadvantaged.

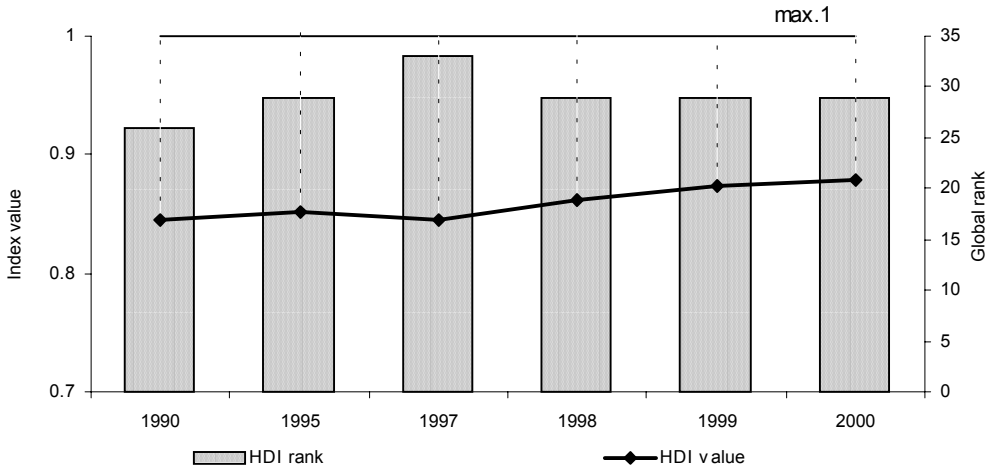
[2] Canada was the first country to exceed a value of 0.9.

Table: **Values of the human development index (HDI) and its components for Slovenia in 1995-2000**

	1995[1]	1997[1]	1998[1]	1999[2]	2000[2]
HDI	0.852	0.864	0.864	0.874	0.879
World rank (no. of countries covered)	28.	28. (174)	28. (174)	29. (162)	29. (173)
Life expectancy	74.52	74.90	75.00	75.30	75.50
Index	0.83	0.83	0.83	0.84	0.84
Gross enrolment ratio	79.1	82.0	82.0	83.0	83.0
Education index	0.924	0.93	0.93	0.94	0.94
GDP p.c. by purchasing power parity	12600	14000	14800	15977	17367
Index	0.81	0.825	0.83	0.85	0.86

Source: (1999) Human Development Report - Slovenia 1999. Hanžek, M. (ed.). Ljubljana: UNDP, IMAD, p. 17. (2001) Human Development Report - Slovenia 2000-2001. Hanžek, M. (ed.). Ljubljana: UNDP, IMAD, p. 24. (1999-2002) Human Development Report. UNDP Oxford University Press: New York, Oxford.
Notes: [1]calculations by the IMAD, [2]calculations by the UNO.

Chart: **Trends in values of the human development index and Slovenia's world rank in 1990-2000**



Source: (1998-2002) Human Development Report. UNDP Oxford University Press: New York, Oxford.

Genuine savings index

Economic implications of the sustainable orientation of the **Strategy for the Economic Development of Slovenia 2001-2006** (SEDS) are that future generations should enjoy at least the same development opportunities as the current ones. Economic resources should at least be maintained in (i) quantitative terms, and (ii) qualitative terms (diversity and its potential to produce welfare). With **sustainable development**, we are seeking a balance between the irreversible creation and destruction of economic resources – any consumption of economic resources that creates no economic welfare reduces the sustainability of economic development. Economic destruction (of economic resources) is an inverse function of the human mentality incorporated into economic development – as a *technological* mentality reflected in the progress of know-how, or a *co-operative* mentality reflected in the capacity to co-operate in (i) prioritising the basic needs in a development plan (or even in an annual government budget) and (ii) upgrading the rules that determine access to economic resources.

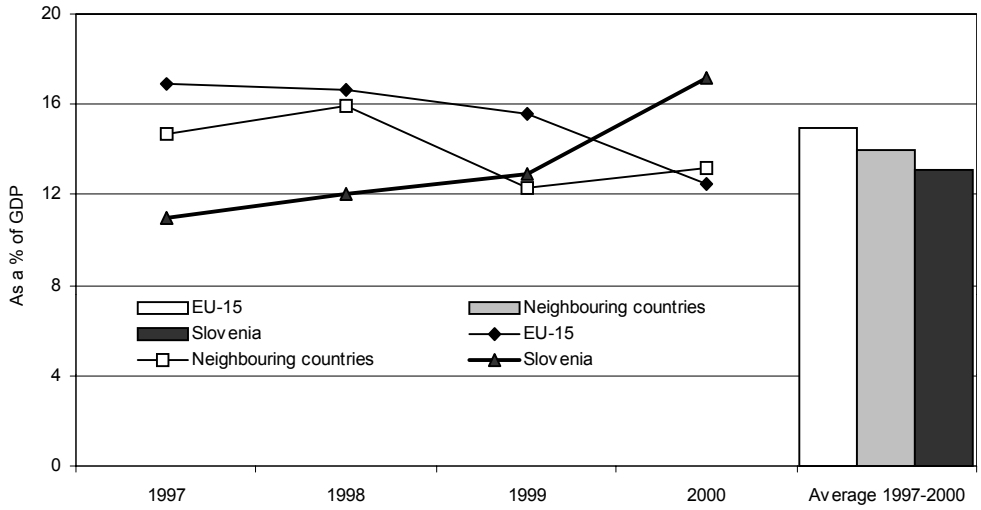
Some economic resources (mainly natural resources) are irreversibly destroyed by economic development. However, other, mainly commercial and social resources, are created and accumulated. The sustainable development paradigm requires the irreversible exploitation of economic resources not to exceed 'irreversible creation' in the long run. Commercial activity also contributes to 'irreversible creation,' for example by accumulating relevant know-how, new discoveries of natural resources etc, which is why commercial resources obtained in a sustainable way are as important as any other accumulation of the welfare potential, i.e. social and environmental resources (definitely not for each of us, but only for all of us together). The **relationship between irreversible economic destruction and creation** differs from country to country, suggesting that countries have different sustainable development records: some are achieving significant progress and increasing development opportunities for future generations, i.e. raising the level of economic resources, mainly the renewable ones; others are achieving relatively strong economic growth largely because they irreversibly exploit the resources. GDP growth is not difficult to achieve on account of unpaid negative side-effects on the environment and society (i.e. wider social inequality) as long as this is protected by the legal system and victims are not aware of the consequences or, rather, they are incapable of systematic defence expressed as the demand for systemic protection or opposition.

Following the SEDS' sustainable orientation, we would like **Slovenia** to be fully in charge of its economic development (endogenity). The main indicator of endogenity is the quantitative change in the stock of economic resources; endogenity is examined through an indicator that measures changes in the present value of the welfare inflow. The **value of the genuine savings index** designed for this purpose improved substantially in Slovenia in **2000** as a result of the gradual fall in the share of depreciation in gross domestic product, which was predicted last year (Development Report 2002, IMAD, p. 166). The value of total irreversible environmental damage was relatively low in 2000. The volume of excess CO_2[1] emissions was the only one to increase gradually (relative to Slovenia's goals in the Kyoto Protocol): the World Bank estimates that the related environmental damage has increased by 50% since 1997 and currently exceeds 0.5% of gross domestic product.

The genuine savings index only provides rough information about a phenomenon that is difficult to measure, which is why it needs to be monitored over a long period of time. Annual data show that rapid or significant changes in the index are possible, but they

cannot show changes in the development paradigm. The average of **1997-2000** reveals that Slovenia's international ranking is poor because of (i) the greater destruction of resources from which GDP growth arises than in most other countries that are not oil exporters, or because of (ii) lower net savings than elsewhere. We should primarily focus on Slovenia's long-term achievement compared to the EU and neighbouring countries, since domestically non-exploited potential flows to the neighbouring countries and to a country's biggest trading partners. Before accession to the EU, we need to consider this economic circumstance seriously and answer the question of what are Slovenia's strategic comparative strengths and weaknesses compared to neighbouring countries and the main trading partners (including the countries of former Yugoslavia and the German land of Bavaria) and EU member-states.

Chart: **Genuine savings index for Slovenia, neighbouring countries, and the EU in 1997-2000**



Source: the World Bank: World Development Indicators; 1999:174-6; 2000:168-70; 2001:180-3; 2002:188-91.
Note: Neighbouring countries are Austria, Italy, Hungary, and Croatia.

[1] In 2000, emissions of greenhouse gasses were 8% higher than in 1990, according to the Eurostat's estimate.

National competitiveness index by WEF

Slovenia's national competitiveness was assessed on the basis of the World Economic Forum (WEF) methodology for the first time in **2001-2002** within a group of 75 countries. Slovenia was put in **31st place** according to the **growth competitiveness index** (GCI[1]), i.e. in the group of countries with strong growth potential (together with Estonia) and in **32nd place** according to the **microeconomic competitiveness index** (MICI[2]). Given the significant discrepancy between the MICI and GDP per capita indicators (26th place), Slovenia was put in the group of countries whose income levels will become unsustainable in the future unless all main microeconomic reforms are completed (Argentina, Russia).

According to the latest WEF report (2002-2003), Slovenia's national competitiveness increased significantly, especially in the area of microeconomic competitiveness, while growth potential for the next medium-term period also improved. Out of 80 countries, Slovenia climbed three places in the **GCI** to **28th** position and by as many as five places in the **MICI** to **27th** rank. Unlike in the previous assessment, Slovenia achieved a better score in the MICI than in the GCI. As the gap between the MICI and GDP per capita (25th place) narrowed, Slovenia entered a path that will take the country out of the group where pending microeconomic reforms undermine long-term sustainable growth and bring it into the group of countries where the created microeconomic foundations provide an important (albeit not fully exploited) growth potential. A **comparison** of Slovenia with the nine selected **EU member-states and candidate-countries**[3] (also see table) reveals that Slovenia recorded the most positive shifts over the last year. Slovenia saw the biggest increase in its GCI relative to the average GCI value of the ten countries. The only candidate-country ahead of Slovenia was Estonia (in 2001-2002 also Hungary), whereas Slovenia was the highest ranking candidate-country in microeconomic competitiveness (in 2001-2002 the highest ranking countries were Estonia and Hungary).

Out of the three **GCI components**, the value of the *public institutions index* increased the most (from 4.90 to 5.33) and, as a result, Slovenia climbed 7 places to 23rd position in this area. Slovenia's public institutions index reached as much as 109% of the average value of the index for the ten selected countries in 2002 (100% in 2001). Slovenia attained relatively good results (26th place) in each of the two components of the public institutions index (*contractual relations and law* and *corruption*). Another area where competitiveness improved is technology. The absolute value of the *technology index* fell over the last year (from 5.18 to 4.65), however, Slovenia nevertheless gained 5 places among 80 countries (25th place) and also slightly improved its position relative to the average of the ten countries (from 99.7% in 2001 to 101.7% in 2002). As regards the technology sub-indices, Slovenia was placed highest in the *innovation sub-index* (24th place, 3.33), slightly lower in the *information and communication technologies sub-index* (26th place, 5.08), and the lowest in the *technology transfer sub-index* (33rd place, 4.50). Within the GCI, the only big fall was seen in the *macroeconomic environment index*, where Slovenia had already been weak in 2001, and fell by as many as eleven places (50th position and a score of 3.95, compared to a score of 4.02 in 2001). Slovenia's relative position to the average of the ten countries also worsened (from 99.5% to 97.8%). The biggest fall, down 8 places, was seen in the *government spending sub-index* (from 60th to 68th place and from a score of 2.61 to 2.21), while competitiveness also deteriorated in the *macroeconomic stability sub-index* (down from 32nd to 35th place, or from a score of 4.41 to 4.36). The only improvement within the macroeconomic environment index was seen in the *credit rating sub-index*, up from 27th to 26th place and from a score of 4.63 to 4.88.

While the GCI components measure the main conditions of economic growth in the next medium-term period, the **MICI** components assess the underlying conditions determining the sustainability of a country's productivity level. The biggest progress within microeconomic competitiveness was made in the area of the *quality of the national business environment*, which is determined by the quality of factor (input) conditions, demand conditions, related and supporting industries, and the context for firm strategy and rivalry. Slovenia climbed by as many as eight places from 2001 and achieved 115.7% of the average of the ten countries (86.6% in 2001). An improvement was also seen in the *competitiveness of company operations and strategies*, up from 28th to 26th place, where Slovenia achieved 127.7% of the average of the ten countries (128.2% 2001).

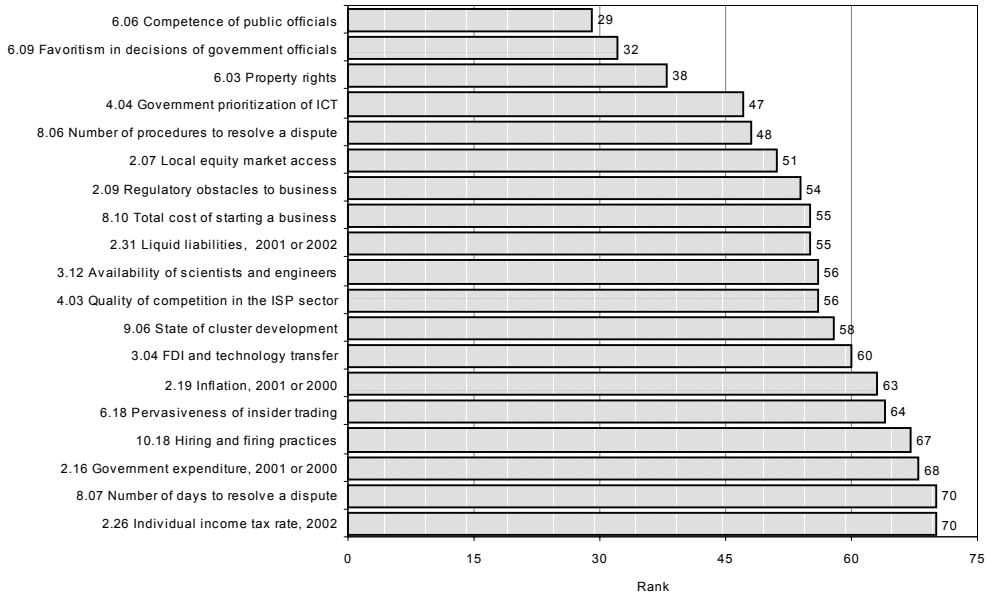
Table: **Slovenia's rank in the aggregate national growth competitiveness index (GCI), the aggregate microeconomic competitiveness index (MICI), and their sub-indices compared to selected EU members and candidates in 2000, 2001 and 2003**

WEF Report 2002-2003	WEF's aggregate indices								GCI components						MICI components			
	Growth potential (GCI)					Microeconomic competitiveness (MICI)			Techno-logy index		Public institutions		Macroeco-nomic environ.		Company operations & strategy		Quality of the nation. business environ.	
	2002		2001		00	02	01	00*	02	01	02	01	02	01	02	01	02	01
	r	v	r	v	r	r	r	r	r	r	r	r	r	r	r	r	r	r
Austria[a]	18	4.93	18	5.33	17	12	13*/11	13	23	16	**11**	15	**23**	26	12	11	12	13
Portugal[b]	23	4.87	25	4.92	22	36	31*/33	28	**13**	25	**21**	25	40	35	41	38	32	29
Estonia[b]	26	4.73	29	4.87	n	30	27*/28	n	14	8	28	29	46	43	36	32	28	26
Slovenia[b]	**28**	4.64	31	4.70	n	**27**	32*/32	n	**25**	30	**23**	30	50	39	26	28	**27**	35
Hungary[b]	29	4.63	28	4.87	25	28	26*/27	32	21	21	30	26	49	38	**29**	33	29	25
Greece[b]	38	4.32	36	4.46	33	43	43*/46	33	**30**	38	44	40	47	32	**47**	51	41	42
Italy[a]	39	4.31	26	4.90	29	24	24*/23	24	39	31	37	27	27	23	18	13	24	24
Czech Rep.[b]	40	4.26	37	4.41	31	35	35*/34	34	20	20	50	53	59	49	**34**	41	34	33
Slovakia[b]	49	4.02	40	4.36	38	39	39*/40	36	34	29	53	38	64	64	**43**	57	40	36
Poland[b]	51	3.98	41	4.30	34	41	41*/42	41	36	35	61	41	54	50	**46**	55	45	40

Sources: The Global Competitiveness Report 2001-2002, WEF; Global Competitiveness Report 2002-2003; http://www.weforum.org/site/homepublic.nsf/Content/; The World Competitiveness Yearbook, 2002 IMD, Lausanne

Notes: n - the country was not assessed; a - core-innovating economies, b - non-core innovating economies; r - rank, v - index value; [1]GCI components are made up of sub-indices with varying weights which depend on a country's level of development; * in the last Report, the current competitiveness index (CCI) was changed to the microeconomic competitiveness index (MICI), which is calculated on the basis of a slightly different methodology (the WEF only publishes MICI ranks). The asterisk indicates a CCI rank according to the old methodology. Bold numbers indicate a rise in a country's competitiveness by at least three places. Dark cells indicate a fall in the country's competitiveness of at least three places.

Chart: **Main weaknesses of Slovenia's national competitiveness according to the WEF, 2002**



Sources: Global Competitiveness Report 2001-2002, WEF; Global Competitiveness Report 2002-2003.

[1] The GCI measures a country's potential for growth in the next medium-term period (5 to 8 years). For details, see the indicator's methodological sheet at www. gov.si/zmar/projekti/arr/arr-pr.html.

[2] The MICI, which has replaced last year's current competitiveness index (CCI), assesses a country's potential for current productivity. For details, see the indicator's methodological sheet at www. gov.si/zmar/projekti/arr/arr-pr.html.

[3] The selection includes candidate-countries that border Western Europe (Hungary, Czech Republic, Slovakia, Poland and Estonia), EU members that are close to Slovenia's level of economic development measured by GDP per capita (Greece, Portugal), and the neighbouring countries of Austria and Italy.

Variation of unemployment across regions

There are significant regional disparities in the level of economic development as measured by the registered unemployment rate. These disparities widened in **1997-2000**[1]. What is particularly evident is the difference between the western part of the country, where the registered unemployment rate was below the national average, and the eastern part, where the rate largely exceeded the national average. In **2001**, the rate of registered unemployment fell in all statistical regions over the year before, except in Spodnjeposavska where it climbed by 0.4 of a percentage point. Highest unemployment was again found in Podravska, where the 17.9% unemployment rate exceeded the national average by 6.3 percentage points. Above-average unemployment rates were also seen in Pomurska, Zasavska, Spodnjeposavska, and Savinjska. As in previous years, the lowest registered unemployment rate was in Goriška, more than half the national average, while relatively low rates were also seen in Central Slovenia, Gorenjska, and Obalno-kraška.

Even though unemployment rates fell in individual regions, relative disparities between regions did not narrow, on the contrary, they widened in some areas. The position relative to the Slovenian average worsened the most in Spodnjeposavska, while negative disparities from the national average also grew in all regions with above-average unemployment rates (Podravska, Pomurska, Savinjaska, and Zasavska) and in two regions with below-average unemployment (Obalno-kraška, and Koroška). In these regions, the rate of registered unemployment fell less than in Slovenia on average. The ratio between the two regions with the lowest and highest registered unemployment rates climbed slightly from 1:3 in 2001 to 1:3.1 in 2001 after if had stood at 1:2.7 in 1997. Further, the coefficient of variation of unemployment across regions increased from 30.46 in 2000 to 32.26 in 2001 after it had been 26.6 in 1997. The trend of the growing gaps between regional registered unemployment rates, typical of the period from 1997 to 2000, was therefore maintained in 2001 and was contrary to the goals set in the Strategy for the Economic Development of Slovenia.

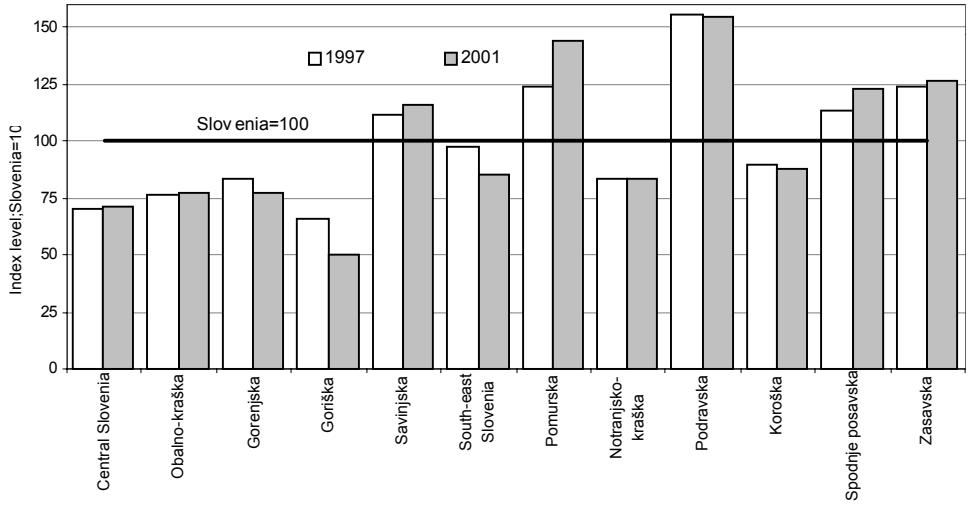
[1] Data on regional registered unemployment rates have been available since 1997.

Table: **Registered unemployment rates by regions, 1997-2001**

	Registered unemployment rate, %				
	1997	1998	1999	2000	2001
SLOVENIA	14.4	14.5	13.6	12.2	11.6
Central Slovenia	10.2	10.5	10.1	9.2	8.3
Obalno-kraška	11.0	10.6	10.1	9.2	9.0
Gorenjska	12.0	12.6	11.9	10.1	9.0
Goriška	9.6	9.2	7.7	6.2	5.8
Savinjska	16.1	16.7	15.3	13.6	13.5
South-eastern Slovenia	14.0	12.0	11.7	10.8	9.9
Pomurska	17.8	18.7	18.2	17.2	16.7
Notranjsko-kraška	12.0	12.5	12.2	10.8	9.7
Podravska	22.4	22.0	20.6	18.7	17.9
Koroška	13.0	13.0	11.7	10.3	10.2
Spodnjeposavska	16.4	15.9	14.9	13.9	14.3
Zasavska	17.9	19.2	17.5	15.5	s14.7

Source: SORS.

Chart: **Regional registered unemployment rates from 1997 to 2001**



Source: SORS, calculations by the IMAD.

Gross domestic product growth

After seeing strong growth rates in **1999** and **2000** (5.2% and 4.6%, respectively), real gross domestic product increased by 3% in **2001**, recording its weakest growth in the last eight years. This slowdown was the result of internal and external factors: the shrinking of investment activity on one hand and worse economic conditions in the international environment on the other. Both real falls in investment consumption and reduced stock levels had a negative impact on gross domestic product growth. Despite keeping imports low, the net contribution of international trade to economic growth was lower than in 2000 due to the gradual decline in exports, however, this contribution was still important in relative terms. Real gross domestic product growth was therefore more underpinned by exports than domestic consumption.

In December 2002, the Statistical Office of the Republic of Slovenia published gross domestic product figures for the third quarter of 2002. In the **first three quarters** as a whole, real gross domestic product rose by 2.9% over the same period of 2001. The third-quarter figures support the autumn forecast of a gradual pick-up in the second half of the year. Real gross domestic product growth was 3.4% year on year in the third quarter, after recording 2.2% growth in the first and 3.2% in the second quarter. The seasonally adjusted data also suggest a gradual strengthening of economic activity: the 1.3% quarterly growth seen in the third quarter was 0.1 of a percentage point higher than in the second quarter.

In the first nine months of 2002, economic growth was mostly fuelled by investment – the volume of investment had been on an increase since the last quarter of 2001 – and international trade, the latter largely being the result of maintaining relatively robust export growth with the countries of former Yugoslavia, CEFTA countries, and the former Soviet Union. A **breakdown by quarters** and **consumption aggregates** for the first three quarters shows that the strengthening of domestic consumption in the composition of gross domestic product was more modest than anticipated, mainly as a result of continued weak private consumption growth, which saw no faster cyclical revival after 1999. On the **production side**, value-added growth intensified in the third quarter in manufacturing, with growth being fuelled by robust exporting activity, and in construction where the real falls of 2001 were followed by a revival driven on by motorway construction. Value-added growth slowed down slightly in all service sectors in the third quarter, except in wholesale and retail trade, where growth was strengthened by a rise, albeit modest, in private consumption and expanded construction activity.

The latest medium-term macroeconomic projections (Autumn Report 2002; IMAD, 2002) show that the trend of accelerated economic growth in the next few years will be weaker than anticipated by the medium-term macroeconomic scenario set out in the Strategy for the Economic Development of Slovenia 2001-2006. Economic growth envisaged by the scenario for 2005 and 2006 ranges between 5.3% and 5.7%, while the 2002 autumn forecasts project growth between 4.5% and 4.7%. The downside factors include the pending structural reforms and their slow implementation, mainly reflected in the relatively slow improvement in export competitiveness and modest investment; 2001 and 2002 in particular saw some changes in the structure of gross domestic product growth leading to a smaller share of investment. In the period after 2001, the structure of spending available income changed to the benefit of savings, which increased faster than projected, resulting in a slower cyclical revival of private consumption. After the slowdown in 2001, economic growth will take a longer cycle to recover due to the weak revival of domestic consumption as well as the impact of less favourable factors from the international environment. This

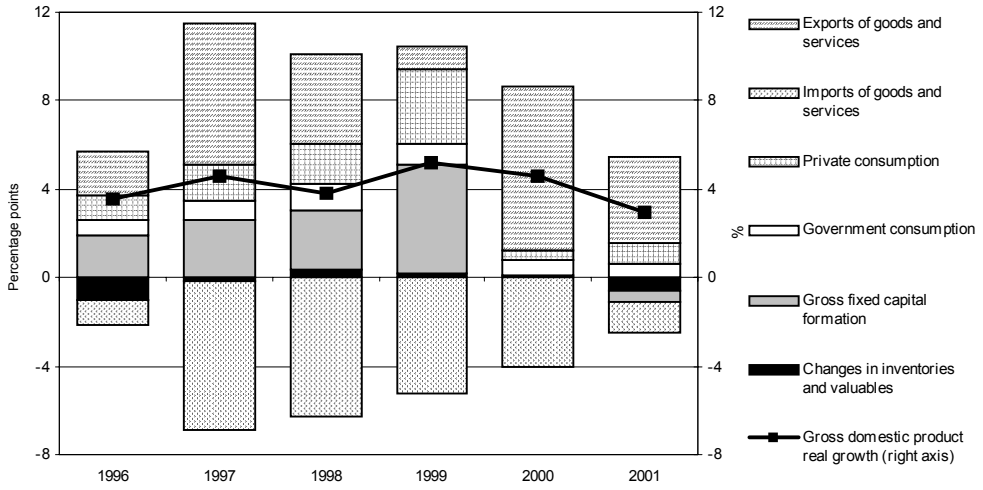
will, in turn, retard the bringing of economic growth to a higher level in the medium-term period.

Table: **Real growth rates in gross domestic product and its main components in Slovenia in 1996-2001, %**

Real growth rates, %	1996	1997	1998	1999	2000	2001
Gross domestic product	3.5	4.6	3.8	5.2	4.6	3.0
Expenditure on gross domestic product						
Exports of goods and services	3.6	11.6	6.7	1.7	12.7	6.2
Imports of goods and services	2.1	11.9	10.4	8.2	6.1	2.1
Private consumption	2.0	2.8	3.3	6.0	0.8	1.7
Government consumption	3.3	4.3	5.8	4.6	3.1	3.2
Gross capital formation	3.9	10.4	12.4	18.9	0.5	-3.7
Gross fixed capital formation	8.9	11.6	11.3	19.1	0.2	-1.9
Value added by activities						
Agriculture, forestry, fishing (A-B)	1.1	-2.9	3.1	-2.1	-1.0	-2.1
Industry (C-E)	1.5	6.2	4.1	2.7	7.8	4.1
Construction (F)	13.2	7.7	4.6	15.8	2.8	-3.5
Services (G-O)	4.2	2.8	3.4	4.8	4.2	3.6
Mainly market-oriented services (G-K)	4.2	2.8	3.2	4.6	4.0	3.5
Mainly public services (L-O)	4.3	5.7	3.7	5.1	4.6	3.9

Source: SORS.

Chart: **GDP components and their contribution to real growth in Slovenia in 1996-2001, percentage points**



Source: SORS, the IMAD's calculations.

Revised gross domestic product figures for 2000 and 2001 – On 10 March 2003, Slovenia's Statistical Office (SORS) published revised national accounts figures for 2000 and 2001 in current prices based on a new methodology. Figures for 2001 are also shown in the new base year of 2000. The revised estimate of gross domestic product (GDP) for 2000, totalling SIT 4,222 billion, is 4.6% higher than the previous estimate (SIT 4,036 billion). According to revised figures, real economic growth in 2001 was 2.9%, compared to the 3% revealed by the previous estimate made in 1995 prices.

Inflation

The gradual deceleration of consumer price inflation which started **after 1992** was the result of a combination of restrictive economic policy and the launching of structural reforms, while deceleration to below 5% seen in the first half of 1999 was additionally assisted by favourable international factors, primarily lower oil prices. Inflation's downward trend was interrupted in the second half of 1999 by rising primary commodity prices in world markets and the introduction of value-added tax in the middle of the year. As a result, inflation rose to 8%. Fast price rises continued in 2000, while at the same time price volatility increased. This was mainly due to changes in price regulation, allowing more pronounced spillover effects from foreign on to domestic prices. Inflation began to slow down gradually in the second half of 2002, however, it still came in at 7.2% at the end of the year.

Inflation remained at a relatively high level in the last three years (**2000-2002**) mainly because of unfinished structural reforms related to the indexation, structure and volume of general government expenditure, and the restructuring and raising of competitiveness of tradable and non-tradable sectors. With price pressure from abroad increasing, rigidities persisting in the economy led to the unresponsiveness of economic policy, which began to cause additional inflationary pressure.

Increased **excise duties**, which were partly due to harmonisation with the EU's tax systems, allowed the target fiscal deficit to be retained against the background of high general government expenditure. As a result, excise duties added 2.7 percentage points to inflation in 2000-2002. Further, **value-added tax** rates were raised in early 2002, which contributed an additional 0.6 of a percentage point. **Monetary and exchange rate policy measures** also helped maintain the high price levels. The Bank of Slovenia continued to pursue a policy of gradual depreciation of the tolar's nominal exchange rate despite increased foreign exchange inflows. This directly affected domestic prices through higher import prices, while at the same time leading to a higher amount of money in circulation. So the tolar's 4% depreciation accounted for about half of the total consumer price increase in 2002. The annual **contribution of administered prices** to inflation remained at a level above 20% in the last three years, while a faster rise in administered prices compared to the general price level pushed inflation up by 1.7 percentage points. The faster rise in administered prices was fuelled by increases in **world oil prices**, which reflected in higher automotive fuel prices, and also by faster increases in administered prices of services, primarily local utility services set by local communities, and telecommunications services. In total oil prices, one of the most important external factors of inflation, added up to 28% to the monthly price rise over the last three years (on year-on-year basis).

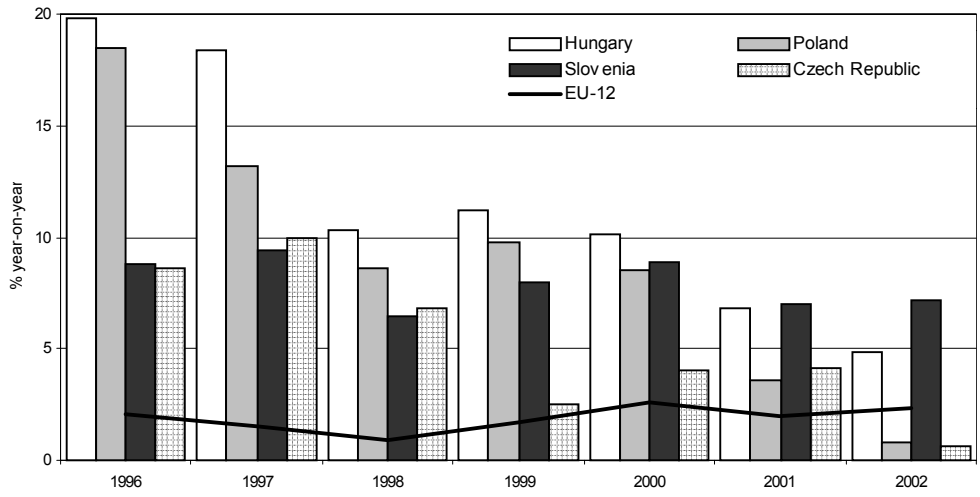
Inflation is expected to decline further in the **next few years**, as set out in the Strategy for the Economic Development of Slovenia, however, it will continue to be higher than in EU member-states because of the real convergence process.

Table: **Rises in consumer prices in Slovenia and the EU in 1995-2001**

	1995	1996	1997	1998	1999	2000	2001	2002
Slovenia, year-on-year rise, %								
Consumer prices	9.0	9.0	8.8	6.5	8.0	8.9	7.0	7.2
Goods	7.1	8.0	8.5	5.6	7.8	8.8	6.2	6.4
Services	15.9	12.2	9.8	9.3	8.8	9.2	9.6	9.4
Administered prices	10.0	8.4	16.9	11.1	10.4	16.0	10.5	9.2
Energy	8.2	5.6	20.9	13.2	11.0	18.9	6.7	5.5
Other	11.4	10.6	12.4	8.6	9.6	12.0	17.0	14.7
Core inflation	N/A	7.2	6.4	5.0	4.1	6.9	7.4	6.9
European Union[1], year-on-year rise, %								
Consumer prices	2.5	2.1	1.5	0.9	1.7	2.6	2.0	2.3 p

Sources: the SORS (consumer prices), the IMAD's estimates (administered prices, core inflation), the Eurostat (consumer prices in the EU).
Notes: [1]euro area; N/A - not available, p - provisional figure.

Chart: **Price rises in the EU compared to selected candidate-countries**



Sources: national statistical offices, Eurostat, EBRD.

Unemployment rate

After employment and unemployment had stagnated in 1993-1998, the number of unemployed began to decline in 1999 as employment started to rise. In 2002, the fall in unemployment came to a halt while employment growth slowed down. The **number of registered unemployed**, which ranged around 125,000 in **1993-1998**, fell to below an average of 102,000 in **2001**, while the registered unemployment rate, which stagnated between 14% and 14.5%, dropped to 11.6%. In **2002**, the average number of registered unemployed again rose slightly to 102,635, while the average registered unemployment rate remained unchanged because the number of people in formal employment increased at the same time. The **number of unemployed according to the labour force survey** fell by an average of 1.6% in 2002 compared to 2001 (to 62,000), while the average survey unemployment rate remained at 6.4%. The number of unemployed according to the survey ranged around 70,000 in **1995-2000** – the survey unemployment rate was between 7% and 8% – and dropped to 63,000 in **2001**, i.e. 6.4% of the labour force. Slovenia's unemployment measured by international methodology has been below the **EU average** ever since it began to be measured and has ranged at about the average level of the OECD countries.

In the first six months of **2002**, the **number of registered unemployed** was mainly pushed up by increased inflows of people losing their jobs, whereas in the third quarter this number was raised by weaker outflows into employment and fewer deletions from unemployment registers; the latter again increased in the last quarter. People listed in unemployment registers on the basis of the Pension and Disability Insurance Act began to be re-registered in November and December pursuant to July's **amendments to the Employment and Unemployment Insurance Act**[1]. The number of these re-registrations totalled 5,702 by the end of the year. As a result, the number of unemployed dropped to 99,607 by December, while the registered unemployment rate declined to 11.3%. Retirement and other deletions reduced the share of long-term unemployment from an average of 58.9% in 2001 to an average of 54.5% in 2002, or 52.2% at the end of December 2002. Other structural problems of unemployment eased very slowly. Both registered and survey female unemployment rate remained significantly higher than the respective male unemployment rates, however, the survey rate fell slightly, while the registered rate rose (see table). The registered and survey unemployment rates for men remained the same as in 2001. Youth unemployment (aged 15-24) was also high, however, youth labour force participation was low, especially among women, due to higher enrolments in education. This is one of the reasons why the unemployment rate of young women continued to be higher than that of young men.

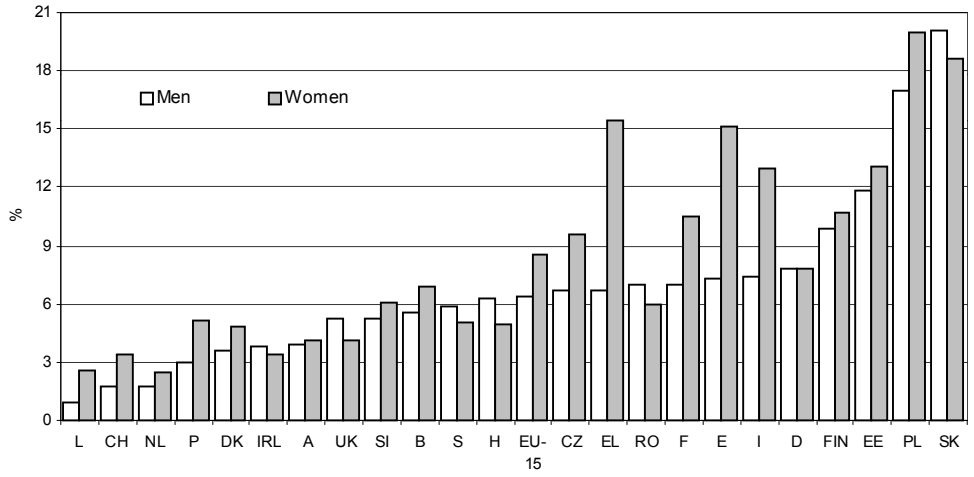
The influx of first-time job-seekers to unemployment, which had been on the increase since 1998, shrank slightly in 2002, while the influx of people losing their jobs grew and the flow from unemployment to employment faltered for the fourth year running. Deletions from unemployment registers for other reasons continued to be high, the most common of which were a failure to report at the employment service office, while striking-off on one's own volition was equally high. Each may suggest that unemployed people found a job themselves. The main **reasons for losing a job** were the termination of fixed-term employment (close to 50%) and resignations (about 15%), the latter of which was often a pretext for a pre-arranged layoff agreed to take place after a certain period of time or in certain conditions. Dismissals caused by bankruptcy or redundancy, which had been relatively contained and stable over the last few years, rose markedly in 2002. The **main reason for the slow fall in registered unemployment** continued to be the high structural unemployment. This is why the Active Employment Policy Programme for 2003, adopted in November 2002, focuses on measures to improve the employability of people with low employment prospects, reduce the number of unskilled unemployed, narrow regional disparities in unemployment, and ensure equal access to the labour market and employment. This is particularly important in view of the envisaged rise in the number of unemployed women resulting from the announced redundancies in the textiles, clothing and footwear industries where most labour is female. By implementing these measures, Slovenia will follow the goal of reducing unemployment set out in the Strategy for the Economic Development of Slovenia 2001-2006 as well as the National Programme of Labour Market Development and Employment up until 2006 and other implementing documents. One of the reasons for undiminished inflows into unemployment was fixed-term employment, which employers use to shift some business risk onto the shoulders of their employees.

Table: **Unemployment rates in Slovenia, the EU and OECD in 1995-2002, %**

	1995	1997	1999	2000	2001	2002
Unemployment rate according to survey						
Slovenia[1]	7.4[1]	7.4	7.6	7.0	6.4	6.4
men	7.7[1]	7.1	7.3	6.8	5.9	5.9
women	7.0[1]	7.6	7.9	7.3	7.0	6.8
young people (aged 15-24)	18.8[1]	17.6	18.1	16.8	18.1	16.1[1]
EU	10.7	10.6	9.1	8.2	7.3	7.6
OECD	7.7	7.4	6.8	6.4	6.4	6.9
Rate of registered unemployment						
Slovenia	13.9	14.4	13.6	12.2	11.6	11.6
men	14.1	13.6	12.4	11.1	10.4	10.4
women	13.7	15.3	15.0	13.5	12.9	13.1

Source: SORS, Eurostat, OECD.
Note: [1]the second quarter.

Chart: **International comparison of survey unemployment rates in EU member-states and candidate-countries in 2001, %**



Sources: SORS, Eurostat.

[1] Pursuant to amendments of the Employment and Unemployment Insurance Act, the Rules on the content and method of keeping official records in the area of employment were adopted on 4 October 2002, regulating the criteria for transferring people from unemployment registers to registers based on other acts. These criteria were established by the Employment Service of Slovenia in co-operation with the institution referred to in each particular act. The transfer to other records is to be carried out on the basis of an employment plan. Pursuant to the Rules, the Employment Service of Slovenia and the Pension and Disability Insurance Institute prepared a regulation for the working disabled who are recipients of a disability allowance. The two institutions began to examine the employment prospects of the disabled and establish criteria to transfer these people to other registers. The following categories were taken into consideration:

- people registered at the Employment Service of Slovenia for at least two years;
- people who failed to get a job due to their handicap despite the interview arranged with an employer;
- people for whom no suitable jobs were available;
- people who remained jobless even after they participated in the active employment policy programme.

Employment rate

Slovenia's employment rate calculated on the basis of survey data, which includes informally employed people[1], was relatively high and stable in the second half of the 1990s. It was about 68% of the working-age population (people aged 15-64) for men and 59% for women compared within the group of the same gender and age[2]. The employment rate has been on a steady increase since 1999, when it dropped slightly due to a fall in the number of people in informal employment. It drew close to 65% in **2002**. **Compared to the EU average**, where **employment** rose markedly in this period, Slovenia's **male** employment was slightly lower, while **female** employment was significantly higher (see table). As far as **age** is concerned, youth employment (15-24 years of age) and employment of people aged over 50 was below the EU average. The latter was the result of (too) early retirement in the early 1990s and high structural unemployment, which mainly involved older unemployed people.

Growth in the number of **people in formal employment** (those employed and self-employed), which began in 1999, slowed down considerably in **2002** because of the faltering economic growth. The number of people in informal employment fell. The average **number of persons in employment according to the labour force survey**, which also includes persons in informal employment, was 0.7% lower than in 2001. Growth in the number of people employed in enterprises and organisations which started in 1999 continued in 2002, albeit at a slower pace than the year before (0.7% compared to 1.8%). Employment rose in almost all activities[3], the most in business services (up 4.8%), but fell in mining (down 6.5%), manufacturing (down 1.7%), and hotels and restaurants (down 0.3%). The number of people employed in the small business sector dropped by 2.3% in 2002 after rising significantly less in 2001 than in previous years. Employment in this sector saw a robust increase throughout the transition period and thus helped offset employment falls in enterprises and organisations. The number of private individual entrepreneurs continued to go down in 2002, a trend that began in 1996, which could partly be explained by their move to the corporate sector after their small establishments developed.

[1] People in informal employment may also include students among younger generations or retired people among elderly generations.

[2] Similarly, persons in employment only include people of the same age.

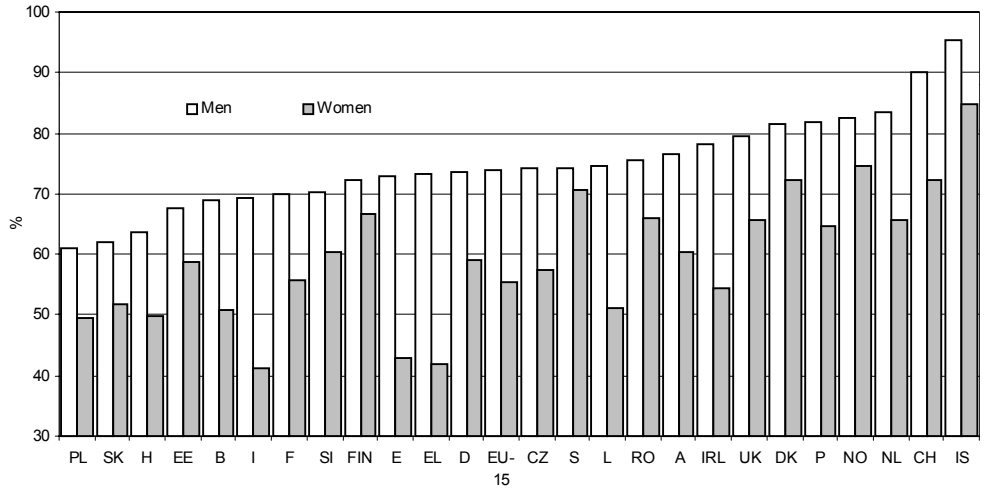
[3] As a result of changes in the Standard Classification of Activities, sheltered workshops previously included in activity N were re-classified into the activity where they in fact operated in 2002. Data published for 2002 are therefore not comparable with data for 2001. The most significant changes were seen in activities N, D and K. In order to be able to analyse real trends, we used data for 2002 that ignore these statistical changes.

Table: **Employment rates (people aged 15-64) according to the labour force survey in Slovenia and the EU in 1995-2002, %**

	1995	1997	1999	2000	2001	2002[1]
Slovenia	62.9	63.5	62.5	62.9	63.9	64.3
Men	67.7	68.0	66.9	67.2	68.7	68.7
Women	58.0	59.0	57.8	58.5	58.9	59.8
15-24	33.8	38.0	34.3	33.6	31.4	31.2
25-49	87.0	85.6	85.3	85.6	86.6	86.7
50-64	35.8	36.4	35.3	37.3	41.1	42.6
Agriculture	6.7	8.3	6.5	6.4	6.7	6.4
Industry and construction	27.7	26.2	24.4	24.4	25.0	25.3
Services	29.7	30.6	32.8	33.2	33.2	33.8
European Union		60.1	62.1	63.1	63.9	
Men		69.9	71.6	73.4	74.0	
Women		50.4	52.6	53.8	54.8	
Agriculture		3.0	2.8	2.7	2.7	
Industry and construction		17.7	18.4	18.5	18.6	
Services		39.5	41.6	42.7	43.4	

Sources: SORS, Eurostat.
Note: [1]second quarter.

Chart: **Employment rates in Slovenia and selected European countries by gender, 2001, %**



Sources: SORS, Eurostat.

Public finance balance

In **1995** and **1996**, balanced public finances played an important role in consolidating the economy since they exerted no additional pressure on interest and exchange rates through external borrowing. Public finance balance was undermined in **1997** because social security contribution rates were lowered and revenues from customs duties and import taxes fell and were not replaced by any new taxes. The general government deficit narrowed slightly in **1998** and reached the planned level thanks to measures that mainly took effect on the revenue side. The deficit position was the same in **1999**, when Slovenia introduced value-added tax and excise duties as part of its harmonisation with the EU's fiscal system. In **2000**, conditions in the area of public finances again deteriorated. The inflation rate was higher than anticipated and exerted additional pressure on general government expenditure on wages and pensions, while subdued economic and private consumption growth, compared to the high levels of 1999, caused general government revenues to slow down. Revenues relative to GDP dropped by 0.8 of a percentage point. The general government deficit relative to GDP reached 1.4%, 0.4 of a percentage point more than planned in the Budget Memorandum.

The critical fiscal situation continued in **2001**. The slackening off of economic activity held growth in compulsory levies behind expenditure growth, while expenditure relative to GDP increased by 0.3 of a percentage point. Expenditure on wages rose faster than total **general government expenditure**, which was less the result of wage adjustment mechanisms than pressure from the various supplements laid down in collective agreements and government decrees, extraordinary promotions, and recruitment. Faster growth was also seen in expenditure on interest rates, mainly involving interest rates on foreign loans, and expenditure on individual transfers, resulting from the amended Social Security Act which expanded the scope of rights. The share of investment expenditure increased as well. Expenditure on pensions relative to GDP fell as a result of a modest rise in the number of pension insurance beneficiaries and the lowered ratio of the average wage to the average old-age pension. Expenditure on subsidies and some other expenditure relative to GDP also shrank.

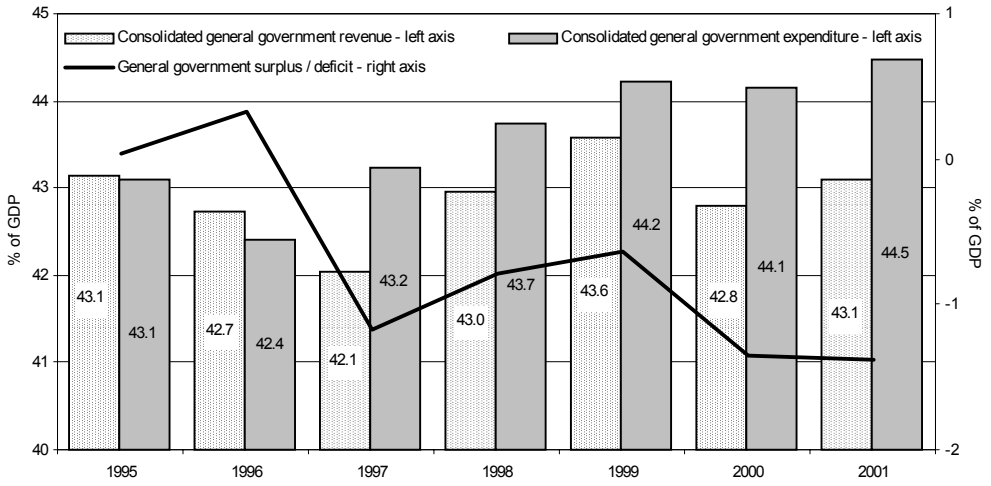
Revenues from value-added tax were lower than budgeted because of less favourable domestic spending and import trends. The shortfalls in revenues from value-added tax were partly offset by revenues from excise duties, which were higher than budgeted – falls in world oil prices were used to raise excise duties. Revenues from customs duties and other import taxes fell for the sixth year in a row – down from 3.5% of GDP in 1995 to 0.6% of GDP in 2001 – due to continued falls in customs duty rates. Growth in wage-based contributions and taxes was slightly below GDP growth. Like before, falls in compulsory levies were partly compensated for by other capital and concession revenues. Despite austerity measures taken to reduce general government expenditure, the general government deficit reached 1.4% of GDP in 2001, 0.4 of a percentage point more than planned in the Budget Memorandum.

In **2002, general government expenditure** was 0.6% of the estimated GDP lower than in 2001. Like in 2001, expenditure on wages and interest payments rose faster than total expenditure, while expenditure on goods and services, subsidies, pensions and, importantly, investment rose more slowly than total expenditure. Transfers to individuals and households rose at the same rate as total expenditure. In 2002 (the calendar year), consolidated general government revenue relative to the estimated GDP was just 0.1 of a percentage point lower than in 2001. Revenues from compulsory levies rose faster

than GDP – their share relative to the estimated GDP increased by 0.5 of a percentage point – while other revenues rose more slowly than GDP (revenues from entrepreneurial profit of public companies, interest rates, concession revenues). The rates of value-added tax and excise duties were raised in 2002, new environmental taxes were introduced, and falls in customs duty revenues slowed down. Wage-based taxes and contributions climbed more slowly than total general government revenue, the labour cost burden exerted by payroll tax was eased, while corporate income tax increased modestly. As a result, the structure of compulsory **general government revenue** changed – the share of indirect taxes increased and the share of direct taxes and social security contributions fell. This was in line with the Strategy for the Economic Development of Slovenia 2001-2006. The current general government deficit totalled around 1.4% of the estimated GDP in 2002 (according to provisional figures), the same as in 2001.

Before 2002, the budget was managed within a 'distorted' fiscal year; some expenditure of the current year was covered by revenues collected in January of the next calendar year. Because of certain shortcomings in this system (international comparisons were difficult to make, lack of transparency, liquidity problems in January, higher interest rates), the **fiscal year was aligned with the calendar year in 2002**. This alignment (involving revenues from value-added tax and excise duties of January 2003) reduced general government revenue for 2002 by around 1.5% of the estimated GDP ('compensatory deficit'). The total general government deficit – compensatory deficit and current general government deficit – reached around 2.9% of the estimated GDP, according to provisional data. In 2002, the general government deficit was also calculated on the basis of the European System of National Accounts (ESA 95). According to these calculations, the general government deficit in 2001 was 2.5% of GDP and an estimated 1.8% of GDP in 2002.

Chart: **Consolidated general government revenue and expenditure according to the GFS-IMF methodology (as a % of gross domestic product)**



Source: Ministry of Finance, calculations by the IMAD.
Note: see text for the estimates for 2002.

Balance of payments

After a period of relative balance in **1995-1997**, the current account of the balance of payments turned into a deficit in **1998**. The direct and indirect impacts of the Asian and Russian financial crises on economic performance in Slovenia's main trading partners caused Slovenia's real export growth to slow down, while import growth was sustained by the rising domestic investment activity. In the period after 1992, the widest trade deficit was seen in **1999** (6.2% of GDP), which was the result of stagnant real growth in exports of goods to the countries of former Yugoslavia, the sharp fall in exports to Russia, the relatively modest growth in exports to the EU, and the strong imports of goods prior to the introduction of VAT. The surplus in services trade continued to narrow in 1999 as a result of lower net foreign exchange receipts from tourism (the Kosovo crisis), net imports of construction services, and growth in imports of other (non-traditional) services. In 1999, the current account deficit equalled 3.5% of GDP in 1999. In **2000**, international economic conditions improved significantly in terms of foreign demand, while import growth decelerated as a result of the subdued domestic consumption. The strong export growth was further underpinned by increased sales to the countries of former Yugoslavia, as stimulated by the stabilisation of military and political conditions in these areas. The current account deficit remained relatively large in 2000 (3% of GDP) despite strong export growth and moderate import growth. This was due to deteriorated terms of trade (down 3.7 index points), resulting from the rising world oil and commodity prices and greater import prices caused by higher levels of inflation in the main trading partners.

In **2001**, the current account was again in surplus, totalling EUR 31 million (0.2% of GDP). This improvement was chiefly the result of a narrower **trade** deficit. Real growth in exports of goods and services decelerated by close to 50% compared to 2000 (6.2% in 2001 and 12.7% in 2000), while the weak real export growth caused by dampened economic activity in EU countries was offset by increased sales of goods to the markets of former Yugoslavia and Russia. Real import growth, on the other hand, was mainly held back by weak domestic demand, especially the fall in investment activity, and by decelerating production in manufacturing, chiefly in the second half of the year. The current account position was also improved by a higher surplus in **services trade**, mostly resulting from greater surpluses in transport and travel services. Exports of communication, computer and information services also increased in 2001; this was a positive development given that in 1994-2001 Slovenia's share of other services (all services except travel and transport) in total exports of services rose much more slowly than in advanced industrialised and some transition countries. On the import side, there was an increase primarily in communication services, licences, patents and copyrights, and other business services.

In **2002**, the current account surplus increased further and amounted to EUR 392.5 million. The **trade** deficit narrowed markedly compared to 2001 (from EUR 689.6 million to EUR 260.7 million), which was the result of modest imports, the sustained robust export growth, and the improved terms of trade. High export growth rates were maintained with the countries of former Yugoslavia and the Soviet Union and CEFTA countries, which partly offset the modest export growth to EU countries. Exports to the EU nevertheless began to gain momentum in the second quarter of 2002. According to available data, the terms of trade improved significantly (up 2.4 index points), which was the outcome of higher export prices and the stronger euro. **Trade in services** recorded even more favourable results than in 2001, with growth in services trade exceeding

growth in goods trade. Further, the surplus in trade in services widened further from 2001. On the export side, the biggest rise was seen in the volume of other services mainly because of a surge in exports of business services (chiefly intermediation), communication and financial services. It was similar on the import side, with the volume of other services growing fastest, while imports of travel rose the most slowly. Unlike in 2001, the **income account** recorded a deficit, however, this was primarily due to methodological changes[1]. The surplus in **current transfers** was slightly higher than in 2001.

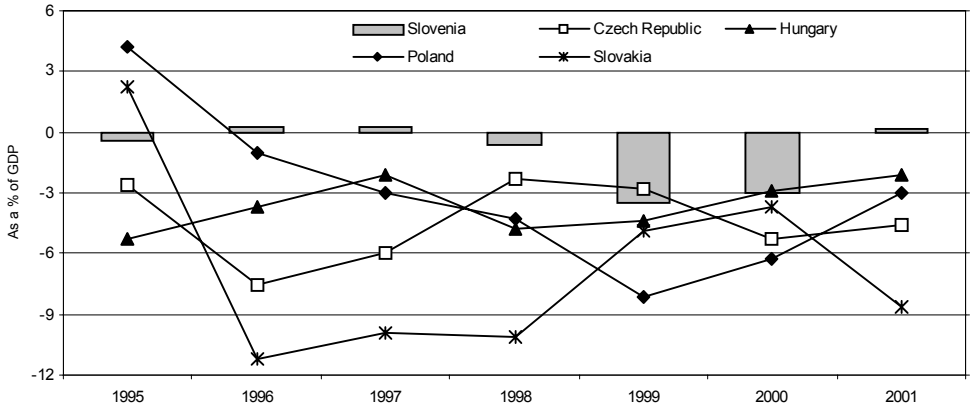
The current account surplus seen in 2001 and its further widening in 2002 were not in line with the guidelines of the Strategy for the Economic Development of Slovenia 2001-2006, with the main reason being the low import growth caused by the modest domestic consumption. If we take into consideration the improved structure of inflows in the capital and financial account, resulting from increased foreign direct investment inflows and the relatively modest international borrowing of banks and enterprises, a question arises of whether such a closing of the investment-savings gap (equalling the current account balance) is beneficial to development because any wider surplus would not undermine the potential sustainability of the current account in view of the given structure of capital and financial account inflows.

Table: **Current account of the balance of payments in Slovenia in 1992-2001, % of GDP**

	1995	1996	1997	1998	1999	2000	2001
Current account	**-0.4**	**0.3**	**0.3**	**-0.6**	**-3.5**	**-3.0**	**0.2**
Trade balance	-5.1	-4.4	-4.3	-4.0	-6.2	-6.3	-3.3
Services balance	3.1	3.4	3.5	2.6	1.8	2.5	2.7

Sources: SORS, BS, calculations by the IMAD.

Chart: **Current account balance in Slovenia and selected transition countries in 1995-2001, % of GDP**



Sources: SORS, BS, OECD Economic Outlook, December 2002.

[1] Reinvested earnings were previously included as a single sum at the end of December of each year. Since August 2002, they have been included each month, which permits a better comparison of balance of payments figures with European countries and paints a more realistic picture of direct investment made during the year.

External debt

After rising moderately in the first half of the nineties, external debt started to accelerate in 1995 primarily due to the private sector's increased borrowing . In **1995-2000**, the average annual rise in total external debt was higher than the rise in total foreign exchange reserves (up 18.4% and 7.9%, respectively). The average annual value of the **ratio of total foreign exchange reserves to external debt** was 0.913 and it dropped to 0.704 by the end of 2000. Long-term external debt (with a maturity of over one year) accounted for an average of 98.0% of total external debt in 1995-2000. The main part of public and publicly-guaranteed debt was represented by government securities, while the lion's share of private debt comprised loans from foreign commercial banks.

In **2001**, the obligation to repay net loans raised abroad (disbursements less repayments) rose slower than the year before and amounted to USD 597.5 million as against USD 948 million in 2000. Demand of domestic enterprises for traditional foreign bank loans dropped slightly in nominal terms, but it continued to be fuelled by lower interest rates abroad (the average of all creditors was 5.3%) and easier access to large loans. Short-term corporate borrowing, on the other hand, represented less than 10% of total corporate borrowing abroad despite the considerably more dynamic gross flows (short-term loan repayments increased). The banking sector's external borrowing also slowed down in 2001 as a result of the high tolar liquidity of banks, which was due to the monetisation of foreign exchange by the central bank. The government repaid loans in a total net amount of USD 8.6 million. According to figures from the Bank of Slovenia, Slovenia's external debt equalled USD 6,717 million at the end of December 2001, representing a rise of USD 500 million from the year before. In **1995-2001**, the average annual rise in total external debt slowed down to 17.3% mainly thanks to the subdued debt growth in 2001. The average annual rise in total foreign exchange reserves accelerated to 11.9%, fuelled by strong financial inflows in the capital and financial account in 2001, mainly resulting from the adjustment of individuals' cash portfolios to the changeover to euros. As a result, the average annual ratio of total foreign exchange reserves to external debt climbed to 0.855.

According to preliminary figures from the Bank of Slovenia, Slovenia's external debt increased by USD 2,082 million in **2002** to total USD 8,799 million at the **end of December**. Since more than 90% of debt was denominated in euros, and the euro appreciated against the US dollar from December 2001 to December 2002, over three-quarters of the increase in the dollar-denominated external debt stock was the result of exchange rate changes (USD 1,598 million), while current transactions pushed debt up by USD 484 million. The composition of external debt as regards private and public sector borrowing changed, and the share of public and publicly-guaranteed debt declined because the government did not borrow by issuing eurobonds. From end-2001 to end-2002, the share of public debt fell by 3.8 percentage points to 37.3%. Inflows of corporate loans were a quarter lower than in 2001 as long-term borrowing declined and repayment increased slightly. The government mainly repaid loans, and first recorded net external borrowing in July. Net external borrowing of the banking sector strengthened significantly compared to 2001, especially in the last quarter. As far as creditors are concerned, the share of external debt raised from international financial organisations fell in 2002. Strong capital inflows, especially foreign direct investment and net inflows of cash and commercial bank deposits, pushed total foreign exchange reserves up with the help of the current account surplus. As a result, the ratio of foreign exchange reserves to external debt improved from 0.856 at the end of 2001 to 0.926 at the end of 2002.

According to **medium-term projections**, external debt should rise moderately because domestic borrowing may partly replace external borrowing thanks to foreign capital inflows in the domestic banking system and, in particular, the opening up of the financial market and domestic banks' improved competitiveness (lower interest rates). As regards external debt relative to GDP, Slovenia will continue to be a country with medium-level indebtedness. However, this will not undermine realisation of the medium-term macroeconomic projections of the **Strategy for the Economic Development of Slovenia 2001-2006** given the relatively favourable balance of payments developments and trends in other debt indicators.

Table 1: **Slovenia's external debt stock in 1992-2002, USD million**

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Total debt stock	1,741	1,873	2,258	2,970	3,981	4,123	4,915	5,400	6,217	6,717	8,799
Long-term debt	1,659	1,744	2,172	2,916	3,931	3,988	4,805	5,283	6,118	6,591	8,680
Public and publicly-guaranteed debt	1,203	1,206	1,331	1,437	1,996	2,014	2,326	2,451	2,665	2,710	3,238
Private non-guaranteed debt	456	538	841	1,479	1,935	1,974	2,479	2,832	3,453	3,881	5,442
Use of IMF credit	-	12	7	4	1	-	-	-	-	-	-
Short-term debt	82	117	79	50	49	135	110	117	99	126	119

Sources: SORS, BS, calculations and estimates by the IMAD.

Table 2: **Indicators of Slovenia's indebtedness in 1995-2001, %**

Indicators	Low	Medium	Critical	1995	1996	1997	1998	1999	2000	2001
EDT/GDP	*30*	*30-50*	*50*	15.8	21.1	22.6	25.1	26.9	34.3	35.7
EDT/XGS	*165*	*165-275*	*275*	28.6	38.0	39.5	44.2	51.4	58.1	59.4
TDS/XGS	*18*	*18-30*	*30*	7.1	8.9	8.8	13.8	8.1	9.7	14.7
INT/XGS	*12*	*12-20*	*20*	1.6	1.9	2.2	2.1	2.4	2.8	3.2

Sources: SORS, BS, calculations and estimates by the IMAD.
Notes: The first two indicators (EDT/GDP, EDT/XGS) show the comparison between total external debt (EDT) and gross domestic product (GDP) and exports of goods and services (XGS). The second two indicators (TDS/XGS, INT/XGS) show flows comparing exports of goods and services (XGS) to debt servicing (TDS) and interest on external debt (INT).

General government debt

Central government debt increased in both absolute and relative terms in the period **from 1993**, when Slovenia's debt figures were first published, **to 2000**. Exceptions were 1994 and 1995, when a budget surplus was recorded and there was no large borrowing for special purposes. In 1996, central government debt increased despite the budget surplus because Slovenia regulated the issue of former Yugoslav debt succession with the London and Paris clubs of creditors and issued NFA bonds on the basis of an agreement with a consortium of commercial banks totalling USD 812 million. From 1997 onwards, central government debt increased mainly because of budget deficit financing. In addition to the deficit and borrowing for special purposes, debt was pushed up by its autonomous growth resulting from the indexation of principal and exchange rate changes.

In **2001, central government debt** expanded by SIT 215.5 billion and amounted to SIT 1,229 billion at the end of the year, namely 26.9% of GDP. Long-term debt accounted for 95.5% of total central government debt. In addition to budget deficit financing, **debt growth** was fuelled by the government's taking over of liabilities from debtors totalling SIT 98.6 billion (SIT 60.9 billion from Slovenske železnice (Slovenian Railways), SIT 29.0 billion from Slovenske železarne (Slovenian Steelworks), SIT 1.2 billion of debt to the Paris Club, and SIT 7.5 billion of debt to the International Monetary Fund previously registered with the Bank of Slovenia). **Autonomous growth** of central government debt totalled SIT 64.2 billion in 2001, of which the revaluation of principal of existing debt amounted to SIT 26.3 billion and exchange rate changes to 38.9 billion. Slovenia's **internal debt** was SIT 636 billion, while **external debt** was close to SIT 593 billion. Unlike in previous years, internal debt increased more than external debt – previously, external debt was mainly pushed up by former Yugoslavia's debt taken over in the process of succession and by the small size of Slovenia's financial market. Internal debt accounted for 51.7% of total central government debt at the end of 2001.

Compared to 2000, the share of debt denominated in US dollars fell, while the share of **debt in euros** increased. Debt denominated in tolars represented 42.9% of total debt, debt in euros 52.6% and debt in US dollars 3.8%. As far as **interest rates** are concerned, indexed debt made up 33.6% of total debt, with debt carrying a constant interest rate representing 48.8%, while debt with a flexible interest rate represented 17.6% of total debt.

In **2002**, Slovenia mainly borrowed by issuing securities; practically all borrowing was carried out in the domestic financial market, while external borrowing represented just 0.4% of total long-term borrowing. The share of internal debt rose accordingly. As regards the interest rate structure, the share of indexed debt continued to fall and, as regards the currency structure, there was an increase in the share of tolar-denominated debt. All these changes in the debt portfolio were the result of carrying out debt management strategic goals.

On 15 January 2002, the government **exchanged** some RS15M **bonds**, totalling SIT 8,243.8 million, for RS31 and RS32 bonds. The remaining amount of SIT 16,482 million was repaid earlier and the budget saved SIT 1,150.5 million as a result of the exchange and early repayment of RS15M bonds. Similarly, the government repaid an earlier part of the RS04 bond in April 2002 in a total amount of SIT 7,815.7 million and thereby saved SIT 414.5 million in budget funds.

Following the programme of using the proceeds from selling off the government's stake in the Nova Ljubljanska Banka, the government exchanged part of the RS15G-T bond series for newly issued bonds on 8 April 2002, totalling 124.1 billion. The programme follows a combined approach using early debt repayment and the exchange of some of the debt portfolio for new and cheaper instruments, combined with deposits of saved funds with the Bank of Slovenia. This ensured that domestic interest rates fell further and the inflows of proceeds into circulation were controlled. In 2002-2012, total savings for the budget from exchange operations will equal SIT 69.4 billion, while the programme of using proceeds will help reduce budget expenditure on debt servicing and bring domestic interest rates down.

Local government debt ranged at around 0.1% of GDP from 1996 to end-2001, with this low figure being due to restrictive legal provisions, and was only composed of internal debt. In 2001, the debt of the **Pension and Disability Insurance Institute** (PDII) and the **Health Insurance Institute** (HII)

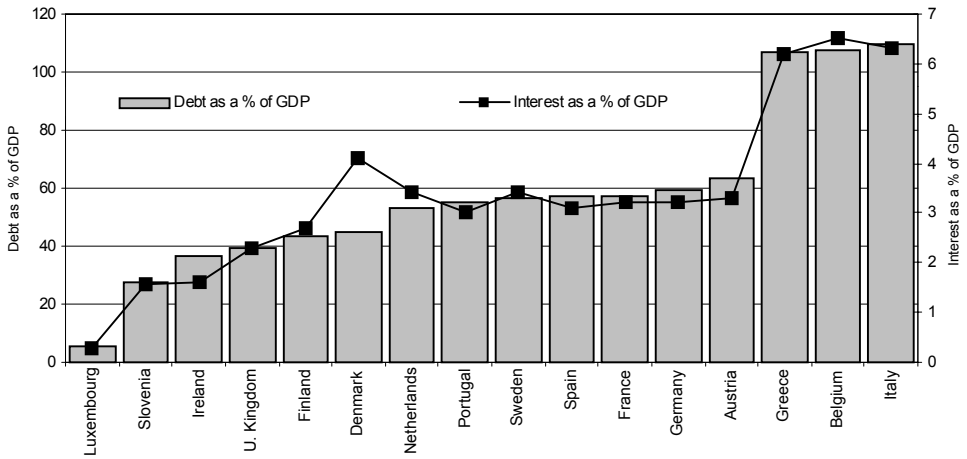
fell slightly over the year before mainly thanks to proceeds from the sale of SOD and KAD which were deposited in the PDII account. The two organisations borrowed exclusively in the domestic financial market.

Table: **General government debt in 1996-2001, SIT billion**

	1996	1997	1998	1999	2000	2001
Central government debt	580.7	673.2	771.3	893.3	1,013.4	1,228.9
% of GDP	22.7	23.2	23.7	24.5	25.1	26.9
Internal debt	355.5	399.6	475.5	498.5	505.1	636
% of GDP	13.9	13.7	14.6	13.7	12.5	13.9
External debt	225.2	273.6	295.8	394.8	508.3	592.9
% of GDP	8.8	9.4	9.1	10.8	12.6	13.0
Succession	106.7	106.9	26.2	26.0	25.2	23.2
% of GDP	4.2	3.7	0.8	0.7	0.6	0.5
Paris Club	14.9	10.8	8.1	7.6	7.3	6.8
% of GDP	0.6	0.4	0.2	0.2	0.2	0.1
London Club	91.8	96.1	18.1	18.4	17.9	16.5
% of GDP	3.6	3.3	0.6	0.5	0.4	0.4
Other external debt	118.5	166.7	269.6	368.8	483.1	569.6
% of GDP	4.6	5.7	8.3	10.1	12.0	12.5
Local government debt	4.5	4.3	4.2	4.4	4.2	4.9
% of GDP	0.2	0.1	0.1	0.1	0.1	0.1
Internal debt	4.5	4.3	4.2	4.4	4.2	4.9
% of GDP	0.2	0.1	0.1	0.1	0.1	0.1
External debt	0.0	0.0	0.0	0.0	0.0	0.0
PDI and HII	-	8.7	5.0	10.0	23.4	22.9
% of GDP	-	0.3	0.2	0.3	0.6	0.5
Internal debt	-	8.7	5.0	10.0	23.4	22.9
% of GDP	-	0.3	0.2	0.3	0.6	0.5
External debt	-	0.0	0.0	0.0	0.0	0.0
General government debt	585.2	686.2	780.5	907.7	1,041.0	1,256.7
% of GDP	22.9	23.6	24.0	24.9	25.8	27.5

Source: Ministry of Finance.

Chart: **General government debt of Slovenia and EU member-states in 2001, % of GDP**



Source: Ministry of Finance, Eurostat.

Country risk

This analysis is focused on the country-risk assessment related to the issuing of long-term government bonds denominated in a foreign currency. This is important for setting the spread in long-term government securities. Slovenia's country risk was first assessed in 1996, with assessments being made by three agencies: Moody's, Standard&Poor's and Fitch IBCA. All three gave Slovenia the highest initial rating out of all Central and Eastern European countries. This was due to the favourable assessment of all three country-risk components (political, social and economic risk). The initial high rating remained unchanged for several years despite the undermined general government balance in 1997 and external balance in 1999, because these indicators remained within sustainable limits. The assessment of **Fitch IBCA** was corrected upwards in 1999, from A- to A, and remained the same up until October 2002, according to the available data. **Moody's** assessment was also revised upwards in 2002, from A3 to A2, primarily due to enforcement of the Europe Agreement in 1999. The improved assessment of the possibility of further economic, social and political development was mainly the result of progress made in negotiations with the EU, in addition to the current account surplus and modest general government deficit. In August 2002, the Moody's agency corrected the outlook for the future upwards from stable to positive. The successful conclusion of negotiations with the EU also contributed to Moody's upward revision of its country-risk assessment to Aa3 in November 2002, when the future outlook was again assessed as stable. This upward correction meant that Slovenia joined those countries enjoying a low-risk assessment with Moody's (high quality). **Standard&Poor's** high initial country-risk **assessment** (A) remained up to January 2003, according to the available data, while the outlook for the future was corrected from stable to positive in October 2002. This assessment could be significantly improved by the accelerated implementation of structural reforms (labour market reform, privatisation of energy suppliers, advancement of the financial sector), which Moody's also believes to be the main factors of improvement in addition to cutting inflation. From the point of view of the Strategy for the Economic Development of Slovenia, this means that Slovenia's country-risk rating can be upgraded by implementing the main mechanisms designed to increase national competitiveness and further build macroeconomic stability.

After the upward correction in November 2002, Moody's country-risk rating for Slovenia was the highest **among EU candidate-countries**, because Cyprus' country-risk rating, which had been higher, remained in place. Ratings for other candidate-countries (see table) also improved in the latest assessment, however, they were all assessed worse than Slovenia. By entering the EMU, Greece's country-risk rating automatically rose to the highest score of Aaa, whereas before that Greece was assessed the same as Slovenia. With accession to the EU, Slovenia should be the first new member to improve its country-risk rating from A to AA, according to the forecasts of Fitch IBCA.

Table 1: **Slovenia's country-risk assessment (long-term, foreign-currency rating) made by Moody's Investors Service, Standard&Poor's and Fitch IBCA**

Moody's Investors Service		Standard&Poor's		Fitch IBCA	
8 May 1996	A3	8 May 1996	A	8 May 1996	A-
27 Dec 2002	Aa3	6 Dec 2002	A	1 Oct 2002	A

Table 2: **Initial and latest country-risk rating and the future outlook made by Standard&Poor's for Slovenia and selected EU candidate-countries, Greece and Croatia, and the latest country-risk ratings by Standard&Poor's and Moody's**

	Initial assessment		Latest assessment	
	Standard&Poor's		Standard&Poor's (10 Jan 2003)	Moody's (27 Dec 2002)
Slovenia	A/Stable/	May 96	A/Positive/	Aa3/Stable/
Hungary	BB+/Positive/	April 92	A-/Stable/	A1/Stable/
Czech Rep.	BBB/Positive/	July 93	A-/Stable/	A1/Stable/
Poland	BB/Positive/	June 95	BBB+/Stable/	A2/Stable/
Slovakia	BB-/Stable/	Feb 94	BBB/Positive/	A3/Stable/
Estonia	BBB+/Stable/	Dec 97	A-/Stable/	A1/Stable/
Croatia	BBB-/Stable/	Jan 97	BBB-/Stable/	Baa3/Stable/
Cyprus	AA-/Stable/	Aug 91	A/Stable/	A2/Stable/
Greece	BBB/-/	Sept 88	A/Positive/	Aaa/Stable/

Note: [1]outlook for the future, i.e. an assessment of continuing economic, social and political development is given in the following descriptive form: Positive, Stable and Negative.

Average number of schooling years of persons in employment

The average number of schooling years of persons in employment continued to rise in Slovenia. In **2002**[1], persons in employment recorded an average of around[2] 11.3 years of finished schooling, as revealed by both the SORS' register and the labour force survey, 0.3 and 0.5 years more than in 1995, respectively. Enrolment in secondary and higher education institutions and the number of graduates was on the increase, suggesting a further rise in the population's education level in the future. The hiring of skilled workers increased, while the hiring of people with lower education levels dropped. The average number of schooling years increased primarily thanks to a better education level in **public services** (public administration, education, health and social work[3], and other personal and community services). In **industry** and **market-oriented services** (activities from G to K), the education level rose less than in the last few years on average, while in agriculture it dropped. A higher education level of people working in public services helps raise the quality of these services and improve the productivity and competitiveness of the whole economy. However, contemporary production processes and competition in international markets call for a better skilled workforce in production activities and business services as well. Namely, education and the ability to use knowledge creatively are important components of each activity's competitiveness. Yet it should be noted that the average number of schooling years is merely a formal indicator of education which says little about the quality of education and the actual know-how and skills possessed by a population.

Broken down by activities, the highest average number of schooling years was seen in education (13.5) and public administration (13.3), activities that held the largest shares of workers who have finished higher education (57% and 43.9%, respectively). Out of the total number of persons in employment who have finished higher education, the most worked in education (21.3%). Manufacturing industries employed 15.1% of these workers, followed by public administration (13.8%), business services (12.7%), health and social work (10.7%), and wholesale and retail trade (8.0%).

[1] Figures are taken from the labour force survey for the second quarter of 2002 and the statistical register of persons in employment for September 2002.

[2] For methodological reasons, data on the number of persons in employment by education categories taken from the two statistical sources cannot always be weighted accurately by the appropriate number of schooling years. This year's calculation of the number of schooling years is slightly different from that of last year because the weights have been changed in lower education categories in both sources, which helped reduce the difference between the figures obtained from each source.

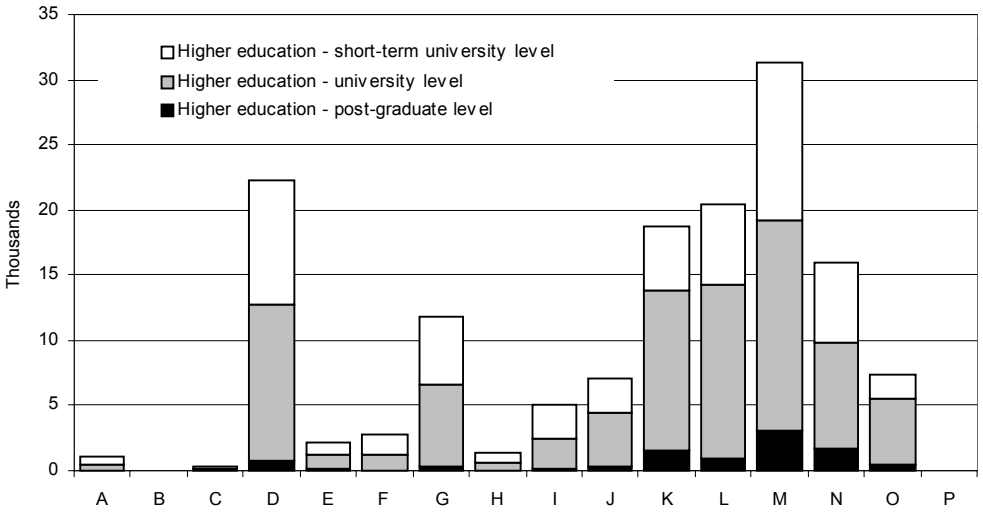
[3] Health and social work recorded a leap in its education level in 2002. However, this was largely due to statistical changes, whereby about 10,000 people were re-classified (one-fifth of all people employed in this activity in 2001). They are workers employed by sheltered workshops, which moved from health and social work to the actual activity that particular sheltered workshops perform. These workers seem to have lower education levels.

Table: **Average number of schooling years of persons in employment in Slovenia in 1995-2001**

	Average no. of schooling years of persons in employment							
	1995	1996	1997	1998	1999	2000	2001	2002
Persons in employment according to the labour force survey	10.8	10.9	10.8	11.0	11.1	11.2	11.2	11.3
Persons in employment according to the SORS' register	11.0	11.0	11.1	11.1	11.2	11.2	11.3	11.3
Agriculture and fishing	10.3	10.5	10.5	10.6	10.6	10.7	10.6	10.4
Industry, mining, energy sector	10.1	10.2	10.2	10.3	10.3	10.4	10.4	10.4
Construction	10.2	10.1	10.0	10.0	9.9	9.9	9.9	10.1
Wholesale & retail trade, hotels & restaurants, transport	11.0	11.0	11.0	11.1	11.1	11.1	11.2	11.2
Financial intermediation, business services	12.2	12.2	12.2	12.2	12.3	12.3	12.4	12.4
Health and social work	11.9	11.9	11.9	11.8	11.8	11.8	11.9	12.5
Public administration, education, other services	12.7	12.7	12.8	12.9	12.9	13.0	13.0	13.1

Source: SORS.

Chart: **Number of employees in Slovenia who have finished higher education broken down by activities, in thousands (September 2002)**



Source: SORS.

Population with finished secondary education

The latest available data show that the trend of growing youth **enrolment** in secondary and higher education has continued and that adult enrolment in formal **education** has increased. According to provisional figures, 96% of the generation aged 15-18 years was enrolled in secondary schools in 2000/2001 and 98% in 2001/2002. In 2000, secondary school was finished by 75% of the whole generation (27.5% finished a vocational and 47.9% some other secondary school), while 8.5% of the generation passed an additional final examination in 3+2 programmes. There were 19,449 adults enrolled in secondary education (the latest figure), 2.3 times more than in 1995, while 5,966 adults finished secondary school, 3.3 times more than in 1995. The number of students continued to increase. In the 2001/2002 academic year, undergraduate students (excluding pre-graduation students) represented over 50% of the total generation aged 20-24, while full-time students represented 34.5% of the generation. These shares increased further in 2002/2003. The number of enrolled students exceeded the goal of 35 students per 1000 people set in the National Higher Education Programme.

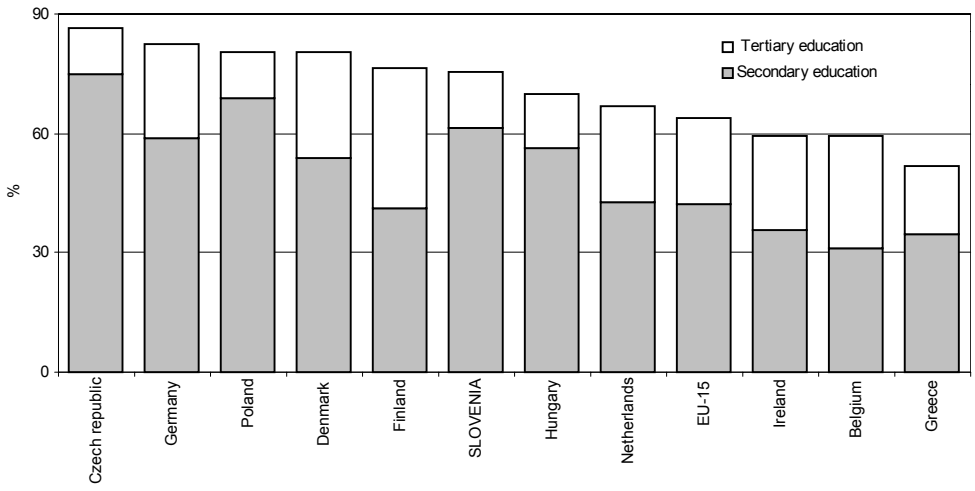
Hence, the high youth enrolment and increased adult enrolment in formal education helped improve the population's education structure. The **share of the total population** aged 25 and above who have **finished secondary education** increased to 66.6% **in 2002** (the second quarter). The fastest increase was seen in the share of people who have finished the 4-5 year secondary school (general or technical programmes) and in the share of higher education graduates. **International comparisons** are unreliable because of methodological differences, especially as regards secondary education, while the comparisons of tertiary education produce better results. Slovenia is still way behind the advanced and leading European countries in this area (see graph), while the gap has increased over the last few years. The number of graduates remains relatively low despite the high level of enrolment. The average duration of education from enrolment to graduation is long, about 6 years, while the number of dropouts from tertiary education is still high.

Table: **Percentage of the population aged 25 and above who had completed secondary education in Slovenia in 1995-2002, %**

	1995	1996	1997	1998	1999	2000	2001	2002
Population's education structure								
% of the population with at least a secondary education	58.6	60.2	60.4	62.1	63.5	65.1	65.6	66.6
Secondary education:	45.8	48.1	47.7	48.4	49.6	50.6	51.0	51.9
vocational	23.0	24.5	24.4	24.3	24.1	22.5	22.9	23.1
technical or general	22.8	23.6	23.4	24.1	25.4	28.1	28.0	28.7
Tertiary education:	12.8	12.1	12.6	13.7	13.9	14.5	14.6	14.8
junior college	6.6	6.2	6.5	6.9	6.8	6.7	6.2	6.0
university	5.6	5.3	5.4	6.1	6.3	7.0	7.6	8.1
postgraduate studies	0.6	0.6	0.7	0.7	0.7	0.8	0.8	0.7
Kazalci izobraževanja mladine								
Finished secondary education (% of generation)	70.4	74.8	74.1	74.4	76.7	75.4	N/A	N/A
Full-time graduates (% of generation)	17.8	19.9	19.9	19.6	22.4	21.7	22.0	N/A
Enrolled in secondary education (% of generation aged 16-19)	82.0	84.1	87.0	88.2	89.2	91.4	95.8	97.9
Undergraduate students (% of generation aged 20-24)	30.1	32.7	34.4	38.2	43.6	45.2	48.3	52.4

Source: SORS, calculations by the IMAD.
Note: N/A - not available.

Chart: **Percentage of the population aged 25-64 who have completed secondary education in selected European countries in 2001**



Source: Eurostat.

Internet use

The Internet Use indicator reveals the dynamic development of the information society in **Slovenia** after 1995. The **share of active (monthly) Internet users** increased almost eight fold from 1995 to 2001 and reached 23% of the total population in 2001 (see table). According to the RIS data (Internet use in Slovenia[1]), the number of active Internet users continued to rise in 2002. In February, there were about 25 and in July about 28 active Internet users per 100 people. Since data published by the RIS for Slovenia are not fully compatible with Eurostat data for EU members and candidate-countries, we use the Eurostat data in international comparisons. These figures show that Slovenia has invariably lagged behind the **EU average** since 1998, but it is estimated to have drawn very close to the average in 2001. Given the experience of previous years suggesting that data for the most recent year are corrected several times, it is hard to assume that Internet penetration has in fact recorded quick changes in Slovenia recently. If we look at general Internet users (those who have already used the Internet[2]), the latest surveys conducted in June 2002 show that Slovenia still lagged behind the EU average (35% as against 51%; RIS, Faculty of Social Sciences, 2003). **Compared to EU candidate-countries**, Slovenia's share of active Internet users continued to be way above the average of those countries in 2001 (7.8%), as shown by the Eurostat's figures. Slovenia was slightly behind Estonia, the highest ranking country, and overtook Cyprus and Malta, countries that used to be slightly ahead of Slovenia.

Over the last few years, growth in Internet use has mainly been influenced by **Internet access from home**. The most recent data (for 2000) show that practically all companies had access to the Internet (especially large and medium-sized ones), as did schools (see table). However, the share of households connected to the Internet was relatively low. In 2001, they represented 24% of all households, just 3 percentage points more than in 2000. The distance in time[3] shows that Slovenia was 1.3 years behind the EU average (38%) in 2001 as regards Internet access from home (see Chart 2) and the gap widened slightly from 2000. Data for June 2002 are more encouraging and show that Slovenia drew much closer to the EU average: Slovenia 36% and the EU 40% (RIS, Faculty of Social Sciences, 2003). Factors that are the most important for stimulating Internet access from home are the **cost of access** and equipment (Vehovar, Vukčevič, 2000). In 2002, the first shifts were seen in the direction of reducing the cost of access. In order to gradually introduce cost-recovery prices, the Telecommunications, Broadcasting and Postal Agency (TBPA[4]) lowered the price of dialling access to the Internet while, in August 2002, it lowered the price of inter-network connections, one of the key elements of creating competition in the telecommunications market. The process of introducing cost-recovery prices should continue in 2003. Information-society services can be brought closer to users not only through more affordable Internet access from home, but also through **e-points**, i.e. points offering public access. According to data from the Ministry of the Information Society, the number of these points has recently increased significantly.

[1] The RIS project (http://www.ris.org) is carried out by the Methodology and Informatics Centre of the Faculty of Social Sciences of the University of Ljubljana.

[2] The share of monthly (active) Internet users is 3%-5% lower than the share of general Internet users (RIS, Faculty of Social Sciences, 2003).

[3] The distance in time measures the time necessary for two units to reach the same given level of the indicator x. For more on the methodology see P. Sicherl: Distance in time between Slovenia and the European Union around 2001, SICENTER, Ljubljana, 2002 and http://www.sicenter.si/td.html.

[4] The TBPA began to operate in May 2002 in line with the Telecommunications Act.

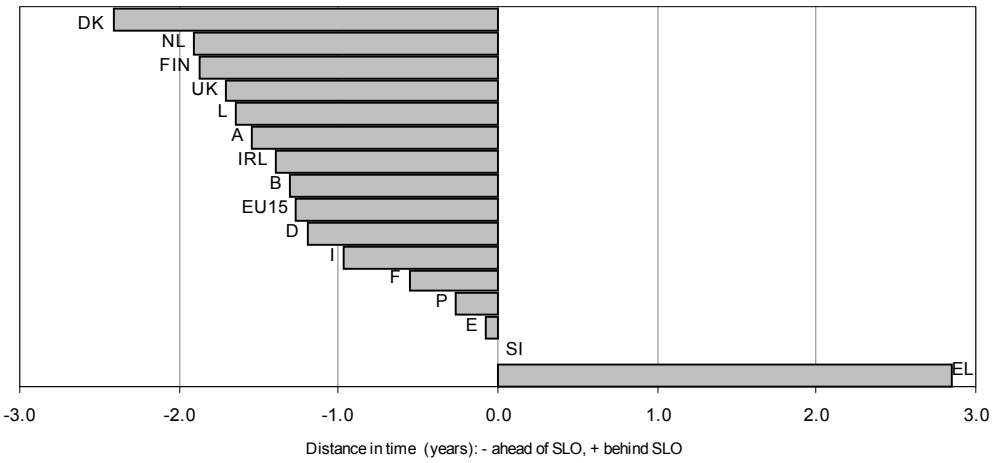
There were 25 e-points in Slovenia in November 2001 and 99 in November 2002. However, only about 5% of all Internet users use these points to access the Internet, according to figures from the RIS.

Table: **Selected indicators of Internet use in Slovenia**

Shares, %	1995	1996	1997	1998	1999	2000	2001	2002
Active[1] Internet users in total population	3	6	9	11	14	19	23	28.5[3]
Access to the Internet by type of users[2]								
Households	-	3	8	9	15	21	24	38[4]
Small enterprises	-	7	31	57	77	88	-	-
Medium-sized enterprises	-	16	37	69	89	97	-	-
Large enterprises	-	25	53	82	96	99	-	-
Primary schools	-	26	54	86	93	99	-	-
Secondary schools	-	90	91	92	96	100	-	-

Source: RIS (http://www.ris.org).
Notes: [1]active users are people who access the Internet at least once a month; [2]% of total population in the given group , [3]June 2002, [4]December 2002.

Chart: **Internet access of households – distance in time[1] between Slovenia and EU member-states in 2001**



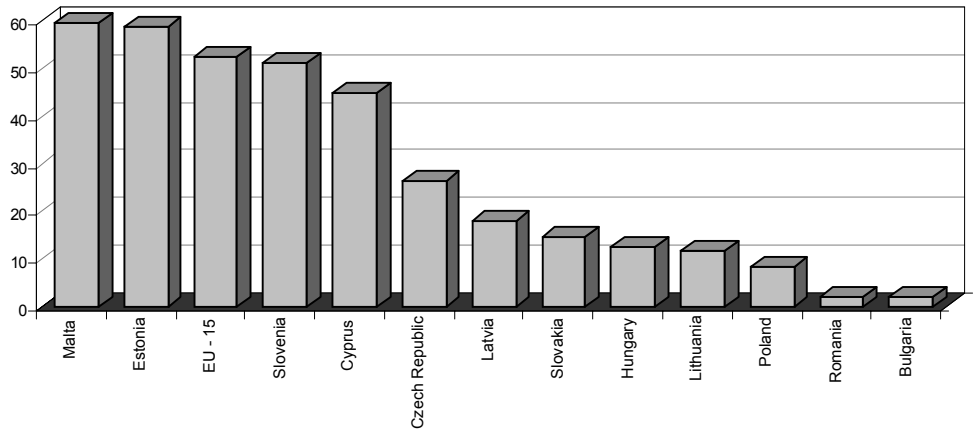
Source: Distance in time calculated by SICENTER on the basis of Eurostat - New Cronos (for EU members) and Faculty of Social Sciences, the RIS project (for Slovenia).
Note: [1] distance in time measures the time necessary for two units to reach the same given level of the indicator x. For more on the methodology, see P. Sicherl: Distance in time between Slovenia and the European Union around 2001, SICENTER, Ljubljana, 2002 and http://www.sicenter.si/td.html.

Secure servers

Expansion of information society services crucially depends on the level of security in Internet transactions. The **number of secure servers** – they provide security at the level of connections between two computers or at the level of a document – increased by over four times in **Slovenia** from 1998 to 2000. At the end of 2000, there were 51 secure servers **per one million people**, about the same as the EU average (52.2). Compared to 1999, when Slovenia was ahead of practically all **EU members**, Slovenia lost its advantage against countries with the most developed information technologies in 2000 (Finland, Sweden, Luxembourg, Denmark, Germany, Ireland, the UK, and Austria). As in other information-society indicators, Slovenia was way ahead of the average of **EU candidate-countries** in the number of secure servers per one million people (11.3 at the end of 2000). However, it was in third place behind Estonia (58.4) and Malta (59.6) when the 12 countries are examined individually. Figures on the number of secure servers are collected separately for weak and strong encryption. In Slovenia, **servers using strong encryption** represented 75% of all servers, a significant improvement from the year before, when the ratio of strong-encryption to weak-encryption servers was 1 to 2. The share of strong-encryption serves was also high in EU candidate-countries (an average of 76%) and was larger than in EU members (an average of 61%).

Slovenia's relatively high development level in terms of the density of secure servers has been related to the introduction of information technologies in banking, health services, and the state administration, i.e. activities that are the most frequent users of secure servers. Another activity that also requires the use of secure servers is **e-commerce** and especially **e-shopping**, however, this area is developing less rapidly. In 2000, no more than 16% active (monthly) Internet users made at least one purchase through the Internet over the preceding twelve months. The share of e-shopping shrank in 2001 to 12%, but there was a turnaround in 2002, when 21% of all active Internet users made purchases through the Internet. In addition to general setbacks such as low Internet access and low information technology know-how (McConnel, 2000), the main barriers to the expansion of e-shopping in Slovenia are distrust in e-shopping (personal data protection, financial transaction security), negative experience with e-shopping (failure to dispatch orders or refund money for returned goods), and lack of information about the e-shopping procedure on the seller's web page (International Consumer Research Institute, 2001). The share of companies that either order goods and services from their suppliers (31% of small, 34% of medium-sized, and 29% large enterprises) or collect orders through the Internet (29%, 29%, and 24%) is larger. However, this mainly involves orders, i.e. the collection of orders through the Internet, while the financial transaction, which requires a higher level of safety, is carried out in the traditional way upon shipment.

Chart: **Number of secure servers per one million people in 2000 – Slovenia compared to EU candidate-countries and the European Union**



Sources: Netcraft (netcraft.com) for the number of secure servers; Eurostat for population numbers.

Number of researchers per thousand labour force

In **1996-2000, Slovenia** recorded an average of 4.5 researchers[1] per thousand labour force. Slovenia lagged behind the **EU average** (5.3 researchers per thousand labour force in 1999) and other advanced European countries, but it was ahead of Visegrad countries and those EU members to which Slovenia drew closest in terms of economic development (see chart).

The **composition by gender** changed significantly in 2000, with the share of female researchers increasing by 1.6 percentage points to 35.2%. The **sectoral distribution** of researchers evolved favourably up to 1999, with the share of researchers rising in the business sector (by an average of 2.5% a year). This trend came to a halt in 2000. The number of business-sector researchers expressed in the full-time equivalent fell by 10.5% over the year before, while other sectors either saw a rise or a slight fall. This fall was at odds with the priorities set out by the National Research Programme (1995) and the Strategy for the Economic Development of Slovenia 2001-2006 for the area of R&D activity, that is to reach a higher share of researchers in the business sector. Further evidence of a discrepancy in the set priorities is the inadequate structure of **government budget appropriations** on R&D. In 2000, the government budget allocated less funding for applied research than in 1999, while the structure of budget appropriations on R&D was as follows: 73.6% on basic research (57.1% in 1999 and 51.2% in 1997), 11.8% on applied research (25.4% in 1999 and 23.1% in 1997), and 14.6% on experimental development (17.5% in 1999 and 25.7% in 1997). This highly unbalanced composition of government budget appropriations on R&D calls for some necessary change soon if we want to realise the priorities of R&D and science promotion policy in 2003-2007. The **draft premises and guidelines of the National Research and Development Programme 2003-2007** envisage a different structure of budgetary investment in R&D, i.e. the greater importance of applied research and experimental development. In 2007, the structure of government budget appropriations on R&D should be as follows: 30% for basic research, 30% for applied research, and 40% for experimental development (another version proposes 25%, 25% and 50%).

What remains critical in Slovenia is the insufficient **level of co-operation between industry and the R&D sector** as well as between research institutes themselves. This could be improved by a new framework law passed in 2002 (the Research and Development Act), which plans for the establishment of two public agencies, one for the area of research activity and one for the area of technological development. The technological development agency is responsible for activities related to the promotion of innovation and the acceleration of knowledge transfer between research institutes and the business sector. The insufficient level of co-operation and integration between researchers and industry is an equally pressing issue in EU member-states. The establishment of strong links between the university and business community is the key mechanism for improving the state of innovation in Europe. It is therefore not surprising that innovation was given an important role in the new 6th Framework Programme as a result of structural deficiencies in EU innovation – human resources, research infrastructure, science and social issues. One of the crucial factors of an effective transfer

[1] The number of researchers expressed in the full-time equivalent includes people working in R&D full-time as well as those working part-time (more than 10% and less than 90% of full-time).

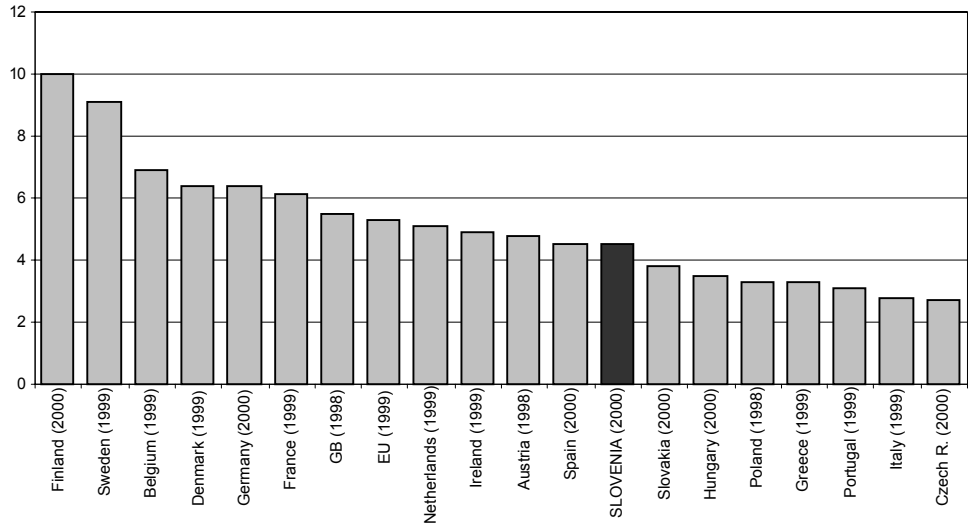
of knowledge to the business sector is the allocation of the intellectual property rights arising from the research activity of universities (Innovation & Technology Transfer, 2002, p. 8). Regulation of this area differs significantly across Europe. It is, however, known that companies prefer to work with researchers who own intellectual property rights to institutions to which these rights have been transferred. The networking between various agents – researchers, research institutes, the business sector – in the research process is one of the main principles of the 6th Framework Programme, which Slovenia will also have to apply.

Table: **Number of researchers in the full-time equivalent in Slovenia in 1995-2000**

	No. of researches	Researches broken down by sector of employment, %			
		Business sector	Government sector	Higher education sector	Private non-profit sector
1995	4897[1]	28.6	32.8	35.9[1]	2.7
1996	4489	30.5	35.2	31.4	2.8
1997	4022	34.0	34.8	28.4	2.8
1998	4285	34.0	35.0	28.8	2.2
1999	4427	34.8	34.1	29.5	1.6
2000	4336	31.8	34.5	30.9	2.8

Source: Statistical Yearbook, various issues, the SORS; Rapid Reports. Population according to the labour force survey, the SORS; calculations by the IMAD.
Note: [1]the figure is overestimated because of an error in the number of researchers in the higher education sector expressed in the full-time equivalent.

Chart: **Number of researchers in the full-time equivalent per thousand labour force in Slovenia, EU member-states and Visegrad countries**



Source: OECD Science, Technology and Industry Outlook 2002, OECD 2002; SORS.

Innovative enterprises in manufacturing

At the Lisbon Summit held in spring 2000, heads of state or government of EU member-states set the very ambitious goal that the EU economy will become the most dynamic and competitive economy in the world by 2010. In order to realise this goal, innovation will have to play a major role. It is not surprising, therefore, that advanced countries are trying to create an environment conducive to innovation, while promoting innovation and the transfer of R&D to the economy through various programmes[1]. Economic growth and competitiveness increasingly depend on the level of innovation and technological advancement. Innovation policy has become an important element of government policies and an integrated part of education, development, industry, services, and entrepreneurship.

According to the SORS, the average share of innovative enterprises in manufacturing was 33% in **1994-1998**. Slovenia lagged significantly behind the EU average for 1994-1996 (the latest data available), recording 32% and 51%, respectively. The latest data for Slovenia are available for **1999-2000**[2] and they reveal no positive trend; the share of innovative enterprises fell by 5 percentage points to 28% compared to the previous period. So the gap behind the EU average of 1996 increased further. **Broken down by manufacturing industries**, the share of innovative enterprises fell the most in the manufacture of electrical machinery (DL/31) and manufacture of radio, TV and communications equipment (DL/32), while it increased the most in the manufacture of office machinery and computers (DL/30) and manufacture of basic metals (DL/27). The manufacture of chemicals and chemical products (DG) remained the most innovative industry; transport equipment (DM), machinery and equipment (DK) and electrical and optical equipment (DL) industries were also ranked high in terms of their share of innovative enterprises (see table).

The share of innovative enterprises tends to grow markedly with the **size[3] of company**. In 1994-2000, the relationship between the three size groups of enterprises as regards the share of innovative enterprises was: 1 (small) : 2.3 (medium-sized) : 4.2 (large). This relationship was much more balanced in the EU in 1996: 1 : 1.3 : 1.8. The figures clearly reveal that innovation activity is underdeveloped in medium-sized enterprises and even more so in small enterprises (see chart), which is probably due to the implementation gap in the areas of creating an environment conducive to innovation, entrepreneurship promotion, and corporate investment in technological development. In the SORS' latest survey on innovation activity (2000), small and medium-sized innovative enterprises put forward two reasons that hamper innovation, namely, the lack of financial resources and high innovation costs (e.g. the purchase of R&D services, machinery and equipment to produce and use new and improved products and processes), while large innovative enterprises also added the lack of qualified human resources. Small enterprises, in

[1] At the EU level, the following programmes are in operation: *IRE* – Innovating Regions in Europe Network, *Paxis* – Pilot Action of Excellence for Innovative Start-ups, *Gate2Growth Initiative*.

[2] The smaller share of innovative enterprises is also due to methodological changes in the statistical coverage of innovation activity. Compared to the previous survey, the total population of enterprises covered in the sample increased by as much as 51%. In the first two statistical surveys (1996, 1998), reporting units were enterprises employing 20 or more workers, now they are enterprises employing 10 or more workers. So the biggest increase was seen in the number of small enterprises (up by 118%), which are generally less involved in innovation activity than medium-sized and large enterprises.

[3] Enterprise size is defined on the basis of employees:
- small enterprise: less than 50 employees,
- medium-sized enterprise: 50-249 employees, and
- large enterprise: more than 250 employees.

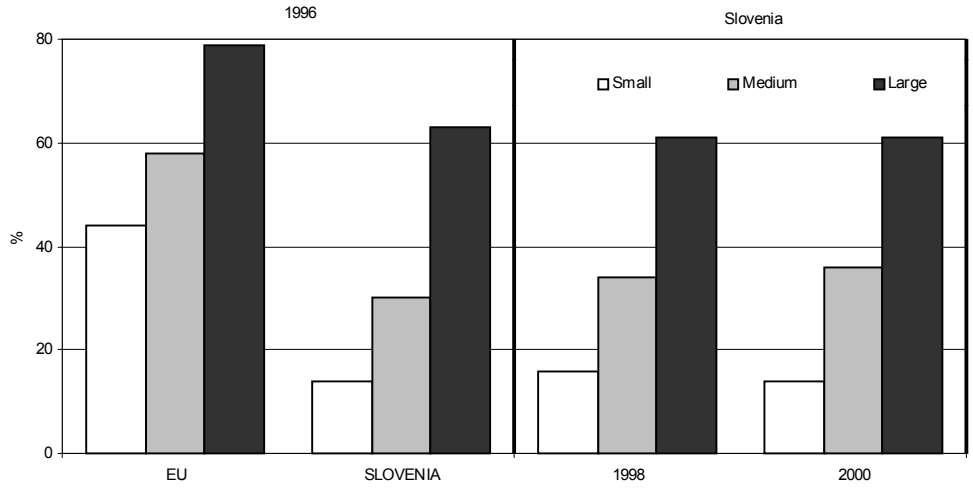
particular, have difficult access to external sources of finance but, at the same time, they usually operate in niche markets (e.g. small-scale production) where there is little need for high technology.

Table: **Share of innovative enterprises in manufacturing[1], %**

		1996[2]	1998[3]	2000[4]
D	Manufacturing	32	33	28
DA	Manufacture of food, beverages and tobacco	38	44	33
DB/17	Manufacture of textiles	29	38	27
DB/18	Manufact. of wearing apparel, dressing & dyeing of fur	6	10	15
DC	Manufacture of leather and leather products	25	19	27
DD	Manufacture of wood and wood products	16	15	18
DE/21	Manufacture of pulp, paper and paper products	25	16	17
DE/22	Publishing and printing	11	7	7
DG + DF	Manufacture of chemicals and chemical products, coke and refined petroleum products	66	53	52
DH	Manufacture of rubber and plastic products	24	30	29
DI	Manufacture of other non-metallic mineral products	30	25	21
DJ/27	Manufacture of basic metals	41	30	42
DJ/28	Man. of fabricated metal products, except machines	24	25	21
DK	Manufacture of machinery and equipment	43	44	43
DL/30	Manufacture of office machinery and computers	23	17	29
DL/31	Manufacture of electrical machinery and apparatus	76	59	40
DL/32	Man. of radio and TV and communication equipment	76	63	49
DL/33	Man. of medical, precision and optical instruments	41	45	35
DM/34	Manufacture of motor vehicles and trailers	32	45	42
DM/35	Manufacture of other transport equipment	40	33	40
DN	Manufacture of furniture, other manufacturing; recycling	22	25	22

Source: Rapid Reports. Research and Development, Science and Technology. Innovation activity in manufacturing and selected service industries, Slovenia, 1996, 1998, and 1999-2000, 73/1998, 81/2000, and 307/2003.
Notes: [1]share of innovative enterprises in an individual sub-division, [2]data for 1994-1996, 3 data for 1997-1998, 4 data for 1999-2000.

Chart: **Share of innovative enterprises in manufacturing broken down by size groups, Slovenia and the EU**



Source: Statistics on Innovation in Europe, Data 1996-1997, 2000 Edition, European Communities 2001; SORS.

Gross domestic expenditure on research & development

In **1996-2000**, the average annual gross domestic expenditure on research and development (R&D) amounted to 1.47% of gross domestic product. In **2000** (the latest data available), expenditure totalled 1.52% of gross domestic product, just 0.08 of a percentage point more than in 1996 and practically the same as in 1999 (see table). An **international comparison** reveals that Slovenia's gross domestic expenditure on R&D relative to GDP was about 0.4 of a percentage point below the EU average in 2000 (see table). Mediterranean EU member-states earmarked a lower share of GDP to finance R&D, even though Spain increased this expenditure slightly in 2000. Positive shifts were also seen in the Czech Republic and Hungary.

In the whole period of 1996-2000, the **business sector carried out** over half of all R&D activity and its share was on the increase throughout the period, up from 50.7% to 56.3%. The share of the government sector fell from 30.4% to 25.9% over the last three years, while the importance of the higher education sector in performing R&D activities remained unchanged; this sector accounted for an average of 16.4% of total R&D in the given period. Similar changes were seen in the EU: as the share of the business sector increased, R&D activity of the government sector fell gradually, while the share of the higher education sector remained the same. Despite similar trends, Slovenia's business sector lagged behind the respective level of expenditure on R&D in the EU. This gap narrowed slightly in 2000 – Slovenia: 0.86% of GDP, the EU: 1.26% of GDP; Slovenia 1999: 0.83%, the EU 1999: 1.25% of GDP. **Manufacturing** carried out the most R&D activity of the business sector; in 2000, it spent 77% of all the business sector's funding earmarked for R&D. The most R&D-intensive industries were the manufacture of pharmaceuticals (33.6%) and the manufacture of radio, television and communications equipment (19.4%), which accounted for up to 53% of total manufacturing's R&D expenditure. Service sectors, which in principal have important development potential, only represented 19% of business sector spending on R&D.

The majority of **R&D expenditures** were gross personal incomes of researchers – a solid third in the government and private non-profit sectors, three-tenths in the higher education sector, and one-fifth in the business sector, significantly less than in the other two sectors – while investment to purchase instruments and equipment, buildings and land, licences, for the commission of studies, and patent registrations represented much smaller shares in all sectors. Hence, capital expenditure represented the biggest share in the business sector, 11.8%, and the smallest share in the private non-profit sector, 5.5%.

The **composition of R&D financing sources** changed favourably in 1996-1999, with the share of business sector expenditure climbing from 49.1% to 56.9%. In the 1996-2000 period, the business sector first reduced its R&D expenditure in 2000, down by 4.2% in real terms, while the business sector's share in total R&D investment shrank to 53.3%. This was inconsistent with R&D priorities, according to which the role of the business sector in promoting technological development should be enhanced. The need for the business sector's greater investment in R&D is supported by analyses on the average technological product complexity in manufacturing; it is currently very low between the fourth and sixth levels in a scale of fourteen levels (Gliha, 2000).

At the Barcelona European Council held in 2002, EU member-states endorsed the goal that they will increase their R&D and innovation investment to 3% of GDP by 2010, while two-thirds of these funds should be provided by the private sector. The **Strategy for the Economic Development of Slovenia 2001-2006** (SEDS) envisages an increase in R&D expenditure to around 2% of GDP by 2006. This goal cannot be achieved without paying more attention to innovation activity. The government must create a suitable environment – institutions, research infrastructure, legislation – and put in place the mechanisms to transfer know-how to the business sector, and improve co-operation between the research and business communities. In 2000-2001, a number of OECD members introduced profound changes in tax legislation that regulate the business sector's R&D. Slovenia's existing system of corporate profit taxation offers substantial tax incentives and relief in many areas on a non-discriminatory basis (e.g. the setting of depreciation and other costs against

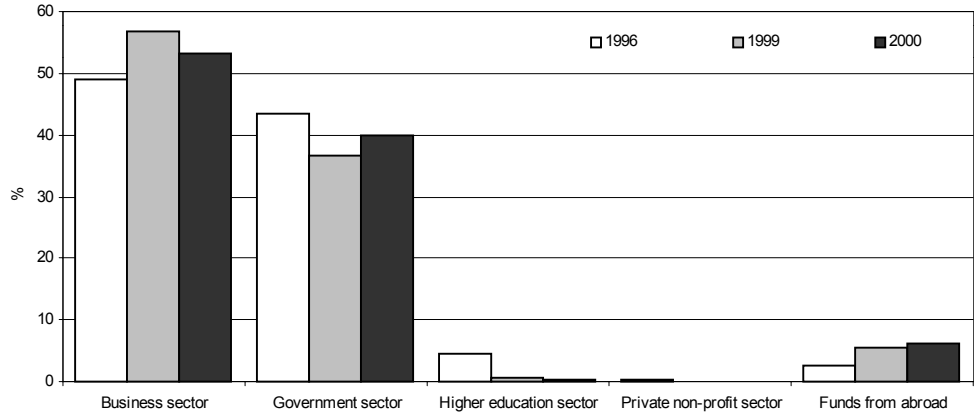
tax, the transfer of tax losses, investment relief, relief for the creation of investment reserves). It is therefore necessary to evaluate the impact of tax relief on the goals we want to achieve, while any changes should take into consideration the tax system as a whole.

Table: **Gross domestic expenditure on R&D in Slovenia, EU member-states, and Visegrad countries, as a % of GDP**

	1995	1996	1997	1998	1999	2000	2001
Slovenia	**1.7**[1]	**1.44**	**1.42**	**1.48**	**1.51**	**1.52**	**-**
EU-15	**1.89**	**1.88**	**1.87**	**1.87**	**1.93**	**1.93**	**1.94**
Austria	1.56	1.60	1.69	1.79	1.83	1.80[2]	1.86[2]
Belgium	1.71	1.80	1.87	1.89	1.96	-	-
Denmark	1.84	1.85	1.94	2.06	2.09	2.07	-
Finland	2.29	2.54	2.72	2.89	3.22	3.37	3.67
France	2.31	2.30	2.22	2.17	2.19	2.15[2]	-
Greece	0.49	-	0.51	-	0.67	-	-
Ireland	1.34	1.32	1.29	1.26	1.21	-	-
Italy	1.00	1.01	1.05	1.07	1.04	-	-
Germany	2.26	2.26	2.29	2.31	2.44	2.48	2.52
Netherlands	1.99	2.03	2.04	1.94	2.02	-	-
Portugal	0.57	-	0.62	-	0.75	-	-
Spain	0.81	0.83	0.82	0.89	0.88	0.94	0.96
Sweden	3.46	-	3.68	3.75	3.78	-	-
U.K.	1.95	1.88	1.81	1.80	1.88	1.86	1.86
Visegrad countries							
Czech Rep.	1.01	1.04	1.16	1.24	1.25	1.35	-
Hungary	0.73	0.65	0.72	0.68	0.69	0.81	-
Poland	0.69	0.71	0.71	0.72	0.75	0.70	-
Slovakia	0.98	0.97	1.13	0.82	0.68	0.69	-

Source: Eurostat, New Cronos Database (Theme 9-Science and Technology); OECD Science, Technology and Industry Outlook 2002, OECD 2002; SORS.
Notes: [1]the figure is overestimated because of an error in the number of researchers in the higher education sector expressed in the full-time equivalent; [2]provisional figure.

Chart: **Composition of financing sources for gross domestic expenditure on R&D in Slovenia**



Source: SORS.

Labour productivity

After rising by an average annual rate of over 4% in **1993-2000** (over 7% in manufacturing), labour productivity increased by just 2.4% in **2001** (4.4% in manufacturing), being the weakest increase since 1993. This slowdown was the result of sluggish economic growth compared to previous years and continued employment growth. The **EU's** average productivity growth was also weaker than before, so Slovenia's gap behind the EU's average did not widen in 2001, on the contrary it continued to narrow. Recording EUR 21,800 of value added per person in full-time equivalent employment, Slovenia achieved about 45% of the average productivity in the EU (44% in 2000) and lagged behind the EU average by about 18 years (19 years in 2000 and 22 years in 1995; see Chart 2).

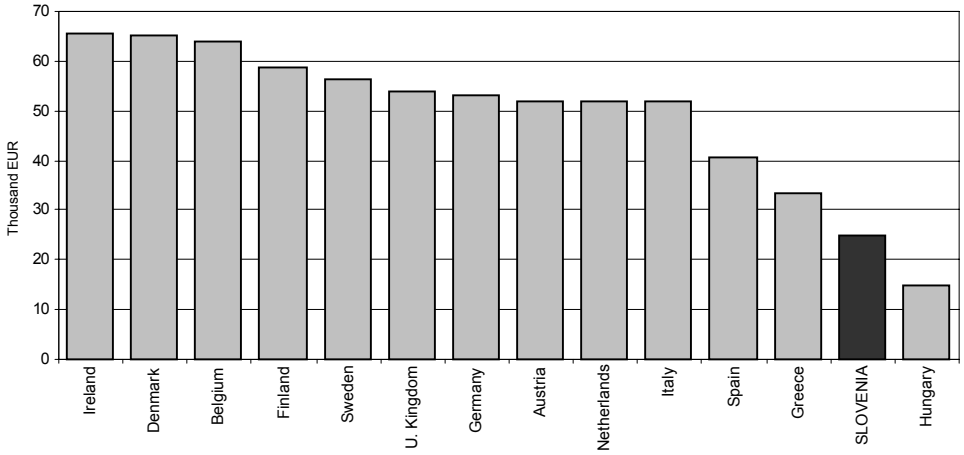
The subdued productivity growth in 2001 interrupted the established trend and was not in line with the scenario of the Strategy for the Economic Development of Slovenia 2001-2006. However, this was probably a cyclical development. Productivity growth resumed in the first half of **2002** as a result of employment cuts in manufacturing and wholesale and retail trade, and productivity increased by 2.9% over the first six months of 2001. The effects of restructuring were still insufficient to boost corporate sector competitiveness, hire a more educated labour force, and increase the value realised by Slovenia's industrial and other sectors in international markets. High productivity growth should by all means be sustained if Slovenia wants to narrow the gap behind the EU's average productivity levels.

Table: **Real productivity growth (GDP per employed in full-time equivalent) in Slovenia and the EU in 1995-2001, %**

	1995	1996	1997	1998	1999	2000	2001
Slovenia	3.1	4.5	5.1	3.8	4.0	3.5	2.4
EU	1.7	1.4	1.5	1.2	1.1	1.6	0.4

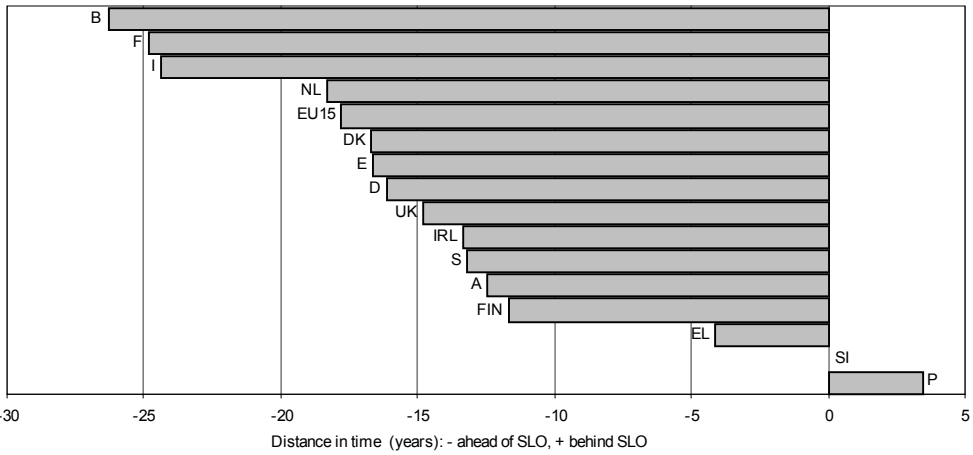
Sources: SORS, Eurostat.

Chart 1: **Productivity (GDP per employed) in selected European countries and Slovenia in 2001**



Sources: SORS, Eurostat.

Chart 2: **Productivity (GDP per employed) – distance in time[1] between Slovenia and EU member-states in 2001**



Source: distance in time calculated by SICENTER on the basis of Eurostat - New Cronos data.
Note: [1] distance in time measures the time necessary for two units to reach the same given level of the indicator x. For more on the methodology, see P. Sicherl: Distance in time between Slovenia and the European Union around 2001, SICENTER, Ljubljana, 2002 and http://www.sicenter.si/td.html.

Unit labour costs

The Unit Labour Costs indicator compares compensation per employee and productivity. It shows the relationship between how much each worker is paid and the amount each worker produces.

In **1995-2000**, labour costs relative to gross domestic product and value added per employee improved in the Slovenian economy, and even more so in manufacturing. Unit labour costs expressed in terms of labour costs to gross domestic product or value added fell by 9.8% and 11.1%, respectively, in the Slovenian economy and by as much as 17.5% in manufacturing. In 2000, one unit of gross domestic product was produced by 0.60 of a single unit of labour costs, while one unit of value added was generated by 0.71 of a unit of labour costs. As a result of dynamic labour productivity growth, Slovenian manufacturing recorded a more favourable relationship between labour costs and value added than the economy as a whole: one unit of value added was generated by 0.65 of a unit of labour costs. This improvement was largely the result of cuts in employment in manufacturing; employment dropped by 13.6% in manufacturing, but rose by 6.1% in other activities as a total. The effect of manufacturing's faster value-added growth – 26.8% growth in manufacturing and 21.8% growth in all other activities, (1995 prices) – was much less important. After rising for one year, labour costs relative to gross domestic product again fell in **2001**, while the trend of falling labour costs relative to value added continued without interruption. Like in 1995-2000, the fall in unit labour costs was slightly stronger in manufacturing than in the economy as a whole.

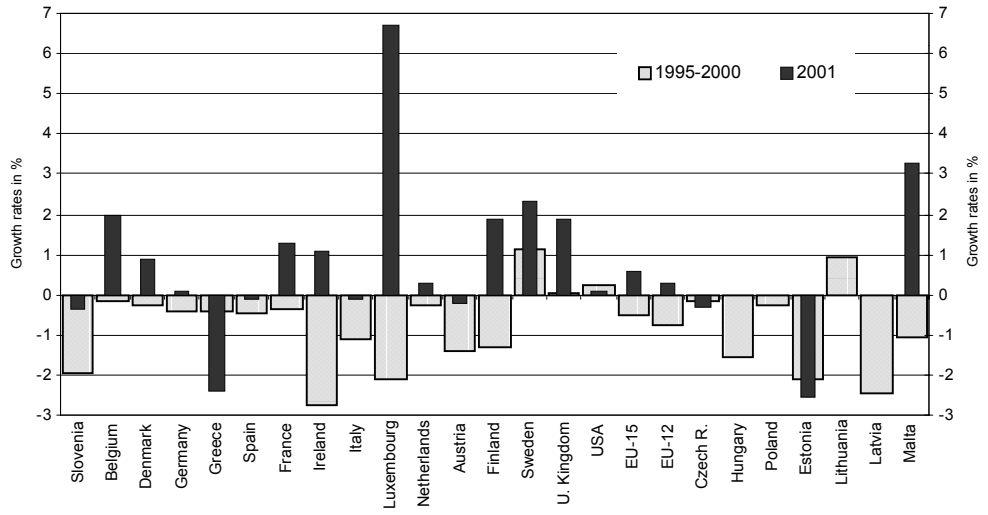
Comparisons with EU member-states and candidate-countries show that the competitiveness of both the Slovenian economy and manufacturing improved in **1995-2000**. Compared to 14 EU members (data for Portugal for 2000 is unavailable), the Slovenian economy's competitiveness measured by unit labour costs relative to GDP only fell against Ireland and Luxembourg and, compared to those candidate-countries for which data are available, it only fell against Latvia and Estonia (see chart). If we look at labour costs relative to value added, the competitiveness of the Slovenian economy improved against all EU members, except Ireland (a 13.1% fall in Ireland and an 11.3% fall in Slovenia), while Latvia was the only candidate-country to record better results than Slovenia (a 13.5% fall). Data available for the manufacturing industries of eight EU members and six candidates show that Slovenia's competitiveness improved against all countries, except Ireland. According to figures for **2001**, the trend of the Slovenian economy's improving competitiveness over the EU-15 and EU-12 average continued after a year's break. Measured by labour costs per unit of GDP, the competitiveness of the Slovenian economy fell slightly compared to Greece and Estonia, but also fell compared to Spain and Lithuania when measured by labour costs per unit of value added.

Table: **Unit labour costs in Slovenia and the EU, 1996-2001**

	Growth rates, %						Ratio[4]	
	1996	1997	1998	1999	2000	2001	1995	2001
Unit labour costs per unit of GDP[1]								
Slovenian economy	-4.8	-2.4	-2.5	-1.3	1.2	-0.4	0.66	0.60
EU-15	-0.9	-0.8	-1.0	-0.1	0.3	0.6	0.61	-
EU-12	-0.9	-1.2	-1.5	-0.1	-0.1	0.3	0.62	-
Unit labour costs per unit of value added[2]								
Slovenian economy[3]	-5.3	-3.2	-2.1	-0.7	-0.4	-0.7	0.80	0.71
Slovenian manufacturing[3]	-6.5	-7.1	-1.6	-2.7	-0.8	-1.3	0.79	0.64

Sources: SORS' National Accounts Statistics, Eurostat.
Notes: [1]compensation per employee in current prices divided by gross domestic product per employee in current prices; [2]compensation per employee in current prices divided by value added per employee in current prices; [3]manufacturing industries total; [4]ratio of labour costs to gross domestic product / value added.

Chart: **Growth in labour costs per unit of gross domestic product in Slovenia and EU members – annual average values**



Sources: SORS' National Accounts Statistics, Eurostat.

Market share

Market share is an indicator of an economy's export competitiveness. It shows whether growth or a fall in exports is the result of an improvement or deterioration in its export competitiveness, or whether this is due to the growth or decline of export markets.

The fall in Slovenia's market shares in its main trading partners from 0.60% in 1995 to 0.49% in 2000 reveals that the dynamic merchandise export growth in **1995-2000** (up by 46.8% in real terms) was more the result of export market growth than any improvement in the Slovenian economy's export competitiveness. In 1995-1998, the competitiveness of Slovenia's merchandise exports, measured as the market share in export markets, deteriorated because of the worsened market position of Slovenian exporters in some emerging trading partners, particularly Croatia, Russia and Hungary, while in 1999-2000 it was also due to reduced competitiveness in the main advanced markets. Among the advanced industrialised trading partners, Slovenia's market share suffered a big fall in the German, French, Italian, and US markets. The market shares in Bosnia and Herzegovina, Macedonia, and the Federal Republic of Yugoslavia increased after 1998, but these figures are not captured by the aggregate market share. If they had been included, the fall in 1999 would have been approximately one-third lower, and fifty percent lower in 2000. The drop in Slovenia's market share in 1995-2000 was at least partly due to the predominantly defensive restructuring of the corporate sector and the related processes of rationalisation, reducing capacity, discontinuing non-profitable product ranges, and other measures aimed at adjusting production to changes in market and other conditions. This is also supported by business results, particularly those of manufacturing, showing a significant increase in the gross operating profit and the net profit ratio (the former was up from 6.1% in 1995 to 9.9% in 2000 while the latter climbed from -1.8% to 2.3%) and financial profitability (going up from -3.3% to 4.1%). As far as EU candidate-countries are concerned, Hungary increased its market share in the EU in 1995-2000 by about 1.3 times, Slovakia by 0.9 times, while the Czech and Polish market shares were respectively about one-third and one-fifth larger.

In **2001**, the aggregate share of Slovenia's merchandise exports in the imports of its main trading partners increased to 0.51%. The main factor leading to the reversal of the trend was the resumed rise in Slovenia's market share in Germany, its most important trading partner, while shares in the French and Austrian markets continued to grow. Slovenia's market share in Italy fell slightly (for the fourth year running), as it did in the USA (for the seventh year running). In Central and Eastern European countries, Slovenia's market share continued to expand fast in Russia, while moderate growth was seen in the Croatian, Polish, and Slovak markets. Market share growth in the world market was slightly faster than in the EU market. Slovenian manufacturing strengthened its position in the EU market against non-EU competitors. However, the repeated drop (the third consecutive year) in the share of Slovenian industrial products in total EU imports from Central and Eastern European countries, the Baltic states, and the former Soviet Union shows that the trend of Slovenia's faltering competitiveness against these countries continued in 2001.

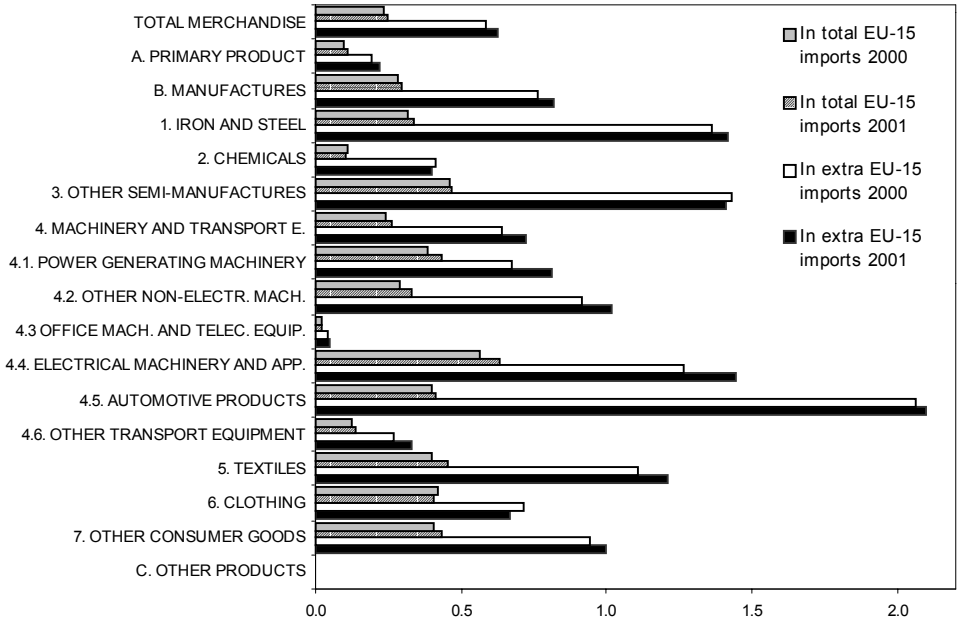
In **2002**, the accelerated market share growth (see table) in industrialised countries was primarily the result of the ongoing growth in the German, French and Austrian markets, and the resumed growth in the Italian market after a four-year fall. In Central and Eastern Europe, Slovenia's market share increased substantially in the CEFTA-4 countries after it had stagnated for two years: this was underpinned by resumed growth in the Czech and Hungarian markets and continued accelerated growth in the Polish and Slovak markets. The market share fell slightly in Croatia and more markedly in Russia after having expanded rapidly for two years. In the countries of former Yugoslavia, which are not covered in the aggregate market share, Slovenia's market share increased in the Federal Republic of Yugoslavia in the first half of 2002 for the fourth consecutive year (from an average of 4.91% in 2001 to 5.2%), however, in Macedonia the market share fell after one year of growth (from 7.81% to 6.07%). No data are available for Bosnia and Herzegovina, where Slovenia's market share increased in 2001 for the third year running and expanded from 15.94% in 2000 to 16.92%. According to figures for the first nine months, Slovenia's market share growth in EU member-states was not too far behind that of the Czech Republic, Hungary, Poland, and Slovakia (Slovenia – 5.3% growth, CEFTA-4 – average growth of 8%; the respective rates in 2001 were 5.1% and 14.4%).

Table: **Slovenia's market share[1] in its main trading partners, %**

	Slovenia's market share[1] in its main trading partners, %							
	1995	1996	1997	1998	1999	2000	2001	2002[2]
TOTAL	0.596	0.579	0.578	0.581	0.520	0.488	0.512	0.552
EU-7	0.439	0.432	0.449	0.462	0.429	0.406	0.416	0.433
Germany	0.541	0.554	0.553	0.546	0.554	0.479	0.499	0.524
Italy	0.588	0.533	0.607	0.575	0.542	0.506	0.501	0.525
France	0.251	0.219	0.176	0.264	0.171	0.204	0.214	0.235
Austria	0.808	0.818	0.872	0.913	0.895	0.950	0.983	1.024
U.K.	0.086	0.056	0.048	0.051	0.053	0.055	0.078	0.074
Netherlands	0.066	0.068	0.069	0.076	0.076	0.076	0.079	0.089
Belgium	0.045	0.046	0.054	0.096	0.081	0.055	0.056	0.049
U.S.A.	0.034	0.030	0.027	0.027	0.024	0.021	0.021	0.021
Switzerland	0.089	0.087	0.092	0.097	0.111	0.123	0.116	0.202
Croatia	11.864	10.978	9.194	9.722	8.628	8.726	8.871	8.705
Czech Republic	0.523	0.530	0.541	0.518	0.566	0.468	0.461	0.481
Hungary	0.746	0.649	0.566	0.549	0.519	0.524	0.460	0.497
Poland	0.361	0.382	0.366	0.385	0.414	0.463	0.481	0.532
Slovakia	0.593	0.513	0.546	0.564	0.548	0.543	0.564	0.748
Russia	0.500	0.433	0.444	0.394	0.319	0.426	0.524	0.494

Sources: SORS, OECD, WIIW.
Notes: [1]market shares are calculated as the weighted average values of Slovenia's merchandise exports relative to imports of the main trading partners determined by the volume 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), [2]data for nine months.

Chart: **Slovenia's market shares in the EU-15, %**



Sources: SORS, WTO, calculations by the IMAD.

Composition of merchandise exports by factor inputs

The analysis of merchandise exports by factor content aims to establish which types of Slovenian products compete in international markets and to what extent Slovenia meets the orientation of its Strategy for Economic Development, according to which exports to advanced industrialised markets can only be increased by exporting technology-intensive and human-capital-intensive products. These exports are based on **created** competitiveness factors, unlike exports based on utilising **primary** competitiveness factors, natural resources or unskilled labour.

In the period of overcoming the transition depression, the structure of factor inputs in export production changed significantly, as had been expected.

Over the last few years, Slovenia's merchandise exports[1] recorded the biggest increase in the share of **technology-intensive** and **human-capital-intensive products**[2] (created or derived factors of competitiveness). The total share of these products in Slovenia's exports increased from 60.0% in 1995 to 64.7% in 2000; the share of technology-intensive products rose by 2.7 percentage points and the share of human-capital-intensive products by 2 percentage points. In 1995-2000, the share of exports with a high content of created factors rose by an annual rate of 0.9 of a percentage point (proportionate falls were seen in the share of exports produced by the intensive use of primary factors).

In **2001**, positive structural shifts towards a larger share of exports involving **created competitiveness factors** came to a halt; 0.2 of a percentage point more exports involved primary factors than in 2000. In the first nine months of **2002**, the share of exports involving created competitiveness factors increased by 1.4 percentage points from the year before, suggesting that positive structural shifts had again intensified. The share of **human-capital-intensive products** was 2 percentage points higher than the year before, mainly due to the increase in exports of household equipment, personal cars, rubber, paper and cardboard. Exports of **technology-intensive products** shrank by 0.6 of a percentage point, mainly due to lower exports of telecommunications equipment.

Exports involving **primary factors** represented 35.5% of Slovenia's exports in 2001 and 34.1% in the first nine months of 2002. They included **unskilled labour products**, i.e. products with the lowest value added per employee such as clothing, textile products, furniture, and glass. They represented 19.1% of Slovenia's exports in the first nine months of 2002 and their share shrank by 1.0 percentage point from the year before, mainly as a result of reduced exports of coats and footwear. **Natural-resource-intensive products** – characterised by low value added per product, a high content of natural resources and simple production methods, such as food, beverages, raw materials, mineral fuels, animal and vegetable oils and fats, leather, veneer and wood manufactures, ferrous and non-ferrous metals – had a 15% share in the first nine months of 2002, 0.4 of a percentage point less than in 2001.

Data sources need to be updated every year so that an **international comparison** can be made. Since the United Nation's Statistical Office publishes data every second year and the latest data are available for 1999, we have made a provisional international comparison. The total share of products involving created factors was higher in Germany, Austria, Finland, Ireland, the UK, France, and Sweden, as well as in the Czech Republic and

Hungary as far as transition countries are concerned. As regards products involving primary factors, Slovenia drew close to the shares of Belgium, Italy, the Netherlands and Spain in the second half of the 1990s. If we only look at labour-intensive exports, Slovenia's share was higher than in most EU countries, as well as in some countries in transition (Czech Republic, Hungary, and Slovakia). As far as natural-resource-intensive products are concerned, Slovenia's share was close to those of Austria, Finland, Hungary, and the Czech Republic.

Table: **The structure of Slovenia's merchandise exports by factor content in 1992-2002, %**

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002[1]
Natural-resource intensive	20.6	20.9	17.7	16.7	16.3	16.6	15.6	15.3	15.5	15.4	15.0
Unskilled-labour-intensive	24.7	26.4	24.8	23.3	22.7	21.6	21.3	21.4	19.8	20.1	19.1
Technology-intensive	21.3	21.9	24.4	24.9	25.7	26.4	25.9	26.6	27.6	28.6	28.0
Human-capital-intensive	33.4	30.8	33.1	35.1	35.4	35.5	37.2	36.7	37.1	35.9	37.9

Source: ITC COMTRADE database of the United Nations Statistics Division, SORS, calculations by the IMAD (Zakotnik, 2000a).
Note: [1]data for the first nine months of 2002.

[1] The breakdown of Slovenia's exports of goods is based on the United Nation's methodology (United Nations Conference on Trade and Development).

[2] The group of technology-intensive manufactures comprise exported goods with the highest shares of R&D expenditure in value added (chemicals, plastic products, telecommunications equipment, medical, scientific and measurement equipment, photographic supplies and equipment). The division between technology-intensive products and human-capital-intensive products (4th group) is the most difficult to make because both generally require more sophisticated inputs. Human-capital-intensive products only include products with lower shares of R&D expenditure in value added relative to technology-intensive products (paints, rubber, paper, radio and television equipment etc).

Gross fixed capital formation relative to GDP

In Slovenia, investment demand rose sharply after 1993 (the end of the transition depression) and recorded its biggest growth in 1999 (up 19.1% in real terms). In that year, gross fixed capital formation represented 27.4% of GDP, 6 percentage points more than in 1995. In 2000, investment activity slowed down and gross fixed capital formation relative to GDP shrank to 26.7%. As regards the technical structure of investment, both investment in buildings and constructions and machinery and equipment intensified in **1995-2000**. Growth was fuelled by accelerated motorway construction, as well as the construction of industrial buildings and trade and services buildings, while growth in residential building construction was more modest, but still 35% higher in 2000 than in 1995. Investment in other machinery and equipment intensified markedly (machinery and equipment excluding transport equipment, i.e. the most 'productive' investment), especially in 1997-1999.

Investment activity slowed down in 2000, while in **2001** gross fixed capital formation recorded a fall. As a result, gross fixed capital formation relative to GDP dropped by 1.8 percentage points from 2000 and by 2.5 percentage points from 1999. The slowdown in 2000 was the result of lower residential investment and fiscal curbing of investment financing (the high benchmark of 1999 should also be taken into account). No data on investment's technical structure are as yet available for 2001, so we can only make assumptions on the basis of other data. According to building permit statistics, residential investment could have been one of the important factors behind the low investment growth in 2001 – total useful floor space planned in these permits was 10.4% less in 2000 than in the year before and a further 5.9% less in 2001 – while the construction of transport infrastructure fell significantly in both motorway and railway construction – the value of construction put in place by companies employing 10 or more workers in civil engineering was 20.5% lower in real terms than the year before. Drawing on data on imports of investment goods and gross fixed capital formation in companies and organisations, we estimate that investment in machinery and equipment slowed down as a result of cyclical developments and subdued economic growth, yet growth remained positive. In **2002**, investment activity began to revive gradually thanks to intensified motorway construction. In the first nine months, gross fixed capital formation rose by 3.2% in real terms from the same period of 2001, and growth was 0.25 of a percentage point higher than GDP growth.

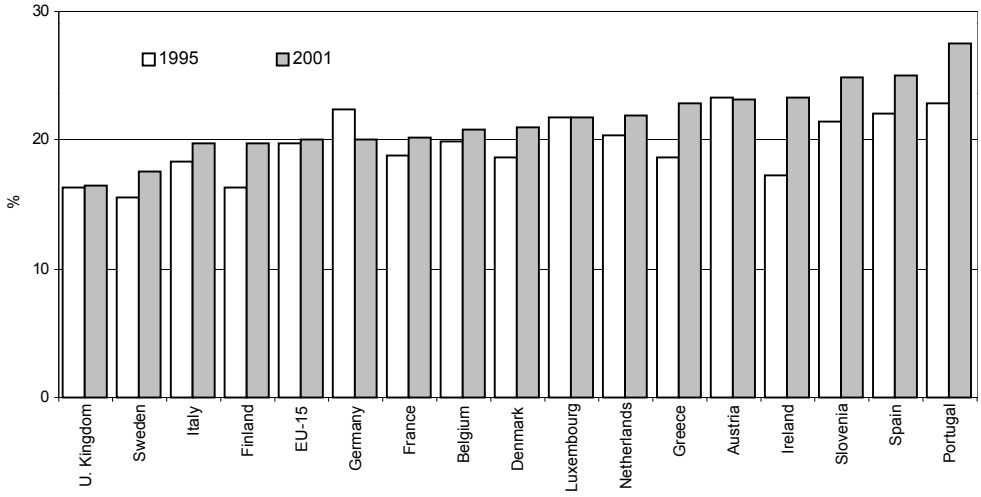
Compared to other **countries seeking membership in the EU**, in 1995 Slovenia's gross fixed capital formation relative to GDP was lower than in Estonia, Lithuania, the Czech Republic, Slovakia and Romania, however, the accelerated investment activity in the second half of the 1990s helped Slovenia to lag behind only the Czech Republic and Slovakia in 2000. As investment growth came to a halt in 2001, Slovenia again slipped behind all the countries mentioned above, except Romania. As in 1995-2000, in 2001 Slovenia recorded a higher share of gross fixed capital formation in GDP than the **EU** average, which is not surprising given that the EU is better equipped with capital goods. Slovenia was furthest away from the EU average in 1999, however, the investment slowdown seen in the last two years caused this positive gap to narrow slightly, but it was still wider than in 1995.

Table: **Gross fixed capital formation relative to gross domestic product in Slovenia, EU-15 and EU candidate-countries in 1995-2001, %**

	1995	1996	1997	1998	1999	2000	2001
Slovenia	21.4	22.5	23.4	24.6	27.4	26.7	24.9
EU-15	19.8	19.6	19.4	19.9	20.2	20.6	20.1
Selected EU candidate-countries							
Bulgaria	15.3	13.6	10.8	11.6	15.9	16.2	17.8
Czech Republic	32.0	31.9	30.6	29.0	27.9	28.3	28.3
Estonia	25.9	26.7	28.0	29.6	24.9	23.4	26.1
Hungary	20.0	21.4	22.2	23.6	23.9	24.3	23.7
Lithuania	23.0	23.0	24.4	24.3	22.1	18.7	19.3
Latvia	15.1	18.1	18.7	27.3	25.1	24.6	27.3
Poland	18.6	20.7	23.5	25.1	25.5	25.3	21.5
Romania	21.4	23.0	21.2	18.3	18.0	18.5	19.0
Slovakia	26.4	34.2	35.9	38.0	30.8	30.0	31.1

Source: Eurostat (New Cronos).

Chart: **Gross fixed capital formation relative to GDP in 1995 and 2001, Slovenia and EU member-states**



Source: Eurostat (New Cronos).

Foreign direct investment

The stock of inward FDI relative to GDP climbed from 9.4% to 17.1% in **1995-2001**, while the stock of outward FDI relative to GDP from 2.6% to 5.0%. This shows the growing importance of FDI for the inward and outward internationalisation of the Slovenian economy, however, this conceals the stagnant FDI inflows up to and including 2000 and the still modest FDI outflows. Significant shifts were seen in the area of inward FDI in **2001**, when inflows totalled USD 503.3 million (USD 135.9 million in 2000), while outward FDI rose markedly, with outflows amounting to USD 132.8 million (USD 65.3 million in 2000). According to provisional figures from the Bank of Slovenia, inward FDI increased further in **2002**, with inflows totalling USD 1,865.3 million. FDI stock is estimated to have increased by close to two-thirds and reached over 24% of the estimated GDP. The high FDI inflows were underpinned by foreign acquisitions, primarily the take-over of Lek, a pharmaceuticals company, by a Swiss company Novartis, and the purchase of a 34% stake in the NLB bank by a Belgian KBC bank. FDI outflows were slightly lower than in 2001, totalling USD 116.9 million.

If we look at **inward FDI, a comparison with EU member-states and EU candidate-countries** clearly shows that Slovenia is among the countries with the lowest shares of FDI stock in GDP. In **2000**, the only EU members with lower inward FDI stock (expressed as a percentage of GDP) were Italy and Greece, while Austria had about the same stock as Slovenia. As far as candidate-countries are concerned, the stock of inward FDI relative to GDP was the lowest in Slovenia. Romania was just ahead of Slovenia, while all other countries recorded over 20% of inward FDI relative to GDP. EU candidate-countries with the highest shares of FDI stock in GDP were Estonia (53.2%), Hungary (43.4%), the Czech Republic (42.6%) and Latvia (29.1%). Most countries covered in the analysis increased significantly their shares of FDI stock in GDP in 1995-2000: in the EU as a whole, the share climbed by 17.4 percentage points and by 6.6 percentage points in Slovenia. EU members that saw weaker growth in FDI stock than Slovenia (expressed as a percentage of GDP) were just Greece and Italy. FDI stock relative to GDP increased by over 15 percentage points in most candidate-countries, except in Romania and Lithuania (up by 14.5 and 14.8 percentage points, respectively). Despite the significant increase in FDI stock in 2002, Slovenia remained among those countries with low FDI stock relative to GDP.

Slovenia recorded better results **compared to other EU candidates** in the area of **outward FDI**. However, Slovenia was overtaken by Estonia and Hungary in **2000**. Further, in 1995-2000 they increased their stock of outward FDI relative to GDP much more than Slovenia. As expected, Slovenia was way behind **EU member-states** in terms of outward FDI stock in GDP. Given the still modest FDI outflows in 2001 and 2002 (see above), Slovenia is unlikely to have improved its position compared to other countries.

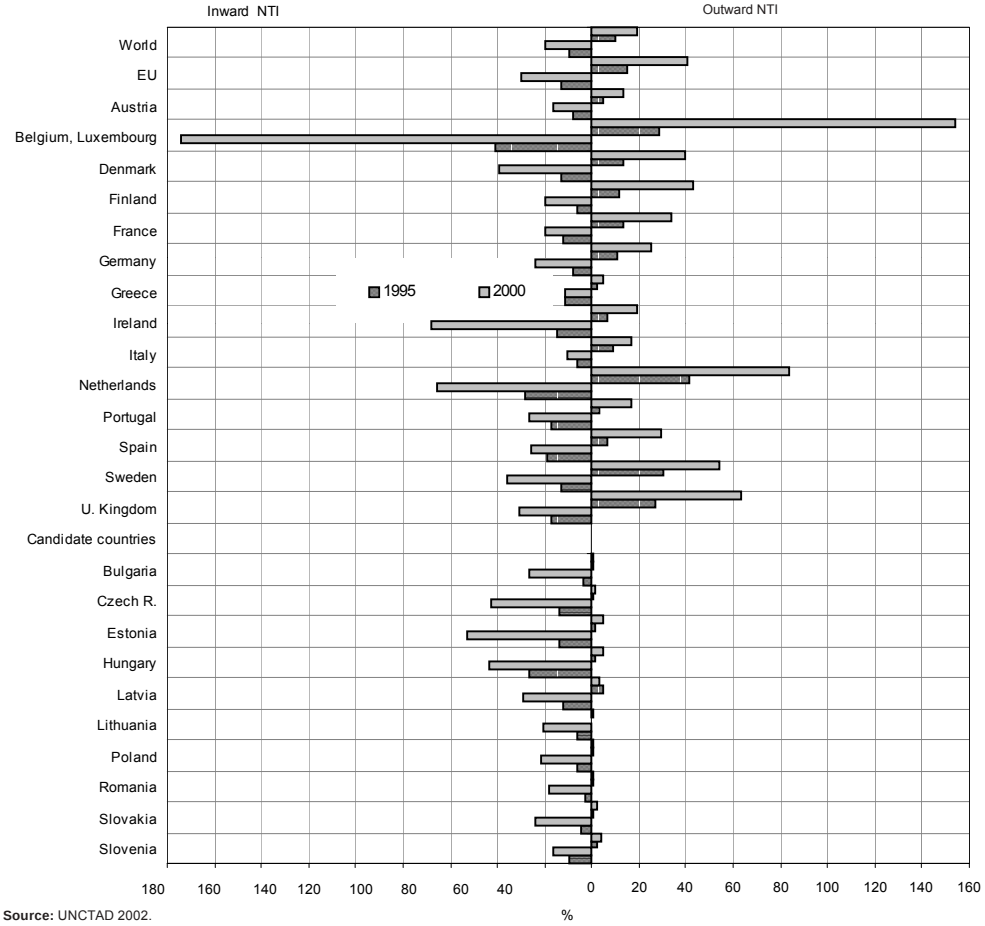
The **analysis of the level of internationalisation of the Slovenian economy** shows interesting results if we look at Slovenia's shares in different global macroeconomic aggregates. In 2001, these shares were as follows: (i) global FDI inflows (1999-2001): 0.0225% (an increase of 0.0024 over the year before); (ii) global inward FDI stock: 0.0469% (an increase of 0.0024); (iii) global FDI outflows (1999-2001): 0.0081% (an increase of 0.0045); (iv) global outward FDI stock: 0.0145% (an increase of 0.0012); (v) global GDP: 0.0590% (an increase of 0.0022); and (v) global exports: 0.152% (no change over the year before). What particularly stands out is the large difference between Slovenia's share in global exports (high) and Slovenia's share in global FDI (low). The Slovenian economy's internationalisation is now primarily taking place through international trade flows rather than FDI. Slovenia nevertheless increased its shares in all categories in 2001, except exports.

Table: **Flows and stocks of inward and outward FDI[1] in Slovenia in 1993-2002[2], USD million**

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Inward FDI										
Year-end stock	954.3	1,325.9	1,763.4	1,998.1	2,207.3	2,777.0	2,682.4	2,892.7	3,209.0	-
Annual inflows[3]	112.6	116.7	150.5	173.5	334.2	215.5	106.6	135.9	503.3	1,865.3
Stock as % of GDP	7.5	9.2	9.4	10.6	12.1	14.2	13.4	16.0	17.1	-
Outward FDI										
Year-end stock	280.6	354.0	489.9	459.5	459.4	636.2	626.5	767.6	949.5	-
Annual outflows[4]	-1.3	12.7	10.0	-7.0	-30.9	5.5	-47.6	-65.3	-132.8	-116.9
Stock as % of GDP	2.2	2.5	2.6	2.4	2.5	3.2	3.1	4.2	5.0	-

Source: Bank of Slovenia.
Notes: [1]FDI whereby a foreign investor holds a 10% or higher stake in a company; [2]from 1996 onwards foreign direct investment in indirectly affiliated enterprises is also included; [3]inflows are in principle lower than changes in stock because international payments transactions only cover part of changes in stock. Most notably, inflows data do not include changes in net liabilities to foreign investors, further, inflows do not include figures on indirectly affiliated enterprises. From 1995 onwards data on reinvested earnings are also included in inflows and, consequently, in the balance of payments; [4]a negative sign denotes outflows.

Chart: **Stock of inward and outward FDI: Slovenia compared to EU member-states and candidate-countries, 1995 and 2000, as a % of GDP**



Source: UNCTAD 2002.

Total banks' assets

The total banks' assets relative to gross domestic product is the main indicator of the banking sector's level of development and reveals this sector's importance for the economy. The value of this indicator has been on an upward trend in Slovenia and climbed by close to 20 percentage points from 1995 to 2001 to 87.3%. The most important items on the assets side were loans to the non-banking sector, non-tradable debt securities, and loans to banks. **Up to 1995**, the total banks' assets grew mainly because of the fast rise in loans to the non-banking sector. Lending activity remained the main factor of total balance sheet growth in **1995-1999**. Loans to the non-banking sector rose by an average annual nominal rate of 24.7%, and represented 52.8% of total assets at the end of 1999. In **2000**, the total banks' assets went up by 18.9% in nominal terms; unlike in previous years, the fastest growth was seen in loans to banks, up by 44.3% in nominal terms, while growth in other loans and securities investment slowed down slightly. In **2001**, nominal growth in the total banks' assets was 23.7%, with lending being slightly more modest and securities investment more intensive. Investment in tradable debt securities surged by 77.1% in nominal terms compared to the year before, while investment in non-tradable securities increased by 30.8% in nominal terms. On the liabilities side, this growth in securities investment allowed a substantial increase in household deposits related to the conversion of EU national currencies into euros. The trends of slow loan growth and accelerated growth in banks' securities investment continued in **2002**. In the first eleven months of 2002, the share of securities increased by 5.1 percentage points to 33.7% of total banks' assets, which was largely the result of increased investment in the Bank of Slovenia's bills. Combined with government securities, this represented as much as 92.3% of total investment in securities, or 3.6 percentage points more than at the end of 2001. According to the Bank of Slovenia, growth in the total banks' assets slowed down slightly in 2002 and came in at 15.8% in nominal terms in the first eleven months.

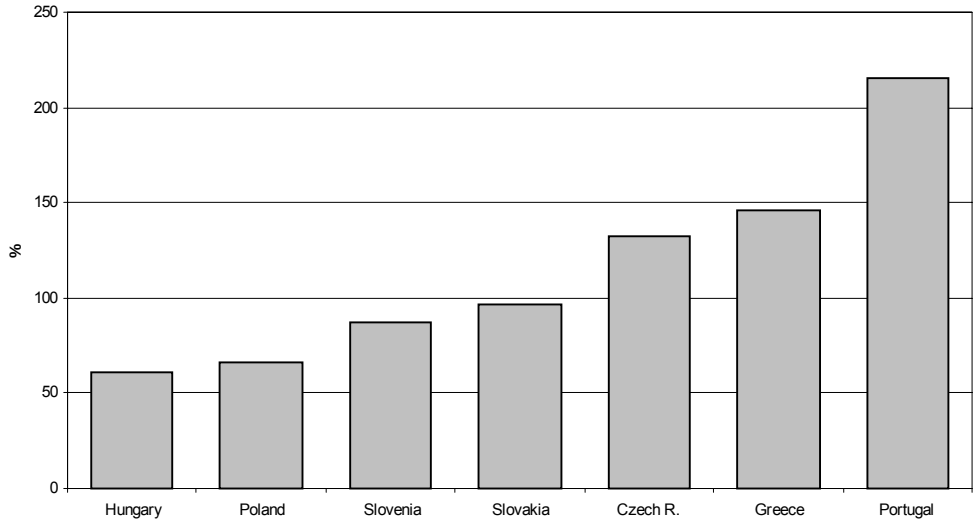
Recording 87.3%, Slovenia was way behind the **EU average** in terms of the total banks' assets relative to GDP in 2001 (this ratio was 244.2% in the EU in 1997). A relatively large gap behind the EU average was seen in all **candidate-countries** seeking EU membership, as well as in some less-developed member-states (see chart). However, a comparison of Slovenia with these countries reveals that Slovenia's banking sector is underdeveloped compared to its level of economic development, as some EU members (Greece, Portugal) and candidates enjoying comparable levels of economic development (see chart) record higher values of this indicator.

Table: **Structure of the total banks' assets for 1997-2001, SIT million**

	1997	1998	1999	2000	2001
Assets	2,022,037	2,339,369	2,687,600	3,192,792	3,948,262
% of GDP	69.9	72.2	73.9	78.8	86.5
Loans to the banking sector	214,874	224,681	252,615	364,388	391,643
Loans to non-banking sector	862,406	1,097,887	1,331,852	1,636,557	1,902,286
Securities	689,622	714,424	708,622	793,180	1,109,110
Other assets	255,135	302,377	394,511	398,667	545,223

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

Chart: **Total banks' assets in selected EU member-states and candidate-countries in 2000, as a % of GDP**



Source: Bank of Slovenia, central bank bulletins, the European Commission: Report on macroeconomic and financial sector stability developments in candidate countries.

Insurance penetration

The level of insurance premiums relative to gross domestic product measures the size and importance of the insurance sector in the economy. Similar to other segments of Slovenia's financial sector, insurance is not well developed, however, its importance is growing. Insurance penetration increased most rapidly in the **first half of the 1990s** (from 3.3% in 1991 to 4.7% in 1995), while in **1995-2000** it ranged close to 5% of GDP. From 1995 to 2000, the level of insurance premiums rose by a nominal average annual rate of 20% and reached SIT 192.9 billion in 2000. In the past, insurance companies mainly offered property insurance, while life assurance began to spread more extensively in the second half of the nineties (see table), especially due to the pension reform introduced in 1999. The share of life assurance increased from 14.8% of all insurance premiums in 1995 to 19.4% in 2000. In **2001**, the level of insurance premiums rose by 19.3% in nominal terms and achieved 5% of GDP. The rapid growth of life assurance continued and its level increased by 31.5% in nominal terms over the year before, while the level of non-life insurance climbed by 16.3%. The level of insurance premiums also increased in the **first half of 2002**, up 11% in nominal terms from the same period of 2001, suggesting that this indicator rose further in 2002.

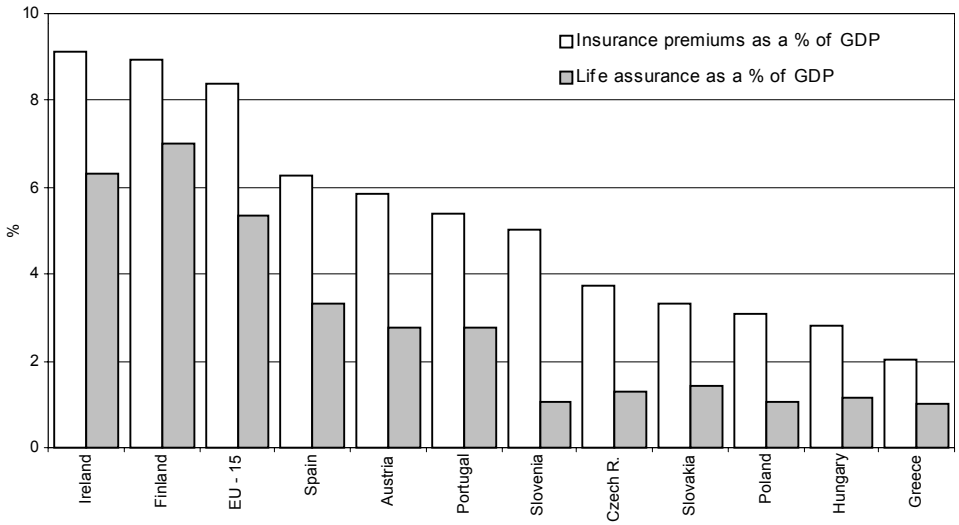
In the **EU**, insurance penetration equalled an average of 8.4% of GDP. Slovenia's gap behind the EU was the widest in life assurance (4.3 percentage points). In 1999 and 2000, this gap increased further but it began to shrink in 2001. As far as **countries in transition** are concerned (those selected are close to Slovenia's level of development; see chart), Slovenia had the highest level of insurance premiums relative to GDP, but it lagged behind Poland, the Czech Republic and Slovakia in life assurance relative to GDP. Looking at the level of non-life insurance relative to GDP, Slovenia was in the lead among transition countries and only behind two EU members, the UK and the Netherlands.

Table: **Insurance premiums by type of insurance, Slovenia 1995-2001**

	1995	1996	1997	1998	1999	2000	2001
As a % of GDP							
Insurance premiums total	4.7	4.9	4.5	4.8	4.7	4.8	5.0
Life assurance	0.7	0.8	0.8	0.8	0.9	0.9	1.1
Other insurance	4.0	4.1	3.7	3.9	3.9	3.8	4.0
Structure, %							
Insurance premiums total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Life assurance	14.8	16.5	17.6	17.1	18.0	19.4	21.4
Other insurance	85.2	83.5	82.4	82.9	82.0	80.6	78.6
Year-on-year nominal growth rates, %							
Insurance premiums total	62.6	19.0	6.4	18.9	11.3	12.5	19.3
Life assurance	67.8	32.8	13.7	15.1	17.4	20.9	31.5
Other insurance	61.7	16.6	4.9	19.7	10.0	10.7	16.3

Sources: Insurance Statistical Bulletin.

Chart: **The level of insurance premiums and life assurance relative to GDP in selected EU member-states and candidate-countries, 2001, %**



Sources: Swiss reinsurance company (Sigma No. 6/2002), Slovenian Insurance Association.

Market capitalisation

Slovenia's capital market is relatively under-developed. The majority of shares stem from the privatisation process when ownership vouchers were exchanged for shares, so the main activity in the **secondary capital market** is ownership consolidation. Namely, voucher privatisation resulted in a dispersed and unstable ownership structure. The **primary capital market**, on the other hand, is even less developed. The government and banks play the key role in this market by issuing new securities (bonds), while new issues of company shares are practically non-existent, except when there is a take-over.

The importance and size of the capital market are most frequently measured by **market capitalisation relative to gross domestic product** (the market capitalisation of shares listed on the stock exchange, excluding the shares of investment and authorised investment companies and bonds). Figures on market capitalisation for Slovenia have been available since 1995; at that time, market capitalisation equalled 1.9% of GDP and rose to 18.6% of GDP by the end of 2001. In **1995-2000**, market capitalisation growth was mainly fuelled by the rising number of shares listed on the Ljubljana Stock Exchange rather than by the stock exchange indices. In **2001**, the number of shares traded on the stock exchange fell, so the rise in market capitalisation resulted from the rise in stock indices. Activities on the stock exchange intensified markedly in **2002** as a result of a number of take-overs as well as falls in bank deposit interest rates. Hence, the market capitalisation of shares surged by 45% in nominal terms over December 2001 (24.3% of the estimated GDP).

Further evidence that Slovenia's capital market is poorly developed, as measured by market capitalisation relative to GDP, is provided by **international comparisons**. Slovenia lags way behind the EU average, which was 86.8% in 2001. In 1995-1999, the gap behind the EU increased, while in 2000 and 2001 this gap narrowed slightly due to falls in stock exchange indices in advanced capital markets. The gap was just as wide in other countries in transition (see chart) because, like in Slovenia, capital markets began to develop as late as one decade ago. A major obstacle to any faster development of their capital markets is the low number of suitable institutional investors.

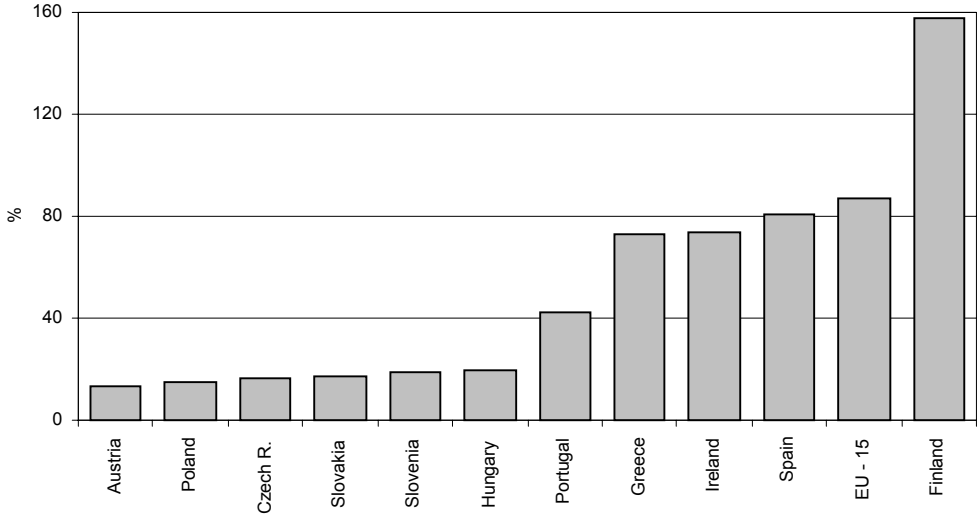
In the **future**, the value of this indicator will be influenced by various factors. One of the most important is take-overs and the resulting decisions made by the new owners to withdraw from the capital market the shares of the company taken over. A more prominent role can be assumed by the primary capital market, however, its development will be hampered by the relatively small size of companies and high costs of issuing new shares. One opportunity for the faster development of Slovenia's capital market lies in the listing of company shares from South-eastern Europe and the development of investment and pension funds. In relation to the latter, two laws were passed in 1999: the Pension Insurance Act, regulating the establishment of mutual pension funds and pension companies, and the First Pension Fund and the Transformation of Authorised Investment Companies Act. The Investment Funds and Management Companies Act was passed in 2002, which offers new forms of investment, allows investment abroad, and provides new organisational forms for investment funds.

Table: **Selected indicators showing the development level of Slovenia's capital market (1995-2001)**

	1995	1996	1997	1998	1999	2000	2001	2002
Market capitalisation of shares, excluding PIDs and IDs, SIT billion	41.1	125.0	315.9	483.0	566.5	705.1	850.0	1.233
Market capitalisation of shares, excluding PIDs and IDs, as a % of GDP	1.9	4.9	10.9	14.8	15.5	17.5	18.6	24.3[1]
SBI20	1,448	1,183	1,405	1,706	1,806	1,808	2,152	3,340
BIO	111.7	107.9	107.3	108.2	108.5	109.0	109.2	111.0
PIX	-	-	-	-	1.483	1.521	1.588	2.730
Number of securities	49	82	129	173	237	267	270	265
Shares	27	52	85	122	180	197	193	172
of which shares of PIDs	0	0	0	30	46	44	37	33
Bonds	22	30	44	51	56	68	76	92
Pension coupons	0	0	0	0	1	1	1	1

Sources: Ljubljana Stock Exchange, the Securities Market Report for 2001 (Securities Market Agency), the IMAD.
Notes: PID - authorised investment company, ID - investment company, SBI - Slovenian stock exchange index, BIO - bond index, PIX - index of shares of authorised investment companies, [1] the calculation was made on the basis of estimated gross domestic product from the IMAD's Autumn Report 2002.

Chart: **Market capitalisation in selected EU members and candidate-countries in 2001, as a % of GDP**



Sources: Eurostat (New Cronos), Ljubljana Stock Exchange.

General government expenditure

In **2002**, consolidated general government expenditure, measured as a percentage of gross domestic product (GDP), changed relative to the expenditure of 2001 in terms of both composition and volume. According to the preliminary figures, general government expenditure equalled 43.9% of the estimated GDP, 0.6 of a percentage point more than in 2001. As far as its composition is concerned, expenditure on wages and contributions and expenditure on other current transfers and reserves edged up by 0.1 of a percentage point. The shares of social transfers and interest payments remained about the same, while the share of expenditure on goods and services shrank by 0.3 of a percentage point and that of capital expenditure and pensions by 0.2 of a percentage point.

In **1996-2002**, general government expenditure relative to GDP increased by around 1.5%, going up from 42.4% in 1996 to 43.9% in 2002. In this period, expenditure climbed by an average annual rate of 4.4% in real terms. Real expenditure growth was stronger than GDP growth each year, except in 2000 and 2002 when expenditure growth was slightly weaker. The volume of general government expenditure averaged at around 44% of GDP in the given six years, slightly more than formulated in the Strategy for the Economic Development of Slovenia 2001-2006 (up to 43%). In the first few years of independence, upward pressure on general government expenditure mainly came from the problems of transition, while pressure intensified after 1995 as a result of wage and employment growth, as well as social transfers and pensions. After 1998, expenditure was also strained by domestic interest payments and interest payments abroad resulting from the growing government debt.

Going up by 0.9% of GDP, **expenditure on wages, contributions and other allowances for staff employed in government and public institutions** contributed significantly to the overall increase in general government expenditure relative to GDP. The Act Regulating Wage Rates in Public Institutions, State Bodies and Local Community Bodies was passed in mid-1994, which triggered the first wave of pressures to increase public expenditure on wages. This was followed by wage supplements laid down in sectoral collective agreements and the government decree on wage supplements for government and administrative staff. The number of employees rose, mainly because of the new tasks related to Slovenia's accession to international associations. Expenditure on wages, contributions and other allowances for people employed in the administration and public institutions, which represented 22%-23% of all expenditure, recorded a 6.2% real average annual rise in the six-year period.

Public spending on **social transfers to individuals and households** increased by 0.8% of GDP in 1996-2002. The relatively well developed social security system was amended by new laws which expanded the range of social protection rights. A universal child benefit was introduced, while the new laws prescribed family benefits and parental allowance, the rights of war veterans and casualties of war, and introduced new social protection rights. All rights involve indexation mechanisms, which are linked to the guaranteed wage, average wage, or consumer price rises. The number of entitlements to various forms of social benefits increased. Expenditure on social transfers to individuals and households, representing between 13% and 14% of all expenditure, recorded a 6.1% real average annual rise in the given six-year period.

Pensions put significant pressure on public spending after 1995 owing to demographic, economic and social changes. This pressure eased after 2000 when the pension reform halted further growth in pension expenditure. Expenditure on pensions, representing between 27% and 28% of all expenditure, recorded a 4.3% real average annual rise.

Further, general government expenditure growth was also fuelled by **domestic interest**

payments and interest payments abroad. This spending relative to GDP increased by 0.5% of GDP in 1996-2002. Expenditure on domestic interest payments and interest payments abroad, representing just 3% to 4% of all expenditure, recorded the biggest rise in the given period, going up by an average of 9.3% in real terms a year. This involved the payment of interest on government foreign and domestic debt, which had been incurred by financing previous budgets, corporate and banking sector restructuring, and obligations from succession. The latter included the payment of interest on foreign debt which Slovenia took over as one of the successors to former Yugoslavia in line with international agreements and contracts.

Following the continuous efforts to curb **expenditure on goods and services** in both government bodies and public institutions, this spending fell by 0.5% of GDP compared to 1996. Expenditure on goods and services, representing around 19% of all public spending, rose by a real average annual rate of 1%. Expenditure on **subsidies** fell by 0.2% of GDP. Its share in total general government expenditure was about 3%; funds earmarked for subsidies recorded real falls in the given six-year period. They mainly involved subsidies for agriculture, active employment policy, and restructuring of the economy.

Capital expenditure retained about the same share in GDP in 2002 compared to 1996. General government spending on investment equalled about 4.2% of GDP in 1995-2002; this figure was only higher in 1999 and 2001, amounting to 4.6% and 4.4% of GDP, respectively. In the process of negotiating general government expenditure, capital expenditure was gradually undermined by traditional government expenditure (wages, interests) and social transfers, even though this is not adequate from the point of view of development. Capital expenditure, representing around 10% of all public spending, rose by a real average annual rate of 4.2%.

After national budgets for **2003 and 2004** have been adopted and the projections of municipal budgets, health and pension budgets have been drawn up, we estimate that growth in general government expenditure should drop below the level of GDP growth. As a result, general government expenditure relative to GDP should fall by around 0.5 of a percentage point in both 2003 and 2004. The shares of expenditure on wages and contributions, expenditure on goods and services, interest payments, and pensions should drop. A bigger share relative to GDP should only be seen in capital expenditure. The projections of a smaller share of general government expenditure and a larger share of investment therefore raise hopes that Slovenia will meet the goals of public spending restructuring laid down in the Strategy for the Economic Development of Slovenia.

Table: **Consolidated general government expenditure relative to GDP, %**

	1995	1996	1997	1998	1999	2000	2001
General government expenditure, total	43.1	42.4	43.2	43.7	44.2	44.1	44.5
Wages and contributions	8.7	9.2	9.8	9.6	9.6	9.6	10.0
Purchases of goods and services	9.0	8.6	8.4	8.5	8.1	8.3	8.4
Interest payments	1.2	1.2	1.2	1.3	1.4	1.5	1.6
Transfers to individuals and households	5.3	5.2	5.7	5.6	5.7	6.0	6.1
Pensions	12.3	12.1	12.1	12.0	12.1	12.2	11.9
Subsidies	1.9	1.4	1.4	1.5	1.7	1.5	1.4
Other current transfers and reserves	0.5	0.5	0.5	0.9	1.0	0.9	0.7
Capital expenditure, total	4.2	4.2	4.2	4.3	4.6	4.2	4.4

Source: Ministry of Finance, Public Finance Bulletin; calculations by the IMAD.

State aid

The **synthesised indicator – state aid as a percentage of gross domestic product (GDP)** – shows that Slovenia's state aid represented 2.03% of GDP in **2001**, practically the same as in 2000 and 0.85 of a percentage more than the annual average of EU member-states in 1997-1999. Member-states with the highest shares of state aid such as Finland (1.74%) and Portugal (1.56%) had lower shares of state aid than Slovenia. However, any comparison of Slovenia and the EU is incomplete without the following indicators: (i) **state aid per employee**, which totalled EUR 549 in Slovenia in 2001 (EUR 530 in 2000), 2.5% lower than in the EU (EUR 563); (ii) **state aid excluding agriculture and fishing** relative to GDP, which equalled 1.03% of GDP in Slovenia in 2001 (1.1% in 2000) and was just 0.04 of a percentage point higher than in the EU (0.99%); (iii) **total state aid and structural aid** relative to GDP (the latter is given in the EU at a supranational level), which exceeded 2% in the EU in 2002 and was therefore at a level close to Slovenia's, which receives no structural aid. So the synthesised indicator reveals that Slovenia is narrowing the scope of active industrial policy if industrial policy is understood as the state's intervention in all activities, not just manufacturing industries, and that Slovenia is gradually drawing close to the EU. **Analytical indicators** show that Slovenia earmarked up to 49.3% of all state aid for agriculture in 2001 (45.9% in 2000), significantly more than EU member-states (15.5%). As a result, industrial policy's involvement is shrinking in other industries, some of which could benefit from its more active role primarily in the area of competitiveness. Competitiveness is particularly lagging behind the EU in manufacturing.

In 2001, total **state aid per employee** was 2.5% below than the EU average (5.9% in 2000), and 41.5% lower if agriculture is excluded. However, this indicator does not imply that Slovenia's state aid per employee is too low, it instead suggests that Slovenia's value added, or GDP, per employee is too low.

Analytical indicators show that Slovenia mainly pursues **horizontal objectives** within its industrial policy (excluding agriculture and fishing) – 58.8% in Slovenia in 2001 and 19.5% in the EU – which is acceptable and justified from the point of view of industrial policy theory and competition policy. Only one-third of **aid** is allocated to sensitive industries **through sectoral objectives**, with the transport and steel sectors receiving as much as 93% of such aid in 2001. Aid to the steel industry increased substantially in 2001 compared to the preceding years because the restructuring process was in its final phase. EU member-states allocated over 50% of aid to sectoral objectives (52.6%), the most for the transport sector. Slovenia gives little **aid through regional objectives** (it only accounted for 6.3% of all aid in 2001 and 1.7% in 2000), while the EU allocated up to 26.6% of aid through these objectives.

The analytical indicator showing that the process of transition is still under way in Slovenia is the share of **state aid** (excluding agriculture and fishing) allocated for **rescue and restructuring**. In 2001, Slovenia earmarked 17% of all state aid for restructuring (11.8% in 2000), while EU member-states reserved only 1.4%. However, compared to 1998, the state's active role in the restructuring process diminished rapidly, whereas the strong increase in 2001 over the year before was the result of the conclusion of the defensive restructuring of non-privatised enterprises operating under the Slovenian Development Corporation.

The comparison of state aid in Slovenia and the EU is incomplete without taking into account **structural aid** which the EU gives at a supranational level and represented 0.8% of the EU's GDP. Total state aid and structural aid exceeded 2% of GDP in the EU, meaning that Slovenia's level of aid is close to the EU, but much lower than in less advanced EU

members (5.15% in Ireland, 4.94% in Greece, 4.07% in Portugal, and 2.96% in Spain). The most structural aid is given to agriculture and fishing. According to provisional calculations, the share of state aid in the value added of agriculture and fishing was 10.9% in the EU on average, while the share of structural aid was 31.1%. Compared to the EU average, Slovenia's aid to agriculture and fishing (state and structural aid in total) relative to the value added of agriculture was 5 percentage points lower. Further, compared to individual member-states Slovenia's aid to agriculture and fishing was one of the lowest, albeit not the lowest. State aid and structural aid (excluding agriculture and fishing) equalled 1.21% of the EU's GDP, significantly more than in Slovenia (an average of 0.18 of a percentage point higher).

The European Commission uses structural aid primarily for measures to create the market (90.4%) – aid to agriculture and fishing, the steel industry, and employment – just 5.5% for measures to support the market – aid to research and technological development – and 4.1% for regional development. Like the EU, member-states conduct policies directed at creating the market (0.86% of GDP or 0.69% of GDP excluding agriculture), aid to support the market represents 0.14% of GDP, while regional aid 0.21% of GDP.

Slovenia's level of development is close to that of less developed member-states. Slovenia's industrial policy measured by state aid relative to GDP is at the EU average level (including structural aid in the EU) – way below the average if agriculture is excluded – but it is lower than in all less advanced EU member-states. The nature of Slovenia's industrial policy is somewhat different from the EU. State aid earmarked for stepping up the development of backward regions is very low in Slovenia, significantly below the EU average and lower than in less developed EU member-states. Aid to support the market is much higher than in the EU on average; Slovenia has one of the highest levels of this aid compared to EU members. Aid to create the market (excluding agriculture) was above the EU average in previous years, but fell below the average in 2001. According to theoretical assumptions, Slovenia as a country in transition could conduct an industrial policy aimed at creating the market for a certain period of time. Empirical evidence, however, shows that advanced EU member-states conduct a more active industrial policy aimed at creating the market than Slovenia.

Table: **Synthesised and analytical state aid indicators for Slovenia and the European Union**

	Slovenia			European union
	1998	2000	2001	1997-1999[1]
Synthesised indicator				
Total state aid, % of GDP	2.53	2.07	2.03	1.18
Analytical indicators				
Total state aid per employee, EUR	593	530	549	563
State aid (excluding agriculture and fishing), % of GDP	2.0	1.1	1.03	0.99
State aid for agriculture and fishing, % of total state aid	20.9	45.9	49.3	15.5
State aid for horizontal objectives, % of total state aid excluding agriculture and fishing	66.9	65.3	58.8	19.5
State aid for regional objectives, % of total state aid excluding agriculture and fishing	0.7	1.7	6.3	26.6
State aid for restructuring, % of total state aid excluding agriculture and fishing	19.4	11.8	17.0	1.4

Sources: calculations by the IMAD made on the basis of data from the Ministry of Finance: Third Annual Survey on State Aid in Slovenia (for 1998, 1999 and 2000), Ljubljana, June 2001, Fourth Annual Survey on State Aid in Slovenia (for 1999, 2000 and 2001), Ljubljana, June 2002, and data from the European Commission: Ninth Survey on State Aid in the European Union, Brussels, 18 July 2001 (for the European Union).
Note: [1]annual average in 1997-1999.

Environmental sustainability index by the WEF

The **environmental sustainability index (ESI)**, innovated by the World Economic Forum (WEF) and updated every second year, is an aggregated indicator[1] that permits cross-country comparisons of environmental performance. The Development Report 2002 (IMAD, 2002) included the first ESI calculated for Slovenia (for 2001): according to the aggregated ESI, **Slovenia** was ranked 24th among 122 countries and 14th among the EU-22 countries (current member-states plus candidate-countries; no data were available for Cyprus, Luxembourg and Malta; see table). The methodology was not examined last year. One of the reasons that this is done this year is Slovenia's low ranking in some components and sub-indicators of the ESI, which is considered unacceptable by the line ministry. This was especially evident in the effectiveness of regulations and management sub-indicator, where Slovenia was put in 84th place out of 122 countries and in last place out of the EU-22 countries. These results were refused by the line ministry due to the allegedly inappropriate input data for Slovenia. A closer analysis shows that this is true to some extent because, according to the WEF methodology, the lack and poor quality of data were the two most systematic explanations of the exceptionally poor performance in Slovenia's effectiveness of regulations and management sub-indicator. The WEF methodology does not consider that a lack of data may render environmental performance assessment impossible because this lack may be controlled by a statistically correct manipulation of existing input data and used as an indicator of the weakness in environmental regulation and management. The problem of the lack of data could be resolved by making annual environmental reports (they were made for 1995, 1996 and 2002).

In **2002**, the state of the environment in Slovenia was ranked 4th in the EU-22 according to the ESI (see table); its ranking was equally high in reducing human vulnerability to environmental degradation and in reducing new stresses on the environment. As far as social and **institutional capacity** is concerned, Slovenia was put much lower on the EU-22 scale – in 13th place. In addition to the relatively low ranking in environmental regulation and management, Slovenia's total ESI ranking was most pulled down by global stewardship, i.e. a country's co-operation in collective efforts to conserve international environmental resources. At this general level of monitoring, the weaknesses of Slovenia's environmental policy seem to be equally apparent in the international and national contexts, and in each case the performance is unsatisfactory.

Slovenia's poor ranking in both domestic and international environmental protection involvement probably best explains the disappointment of the line ministry with the poor ESI scores. According to rankings in the state of the environment and the potential for environmental development, Slovenia's adequate ESI ranking in the EU-22 would be around 5th place, the same as the UK, Sweden and Austria's – only in that case can we fulfil what has been set out in the SEDS, i.e. to reform **environmental policy** from bare protection against additional environmental pressures to '**development of the environment**,' which consists of (i) reducing the irreversibility of economic development, and (ii) increasing the share of welfare obtained from pure use of natural resources.

[1] For more on the methodology of computing the environmental performance index, see the methodological sheets at www.gov.si/zmar/projekti/arr/arr-pr.html or the Environmental Performance Measurement, The Global Report 2001-2002, 2002, pp. 97-102.

If the **current pattern of environmental protection** and environmental policy remains unchanged, Slovenia's comparative advantages and development opportunities in the area of the environment are expected to deteriorate systematically (see the Genuine Savings Index indicator), while current weaknesses and threats are expected to increase.

Table: **Slovenia's ranking in the WEF's environmental sustainability index (ESI) and its components in the group of EU member-states and candidate-countries, 2002**

		Slovenia's rank in EU-22[1]
ESI	Total	14
	Component 1: State of the environment	4
	Component 2: Reducing human vulnerability	6
	Component 3: Reducing environmental stresses	13
	Component 4: Social and institutional capacity	13
	Component 5: Global stewardship	21
Indicators where Slovenia's ESI relative to the EU is 'poor' or 'very poor'		
ESI/ Stresses	Reducing water stress	14
	Stopping the threatening of biodiversity	16
	Reducing ecosystem stresses	17
	Reducing air pollution	18
	ESI/Improving air quality	15
ESI/ Policies	Capacity for debate	14
	Environmental governance (subsidies, corruption)	14
	Improving environmental information (availability, use)	20
	Participation in international efforts (taking on, meeting tasks, harmonisation)	22
	Effectiveness of regulations and management	22

Source: WEF, 2002; Erker-Slabe, 2003, in preparation.
Note: [1]Current members and candidate countries; no data for Cyprus, Luxembourg and Malta.

Energy intensity

In **2001, Slovenia**[1] consumed 358 toe (tonnes of oil equivalents) of primary energy to produce 1 million of GDP expressed in constant 1995 EUR prices, as against the 194 toe used in the **EU in 2000**; Slovenia consumed over four-fifths more energy than the EU to produce one unit of GDP. There were wide differences between the 15 member-states as regards energy intensity, but Slovenia was behind each of these countries (see chart). The least energy wasteful GDP was that of Denmark and Austria (below 150 toe/mioEUR$_{1995}$), while the most energy wasteful was that of Finland and Greece (over 250 toe/mio EUR$_{1995}$). According to the European Commission's data for 1999, the average energy intensity of **candidate-countries** was 744 toe/mioEUR$_{1995}$, with wide gaps being recorded between countries. In **2000**, Bulgaria consumed 1900, Romania 1460, the Czech Republic 948, Poland 718, and Hungary 599 toe per unit of GDP. Using 292 toe per unit of GDP, Cyprus was much closer to the EU than Slovenia, while the three Baltic states consumed even less energy per unit of GDP.

The **EU's** main development scenarios envisage that energy intensity should fall by an annual rate of 2% between 2000 and 2010. In the previous decade, energy intensity was reduced primarily by replacing obsolete technology (former East Germany lands), high economic growth, especially in energy non-intensive industries and services (Ireland), and by reducing the volume of heavy industry (Luxembourg; an annual reduction of 1.1% in the EU).

Slovenia should pay more attention to reducing energy intensity in the next few years. From 1996 to 2000, the intensity of energy consumption fell by 17% in Slovenia (by 8% in the EU), but it increased again in **2001**: the 3.0% GDP growth was achieved against the 3.9% rise in primary energy use. The strong energy consumption growth was underpinned by a 6.0% increase in primary coal consumption (thermal power plants produced 7.8% more electricity) and a 10.4% increase in nuclear energy consumption (the nuclear power plant generated 10.8% more electricity after the replacement of steam generators). The former factor is not beneficial to the environment and we can expect indicators on SO_2, CO_2 and NO_x emissions to worsen when updated figures are provided. Electricity consumption increased by 2.6% in 2001, according to figures from ELES. A one-third increase in net electricity exports (which are deducted from total primary energy consumption) only marginally offset the strong energy consumption growth. This rise in electricity generation was unproductive in terms of reducing energy intensity.

In **2002**, the electricity supply sector continued to show a tendency towards higher total energy consumption and greater environmental pressure per unit of energy distributed to Slovenian consumers. According to figures from ELES, electricity generation in hydro-electric power plants dropped by 20% in the first eleven months compared to the same period of 2001, while production in thermal and nuclear power plants rose by 6% and 10%, respectively. Higher production of thermal power plants offset the shortfalls in hydro-electric generation caused by low water levels and additionally covered increased electricity consumption, which rose by 7% year on year in the first eleven months of 2002. High electricity consumption was primarily driven by the expanded capacity in aluminium production; this activity is set to consume 38% more electricity than in 2002 and will account for 12.5% of Slovenia's total electricity consumption (9.0% in 2002). Since traditional industry records huge energy consumption but contributes little to the total economy's value added – contribution to final energy consumption growth is estimated to be at least 10 times higher than the contribution to GDP growth – this expansion of aluminium production will significantly contribute to the increasing of energy intensity of the total economy. The expanded aluminium production will consume at least 440 GWh more electricity a year; for the sake of comparison the chain of hydro-electric power plants on the Sava river, which should be constructed within ten years, will raise electricity production by no more than 740 GWh a year.

In Slovenia, any rapid reduction of energy intensity is hampered by the maintaining or even increasing of the volumes of energy-wasteful industries and by slow restructuring in favour of

production and service industries generating high value added and consuming little energy. Slovenia's 27% share of manufacturing, in which energy-intensive industries are concentrated, in total value added is one of the highest compared to EU member-states and candidate-countries. As regards the composition of final energy consumption, Slovenia records a 4 percentage points higher share of liquid fuels than the EU, resulting from the relatively high fuel consumption in transport, and over a 9 percentage points lower share of natural gas. Energy intensity may be reduced by higher natural gas consumption and the expansion of combined electricity and heat production, where energy efficiency is better. Slovenia's exorbitant energy intensity is structural as regards both fuels and consumers so the reduction of intensity to levels closer to the EU will be long term.

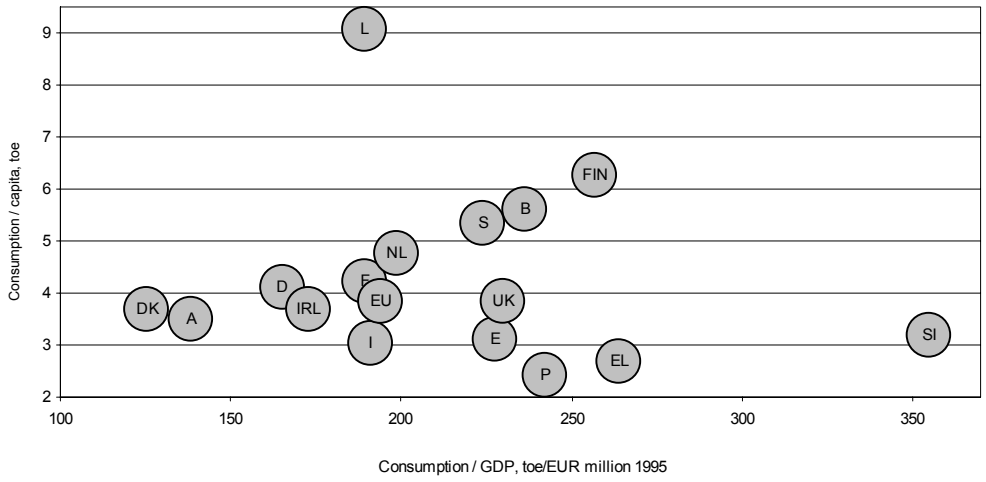
The fact that Slovenia's **primary energy consumption per capita** is below the EU average (see chart) should not mislead economic policy, namely, the energy issue seen from the point of view of GDP growth and the quality of life is incomplete without taking into account the negative impact on welfare creation. If energy policy were only shaped by energy consumption per capita, it would ignore the differences between countries in price energy, taxation, development measures (e.g. RES/EEU[2] incentives), supply and consumption structure, natural conditions to neutralise emissions etc.

Table: **Energy intensity of primary energy consumption in Slovenia and the EU in 1992-2001, toe/mio EUR 1995$_{1995}$**

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Slovenia[1]	N/A	N/A	N/A	421.0	425.0	413.9	390.2	363.0	354.5	357.6
EU	212.5	213.4	207.7	207.0	211.2	205.1	203.6	198.4	193.8	N/A

Sources: EC, Energy and Transport in Figures, Energy, Ministry of Economic Affairs, Energy Sector's Statistical Yearbook, SORS, calculations by the IMAD.
Note: [1]energy consumption data for the period up to and including 1999 from the Ministry of Economic Affairs, for the period since 2000 from the SORS.

Chart: **Primary energy consumption per GDP and per capita in Slovenia and EU member-states in 2000, toe/mio EUR$_{1995}$**



Sources: Eurostat (New Cronos); EC, Energy and Transport in Figures, SORS; calculations by the IMAD.

[1] We used the SORS' data on primary energy consumption.

[2] RES – renewable energy sources, EEU – efficient energy use.

Share of "dirty industries" in manufacturing

Even though the share of manufacturing industries in total value added is shrinking parallel to the growing share of services – from 29.0% in 1995 to 27.3% in 2001 – the manufacturing sector's economic and environmental characteristics are some of the main determinants of Slovenia's economic sustainability. This is due to: (i) manufacturing's size and spatial expansion, resulting in its significant impact on the environment; (ii) its close links with non-industrial activities: crafts, agriculture, production services, and information technologies; (iii) its relation with environmental degradation caused by neglecting the environmental aspects of production growth in the past; and (iv) the environmental impact of fast technological improvements that take place alongside the restructuring of manufacturing industries.

'Dirty industries', i.e. sectors that rank highest as regards the intensity of emissions per unit of output (iron and steel, non-ferrous metals, industrial chemicals, paper and pulp, and non-ferrous mineral products), accounted for over 86% of manufacturing's total estimated emissions in **Slovenia**. In **1995-2001**, their production volumes increased faster than that of total manufacturing (up by an annual average of 3.4% and 2.5%, respectively). In the first nine months of **2002**, production growth of dirty industries was almost three times that of manufacturing (up 5.3% and 1.9%, respectively). The share of dirty industries in manufacturing's value added stagnated in 1995-1998, it increased by 0.6 of a percentage point in 1999, by 1.2 percentage points in 2000, and by another 0.2 of a percentage point in 2001. The proportion of value added generated by dirty industries was high in Slovenia, even though particular companies were environmentally efficient compared to foreign competitors (low emission levels per unit of production). This suggests that the high share of dirty industries is more a macroeconomic than a microeconomic problem. In the recession phase of transition, improvement in environmental and economic integration was spontaneous (the bankruptcy of economically and environmentally unsound companies). However, in the expansion period of transition no improvement is possible without a focused effort aiming at integrating environmental criteria into business investment.

The trend reversed in **1998**, when the contribution of dirty industries to manufacturing's value added started to rise. Slovenia currently records too many large consumers of raw materials and energy even though they are relatively environmentally efficient. This is a serious sign of the latent structural problem of Slovenia's economic development, which could break out during any minor tightening of environmental conditions, rises in basic commodity prices, or toughening of environmental and technical standards and policies because of the non-elasticity of dirty industries. This might happen unless the government tightens up the environmental criteria in investment and business which have been taken on through harmonisation with the *acquis* in its process of directing both foreign and domestic investment. Priority should be given to the better integration of economic and environmental aspects in energy-intensive companies and activities which will be exposed to major changes in management practices when the market is liberalised (also see the Energy Intensity indicator).

Consumption of final energy per unit of manufacturing's value added fell in Slovenia in 1995-1999, with the average annual value added rising 4% and final energy consumption falling 2.1%. In 2000, real value-added growth was 8.6%, while growth in

final energy consumption was 1.7%. In 2001, energy consumption per unit of manufacturing's value added again fell and recorded roughly the same intensity as earlier; the 4.4% real value-added growth was accompanied by a 1.2% fall in final energy consumption. In 2002, final energy consumption was projected to rise by 1.5% (electricity consumption should climb by 7.9% party due to its leap in aluminium production), while real value added was planned to rise by 3.6%. These trends therefore suggest that the reduction of energy consumption per unit of manufacturing's value added again lost momentum compared to the year before.

Table: **Percentage of value added of dirty industries in manufacturing's value added in Slovenia in 1995-2001**

	1995	1996	1997	1998	1999	2000	2001
Manufacturing	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Dirty industries - total	19.2	19.6	19.2	19.3	19.9	21.1	21.3
Pulp, paper and paper products	2.6	3.1	2.9	2.9	2.8	3.4	3.3
Basic metals	3.7	3.4	2.8	3.3	3.5	4.5	4.2
Cement, lime, plaster	0.8	0.6	0.6	0.4	0.8	0.7	0.7
Other non-metallic mineral products	1.6	1.6	1.5	1.5	1.5	1.5	1.5
Chemicals, chemical prod., man-made fibres	10.4	10.8	11.4	11.3	11.3	11.0	11.7

Sources: Agency for Payments - statistical data from companies' profit and loss accounts; SORS - manufacturing's value added.

Road freight transport

From July 1997 to June 1998, **road freight transport represented** 59.8% of total road and railway **freight transport** in Slovenia; this share increased to 66.0% in 2001 and dropped again to 61.8% in the first six months of 2002.[1] In the **EU** as a whole, road freight transport exceeded 80% in the early nineties and equalled 84.4% in 2000. As far as member-states are concerned, in 1999[2] Sweden was the only country with a proportion lower than Slovenia (a solid 60%), while the highest shares were seen in Greece and the Netherlands (over 95%). As regards **EU candidate-countries**, very high shares of road freight transport were in Malta, Cyprus and Turkey (over 95%), Poland, the Czech Republic and Hungary had similar shares to Slovenia, while the Baltic states and Romania recorded much smaller shares. Differences between countries are largely due to historical and geographical factors.

In the **first half of 2002, Slovenia's** road freight transport shrank by 15.9% over the same period the year before, while railway transport increased by 11.3%. However, road freight transport mainly fell in international transport, down by over 20%, while in national transport it edged down by just 1%. Railway freight transport largely increased because of a 20% rise in the volume of international transport, while national railway transport fell by over 10%. In **national transport** alone, the share of road freight transport increased to 88%. This figure is not surprising given the size of Slovenia's territory, since road transport is more efficient for nearby destinations.

Looking at the **composition of road freight transport**, large countries tend to record a significant share of national transport, while small countries record more international transport. A comparison between countries supports this finding; the only important exception is Greece, probably due to geo-political factors (see graph). In Luxembourg, for example, almost all road freight transport is international, while Slovenia records over 70%.

The general increase in the share of road freight transport in Europe was the result of the great flexibility of this type of transport (door to door) and higher external costs which are not included in the price of transport. These unpaid costs become social costs. If they were included, the economic **advantage of rail freight transport over road transport** would become evident. Railways burden the environment much less than roads. The construction of railways requires significantly less space than motorways. Further, rail transport is much less polluting and uses less energy per unit of service, and also ensures safer transport.

Therefore, the **EU and Slovenia's transport policy goal** is to increase or at least maintain the current market shares of railways in freight transport (the EU's policy includes an increase of waterway freight transport). This should be achieved by stimulating intermodal and combined freight transport (it is subsidised in Slovenia). The EU is trying to revitalise railway transport through the greater harmonisation of rules and procedures regulating this area (licences, permits, market access) and liberalisation of the European transport services market so as to create a single European railway system that will be more competitive to road transport. Slovenia is following the EU's guidelines by appropriately harmonising its laws (the Road Transport Act, the Railway Transport Act). The railway services market will be liberalised upon accession to the EU, while Slovenia's only transport organisation (Slovenske železnice) will have to ready itself for foreign competition because foreign trains will be able to use national railways.

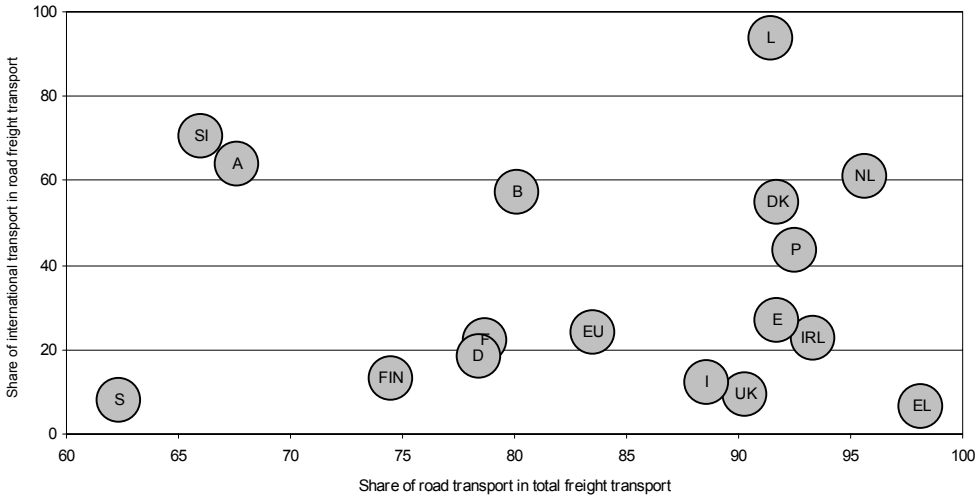
Factors that may help prevent any further increase in the share of road freight transport in Slovenia are suitable price and tax policies, which should fix the complete price structure for road and railway transport (external effects, minimising unprofitable investment, the introduction of taxation based on differentiated environmental criteria). The value of this indicator may be reduced by further developing the port of Koper, to which rail transport is closely linked, and by upgrading the Slovenian railway network (construction of the second rail track on the Divača-Koper railway line) so as to allow an increased volume of railway transport. The Strategy for the Economic Development of Slovenia envisages a more even distribution of investment funding between roads and railways, however, no shift towards a larger share of railway infrastructural investment has been seen (except in 2000, when one section towards Hungary was built).

Table: **Share of road transport in total freight transport (roads and railways) in Slovenia and the European Union in 1992-2002 (tkm), %**

	1970	1980	1990	1996	1997	1998	1999	2000	2001	2002
Slovenia[1]	N/A	N/A	N/A	N/A	59.8	N/A	N/A	N/A	66.0	61.8[2]
EU[3]	63.3	71.2	79.2	84.1	83.6	84.1	84.8	84.4	N/A	N/A

Sources: EC, Energy and Transport in Figures, Transport; SORS; calculations by the IMAD.
Notes: [1]in road transport, reports are compiled by the countries where vehicles are registered; [2]figures for the first six months; [3]road transport includes transport carried out by all types of vehicles in the national territory.

Chart: **Share of road transport in total freight transport (roads and railways) and the share of international road transport in total freight transport in Slovenia* and the European Union in 2000 (pkm), %**



Sources: Eurostat, Statistics in focus, Transport 7-2/2002; EC, Energy and Transport in Figures, Transport; SORS; calculations by the IMAD.
Note: *in road transport, reports are compiled by the countries where vehicles are registered.

[1] According to figures from the SORS. On the basis of the Eurostat's pilot survey, the SORS compiled comprehensive data on the volume of road freight transport for July97-June98. Figures include the own-account transportation of companies and the transport of independent private carriers and are, therefore, comparable with figures for EU member-states. The SORS applied this kind of monitoring in 2002 and also collected data for 2001 through a survey.

[2] Data for 1999 for individual countries strictily refer to the volume of transport carried out by vehicles registered in these countries. This is fully comparable with data for Slovenia.

Use of mineral fertilisers per cultivated agricultural area

The negative impact of **intensive agriculture** on the environment mainly derives from the over-exploitation of soil and the pollution of ground waters with pesticides[1], stockbreeding concentration and liquid manure, and the excessive use of mineral fertilisers. The last two factors are particularly critical because of nitrogen seeping into the water. Nitrogen content in surface waters is relatively low, however, it is increasing in certain watercourse sections. The average annual nitrogen content is the highest in the Mura river basin, resulting from intensive agriculture in these areas. However, the currently measured nitrogen content in Slovenian rivers is below the limit value of 25 mg/l. On the other hand, nitrogen content in underground waters is already above the limit values in some intensive agriculture areas. It is generally on a downward trend, but still increasing in some areas. In 1998-2000, nitrogen content in underground waters was above the limit values in the Prekmurje, Mura, Apače, Drava, Ptuj, Sora and Krško plains, the lower Savinja valley, and the valleys of Bolska, Kamniška Bistrica and Soča. In the Sora and Drava plains, nitrogen content was on a steady increase from 1990 to 2000. The situation could be improved significantly if farmers were better informed and more aware; the excessive burden on the environment could be eased by using appropriate quantities of fertilisers and their timely use. The vast majority of farmers fertilise soil more than necessary during or right before sowing instead of adjusting the amount of fertilisers to plant needs in different growing stages. Further, farmers generally draw on their own experience and neglect expert analyses of soil.

In **2001**, a total of 178,639 tonnes of **mineral fertilisers** were used in **Slovenia**, 2.3% more than the year before. The **use per hectare of cultivated agricultural area** totalled 351 kg[2], or 412 kg if meadows and pastures are excluded. The use of the three main macro-nutriments (NPK), that is nitrogen, phosphorous and potassium, amounted to 72,500 tonnes, 3.8% less than the year before (the use of micro-nutriments increased by 7%). Use of phosphorus increased the most (up by 9.2%), followed by potassium (up by 5.1%), while the use of nitrogen remained roughly the same (down by 0.2%). The difference in NPK use between family farms and agricultural companies, which had already been wide, increased further in 2001. Agricultural companies used three times more fertilisers than farms. This is a very serious problem because fertilising differs from area to area, i.e. hilly areas with extensive agriculture and plain areas with intensive agriculture.

A comparison between NPK use in Slovenia and the average use in **EU member-states** shows that the gap narrowed from 1997 to 2000. EU member-states used an average of 19% less NPK fertilisers per cultivated agricultural area than Slovenia (23% less in 1997). The highest use per cultivated agricultural area was seen in the Netherlands – 45% higher than in Slovenia – and the lowest in Portugal – 60% lower than in Slovenia.

[1] Since there are no new data on the use of pesticides in Slovenia – the latest SORS data were for 1999; see Development Report 2002, pp. 176-177 – the indicator showing the use of pesticides is not included in this year's Development Report. Pesticide use is a burning issue because pesticides tend to be used excessively and incorrectly not only in agriculture, but also in parks, playgrounds, roads, and railways. Even though the content of pesticides in underground water has decreased, north-eastern Slovenia (Prekmurje, Podravje and the Ptuj plain) continues to record values above the allowed 0.5 μg/l. What is particularly problematic is atrazine and its breakdown compounds.

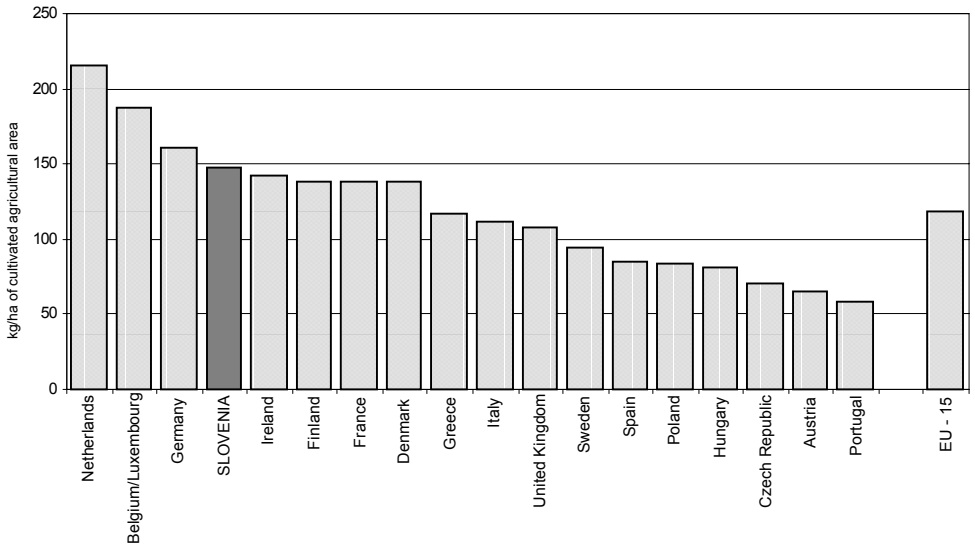
[2] See notes in the table.

Table: **Use of NPK fertilisers in Slovenia in 1995-2001, kg/ha of cultivated agricultural area**

	N	P2O5	K2O	NPK[1]	NPK
	Nitrogen	Phosphorus	Potassium	Total	% growth
1995	60.4	33.2	40.3	133.9	-2.2
1996	60.5	33.4	41.2	135.0	0.8
1997	69.0	35.5	45.2	149.7	10.9
1998	70.9	38.3	46.8	156.0	4.2
1999	69.0	39.6	49.0	157.6	1.0
2000	68.5	36.1	43.5	148.1	-6.0
2001	68.3	32.8	41.3	142.4	-3.8
Agricult. companies 2001	182.5	91.1	125.8	399.4	6.7
Family farms 2001	61.3	29.2	36.1	126.5	-5.7

Source: SORS, Statistical Yearbook 2002; calculations by the IMAD.
Note: No data on cultivated agricultural area for 2001 is available - calculations were made on the basis of data for 2000, [1]macro-nutriments: nitrogen, phosphorus, potassium.

Chart: **Use of NPK fertilisers per hectare of cultivated agricultural area in Slovenia, EU member-states, and selected countries in transition in 2000**



Source: Eurostat (New Cronos).
Note: calculations used data on Ireland's cultivated agricultural area for 1999 and Italy's for 1998.

Development of organic agriculture

Intensive agriculture, which started in times of widespread food shortages around the world and continued towards maximising agricultural producers' income, has a tremendous negative impact on the environment and also raises doubts about the suitability of such food for human health. As people's awareness is rising, demands for a clean environment and healthy food are growing. One goal of the **Strategy for the Economic Development of Slovenia 2001-2006** is to reduce environmentally-intensive development. Agricultural policy can work in this direction by fostering production methods that help reduce agriculture's negative impact on the environment and raise the health quality of agricultural products. In 2001, the Government adopted the first **Slovene Agri-Environmental Programme**, which aims to satisfy the needs of consumers and producers, protect people's health, ensure the sustainable exploitation of natural resources, and preserve the biological diversity and typical features of Slovenia's landscape. One goal here is to increase organic agricultural production. Following the EU's common agricultural policy, Slovenia introduced direct payments for agricultural producers who commit themselves under contract to pursue organic agriculture for several years. Organic production is more demanding, while produce per unit of area is lower than in conventional agriculture, i.e. crop yields are lower than in intensively cultivated areas in the short run.

Development of organic agriculture is monitored by the share of organic farms in the total number of farms and by the share of organic arable area in total arable area. Controls[1] over **organic farms** were first introduced in **Slovenia** in 1998 and have expanded since. In 2002, almost 30-times more farms were included in organic farming controls than before (a total of 1,150), representing 1.3% of all farms in Slovenia. 36% of these farms were certified for organic farming at the end of September 2002, while other farms were in the first, second or third year of changing over to organic farming. There were 300 farms in the first year of transformation (26% of all controlled farms) and 438 in the second or third year (38%). As regards permanent crops, transformation lasts three years from the last use of prohibited substances. A farm must also undergo a third year of transformation if any shortcomings or flaws were not eliminated in the first two years. Interest in undertaking organic farming is higher in hilly areas, where farms are extensively engaged in animal husbandry and have large grassland areas, which makes organic farming particularly suitable (see table). Organic farms accounted for 3.4% of all **arable land in Slovenia** in 2002. As much as 93% of it was grassland because animal husbandry is the prevailing activity in these farms. The organisation performing control over organic farming estimates that the introductory phase has come to an end and that we are about to enter a period of expansion of organic farming and an increase in the market share of organic products. According to the agricultural census from 2000, another 6,039 farms were planned to shift towards organic farming in the long term, representing a further 7% of all agricultural holdings. In the census, farmers were asked whether their farm was defined as organic or in the process of changing over to organic farming. Positive answers were given by 333 farmers to the first and 837 farmers to the second question. The number of farmers who answered positively was 50% more than the number of farmers included in organic farming controls in that year. As regards **size**, it is mainly small and medium-sized family farms that take up organic farming. Most family farms that already produce organic food or are about to do so are below 10 hectares in size. This is not surprising since organic farming is primarily an alternative to small farms.

In **EU countries**, an average of 3.2% of arable area was engaged in organic farming in **2001**, almost a third more than in Slovenia, where the corresponding share was 2.4%. There were wide differences between member-states; up to half of all members had a smaller share of organic farming area than Slovenia (see chart). Growth in recent years depended, among other factors, on developments in previous years: in Austria, rapid growth has stabilised, countries like Italy, France and the UK have recently recorded fast growth, while some countries, such as Greece and Portugal, have taken no decisive steps in this direction. In some countries, such as Denmark and Sweden, organic farming is a strategic orientation of agricultural policy, which is why the number of farms and size of area are rapidly increasing despite the high levels already achieved.

Slovenia's agricultural policy points out the fact that Slovenia has advantageous natural conditions for the environmentally-friendly production of healthy food: great biological diversity, versatile

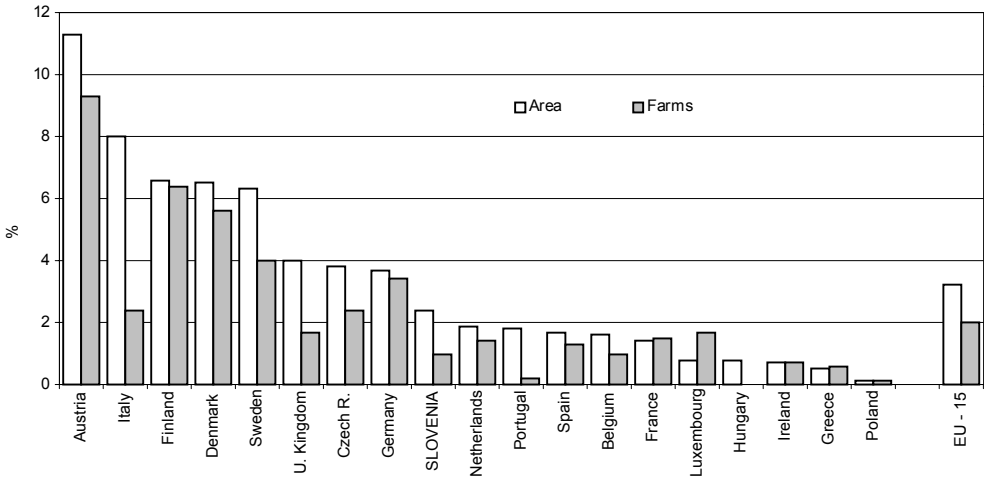
landscape, and largely unpolluted nature. Organic farming is also Slovenia's competitive advantage against the increasingly cheap and abundant food coming from agriculturally more suited areas of Europe and the world. Organic farming is increasing, however, true success depends on how this produce is marketed. The first condition is to provide a better organisational framework for farmers, otherwise domestic farms will be overrun by supply from other, mainly neighbouring, countries.

Table: **Number of farms and arable area involved in organic farming broken down by Slovenia's statistical regions in 2002**

	Number of organic farms	Number of all[1] farms	Share of organic farms, %	Organic arable land, ha	Arable land[1], ha	Share of organic arable land, %
TOTAL	1,150	86,334	1.3	15,404	456,14	3.4
Pomurska	11	11,782	0.1	128	57,622	0.2
Podravska	125	14,774	0.8	1,261	72,562	1.7
Koroška	177	2,901	6.1	2,121	21,575	9.8
Savinjska	208	12,890	1.6	2,225	67,030	3.3
Zasavska	23	1,047	2.2	209	6,133	3.4
Spodnjeposavska	27	5,752	0.5	363	26,826	1.4
Dolenjska	48	9,530	0.5	594	48,028	1.2
Osrednjeslovenska	159	9,471	1.7	2,749	61,691	4.5
Gorenjska	132	5,032	2.6	1,475	31,622	4.7
Obalno-kraška	34	3,674	0.9	869	11,97	7.4
Goriška	135	6,534	2.1	2,024	31,96	6.4
Notranjsko-kraška	71	2,947	2.4	1,386	19,32	7.1

Source: Agriculture and Forestry Institute of Slovenia, Agriculture and Forestry Institute from Maribor, the Organic Farming Control Department.
Note: [1]total number or area according to the agricultural census from 2000.

Chart: **Share of organic farms and organic arable land in Slovenia, the EU, and selected countries in transition in 2001, %**



Source: Organic-europe (http://www.organic-europe.net), for Slovenia: Chamber of Agriculture and Forestry of Slovenia, calculations by the IMAD.
Note: Data for Greece, Ireland, Luxembourg, Czech Republic and Poland refer to 2000.

[1] Controls over organic farming are performed by the Agriculture and Forestry Institute from Maribor. For more on organic farming regulations, see the methodology sheet at www.gov.si/zmar/projekti/arr/arr-pr.html.

Renewable sources

Renewable sources represented 11.7%[1] of total primary energy consumption in **Slovenia** in 2001, about double the level of the EU in 2000 (6%). The highest shares of renewable energy sources were seen in Sweden, Austria and Finland (over 20%), and the lowest in the UK, Belgium, and Luxembourg (below 2%). In **EU candidate-countries** (data are only available for some of them), renewable sources had a 10.9% share in Romania, 4.3% in Bulgaria, 4.2% in Poland, 1.6% in Hungary and Cyprus, and 1.4% in the Czech Republic. These shares were much larger in the Baltic states. Such differences mainly stem from variations in a country's factor endowment.

The average **structure of renewable energy sources in the EU** was as follows (also see chart): biomass 61.6%, hydro-energy 31.9%, geothermal energy 3.9%, wind energy 2.2%, and solar energy 0.4%. According to the SORS' figures for 2001, **Slovenia's structure** of renewable sources was as follows:biomass 58.0%, hydro-energy 42.0%, while other sources are not covered. It seems that the exploitation of alternative energy sources is still at a low level in the EU, even though some members have significantly increased the shares of this energy, which is important for the future. Gaining one percentage point in the overall structure in one year, the use of wind energy increased the most. The highest number of wind turbines was in Germany and Spain, while the share of wind energy was the largest in Denmark, as much as 18%. Italy was in the lead as regards geothermal energy, representing a quarter of all national renewable energy sources, while Greece intensively exploited solar energy, which had a 7% share. Hydro-energy and geothermal energy also increased within the EU's renewable energy structure. Slovenia was right behind Austria and Sweden as regards the share of hydro-energy.

The **EU's guideline** to stimulate the consumption of renewable sources is primarily based on the Kyoto commitment to reduce greenhouse gas emissions by 8% in 2008-2012 against 1990, whereby renewable sources should replace some fossil fuels. This is why the EU has decided to double the proportion of renewable energy sources to 12% by 2010. Member-states that enjoy better natural conditions should increase the use of renewable sources more than others, regardless of the current shares. However, these goals are relatively utopian without additional financial incentives such as aid, tax relief and financial support in view of the current trends (the EU has limited possibilities of increasing traditional renewable sources, especially hydro-energy generated in large power plants).

Slovenia, however, still has the opportunity to significantly expand the use of its traditional renewable sources. Slovenia will further exploit its hydro-energy potential in the next ten years by constructing a chain of hydro-electric plants on the Sava river, and the share of hydro-energy should climb from the current 43% to 52% in 2013 (the National Energy Programme). The increase in wood stock has been larger than tree-felling (see the Tree-felling Intensity indicator), which is why Slovenia is paying growing attention to the use of wood biomass. To this end, Slovenia has adopted a special Biomass Energy Exploitation Programme and an operating programme for 2001-2004 (Ministry of the Environment and Spatial Planning): this involves the construction of local distant heating systems which would also generate electricity. According to the Programme, these projects (the construction of boilers) should contribute 26% to the targeted reduction of greenhouse gas emissions in line with the Kyoto protocol's commitments. Draft budgets for 2003 and 2004 earmarked an additional SIT 300 million each year for the promotion of energy exploitation of wood biomass. This project is supported by the Global Environmental

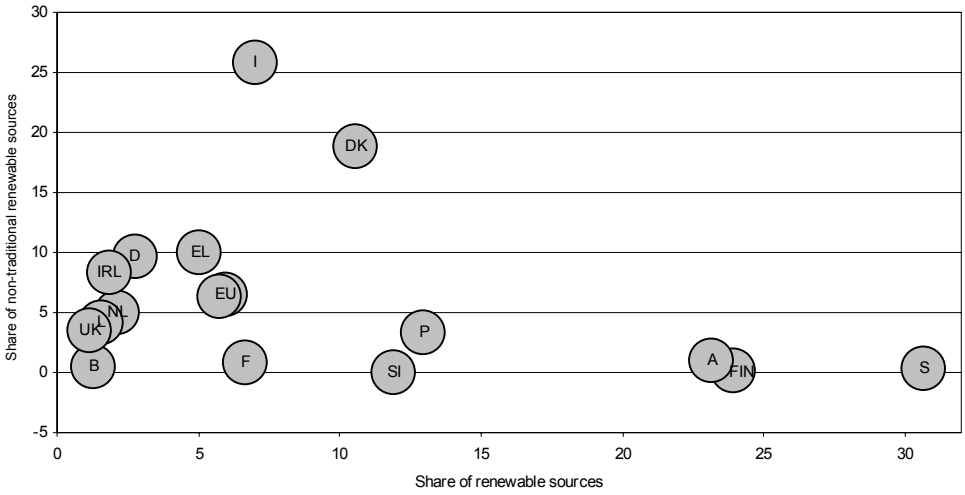
Fund (GEF) aid. In 2002, the Efficient Energy Use Agency prepared some additional incentive schemes within this programme in order to stimulate households, legal and natural persons to use more renewable sources. A new decree on CO_2 emission tax was passed in October 2002, which is becoming one of the key instruments helping Slovenia meet the Kyoto commitments. The decree has introduced relief that can be granted on the basis of measures taken to increase energy use efficiency in industry, introduce the combined production of heat and electricity, replace fossil fuels with renewable sources, rebuild heat distribution systems etc. The share of renewable sources can also be increased by reducing the use of non-renewable sources, and the closing-down of mines is part of this process. The analysis of the latest data therefore shows that the orientations of the Strategy for the Economic Development of Slovenia are being realised.

Table: **Renewable sources relative to total primary energy consumption in Slovenia and the EU in 1999-2001, %**

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Slovenia[1]	N/A	N/A	10.3	8.9	9.1	8.2	8.9	9.5	11.9	11.7
EU[2]	5.3	5.4	5.4	5.4	5.4	5.6	5.7	5.8	6.0	N/A

Sources: Eurostat (New Cronos); Ministry of Economic Affairs, Statistical Yearbook of the Energy Sector; SORS; calculations by the IMAD.
Notes: [1]data from the MEA for the period up to and including 1999, data from the SORS for 2000 and onwards (the latter include industrial waste; [2]excluding industrial waste, N/A - not available.

Chart: **Renewable sources relative to total primary energy consumption and non-traditional* renewable sources relative to total renewable sources in Slovenia and EU member-states in 2000, %**



Sources: Eurostat (New Cronos); SORS; calculations by the IMAD.
Note: * solar, wind and geothermal energy (excluding hydro-energy and biomass).

[1] We used data on renweable sources from the SORS. The monitoring of renewable sources in Slovenia is as yet incomplete (as it is in some other countries) and incomparable so, for example, the figure obtained by the Ministry of the Environment, Spacial Planning and Energy is 9.1% (Energy Sector's Statistical Yearbook).

Tree felling intensity

Forests are one of the few economic resources that are abundant in Slovenia. They cover over half of Slovenia's territory and are expanding; over the last five years forest area increased by 3%, and by 0.8% in 2001 alone. The increase in forest area was due to the abandonment of agriculture and overgrowing of land where agricultural production is most arduous. Owing to the large proportion of forest area and small proportion of agricultural area, the **Forest Programme of Slovenia** plans no further increase in forest area. The development of forestry should concentrate more on tending the existing forests and better exploiting the growing potential in terms of quality and quantity. It should be added that 5.4% of all forest area is protected; this is where the forest's ecological function is the most important, while management is carried out under a special regime.

The growing stock has increased in step with the expanding area; over the last five years it increased by close to 16%, in **2001 alone** by almost 2%. However, expert forestry services say that thick trees are lacking in Slovenian forests, especially in view of the fact that this stock contributes to the higher quality (functionality) of forests in terms of creating renewable wealth. The **annual gross increment** rose by 0.8% in **2001**, while the **annual removal** only edged up 0.2%. The volume of tree removal totalled 2,614,301 m^3, the most in the last ten years but it is still unsatisfactory. Actual tree removal has lagged behind the volumes permitted in forest management plans for many years. Tree-felling has only achieved three-quarters of the planned volumes. In each of the last few years, this gap has been the result of low levels of tree removal in private forests, while removal in state-owned forests was close to the permitted levels. Reasons for the low tree felling in private forests were manifold, with the most important being the insufficient profitability of extracting wood from thin tree forests. Owners prefer not to cut trees in such forests. In 1996, Slovenia had 70.2% of private forests and this percentage should climb to 80% when denationalisation is finished. The number of private owners is large, an estimated 250,000 to 300,000. As a result, holdings are fragmented and often involve odd shapes (long and narrow). The lack of owners' interest to economically exploit their forests is an obstacle to the natural development of forests. Pursuant to the Forest Act, expert services only give advice and make plans for intervention in forests, while the realisation is exclusively up to owners. A **breakdown of tree removal** shows that three-quarters of total removal was due to tending. This increased by close to 4% in **2001**. The second most important type was sanitation, representing 19% of total removal, which is carried out when trees are damaged by weather (wind, snow or sleet), disease or insects. These conditions appear to have been favourable in 2001 since the share of this removal dropped further. However, damage caused by weather was substantial in **2002**. Illicit removal and deforestation also dropped, while removal for the purpose of infrastructure increased but this involved minor quantities (5% in 2001 and 2% in 2002 of total quantities removed).

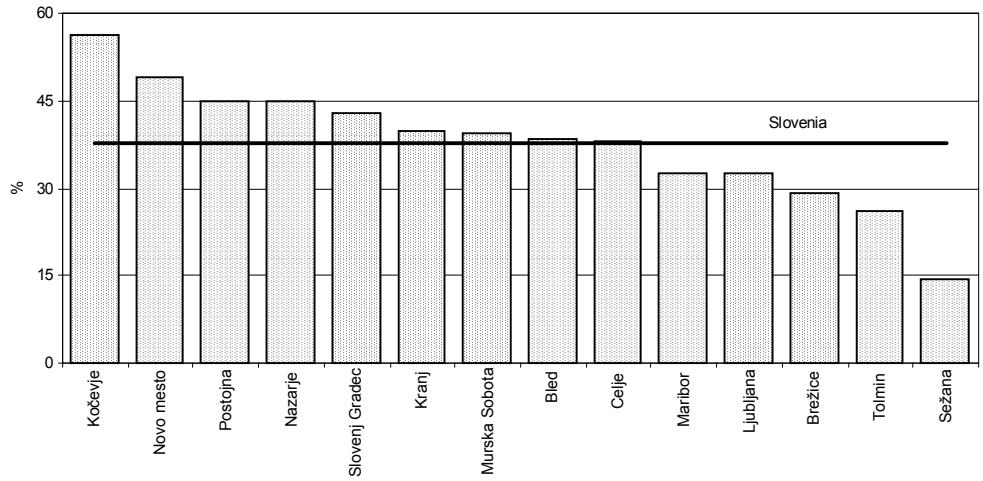
The **tree-felling intensity**, expressed as a ratio of annual removal to the annual wood increment, has decreased significantly in Slovenia over the last few decades. This downward trend was maintained in the last few years; intensity was 41.9% in **1997** and just 37.8% in **2001**. Hence, the forests' production function continued to be increasingly neglected. The low levels of tree removal have some negative consequences not only for the stock of renewable sources, but also for job opportunities in rural areas and the structure of raw wood categories in forests leading to lower yields in forestry. In 1995-2000, Italy was the only **EU member** to record a lower tree-felling intensity than Slovenia. The EU average was 60% as against the modest 39% of Slovenia (see Development Report 2002, pp. 180-181).

Table: **Tree-felling intensity in Slovenia in 1995-2001**

	Forest area, '000 ha	Annual removal, '000 m3	Annual increment, '000 m3	Growing stock, '000 m3	Removal intensity, %	Removal intensity, % annual growth
1995	1,097.9	2,092	5,995	228,493	34.9	-12.5
1996	1,098.8	2,330	6,086	231,521	38.3	9.7
1997	1,109.7	2,567	6,124	231,663	41.9	9.5
1998	1,111.0	2,470	6,140	232,688	40.2	-4.0
1999	1,115.7	2,396	6,248	237,276	38.3	-4.7
2000	1,134.2	2,609	6,872	262,795	38.0	-1.0
2001	1,142.9	2,614	6,925	267,912	37.7	-0.6
GGN 2001-2010[1]	1,142.1	4,101	6,742	266,704	60.8	

Source: the SORS, Statistical Yearbook 2001.
Note: [1]ten-year forest management plan (draft).

Chart: **Removal intensity by regional forest units in Slovenia in 2001**



Source: Slovenian Forest Service, Forest Report for 2001.

Life expectancy

After a short stagnation in the early period of transition, **life expectancy** began to grow rapidly **after 1995**, with life expectancy for men increasing slightly faster than that for women. Life expectancy grew further in **2000 and 2001** and reached 72.1 years for men and 79.6 years for women. The difference between male and female life expectancy, which had already narrowed to 7.2 years in 2000, increased again in 2001. This gap continued to be wider in Slovenia than in the **EU**, where women's life expectancy was just 6.1 years longer than men's on average in 2000 (the latest data from Eurostat). In the EU, women enjoyed the longest life expectancy in France (83.0 years, 3.4 years more than in Slovenia), while male life expectancy was longest in Sweden (77.5 years, 5.4 years more than in Slovenia). Out of all European countries, men lived the longest in Iceland. A gap between female and male life expectancy similar to Slovenia's could be seen in France and Spain, as far as EU members are concerned, though life expectancy there was more than three years longer. Slovenia continued to have a longer life expectancy than other **Central and Eastern European countries**. The Czech Republic recorded the second longest life expectancy, with that of men being the same as in Slovenia (for the first time in the last ten years), while that of women was 1.2 years shorter.

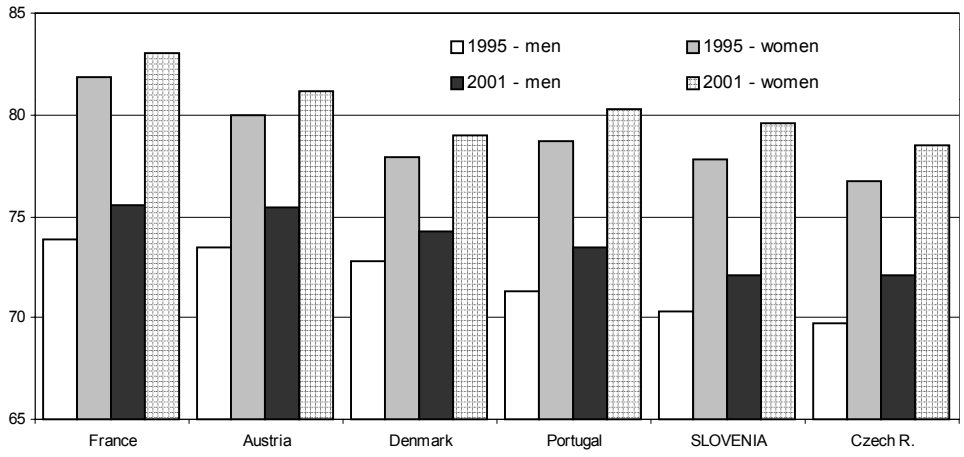
In **1995-2000**, the **mortality rate** for men fell in almost all age groups; it dropped slightly faster in the age group of up to 65 and somewhat more slowly in the age group of over 65. The mortality rate for women aged up to 30 (which is low) stagnated, it fell more slowly than in men in the age group of 30-64, and fell faster than in men in the age group of over 65. In **2001**, female mortality rates continued to fall in practically all age groups, while male mortality rates dropped more slowly. The mortality of men aged 15-19 and 25-29 again increased. At the age of 65, the difference between life expectancy of men and women was no more than four years, and at the age of 85 it was less than one year. This difference is slowly increasing because life expectancy of women tends to lengthen compared to men.

Table: **Life expectancy in Slovenia and the EU**

	1995	1996	1997	1998	1999	2000	2001
Slovenia							
men	70.3	70.3	71.0	71.1	71.4	71.9	72.1
women	77.8	78.3	78.6	78.7	78.8	79.1	79.6
difference	7.5	8.0	7.6	7.6	7.4	7.2	7.5
European Union							
men	73.9	74.2	74.6	74.6	74.9	75.3	-
women	80.4	80.6	80.9	80.9	81.2	81.4	-
difference	6.5	6.4	6.3	6.3	6.3	6.1	-
Gap between the EU and Slovenia							
men	3.6	3.9	3.6	3.5	3.5	3.4	-
women	2.6	2.3	2.3	2.2	2.4	2.3	-

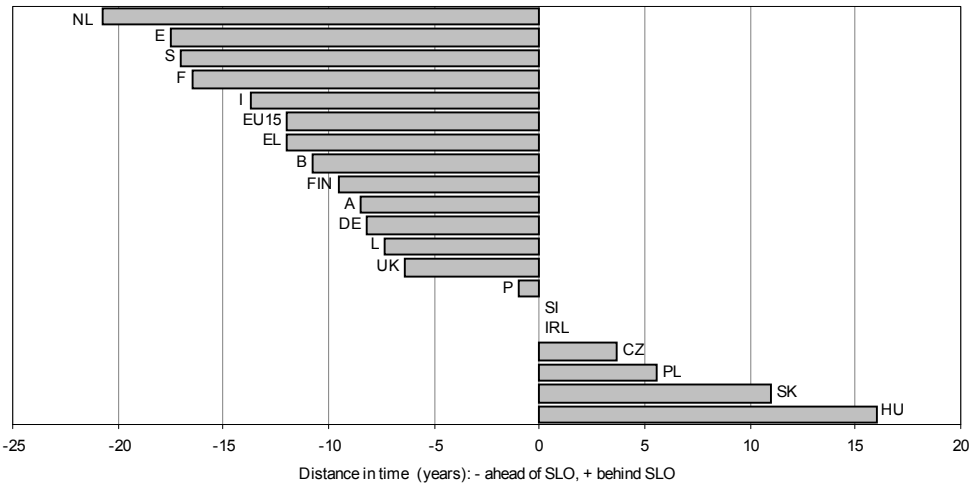
Sources: SORS, Eurostat.

Chart 1: **Life expectancy in Slovenia and selected European countries in 1995 and 2001**



Sources: SORS, Eurostat.

Chart 2: **Life expectancy of women – distance in time[1] between Slovenia, EU members, and EU candidate-countries in 2000**



Sources: Distance in time calculated by SICENTER on the basis of Eurostat - New Cronos data.
Note: [1] distance in time measures the time necessary for two units to reach the same given level of the indicator x. For more on the methodology, see P. Sicherl: Distance in time between Slovenia and the European Union around 2001, SICENTER, Ljubljana, 2002 and http://www.sicenter.si/td.html.

Infant mortality

Infant mortality dropped to a third of the level seen twenty years ago, from 15.3 dead babies aged up to 1 year per 1000 live-born children in 1980 to 5.5 in 1995. Infant mortality also ranged at around five in the second half of the nineties, with a downward trend. Infant mortality again dropped significantly in **2001**, recording 4.3 dead babies per 1000 live-born children, the lowest level so far.

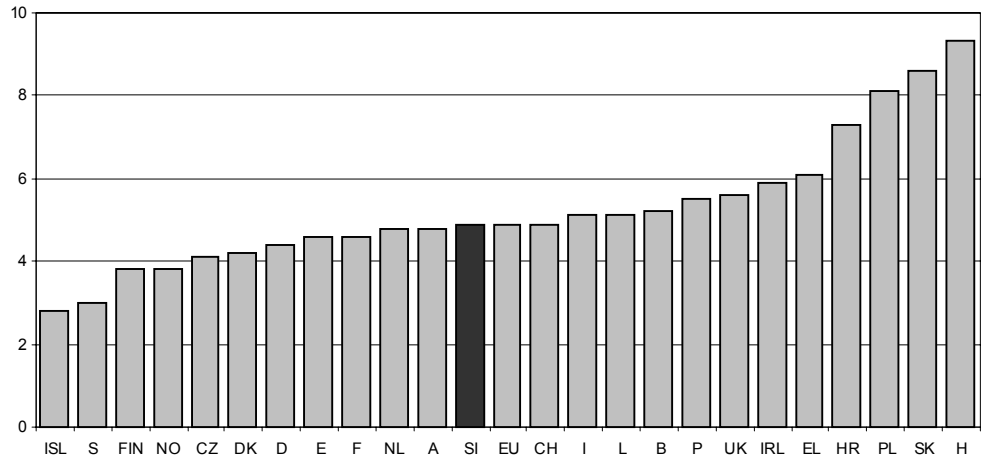
In 2000, Slovenia's infant mortality of 4.9 was at the average level of the **EU**, with 8 member-states having lower values and 7 member-states higher values of this indicator. Sweden recorded the lowest infant mortality in the European Union (3), and Slovenia was a solid seven years behind, while the Czech Republic had the lowest infant mortality among countries in transition (4.1). Within countries in transition, the highest infant mortality levels were seen in Romania, Bulgaria, and Hungary. The distance in time shows that Romania was almost 24 years behind Slovenia, while Bulgaria was 15 and Hungary 12 years behind (also see chart 2). Infant mortality levels are on a downward trend in industrialised countries, primarily due to specific preventive measures taken in the area of prenatal and neonatal health care.

Table: **Infant mortality (per 1000 live-born children) in Slovenia and the EU, 1995-2001**

	1995	1996	1997	1998	1999	2000	2001
Slovenia	5.5	4.7	5.2	5.2	4.5	4.9	4.3
EU average	5.6	5.5	5.3	5.2	5.0	4.9	4.5

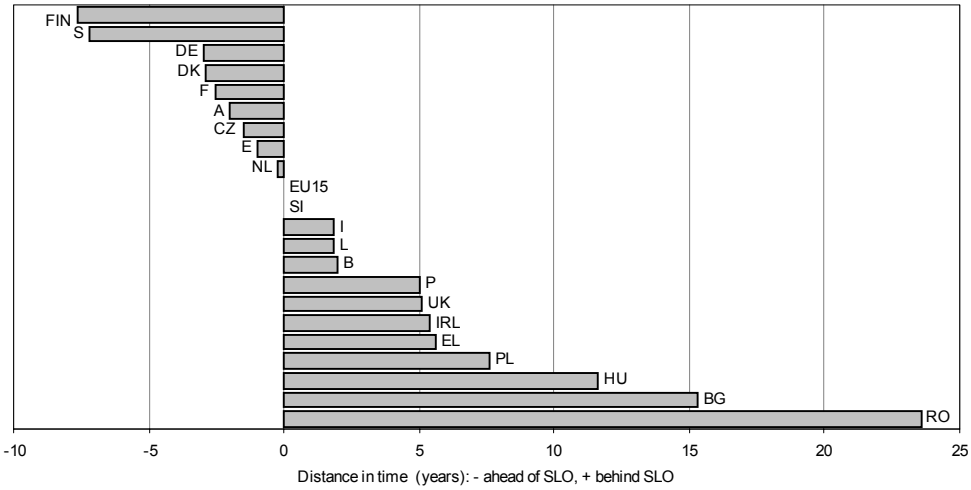
Sources: SORS, Eurostat.

Chart 1: **Infant mortality per 1000 live-born children in selected European countries, 2000**



Sources: SORS, Eurostat.

Chart 2: **Infant mortality – distance in time between Slovenia, EU members, and EU candidate-countries in 2000**



Sources: Distance in time calculated by SICENTER on the basis of Eurostat - New Cronos data.
Note: [1] distance in time measures the time necessary for two units to reach the same given level of the indicator x. For more on the methodology, see P. Sicherl: Distance in time between Slovenia and the European Union around 2001, SICENTER, Ljubljana, 2002 and http://www.sicenter.si/td.html.

Population in jobless households

The jobless households indicator (the share of people living in households without any member in employment) is one of the structural indicators used for measuring social cohesion. It measures poverty risk, since unemployment is the most important factor of poverty risk in addition to a poor education. Owing to the lack of material resources, the population living in jobless households have limited access to the means required for a decent standard of living – one of the principal objectives of social development advanced by the **Strategy for the Economic Development of Slovenia 2001-2006**. A better education structure of the population, brought about by including young people in education, as well as increased formal and informal education of adults, would contribute to improving material wealth and, in turn, the social position of households in combination with the active employment policy.

According to the SORS' data, 9.7% of people lived in a jobless household in **Slovenia in 1996**. Up to 1999, this share had increased to 10.2%, but it fell again gradually in **1999-2001**. An important shift towards reducing this share came in **2002**, when 8.1% of people lived in a jobless household according to Eurostat. The favourable trends seen over the last few years were underpinned by employment growth, which was driven by economic growth, and by measures taken through the active employment policy.

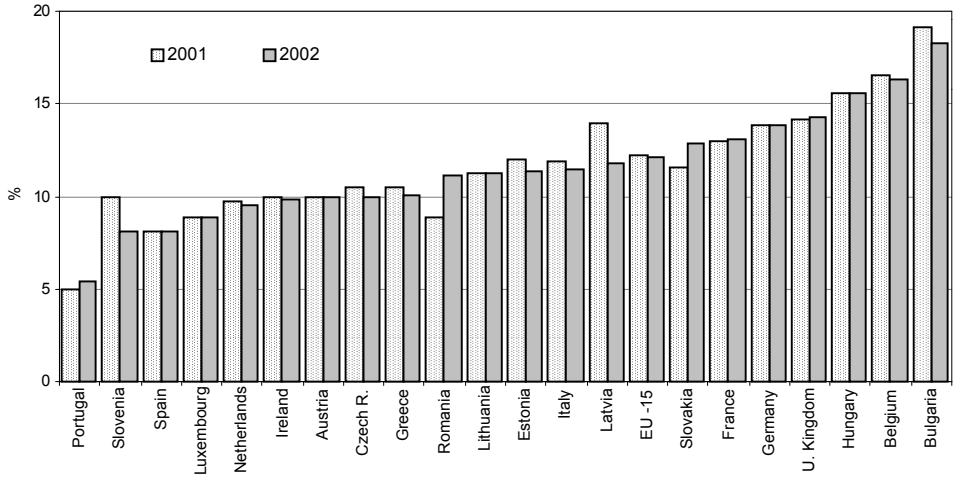
Poverty risk as measured by this indicator was on a downward trend in the **European Union** as well, however, the share of people living in a jobless household in 2002 was 4 percentage points higher than in Slovenia. In **EU candidate-countries**, poverty risk was the lowest in Slovenia, followed by the Czech Republic with 9.9% of people living in a jobless household. All other candidates recorded shares above 11% (see chart).

Table: **Share of people living in a jobless household in Slovenia and the European Union in 1996-2002, %**

	Slovenia	EU-15
1996	9.7	13.8
1997	9.5	13.7
1998	9.3	13.4
1999	10.2	12.9[1]
2000	10.1	12.4[1]
2001	9.9	12.2[1]
2002	8.1[1]	12.1[1]

Source: SORS, First Release No. 4, Structural Indicators, January 2003.
Note: [1]estimate.

Chart: **Share of people living in a jobless household, Slovenia, EU-15, candidate-countries, 2001 and 2002**



Source: Eurostat (New Cronos).
Note: value of the indicator for 2002 is estimated for the following countries (Eurostat): Slovenia, Austria, Belgium, Germany, Luxembourg, Netherlands, Lithuania, Hungary, EU-15 average; for 2001 the EU-15 average was calculated.

Poverty risk

The risk of poverty rate is a structural indicator of the fight against poverty and social exclusion. It is one of 18 indicators that measure progress in the wider area of social cohesion and is part of the European Commission's indicators adopted in Laeken in December 2001. The risk of poverty rate before and after social transfers can be used to measure the efficiency of the social state and the effectiveness of its social policy. Poverty reduction is the first step towards greater social inclusion, which is one of the important **goals of social development policy in Slovenia**.

This indicator identifies the share of people living below the poverty threshold[1] on the basis of the net equivalised income of households. In **1995-1999**, Slovenia's risk of poverty rate averaged 13.3%; it was highest in 1997 (14%), but has been on a decline since. In **1999** (the latest data available), the risk of poverty rate was 13.6% and was, as in previous years, lower than in the EU-15 (15% according to Eurostat's estimate). The risk of poverty rate has been invariably higher for women than for men. In 1999, it was 1.2 percentage points more for women than for men. The socio-economic groups faced with the highest risk of poverty have changed little over the years. In 1999, the highest rates of poverty risk were among single elderly people (39.2%), the unemployed (38.2%), and single-parent households with at least one child (23.6%). The **relative gap of poverty risk**[2], which shows the distance from the threshold of poverty risk and best illustrates the depth of poverty, was 22.2% in 1999 and fell compared to 1993 (25.2%). Slovenia's risk of poverty rate would have been 6.9 percentage points higher without **social transfers**, while in the EU it would have been 9 percentage points higher, suggesting that the EU's social policy is more effective than Slovenia's. **Inequality in income distribution**, expressed as the ratio of the highest to the lowest income quintile, was 3.6% in Slovenia in 1999 and 4.6% in the EU, according to Eurostat's estimates. Hence, Slovenia recorded a lower risk of poverty rate and lower income inequality than the **EU-15 average** (however, differences between EU members are significant; see table). Further, the outcome for Slovenia was even better when **compared to those EU candidate-countries** for which data are available. These comparisons include income in kind, which is an important way of reducing poverty risk (see chart).

[1] The threshold of poverty risk equals 60% of the median income in cash.

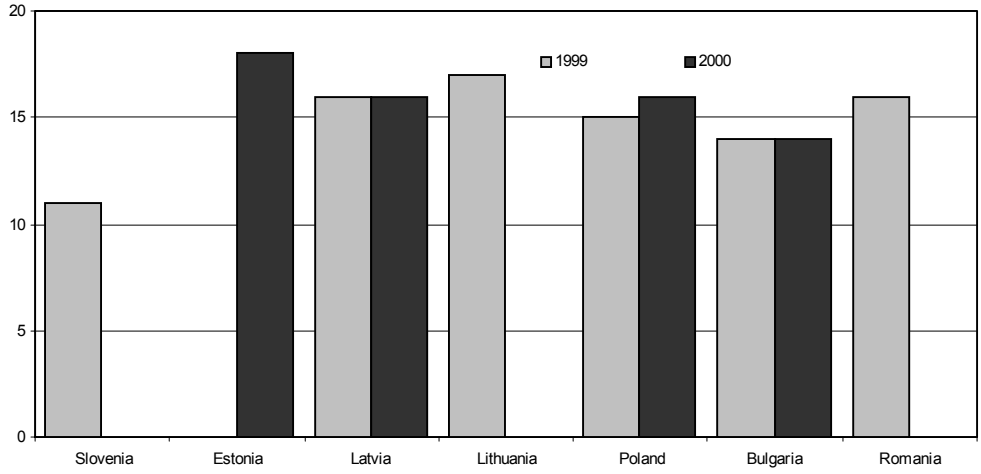
[2] The relative gap of poverty risk is the difference between the poverty risk threshold and the median equivalised income of people living below the threshold of poverty risk and is expressed as a percentage of the threshold of poverty risk.

Table: **Risk of poverty rate before and after social transfers in Slovenia and EU member-states in 1995-1999 (excluding income in kind)[1]**

	Risk of poverty rate after social transfers					Risk of poverty rate before social transfers				
	1995	1996	1997	1998	1999	1995	1996	1997	1998	1999
Slovenia	12.9	12.2	14.0	13.8	13.6	N/A	N/A	N/A	N/A	20.5
EU-15	17 s	16 s	16 s	15 s	15 s	26 s	25 s	25 s	24 s	24 s
Austria	13	14	13	13	12	24	25	24	24	23
Belgium	16	15	14	14	13	27	27	26	26	25
Denmark	10	9	9	12	11	29	28	27	27	24
Germany	15	14	12	11	11	22	22	22	22	21
Greece	22	21	21	21	21	23	22	23	22	22
Spain	19 p	18 p	20 p	18 p	19 p	27 p	26 p	27 p	25 p	23 p
France	15	15	15	15	15	26	26	26	25	24
Ireland	19	19	19	19	18	34	34	32	32	30
Italy	20	20	19	18	18	23	23	22	21	21
Luxembourg	12	11	11	12	13	25	24	22	23	24
Netherlands	11	12	10	10	11	24	24	23	21	21
Portugal	23	21	22	21	21	27	27	27	27	27
Finland	N/A	8	8	9	11	N/A	23	23	22	21
Sweden	N/A	N/A	9	10	9	N/A	N/A	28	28	28
UK	20	18	18 p	19 p	19 p	32	29	30 p	30 p	30 p

Sources: Eurostat (New Cronos). For Slovenia, we used figures that exclude income in kind to allow a comparison with the EU-15. Data published by Eurostat for Slovenia include income in kind and are therefore incomparable with data for the EU-15.
Notes: [1]data for Slovenia published on the Eurostat's homepage (New Cronos database, structural indicators) as well as data published by the SORS in its First Release No. 4 dated 15 January 2003 (Structural Indicators) are incomparable with data for the EU-15 because income includes income in kind. This is why we used data for Slovenia that exclude income in kind. "p" a country's assessment, "s" Eurostat's assessment, "N/A" not available.

Chart: **Risk of poverty rate after social transfers in Slovenia and selected EU candidate-countries in 1999 and 2000 (including income in kind)[1]**



Source: Eurostat (New Cronos).
Note: [1]Data in the graph include income in kind and are cross-country comparable.

Statistical Appendix

Table 1: **Sustainability of economic development measured by the Genuine Savings Index**

% of GDP[1]	Increase in the stock of economic resources = Economic development =									
	= Genuine savings [2] =		+ Economic + Social				- Environmental			
	Average 1997–2000	2000	Gross savings	Consumption of fixed capital	Net savings	Expenditure on education	Exploitation of natural resources			Environmental burdening: CO_2 emissions
							Energy	Mineral	Wood	
		1=4+5-(6 to 9)	2	3	4=2-3	5	6	7	8	9
Ireland	21.1	23.4	30.5	12.1	18.4	5.5	0.0	0.1	0.0	0.4
Switzerland	20.4	23.6	33.8	14.9	18.9	4.8	0.0	0.0	0.0	0.1
Hungary	19.9	16.3	24.8	11.5	13.3	4.6	0.7	0.0	0.0	0.9
Netherlands	19.6	18.4	28.7	14.6	14.1	5.1	0.5	0.0	0.0	0.3
Norway	19.4	19.6	36.8	16.2	20.6	6.9	7.7	0.0	0.0	0.2
Slovakia	19.0	18.9	26.9	10.9	16.0	4.3	0.1	0.0	0.0	1.3
Czech Republic	18.1	17.0	25.4	11.3	14.1	4.6	0.2	0.0	0.0	1.5
Finland	18.0	18.5	28.1	16.4	11.7	7.1	0.0	0.0	0.0	0.3
Denmark	17.0	16.5	24.5	15.2	9.3	8.2	0.8	0.0	0.0	0.2
Visegrad countries[3]	17.5	16.2	24.4	11.2	13.3	4.7	0.4	0.0	0.0	1.3
Austria	16.8	14.4	24.3	14.6	9.7	5.0	0.1	0.0	0.0	0.2
Sweden	16.1	14.0	20.8	14.1	6.7	7.5	0.0	0.1	0.0	0.1
Spain	15.2	14.4	23.0	12.9	10.1	4.6	0.0	0.0	0.0	0.3
EU-15	**15.0**	**12.5**	**22.0**	**13.8**	**8.2**	**4.7**	**0.1**	**0.0**	**0.0**	**0.3**
Neighbouring c.[5]	**14.0**	**13.2**	**22.3**	**12.7**	**9.6**	**4.6**	**0.5**	**0.0**	**0.0**	**0.5**
France	13.9	14.3	21.5	12.6	8.9	5.6	0.0	0.0	0.0	0.2
EU-3[4]	13.9	10.7	19.1	12.2	6.9	4.2	0.0	0.0	0.0	0.4
Germany	13.6	10.2	21.1	14.9	6.2	4.4	0.1	0.0	0.0	0.3
Italy	13.4	11.3	20.6	13.6	7.0	4.6	0.1	0.0	0.0	0.2

Cont. on the next page.

Table 1: **Sustainability of economic development measured by the Genuine Savings Index**

% of GDP[1]	Increase in the stock of economic resources = Economic development =									
	= Genuine savings [2] =		+ Economic + Social				- Environmental			
	Average 1997–2000	2000	Gross savings	Consumption of fixed capital	Net savings	Expenditure on education	Exploitation of natural resources			Environmental burdening: CO_2 emissions
							Energy	Mineral	Wood	
		1=4+5-(6 to 9)	2	3	4=2-3	5	6	7	8	9
Poland	13.1	12.7	20.6	11.0	9.6	5.1	0.4	0.1	0.0	1.5
Slovenia	**13.1**	**17.2**	**24.6**	**12.0**	**12.6**	**5.2**	**0.0**	**0.0**	**0.0**	**0.6**
Candidates	11.8	10.9	19.7	11.1	8.5	4.8	0.7	0.1	0.0	1.6
Belgium	11.8	12.2	23.9	14.5	9.4	3.1	0.0	0.0	0.0	0.3
Greece	10.4	9.5	16.3	8.5	7.8	2.3	0.1	0.0	0.0	0.5
Estonia	10.0	6.3	17.8	14.7	3.1	6.4	0.5	0.0	0.0	2.7
USA	9.2	9.3	18.0	11.9	6.1	4.7	1.1	0.0	0.0	0.4
Lithuania	8.8	8.8	15.0	10.2	4.8	5.3	0.4	0.0	0.0	0.9
Latvia	8.7	14.9	20.2	10.7	9.5	6.2	0.0	0.0	0.0	0.8
Portugal	8.2	8.2	18.1	15.2	2.9	5.6	0.0	0.0	0.0	0.3
UK	7.8	7.0	15.2	11.6	3.6	4.7	1.1	0.0	0.0	0.2
Croatia	5.9	10.8	19.6	11.2	8.4	4.3	1.2	0.0	0.0	0.7
Romania	5.0	2.8	15.2	9.9	5.3	3.3	4.1	0.0	0.0	1.7
Bulgaria	3.2	0.5	11.0	9.9	1.1	3.1	0.3	0.6	0.0	2.8

Sources od data: World Bank: World Development Indicators; 1999:174-6; 2000:168-70; 2001:180-3; 2002:188-91.
Notes: [1] some discrepancies may arise due to rounding off; [2] figures for 2000 taken from national SNA aggregates, domestic figures taken for the preceding years; [3] Slovakia, Poland, Czech Republic, Hungary; [4] excluding Cyprus and Slovenia; 4 Spain, Portugal, Greece; [5] countries neighbouring Slovenia.

Table 2: **Sustainabilty of economic development measured by the Balanced Development Index (%)**

	Environment total	Air		Water		Soil and ground	Noise	Natural resources		
		Stresses	State	Stresses	State			Non-renewable	Renewable	Circulation sources[1]
	relative change in the standardised value of the indicators covered in individual environmental sectors = (1998 minus 1995) / 1995									
Spain	24.4	2.7	19.1	0.0	0.0	9.9	-3.1	14.1	-85.7	13.3
Italy	17.4	8.0	187.5	0.0	3.7	81.0	0.0	25.9	0.0	0.0
Lithuania	16.7	9.0	-2.4	0.0	8.2	15.0	12.5	61.0	73.3	0.0
Greece	10.0	0.0	11.3	161.5	-2.6	40.6	-1.7	0.0	-23.1	0.0
Poland	9.1	1.5	8.0	10.6	1.3	9.2	-3.8	33.3	25.8	0.0
Belgium	6.8	7.4	7.6	30.8	-12.8	11.1	0.0	23.9	-17.4	0.0
Slovakia	6.8	12.3	-12.8	4.6	0.0	3.6	5.0	48.8	8.0	0.0
Denmark	6.5	8.3	4.9	0.0	-1.1	25.0	0.0	2.3	11.6	0.0
UK	5.9	6.0	5.5	6.6	-5.1	14.6	-7.7	15.2	-8.2	0.0
EU-15	**5.2**	**4.1**	**7.8**	**7.7**	**5.3**	**17.9**	**-8.1**	**11.5**	**-13.0**	**0.0**
Candidates	**4.9**	**4.1**	**-4.8**	**7.2**	**2.4**	**3.1**	**2.0**	**15.5**	**5.3**	**-6.7**
Norway	4.3	-13.6	0.0	10.0	0.0	28.2	-7.9	87.5	-29.5	0.0
Ireland	4.5	1.5	-1.3	21.9	2.3	9.0	-1.6	3.3	11.3	0.0
Austria	4.2	2.3	3.7	0.0	0.0	25.4	-1.9	14.8	-3.8	0.0
Germany	3.5	12.3	-8.5	2.0	3.7	28.9	-5.9	4.8	-13.6	-12.5
Finland	2.9	-1.6	4.5	0.0	0.0	12.2	-7.5	14.0	-5.3	0.0
Sweden	2.8	3.8	7.5	-1.0	0.0	7.3	0.0	10.8	-4.4	0.0
Czech Republic	1.9	19.1	-4.3	14.1	1.3	-8.3	-30.0	12.5	14.3	0.0
Hungary	1.8	-1.2	1.4	25.0	1.1	1.9	3.9	44.2	-54.4	0.0
Estonia	1.5	5.3	-6.1	0.0	1.4	-3.6	15.8	-5.1	11.6	0.0
Switzerland	-1.4	1.1	2.4	0.0	1.1	22.2	-19.3	-13.9	3.5	0.0
France	-1.6	-2.3	-5.1	1.2	-10.0	25.4	0.0	10.3	-31.8	-5.9
Portugal	-1.6	-11.5	6.2	13.6	0.0	30.2	-41.2	19.4	-13.0	25.0
Latvia	-2.6	-2.0	-19.8	0.0	6.9	11.4	15.8	-17.5	0.0	-6.8
Slovenia	**-3.2**	**-1.4**	**-4.8**	**0.0**	**1.2**	**-14.3**	**2.8**	**-5.1**	**-3.6**	**-4.0**
Netherlands	-5.7	9.6	-2.4	2.0	-1.2	-84.2	0.0	12.9	-50.0	0.0

Sources of data: Seljak J. 2001. Sustainable Development Indicators. Ljubljana: IMAD, Analysis, Research and Development series.
Note: [1]circulation sources involve the exploitation of renewable power produced by the circulation of energy, the sun and water.

Table 3: **Synthesised overview of implementation of the SEDS' objectives for 2001-2006 in the field of environmental development, 2001**

	Unit of measure	Objectives [1]			Implementation of the current SEDS[1] (latest data: state or growth relative to the previous year)	
		Previous SEDS (1995) o - objective (the latest data relative to 1995)	EU-15 (o - objective; s - state)	Objective of the current SEDS	2001	2002
Balanced economic development index	unnamed	o: Improve the state seen in 1995 (0.521); ☹☹(0.440; 1998)	o: Improve; s: 0.503	Reduce the gap with the EU	☹☹(1998 : 0.440)	
Genuine savings index	% of GDP	o: (simulated): Improve the state seen in 1997 (12.9); ☹☹(11.0; 1999)	o: - s:16.9	16.3	☹☹(1999 : 11.0)	☺☺(2000: 17.2)
Primary energy required	toe million	o: Improve the state seen in 1995 (6.11) ☺(6.33; 2000)	1,519.5 (projection for 2010)	6.64 (scenario for 2010)	☹(2000 : 6.33; 1,442.4)	☹(2001 : 6.61; 1,455.2)
Share of renewable sources used (MGD/Eurostat)	% of primary energy used	o: Improve the state seen in 1995 (8.9% excluding municipal waste) ☺(9.4; 2000)	c: 12 (objective for 2010); s: 5.9	Maintain advantage against the EU	☺(2000: 11.9 or 9.4 excluding municipal waste; 5.9)	☺(2001 : 11.7; 6.0)
Intensity of primary energy use	toe/mio. EUR$_{1990}$ BDP	o: Improve the state seen in 1995 (460) ☺(386;2000)	o: 186 (projection for 2010)	Draw close to the EU average	☺(2000: 386; 231)	☹(2001 : 358; 194)
Energy dependence	net imports as a % of gross energy use	o: Not to worsen the state seen in 1995 (50.6%) ☺(53.5; 2000)	Will increase	Will increase	☺(2000: 53.5; 47.6)	☺(2001 : 48.2; 49.4)
Electricity price for industry, retail, OECD	SIT / kWh	o: 7% rise above inflation, 80% of the EU average ☺(2000)	o: Rise in relative energy prices	Maintain the level relative to the EU average	☺(2000: 10.67; 11.19)	☺(2002 : 12.93; 15.19)
Electricity price for households, retail, OECD	%	o: -	o: -	Price rise slightly above inflation	☺(2000: 19.50; 24.07)	☺(2001 : 22.61; 30.13)
Share of road transport in total freight transport				Reduce	☹(1997: 59.8; 84.7)	☹(2001: 66.0; 84.4)
Share of road transport in total passenger transport					☺(2000: 69.2; 58.0)	☺(2001: 67.2; 57.7)
Retail price of MB95, unleaded	SIT / litre	o: Draw close to the EU average in taxation ☺☺(2000)	o: Unify minimum excise duty	At the EU average level	☺(2001:164.2; 208.4)	☺ (2002:180.8; 223.2 the IMAD's estimate)
Use of the active substance of NPK fertilisers	kg / ha	o: Reduce ☹☹(149.7; 2000)	o: Reduce (s: 116.0) s: 116.0	Reduce	☹☹2000: (149.7)	☹☹ (2001: 142.4)
Growth in organic farming	% of all farms	o: Increase ☺(2000)	o: Increase	Increase	☺(2001)	☺(2002: 1.3)
	% of total cultivated arable land	o: Increase s: ☺(2000)	o: Increase	Increasei	☺(2001)	☺(2002: 3.4)
Intensity of irrigation relative to cultivated agricul. land	%	o: Increase ☹(0.5; 2000)	o: -	Increase	☹(2000 : 0.5)	☹(2001: 0.5)
Intensity of wood product. (increment relative to cutting)	%	o: Increase ☹(38.0; 2000)	o: Reduce	Increase	☹1995-2000 : (38.0; 59.9)	☹(2001: 37.7)
Share of merchandise exports competing in natural resources	%	o: Reduce from 16.7% (1995) ☺(15.5; 2000)	o: - s: -	Reduce	☺2000 : (15.5)	☺2002 : (15.0)
Share of manufacturing's value added from dirty industries		o: Reduce from 20.3% seen in 1995 ☺(21.1; 2000)	o: - s: -	Reduce	☺2000 : (21.1)	☺2001 : (21.3)
Environmental protection expenditure	% GDP	c:1.5; ☹☹(1.2; 2000)	o: 5% annual growth above inflation	1.5	☺2001 : (1.2)	☺2002 : (1.2)
Total assessment of implementation of the SEDS' objectives in environmental development [2]		☹☹☹☹	-		☹☹	☹☹

Source of data: see the IMAD's Working Paper No. 7/2000; the same sources have been used in updating figures.
Notes: [1]effectiveness: ☺☺-exceeding by at least 25%; ☺-exceeding by 10%-25%; ☺-achieving 90%-110%; ☹-implementing 75%-90%; ☹☹-implementing less than 75%; [2] total, whereby: ☺=1point; ☺=0 točk; ☹=-1 točka, The list of indicators may be changed every year, so the overall achievement is subject to the selected indicators.