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Development Report

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Introduction

The ***Development Report*** is mainly intended to monitor implementation of the Strategy for the Economic Development of Slovenia (SEDS) that was adopted in July 2001. The Report gives an assessment of the country's progress in raising the sustainable welfare of Slovenian citizens and Slovenia's capacity to improve the development factors or mechanisms defined by the SEDS. Given that the SEDS is the main document of medium-term development planning, this first Report is more intended to assess the initial situation than identify the effects of the SEDS. Nevertheless, we believe that it represents a thorough analysis of development strengths and weaknesses and facilitates decisions as to where additional measures will have to be taken to implement the adopted strategic policies. The Institute of Macroeconomic Analysis and Development will draw up the Development Report every year in order to provide a regular assessment of changes and the adjustment of measures.

A system of indicators designed to monitor development was elaborated during preparation of the SEDS. The system is mostly based on the SEDS content and data provided by the Statistical Office of the Republic of Slovenia, as well as other sources. We have tried to achieve the maximum level of compatibility between our system of indicators and the structural indicators developed by the European Union to monitor implementation of the Lisbon strategy; the same structural indicators will be used next year to monitor development in candidate-countries. The system will of course be further examined and supplemented where necessary.

According to the SEDS, a broad social consensus on the core development priorities and goals is necessary for its effective implementation. Such consensus will only be achieved in an open partnership of the state and other social partners, but where the Government exercises the main initiative and responsibility. Another condition necessary to reach agreement on the essential development achievements and dilemmas, including possible ways to solve them, is ***reliable, integral and accessible information***. Development monitoring and assessment and the preparation of analyses to set the course of economic and development policies fall within the competence of the Institute of Macroeconomic Analysis and Development which, thanks to its formal status, is fully independent in dealing with technical and methodological issues and in the interpretation of the analysis' results. In addition to the reliability of information and findings, the Report pays special attention to their transparency and accessibility. For the same reason, each chapter of the Report begins with a summary of the main SEDS policies, followed by a paragraph describing the chapter's main findings. We have also tried to make the analysis as accessible as possible and the more demanding reader will sometimes feel there is a lack of detailed figures and methodological explanations. Therefore, exhaustive results for each indicator are listed in the Report's Appendix while detailed methodological information can be found on separate methodological pages referring to individual indicators, which will available on the Internet. Moreover, the Report is based on thorough analyses of individual areas or issues carried out by the Institute alone or in co-operation with other institutions, which are listed in the Bibliography. In particular, we would like to point out that the main findings and recommendations are described in a brief summary facilitating a quick insight into the real content of the Report.

Summary of the the development report's main findings

Development results

(1) The main finding of the analysis is that the principle of **balanced** economic, social and environmental **development** has not been sufficiently carried through in recent years; in fact, in the period of transition (1990-1998) the value of the balanced development index, an aggregate of more than 150 development indicators, dropped. There are significant differences between development components and individual periods (before and after 1995). Over the entire period, **economic development** was more favourable than in other EU candidate-countries and, on average, in member-states, meaning that the development gap in this field narrowed in accordance with the SEDS guidelines. **Social development** inevitably worsened during the transformation depression but in the second period of transition social conditions have been improving again, mostly as a result of the active social policy and the fact that during the period of transition the social security systems were not allowed to deteriorate. On the contrary, **environmental development**, with the exception of environmental protection (legislation, development programmes, harmonisation with the EU), is to a large extent not integrated into the goals of all line ministries (particularly the environment, finance and agriculture). Thus, environmental improvement in the first period of transition was mostly a side effect of defensive economic restructuring, while in the second period economic development accelerated on account of environmental development. Mutually independent indicators show that, compared to the EU, the environment is no longer a development advantage for Slovenia. **Regional development disparities** have increased as well. In terms of **national competitiveness**, Slovenia lags behind EU member-states and certain candidate-countries; the most significant weakness concerns the efficiency of the Government and the institutions responsible for ensuring a competitive business environment. This synthetic assessment confirms that the **SEDS's** opting for sustainable development and stressing the importance of human resource development, competitiveness, a different role of the state, and regional development in fact highlighted the main development setbacks.

(2) Five-year **structural changes among individual sectors of the economy** (1995-2000) can be assessed as predominantly favourable. The restructuring process continued towards strengthening the service sectors and reducing the economic importance of agriculture and industry although Slovenia, given its share of services in gross domestic product, still lags behind the advanced world economies. Industry, particularly manufacturing, as well as mainly market-oriented service sectors recorded the growing importance of activities with high value added per employee. Productivity measured by value added per employee primarily increased in manufacturing where restructuring was most intensive. The analysis also indicates that certain sectors (textile and leather industries, manufacture of refined petroleum products, and civil engineering oriented towards the domestic market) are potentially threatened by the ongoing cyclical slowdown of economic growth. Unfavourable structural changes include the increase in road freight transport, slow restructuring

of agriculture which aims to boost productivity, and the weak rise in the economic importance of market services.

Macroeconomic and institutional prerequisites of the development strategy

(3) After Slovenia gained independence, **macroeconomic policies** (monetary, income and budgetary policies) carried out their stabilisation task with relative success. Until 1997, economic growth was achieved without any significant disequilibrium in public finances, and without any obvious deficit in the current account of the balance of payments until 1999. The lowering of inflation was also very important for stabilisation of the entire economy. After 1999, relatively favourable economic results were achieved despite the macroeconomic disequilibriums, however, if they continue, particularly in prices, wages and public finances, they could seriously hinder achievement of the SEDS objectives. Although some of them, for example the balance of payments deficit and the persistence of inflation in the last couple of years, have partly stemmed from factors of a one-off or external nature, the impact of internal imbalances – which are long-term and structural – have become more pronounced, especially when coupled with great shocks coming from the external environment. In order to achieve macroeconomic stability, which is the prerequisite for implementation of the development strategy, the restrictiveness of all macroeconomic policies will have to be increased.

(4) In terms of **institutional building**, which is indispensable for establishing the relevant normative framework for the operation of market and non-market activities, Slovenia to a large extent adopted the regulations complying with EU norms and standards and closed most of the chapters in the negotiating process by the end of 2001. Last year, institutional building was mostly reflected in the liberalisation of public utilities, regulation of the financial market and the public administration reform where (according to SEDS) the backlogs were most pronounced.

Quality of development factors

(5) **The mechanisms of transition to a knowledge-based society** are the first to be implemented, as laid down in the development strategy. *Education and training* recorded quality shifts in youth education, yet not so in adult education and lifelong learning. As regards the volume of *investment in research and technological development* and the *level of corporate innovation*, Slovenia maintains the status quo which, however, in the light of the dynamic changes occurring in the world does not allow the development and establishment of a knowledge-based society or the meeting of requirements set by the SEDS to increase the share of research and technological development in gross domestic product to about 2% by 2006. The difference between Slovenia and the EU recently recorded in the field of the *Internet* indicates that Slovenia is late in promoting the development of the information society, partly as a result of the inefficient market structure. Analyses also show that Slovenia does not lag behind the EU so much in terms of human resources and knowledge creation (despite many structural problems), but more in

terms of the transfer and use of knowledge, and financing mechanisms that accelerate such a transfer.

(6) The second set of development strategy mechanisms is intended to **strengthen economic competitiveness**. The process of defensive restructuring **in the corporate sector** has been completed, and the intensity of offensive restructuring largely depends on ownership structures created between the primary and secondary privatisation. Economic competitiveness is increasingly dependant on productivity growth and the reduction of unit labour costs in the existing production programmes; at the same time, Slovenia lags behind in the process of introducing new production programmes requiring new investment, technological advancement, and a generally offensive approach to corporate restructuring and development. This is the result of the hitherto slow restructuring and slow establishing of an efficient ownership structure in enterprises as well as restraints in relation to foreign direct investment. As regards the lifting of administrative barriers, the work done so far heralds a promising beginning; for more radical changes, however, decisions concerning land-spatial issues and labour legislation are necessary. In the **financial sector reform** , the SEDS guidelines have been successfully implemented in the regulation, monitoring and harmonisation of regulations with EU standards, while some backlogs are recorded in the establishment of a competitive structure of services resulting from the pending restructuring and privatisation. Privatisation of the two biggest banks in Slovenia is being prepared, however, the ownership transformation in the insurance sector is lagging behind. In 1995-1999, the building of **economic infrastructure** recorded dynamic growth while in 2000 and 2001 an increase was only recorded in investment in telecommunications and environmental protection infrastructure. The process of liberalising economic infrastructure began with the adoption of the basic legislation and initial activities in the telecommunications sector as well as with the partial opening up of the electricity market. The processes of liberalisation and setting up independent regulatory agencies will be followed by privatisation. Private capital is not yet invested in the building of infrastructure, however, institutional solutions are being prepared to facilitate and regulate the entry of private capital.

(7) In realising the **stateís developmental role**, improvements have been recorded with regard to the control and volume of state aid and justice, and to a lesser extent with regard to the stateís withdrawal from direct control over the economy, the regulation of real estate ownership and public administration reform. Nevertheless, international comparisons of state efficiency and interventionism remain unfavourable. Slow improvement leads to a lower level of national competitiveness and the rising general government expenditure relative to gross domestic product. Given the growing expenditure, tax burdens need to be increased in order to maintain the general government deficit within macroeconomically sustainable frameworks, which reduces economic competitiveness and the medium-term potential for economic growth. In the light of reducing such problems, the process of drafting the budget has been amended, changes relating to wages in the public sector are being prepared, and the processes of preparing, implementing and monitoring development documents will have to be systemically upgraded.

(8) The results of **regional development** indicate that regional disparities have been increasing in the last years. The measures of institutional building in spatial planning that have been undertaken have shown no results yet, for they can only be seen over a longer period of time. Changes in agricultural policy have been highly intense and produced the first results in the area of land structure.

Environmental and social development components

(9) **Environmental development** is not sufficiently related to an integrated policy. The problems of public environmental management partly derive from: (i) significant changes to public affairs management as announced by increased public participation in public affairs management, interdepartmental integration of public management (particularly the environment, agriculture, transport, tourism, health, education, economy, finance) and the increasing importance of the direct effects of international agreements on the direction of national development; (ii) changing environmental problems – attention is no longer paid to the few major polluters (thermal power plants, purification plants, landfills) but is directed towards a number of small, dispersed and diverse polluters (households, certain service activities; an increasing number of instruments has already been adjusted), and development is gaining grounds over protection. Important results were achieved in institutional building and in the introduction of the envisaged environmental protection measures, and more funds were allocated to environmental protection. Greater influence and integration of the environmental development policy will also be achieved by complete monitoring and reporting on the state of the environment and policy implementation on the basis of indicators complying with the EU and in accordance with the legal obligation of yearly reporting.

(10) Slovenia spends a similar share of its gross domestic product on **social security** as EU member-states. In the period of transition, Slovenia successfully maintained the social security systems which cushioned the necessary changes made to the economic system. Yet it is necessary to guarantee that the regulations encourage people to devote their own efforts to solving their social problems and integrating in work or other forms of social activity. More attention will have to be paid to labour force participation and education which are the main determinants and most frequent levers of reducing social exclusion and poverty. The poverty rate fell in 1998 compared to 1993. Slovenia also carried out the reform of its pension system necessary to prevent the share of gross domestic product allocated to pension expenditure from increasing. It regulated and upgraded the social security and family benefits systems and thus provided for the poorest part of its population, as well as regulated and modernised family protection. Further, changes in the health care and insurance systems are necessary.

Guidelines for implementing the development strategy

According to the Development Report, there are **two main sets of development weaknesses**: (i) weak links among science and research, education and the economy resulting in gaps in human resource quality, technological development and

development of the information society and export competitiveness; (ii) slow reforms of the labour and financial markets, infrastructure and the public sector, including the government, resulting in poor national competitiveness and structural pressures on inflation and general government expenditure. According to calculations on potential growth capacity, in a few years the economic growth capacity will drop considerably if investment in technological development and education does not increase, or continues to fall. Active elimination of these weaknesses is also necessary because their negative implications might become stronger after the expected oncoming accession to the internal EU market where the level of competitiveness is higher and national competence in taking measures is much more limited (also in terms of state aid and competition policy). Such conditions might threaten that part of the economy that has not yet been able to restructure and establish its competitive capacity in advanced markets.

Therefore, despite the relatively favourable results, **accelerated economic development** remains a priority among the activities and measures of national policy. Slovenia needs an enhanced and integrated **industrial policy**, which is in the forefront of the Government's decisions, but it should be well planned and its activities and measures should comply with priorities and general government frameworks, while its effects should be measured for their contribution to economic growth. However, neither an effective industrial policy nor abundant budgetary appropriations (deriving from either national or EU structural sources) can have an optimum effect on the future development if **macroeconomic stability** and **efficiency of the state administration** are not guaranteed. Administrative barriers hindering the creation of a favourable business environment, the selection of development projects (investment and state aid) without a proper evaluation of economic and development implications, non-regulated institutions and procedures of co-ordination, monitoring and assessment of effects of the various activities and measures, all have an unfavourable impact both on macroeconomic stability and the efficiency of industrial policy measures.

Slovenia needs an **integrated industrial policy with clearly defined objectives, guidelines and division between priority programmes and subprogrammes**, measures and instruments. The Strategy for the Economic Development of Slovenia, the Pre-accession Economic Programme and the Budget Memorandum adopted last year comply in terms of definition of development priorities and the course of economic and structural policies. Moreover, the National Development Programme was (preliminarily) adopted last year in order to reduce the disparities between the set guidelines and the actual allocation of funds for development. One of its significant qualities is that it contains interdepartmental programmes which are financially evaluated and ñ in the part where financing from public funds is planned ñ comply with the adopted national budget. While drawing up the National Development Programme, the methods of its co-ordination through the Structural Policy Council were devised, preparations for monitoring its implementation began and, finally, efforts were made for horizontal harmonisation, which should be carried out through strategic environmental and health impact assessment and external preliminary feasibility assessment. A weakness of the programme is that its definition of priorities relies on the structure of EU financing sources to the same extent as the SEDS. Thus, by the time negotiations on the financial chapters are

concluded, the National Development Programme will become a Single Programming Document, meaning that its contents and probably also the envisaged funds will be reduced depending on the outcome of negotiations (representing a possible threat to implementation of the programme or an excessive burden for private sources, particularly borrowing). Due to such transformation, the National Development Programme will probably not include all the programmes which are important for development, but will include some that can be financed by EU funds and give more emphasis to the social aspect than to the developmental one. A possible solution is to keep drawing up the national development programme as an internal document comprising all government development priority expenditures, although some would still be financed by EU funds. Such a development programme could be Sloveniaís industrial policy and replace the current formal plan of state budget development programmes, while the intensified procedures and institutions established so far would provide for co-ordination among the ministries and compliance with the budget, and successful monitoring of the programmeís efficiency.

Development Report

Editor in Chief:

Ana MURN

1. Development results

The new development concept adopted in the document **Slovenia in the New Decade: Sustainability, Competitiveness, Membership in the EU: Strategy for the Economic Development of Slovenia 2001-2006** (SEDS) as the new development paradigm, derives from the equal treatment of the economic, social and environmental aspects of welfare[1] and sustainable development ensuring 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 (through the three sources or components of welfare), temporal (intergenerational) and spatial dimensions (highlighting the regional balance of development).

1.1. Balanced economic, social and environmental development

SEDS' OBJECTIVES: In the SEDS, Slovenia defined the integral development objective of sustainable economic, social and environmental development. The SEDS thus equally treats the economic, social and environmental aspects of welfare, setting the foundations for integrating development activities at all levels of decision-making. Almost a year after the adoption of the SEDS, a system of selected synthetic indicators[2] is being used to assess whether Slovenia is moving in the envisaged development direction.

REPORT'S FINDINGS: The main outcome of the analysis is that the principle of ***balanced*** *economic, social and environmental* ***development*** *has not been sufficiently implemented in recent years; in fact, in the period of transition (1990-1998) the value of the balanced development index, an aggregate of more than 150 development indicators, dropped. There are significant differences between development components and individual periods (before and after 1995). Over the entire period,* ***economic development*** *was more favourable than in other EU candidate-countries and, on average, in member-states, meaning that the development backlog in this field is shrinking in accordance with SEDS' guidelines.* ***Social development*** *inevitably worsened during the transformation depression but, in the second period of transition, social status is again improving, mostly as a result of the active social policy and the fact that the social security systems were not allowed to degrade during the period of transition. On the contrary,* ***environmental development****, with the exception of environmental protection (legislation, development programmes, harmonisation with the EU), is to a great extent non-integrated in terms of the common achievement of goals by all line ministries (particularly of the environment, finance and agriculture). Thus, environmental improvement in the first period of transition was mostly a side-effect of defensive economic restructuring, while in the*

[1] Welfare means the integral satisfaction of needs and creates the possibilities of maintaining and enjoying one's life.

[2] The selected indicators are: gross domestic product per capita at purchasing power parity, human development index, balanced development index, national competitiveness index and regional development index.

second period economic development accelerated on the account of environmental development. Mutually independent indicators show that, compared to the EU, the environment no longer represents an outstanding development advantage for Slovenia. ***Regional development disparities are also growing****. In terms of* ***national competitiveness****, Slovenia lags behind EU member-states and certain candidate-countries; the most significant weakness involves the efficiency of the Government and the institutions which provide for a competitive business environment. Such a synthetic assessment confirms that the* ***SEDS actually highlighted the main development disparities*** *by opting for sustainable development and stressing the importance of human resources development, competitiveness, a different role of the state, and regional development.*

ANALYSIS: The main indicator of a countryís economic development, efficiency and living standard is **gross domestic product (GDP) per capita at purchasing power parity**.[3] For this indicator, Slovenia achieved 64% of the EU average in 1996 and 69% or 15,600 PPS in 2000 (Eurostat). In the *group of comparable EU accession candidate-countries,* the highest development rate was recorded by Cyprus (1996: 83%; 2000: 86% of the EU average). The development rate fell compared to 1996 in the Czech Republic, Bulgaria, Romania and Turkey, but increased in other countries. Greatest progress was achieved by Slovenia and Hungary. *Compared to EU member-states,* Slovenia already caught up with the least developed EU member-state ñ Greece ñ in 1997 and drew very close to Portugal. The analysis of the development backlog indicates that Sloveniaís GDP in purchasing power per capita in 2000 was almost as high as the 1984 EU average. Given the SEDSí economic growth scenario (average annual growth of GDP per capita at about 5.5%) and the scenario in the EU member-states (the Lisbon strategy: 3% annually on average), Slovenia is expected to reach the EU average in 15 years.

The **human development index**[4] (HDI) and concept are based on the assumption that economic and social development are interconnected, with man being at its centre. A comparison of the results achieved in previous years indicates that between 1992 and 1997[5] both the index and *Slovenia's position in the world* gradually improved. According to UN calculations, Slovenia ranked 29th among 174 states in 1998 and also maintained its position in 1999 (among 162 states) with a slightly higher common index value. In the *education index*, Slovenia was among the top 20 states in 1999; according to the *GDP index*, it shared position no. 30 with Portugal (the country in transition that came closest to Slovenia was the Czech Republic at no. 38); with regard to the *life expectancy index*, Slovenia lagged

[3] This indicator is the result of GDP calculated in a selected common fictitious currency by means of special converters called purchasing power standards (PPS).

[4] The human development index is the composite of three (independent) indices which represent the three aspects of development: health (life expectancy), education (literacy and combined enrolment ratio) and economic development (GDP per capita at purchasing power parity).

[5] For this period, we have calculated the HDI value according to a new formula. See Human Development Report, 1999, New York/Oxford: Oxford University Press, pp. 159-160; Human Development Report, 2000. Hanžek, M. (ed.) Ljubljana: UNDP&IMAD, p. 16 and Javornik, J. (2000): Human Development – Indices, Economic Mirror, (ed.) Vendramin, M., No. 12, year V, p. 13/I.

slightly behind and ranked 32nd together with Portugal and Chile (all other transition states – EU candidate-countries – ranked lower than Slovenia). In terms of life expectancy, Slovenia was overtaken by Malta, which had been ranked lower than Slovenia for several years. Compared to the rest of the world, Slovenia lagged mostly behind in terms of health, which is normally one of the most important[6] (synthetic) indicators of the general welfare of a country. The relatively rapid HDI growth over the past years (in the nineties) resulted mostly from explicit GDP growth and an increased enrolment rate[7].

Despite a growing GDP, not all states are capable of developing in line with a pattern they can constantly follow and at the same time take into account the environmental and social aspects of growth. For evaluating balanced economic development according to these three aspects, the **balanced development index (BDI)**, comprising approximately 150 indicators, has been introduced. Put simply, this index assesses the development effectiveness as regards the use of the largest possible amount of potential welfare which "lies and waits" in available economic wealth to be created. According to the BDI, development patterns differ among states and no closing up between the *most developed* (EU, Norway, Switzerland) was recorded in the nineties. The differences among the first five (Austria, Denmark, Sweden, Norway, Finland) and the last five (Greece, Portugal, Belgium, Italy, Spain) did not shrink. In 1998, the greatest differences were recorded in social development (the ratio of the highest to the lowest achievement is 1:0.35) and the smallest in economic development (1:0.60); in environmental development the ratio was 1:0.44, while the total ratio according to the summarised BDI was 1:0.45. The fact that in the nineties development disparities in the EU did not reduce (at least when taking into account the extremes) indicates that EU accession alone does not guarantee any reduction of the development gap, except perhaps in the economic component. In the 1990-1998 period, *transition countries* reduced their gaps behind the EU average. They changed their development pattern and achieved significant progress in economic development (slightly less than Slovenia), stagnated in social development and improved their environmental situation twice more than Slovenia. In 1990, *Slovenia* lagged behind the EU average in economic terms far more than it exceeded it in the social and environmental aspects; in the transition period, however, the following changes occurred: (i) in economic terms, the gap behind the EU was reduced by more than a half; (ii) the advantage in social development turned into a gap, exceeding one-third of the initial advantage although it began to decrease after 1995; (iii) as for environmental development, the advantage over the EU average decreased by almost a fifth, particularly after 1995. In 1998, the value of BDI, the indicator of total created welfare, in Slovenia was thus lower than in 1990.

The SEDS also envisages balanced regional development as part of the integral development objective. The main indicators to assess balanced regional development are GDP per capita and the registered unemployment rate. In 1999,

[6] The calculation of the correlation coefficient indicates that life expectancy is strongly and positively connected with the enrolment rate and HDI (see Human Development Report ñ Slovenia 1999, p. 12).

[7] The gross enrolment rate indicates the ratio between people involved in education and the entire population in the age category covered by the education system.

the highest **gross domestic product (GDP) per capita**[8] was recorded in Central Slovenia where it was 34% above the Slovenian average. GDP per capita was slightly above the average also in the Littoral-Karst region, whereas it was lowest in the Pomurska region lagging behind the 1999 Slovenian average by 23%. The difference between the least and most developed regions was 1:1.75, which is more than in 1996 when this ratio was 1:1.70. The coefficient of variation increased from 15.1 in 1996 to 16.7 in 1999. The **registered unemployment rate**[9] indicates that there is an obvious difference between the western part of Slovenia where the registered unemployment rate is significantly lower and below the Slovenian average, and the eastern part of the country where it is above the average. In 2000, the highest registered unemployment rate (18.7%) was recorded in the Podravska region where it was above the national average by 53.5%. The ratio between the regions with the lowest and highest registered unemployment rates was 1:2.7 in 1997 and increased to 1:3 in 2000. The coefficient of variation increased from 26.6 in 1997 to 30.5 in 2000.

The **concept of national competitiveness** is gaining importance as an integral system that tries to use several (also soft – evaluated) indicators to reveal the development possibilities and the state of the structure and relations within society, and to thereby turn attention away from economic activities and the results expressed in statistically measurable (hard) indicators. There are many definitions and methods available to assess national competitiveness, since they are based on different theoretical approaches. The Swiss institute **IMD**, which assesses competitiveness in a system of 286 indicators among 49 states, placed Slovenia in different positions between 1999 and 2001[10]. Slovenia ranked 39th in 2001 but 36th in 2000. Compared to other *EU candidate-countries*[11], according to the composite national competitiveness index Slovenia was only better than Poland but lagged behind the other candidates and the *EU member-states*. Among individual groups of indicators, Slovenia was very successful in corporate efficiency (34th) but less so in infrastructure, economic efficiency and, in particular, government efficiency (44th). Between 2000 and 2001, Slovenia went down the list as regards economic efficiency (down by eight positions) and infrastructure but went up in terms of government efficiency, while with regard to corporate efficiency its position remained unchanged. A different method to assess national competitiveness is the **WEF method**, which calculates two competitiveness aggregates: current competitiveness

[8] Regional GDP per capita was first calculated in Slovenia in 1996; the last available data refers to 1999. On the basis of data for 1996, an assessment for 1995 was prepared which, however, does not reflect the real situation but only serves as a mathematical calculation.

[9] The registered unemployment rate at the regional level is calculated as the ratio between registered unemployed persons and the actively employed population, which includes persons in employment and registered unemployed persons. This indicator cannot be compared internationally and has only been available since 1997. The EU uses the ILO methodology to calculate the unemployment rate.

[10] In accordance with the IMD methods, Slovenia's competitiveness in 2001 was calculated for the third consecutive year in a group of 49 countries. In 2000, the methodology changed and it is therefore only possible to compare the years 2000 and 2001.

[11] The IMD index includes the following EU accession candidate-countries: Hungary, the Czech Republic, Slovakia, Poland and Estonia, as well as Russia among other transition countries.

index (CCI) and the growth competitiveness index (GCI).[12] *National competitiveness of Slovenia* was first assessed among 75 states in the 2000 - 2001 period. According to the GCI growth capacity, Slovenia (together with Estonia) belonged to the group of countries with favourable growth possibilities and ranked 31st; in terms of current competitiveness Slovenia ranked 32nd and joined the group of states (Argentina, Russia) that still have to complete microeconomic reforms. Slovenia ranked 26th in terms of GDP per capita and 17th with regard to growth of GDP per capita in real terms. As regards the CCI and GCI values, Slovenia, compared to the *candidate-countries and certain EU member-states*[13], ranked ahead of Greece, the Czech Republic, Slovakia and Poland. Given the individual aspects of the GCI and CCI, Slovenia's biggest development disparity is macroeconomic environment competitiveness where Greece, although less successful than Slovenia according to both composite indices, was ahead of Slovenia while Estonia, which is otherwise more competitive, was behind it.

1.2. Changes in the economic structure

SEDS' OBJECTIVES: although it does not intervene directly in sectoral policies, the SEDS, taking into account globalisation processes, the integration of European markets, intensive technological progress and the transition to an information and knowledge-based society, indicates the basic changes in the GDP production structure resulting from Slovenia's future economic development and its accession to the EU. The purpose of this chapter is to ascertain which structural changes occurred in Slovenia's economy in the last five years (1995-2000) and whether such changes constitute favourable grounds for implementing the SEDS' objectives.

REPORT'S FINDINGS: Five-year ***structural changes among individual sectors of economy*** *(1995-2000) can be assessed as predominantly favourable. The process of restructuring continued towards strengthening the service sector and reducing the economic importance of agriculture and industry although Slovenia, given its share of services in gross domestic product, still lags behind the advanced world economies. Industry, particularly manufacturing, as well as the mostly market-oriented service sector recorded the increased importance of the activities with high value added per employee. Productivity, measured as value added per employee, mostly increased in manufacturing where restructuring was most intensive. The analysis also indicates that certain sectors (textile and leather*

[12] The number of indicators fell from 378 to 155, the composite indices calculate competitiveness guaranteeing a constantly high achievement of annual growth of GDP per capita. The measures have been selected according to the reliability of data and the correlation with growth rates. The WEF excludes the auto-correlated indicators and certain other indicators (GDP growth, export growth, sector growth, foreign investments inflow etc.) which are the result and not the factor of national competitiveness. The WEF's competitiveness system is more transparent but provides less useful data than the IMD's. Soft indicators are weighted differently to the hard ones.

[13] Among the EU candidate-countries, we only compare those bordering with Western Europe: Slovenia, Hungary, the Czech Republic, Slovakia, Poland and Estonia (also covered by the IMD). We have added certain EU member-states to which Slovenia easily compares in terms of GDP (Greece and Portugal) and the regional neighbours (Austria and Italy).

industry, oil-processing industry, and civil engineering oriented towards the internal market) are potentially threatened by the existing cyclical slowing down of economic growth. Unfavourable structural changes include the increase in road freight transport, slow restructuring of agriculture aimed at increasing productivity, and weak increase of the economic importance of market services.

SUMMARY OF THE ANALYSIS[14]*:* The structural changes in the 1995-2000 period can be assessed as generally positive. The process of restructuring continued towards strengthening the service sector and diminishing the economic importance of agriculture and industry although Slovenia, given its share of services in gross domestic product, still lags behind the advanced world economies. Structural changes in individual sectors also revealed positive trends. **Industry**, particularly manufacturing, **as well as the mostly market-oriented services sector recorded the increased importance of activities with high value added per employee.** In manufacturing, most progress was achieved in *metal industry, engineering and chemical industry* as well as *in the production of electrical and optical equipment*, while the importance of traditionally labour-intensive activities, such as the *textile industry and footwear manufacturing*, dropped. In the predominantly market-oriented services sector, the fastest growing activity was *telecommunication and computer services,* which are important for the development of a knowledge-based and more competitive economy. In this aspect, favourable changes occurred in *college and university education* which increased in past years, whereas *adult education* has not yet recorded the progress envisaged by the SEDS (increasing the importance of lifelong learning). In terms of further economic development and increased economic competitiveness, progress was recorded in financial intermediation towards developing and strengthening the importance of new services (*insurance*, *pension funds, ancillary services in financial intermediation*).

Positive structural changes also occurred in certain **traditionally services activities**, such as trade and hotels and restaurants. In *trade*, lively restructuring processes have been taking place in wholesale and retail trade, thereby increasing their efficiency. *Hotels and restaurants* recorded positive restructuring processes in the hotels activity and the greater importance of mostly tourist-oriented activities.

On the other hand, changes in *transport, storage and communications* were unfavourable since in the past few years **road freight transport has increased** (on the account of railway freight transport), which has a negative impact on environmental development. Similarly unfavourable is the slow restructuring of agriculture towards increasing productivity, and the weak rise of the economic importance of market services. An **increase in the volume of public services**, particularly in *public administration, defence and social insurance* (Slovenia's accession to the EU and NATO) as well as in *health care and social security* (demographic trends towards ageing of the population), was also envisaged by the SEDS, but we should point out that besides the increase in the number of people in employment and thus of value added, the **enhanced role of private service providers and the efficiency of the public sector are very important**.

[14] The summary only includes the main findings of the analysis; for more detailed data by individual sectors see the Appendix.

Table: **Value added by activity (in GDP and GVA - gross value added, current prices in %) and number of people in employment (in %)**

Activities		Value added in GDP	Value added in GDP	Value added in GVA	Value added in GVA	Actively employed	Actively employed
		1995	2000	1995	2000	1995	2000
A.	Agriculture, forestry, hunting	3.9	2.9	4.6	3.3	6.9	5.6
B.	Fishing	0.0	0.0	0.0	0.0	0.0	0.0
C.	Mining	1.2	0.9	1.4	1.1	1.0	0.7
D.	Manufacturing	24.6	24.0	29.0	27.8	34.4	29.4
E.	Electricity, gas and water supply	2.6	2.8	3.0	3.2	1.5	1.4
F.	Construction	4.3	5.3	5.1	6.2	6.6	7.9
G.	Trade, motor vehicle repairs	10.5	10.0	12.3	11.6	13.0	13.6
H.	Hotels and restaurants	2.6	2.8	3.0	3.2	4.1	4.3
I.	Transport, storage, communications	6.7	7.0	7.9	8.1	5.9	6.0
J.	Financial intermediation	3.5	3.9	4.1	4.5	2.2	2.4
K.	Real estate, renting and business services	10.1	10.5	11.9	12.1	5.7	6.7
L.	Public administration, defence, social insurance	4.6	5.0	5.5	5.8	4.2	5.2
M.	Education	4.9	5.1	5.7	5.9	5.9	6.4
N.	Health care and social security	4.6	4.8	5.4	5.6	5.3	6.4
O.	Other common and personal services	2.9	3.3	3.4	3.8	3.3	4.0
PBS	FISIM	-2.0	-1.9	-2.3	-2.2		
A+B	Agriculture, forestry, fishing	3.9	2.9	4.6	3.3	6.9	5.6
C...F	Industry and construction	32.6	33.1	38.5	38.3	43.5	39.4
C…E	Industry	28.3	27.7	33.4	32.1	36.9	31.5
F	Construction	4.3	5.3	5.1	6.2	6.6	7.9
G..O	Services	50.2	52.3	59.2	60.6	49.6	55.0

Sources of data:
- GDP and GVA: calculations based on »Economic developments in 2001 and economic development forecasts for 2002, 2001 Autumn Report«, Institute of Macroeconomic Analysis and Development, Ljubljana, 2001, pp. 138-139,
- People in employment: calculations based on data from »People in employment according to the national accounts«, Statistical Office of the Republic of Slovenia.

2. Prerequisites for implementing the development Strategy

According to the SEDS, the preconditions for implementing the development strategy include the provision of macroeconomic stability and the completion of institutional reforms.

2.1. Macroeconomic stability

SEDS' OBJECTIVES: 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 classic macroeconomic policies: monetary, incomes 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 Broad EU Economic Policy Guidelines, incomes policy aims at achieving real growth in the gross wage per employee which is 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 basic strategic guideline of fiscal policy is the restructuring of general government expenditures and revenues which will have a favourable impact on economic competitiveness and will, in the medium term, facilitate the gradual balancing of public finances without increasing their share in GDP.

REPORT'S FINDINGS: After Slovenia gained independence, ***macroeconomic policies*** *(monetary, incomes and public finance policies) carried out their stabilisation task with relative success. Economic growth was achieved without any significant disequilibrium in public finance until 1997, and without any marked deficit on the current account of the balance of payments until 1999. The lowering of inflation was also very important for stabilisation of the entire economy. After 1999, relatively favourable economic results were achieved in the environment of macroeconomic disequilibrium, the continuation of which, particularly in prices, wages and public finance, could seriously hinder achievement of the SEDS' objectives. Although some of them, for example the balance of payments deficit and the persistence of inflation in the last few years, partly derive from factors of a one-off or external nature, the impacts of internal imbalances – which are of a long-term and structural nature – became more obvious together with great shocks coming from the external environment. In order to achieve macroeconomic stability, which is the prerequisite for implementation of the development strategy, all macroeconomic policies will have to be made more restrictive.*

ANALYSIS: **Indicators of macroeconomic stability**[15] show that after Slovenia gained independence macroeconomic policies carried out their stabilisation task

[15] The indicators of macroeconomic stability are: 1) GDP growth rate in fixed prices; 2) inflation

with relative success. In 1995 and 1996, economic growth was achieved without any significant disequilibrium in public finance, while up to 1999 growth was not accompanied by any significant deficit on the current account of the balance of payments. Except in 1999, the main factor of economic growth was foreign demand. In terms of development opportunities in the 1995-1999 period, the structure of domestic demand was also favourable, the average annual growth of investment in fixed assets being almost three times higher than the growth of final consumption. In 2000 and 2001, the **structure of GDP growth** changed due to the reduction of the share of investments in GDP (which was partly cyclical and partly a result of public finance restrictions) and had, particularly in 2001, a decisive effect on the slowdown of GDP growth and the cyclical deviation of economic growth from the SEDS' medium-term projections. Given the accentuated budgetary financing of investments as an anticyclical economic policy measure in 2002, the structure of investments is changing both institutionally and in terms of their economic purpose (greater share in financing by the public sector and more infrastructural investments than planned on a medium-term basis).

In 1999, the **external balance** deteriorated as a result of changed economic conditions within the country and abroad, the main reasons being on one hand the rapid growth of imports due to high domestic consumption stimulated by expectations before the introduction of VAT and, on the other hand, the modest growth of exports due to a less favourable international economic environment. In 2000, the deficit on the current account of the balance of payments remained relatively high, mostly because of the significant worsening of the international terms of trade and the dynamic growth in imports of intermediate goods. The current account of the balance of payments was balanced in 2001, mostly as a result of one-off factors: the structure and weak dynamics of domestic consumption growth, reflected in low import rates in real terms, and the persistence of relatively high export rates, mostly resulting from increased exports to the less demanding and on a long-term basis less sustainable markets of East and South-east Europe. The problem of insufficient export competitiveness, reflected in a modest increase of market shares in EU markets, particularly compared to other Central European countries, thus remained. **External debt** began to increase more rapidly in 1995 mainly because of stronger private sector borrowing and partly because of increased central government borrowing (the issue of bonds after 1996). External borrowing of the private sector was particularly strong in 1999 and 2000, due to favourable external borrowing conditions and the lifting of restrictions on external borrowing in February 1999. The worsening of the external borrowing indicators that characterised 1999 and 2000 slowed down in 2001 thanks to, in particular, the reduction of the deficit on the current account of the balance of payments and increased inflows of foreign direct investment.

An important role in stabilisation of the entire economy was played by price stabilisation which was the result of restrictive monetary policy, reduced depreciation of the Slovenian tolar, the policy of administered prices and income policy reforms, and made **inflation** fall to a single-digit annual rate after 1995. In

rate; 3) balance of payments equilibrium; 4) external debt; 5) equilibrium in public finances; 6) public debt; 7) employment rate; 8) unemployment rate; and 9) country risk.

June 1999, the year-on-year growth in prices fell to 4.3% but started to rise again after the introduction of VAT in mid-1999. Accelerated price rises towards the end of 1999 and in 2000 were stimulated by mostly external factors (higher prices of oil derivatives and raw materials in the world market, relative strengthening of the US dollar and increasing inflation in EU member-states). External factors continued to influence price growth in the first half of 2001 due to delayed effects, however, internal factors began to be increasingly important for price movements, pushing up the prices of food and utility services as well as those of transport fuels and heating due to higher excise duties. The gradual slowdown in long-term inflation indicators made annual inflation fall to 7% at the end of 2001. Higher VAT rates and excise duties seen at the beginning of 2002 caused a new temporary increase of annual inflation, while rises in regulated prices became one of the most important factors that could interrupt the inflation's downward trend. The weighted share of regulated prices in the consumer price index decreased from about 30% in 1997 to about 13% in 2001. Until 1997, the contribution of regulated prices to inflation was more or less similar to their share in the price index, whereas after 1997 it was significantly higher every year. In the 1995-2001 period, prices of services grew faster than the prices of goods, mostly due to the differences between tradable and non-tradable sectors that caused disparities in productivity growth among individual sectors and, consequently, different price growth dynamics (the Balassa-Samuelson effect).

Despite the relatively dynamic economic growth after 1993, positive trends in the **labour market** were recorded only in 1999. The main reason for the decrease or stagnation of employment was economic restructuring which, with the reduction of the number of people in employment, particularly in industry, caused a gradual increase of productivity, better machinery and equipment, and higher gross value added per employee. Since 1999, both the number of unemployed persons and the registered unemployment rate have been decreasing. Inflows into unemployment have, on the contrary, not fallen: for the third consecutive year, the number of people looking for their first job and the number of those made redundant have been increasing, while the direct flow from unemployed to employment is decreasing. Despite the positive trends in employment, the problems of structural unemployment remain practically unchanged.

In **wages policy**, the main objective is the growth of real gross wage per employee behind the rate of gross labour productivity growth, and this objective has been achieved since 1997 (since 1996 in the private sector). A new wave of increasing wage supplements began in 1998 with amendments to sectoral collective agreements and the collective agreement for doctors, which resulted in a significant rise of wages per employee in the public sector in 2001. Throughout the entire period, employment in the public sector was on the increase, on one hand mitigating the social effects of falling employment in the private sector, and on the other hand causing an additional rise in the wage bill and heavily burdening general government funds. Due to disproportionate movements of wages in the public sector, the objective of growth of gross wage per employee in real terms lagging behind labour productivity growth was not achieved in 2001.

The institutional mechanism of negotiations was established at the beginning of the nineties. In 1994, the Economic and Social Council was set up as a tripartite body of representatives of employees, employers and the Government. The first social agreement regulating the framework conditions for economic and social policy was adopted in 1995 and defined wage policy in detail. In negotiating a mechanism of adjusting wages by inflation, the objective to be achieved was growth of the gross wage per employee in real terms lagging behind labour productivity growth. After 1996, the wage policy agreed by the social partners was regulated by law and agreements. Given the slowdown in inflation, in 1997 it was possible to change the mechanism from a quarterly to an annual adjustment and for the first time wage policy was determined for two years. A similar adjustment mechanism was defined in the Agreement on Wage Policy for the Period 1999-2001 that remained in force until June 2001. Prior to this Agreement, the mechanism of wage adjustment in line with price increases had applied to both sectors. In 2001, a different wage adjustment mechanism was introduced in the public sector (Agreement on the Method of Wage Adjustment in the Public Sector in 2001) taking into account the expected inflation in the current year and not the inflation recorded in the previous year. Wage policy in the private sector, which was later agreed upon by the social partners (Annex to the Agreement on Wage Policy for the Period 1999-2001), took into account the expected inflation only in the adjustments for the second half of 2001. The Annex to the Collective Agreement for the Public Sector defined wage policy in the public sector for 2002 and 2003, including a mechanism of adjusting wages to the expected inflation. In the private sector, negotiations among the social partners are continuing.

The **balanced public finances** in 1995 and 1996 had a positive impact on stabilisation of the economy since it did not put additional pressure on interest and exchange rates through external borrowing. This equilibrium was undermined in 1997 for different reasons. On the side of general government revenue, factors were a gradual reduction of direct taxes, particularly taxes on labour, and lower import duties because of the reduction or abolition of the customs duties rate. Although both factors had a positive impact on strengthening international competitiveness and international trade in goods, public finances recorded lower inflows which could not have been compensated for by the new tax sources. On the other side, general government expenditure felt the pressure of increased wages and employment in the public sector and, as a consequence, (through indexation mechanisms) of increased transfers to the pension and disability allowances fund as well as the pressures of other social transfers. In the following two years, the general government deficit shrank: in 1998 as a result of austerity measures and in 1999, after introduction of the tax system reform, due to high tax inflows given the changed consumption structure. In 2000, the general government deficit again showed upward trends and this persisted in 2001. The inflows were lower than expected, the pressure on pension (particularly in 2000) and wage expenditure (in 2001) increased at the same time, while in both years the share of general government expenditure on goods and services, social transfers and interest payments recorded a relative increase (relative to GDP). In 2001, given the limits imposed on increasing the financing of public consumption, the wages growth

The aggregate production function is used to assess the **contribution of individual sources of potential GDP growth** in the period following the transformation depression (1993-2000). *The contribution of physical capital* slightly increased in the observed period (from 0.45 to 0.60 of a percentage point) as a result of the growing investment rate. The *contribution of labour* as an output source increased in line with the employment rate; in 1997 it was positive for the first time and at the end of the observed period corresponded to one-half of the con-tribution of physical capital. The *contribution of human capital* (measured in employees' education structure) was a reason for concern, being modest or even decreasing over the entire period.

The difference between the sum of the assessed contributions, reflecting the change in the volume of available output sources, and the total potential growth is due to the increase of **total factor productivity**. It is particularly influenced by the technological progress and structural changes seen in the economy. According to calculations, the contribution of total factor productivity to potential growth was considerable although falling (from more than 5 percentage points at the beginning of the observed period to less than 3 percentage points at the end). In drawing conclusions, caution is essential due to the methodological complexity of assessment (short period, few available data), however the calculations indicate that the recorded drop in total factor productivity's contribution (technological development, structural reforms) is the main threat to maintaining the hitherto relatively high potential economic growth rate.

Calculations made using different methods indicate approximately **4.25% potential economic growth** (growth that could be achieved with the available output sources and technology, assuming they are fully exploited and inflation is stable) in the period between 1993 and 2000. Compared to actual growth rates (the **output gap**), the observed period can be divided into three specific sub-periods: (i) the *rehabilitation period*, following the transformation depression (1994-95) when actual economic growth exceeded potential growth; (ii) the *period of calm growth* (1996-98), when actual economic growth was slightly below poten-tial growth, indicating a standstill in the economic cycle; (iii) and the *period of high demand* (1999-2000), first stimulated by the introduction of VAT and later by extraordinary growth in foreign markets, causing actual growth to again rise above potential growth. In terms of economic cycles analysis, the first and third periods may be defined as periods of economic ascent, while the second period is a period of conjunctural cooling.

In assessing the potential growth, the **balanced unemployment rate** was calculated as well, representing the rate at which the nominal wage growth rate is constant. The difference between the balanced and actual employment rates is additional proof of the cyclical trend in the economy. It can be established that in the first period (1993-95) the actual employment rate was below the balanced rate, meaning that the reduction of unemployment was slightly slower than would be potentially sustainable. Following a period of balanced employment, **in 1999 and 2000 employment rose above the balanced rate.** This means that the current employment rate will not be maintained without reducing nominal wage growth rates or increasing inflation, and that any continuous reduction of economic growth rates will considerably raise unemployment.

Source: **Simona Bovha Padilla, Helios Padilla Mayer**, *Sources of GDP Growth, Potential Output and Output Gap in Slovenia: Mid-term Projection*, IMAD, March 2002.

reduced the possibilities of raising other expenditure in the central governemnt budget. The curbing of general government expenditure directly and, in particular, indirectly influenced the dynamics of all economic activity.

The greatest share of general government debt, accounting for 25.8% of GDP by 2000, is central government debt. Up until and including 1996, central government borrowed to finance extra-budgetary programmes (bank rehabilitation, resolving the problems of Slovenian enterprisesí claims on Iraq, Angola and Cuba, and basic development programmes) and repay overdue debt, and did not use the borrowing to finance the general government balance. Financing of the general government deficit affected the growing central government debt only in 1997; the influence of obligations related to succession to the former Yugoslaviaís debts was also important. In the following years, the central government debt increased mostly because of the autonomous growth and financing of the general government deficit.

The deterioration of the general government balance in 1997 and of the external balance in 1999, accompanied by the more rapid growth of the external debt, did not have any impact on the unfavourable assessment of country risk. The above disequilibriums were within sustainable frameworks, and the indicators of external borrowing placed Slovenia among states with a low debt-servicing ratio and an extremely low share of short-term debt that normally represents a risk factor in debt servicing.

2.2. Completion of institutional reforms from the transition period

SEDSí OBJECTIVES: Given the institutional reforms still uncompleted from the transition period, the Slovenian economy remains dominated by direct political influence while individual economic sectors and labour market segments are over-regulated. In such circumstances, conditions for the existence of a implementation gap[16] are maintained. In order to carry out the transitionís institutional reforms, the SEDS envisages completion of the transitional restructuring of the corporate and financial sectors, the conclusion of reforms relating to public utilities, the labour market, pension reforms, public administrative reforms, regional policy and other crucial reforms where deficits are recorded. Most reforms will be examined in the following chapters; this chapter only defines that part of institutional building which relates to the adoption and implementation of relevant regulations as well as to the establishment of institutions in the fields of public utilities, financial services, non-market activities and public administration carried out in 2001.

REPORT'S FINDINGS: In terms of ***institutional building****, which is key for establishing the relevant normative framework for market and non-market activities, by the end of 2001 Slovenia had to a great extent adopted the*

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

regulations complying with European norms and standards and closed most of the chapters in the negotiating process. Last year, institutional building was mostly reflected in the liberalisation of public utilities, regulation of the financial market and in the public administration reform where (according to the SEDS) the backlogs were most pronounced.

ANALYSIS: With regard to **public utilities**, Slovenia adopted the basic and implementing institutional regulations which comply with the European regulations and provide for the liberalisation of monopolistic activities and the gradual reduction of the state's role in the economy. In April 2001, basic and implementing regulations were adopted in the field of *telecommunications*, envisaging total liberalisation of the telecommunications market and the supervision and regulation of competition in order to bring the offer of telecommunications services closer to the needs of the information society. The Telecommunications and Broadcasting Agency was set up to regulate the telecommunications services market. In the *energy sector*, the main regulation was adopted already at the end of 1999, while in 2001 the implementing acts were adopted and amended, regulating *inter alia*: (i) the electricity market; (ii) the issue and withdrawal of licences for the provision of energy services and the conditions for acquiring the status of a qualified producer; (iii) rules on fixing prices for the use of electricity networks; and (iv) the levelling out electricity market. In *road transport*, the prime document on road transport was adopted to regulate passenger transport and the carriage of goods by road. The objectives of the basic regulation on *rail transport* include the establishment of market relations in rail transport, equal treatment of railway undertakings and the provision of trans-European interconnections in rail transport. The regulations also envisage the setting up of the Railway Transport Agency to provide transparent and impartial market operations. The adopted implementing acts determine the conditions for the issue (and withdrawal) of licences for transport services, the manner of providing compulsory maintenance service, modernisation of the public railway infrastructure, and the management of railway transport, as well as the manner of providing public passenger services in inland railway transport. In terms of guaranteeing equal access to infrastructure for undertakings, a regulation on the determination of train paths and user fees was adopted. Basic regulations were also adopted in *air traffic* and *maritime transport*, as well as in *postal services.*

In recent years, Slovenia has speeded up the process of harmonising its legislation regulating **financial services** with the *acquis communautaire*, which will be completed by the end of 2002. After then, what still remains to be harmonised is the regulations on the free cross-border provision of financial services, the existing credit and savings institutions, and the protection of the internal level and volume of guarantees for bank deposits and investors' funds in stockbroking companies. In December last year, the regulation on penalty rates and the base interest rate was amended to eliminate the legally provided indexation of interest rates of up to one year and introduce other changes[17]; moreover, regulations are being drawn up with regard to: (i) the scope of work of investment funds, management companies and the sale of investment funds shares; (ii) payment transactions, the issue of electronic money; supervision of payment transactions and the work of institutions

[17] The changes are described in detail in Chapter 6.2.

such as the Agency for Public and Legal Records and Services and the Public Payments Administration; (iii) compulsory insurance in transport, taking into account Slovenia's different position compared to the EU in terms of compulsory automobile liability insurance; and (iv) insurance sector, in particular the formulation of equalisation reserves and insurance, and financing of exports.

Drawing up the main regulation on the Bank of Slovenia means harmonising Slovenian legislation with the *acquis* in the field of the **central bank, monetary policy and financing of the public sector** by the central bank, and relates to both Slovenia's accession to the EU and its later accession to the EMU. Adjustments required for EU accession include: independence of the Bank of Slovenia and price stability as the main objective of monetary and exchange rate policy, total abolition of financing the public sector within the framework of monetary policy, and prohibition of privileged access of the state to assets of the Bank of Slovenia. Accession to the EMU requires the Bank of Slovenia to fully subordinate certain activities to the European System of Central Banks, which it will join upon EU accession.

Regulations representing the continuation of institutional building and harmonisation of Slovenian legislation with the *acquis* were also adopted in the field of **non-market activities**. In *education*, important regulations were adopted with regard to: (i) primary schools, namely on extending the period for gradually introducing the 9-year programme, together with certain changes relating to knowledge verification; (ii) establishment of new professional colleges offering education according to new programmes of tertiary education and increasing the number of enrolments; and (iii) national professional qualifications. In *health care*, amendments to the two basic regulations changed the organisation and functioning of the health care system and regulated the issues relating to the provision of health care. In *social security*, amendments to the basic regulation were adopted with regard to social security as well as parental care and family benefits[18]. In *culture and audio-visual activities*, key regulations were adopted on: (i) the media, defining the rights, obligations and responsibility of legal and natural persons, and the public interest in the field of the media; (ii) libraries, regulating the public service and defining the conditions and services of libraries; and (iii) amended regulation on the Film Fund, doing away with administrative barriers to foreign producers filming in Slovenia.

In **public administration**, reforms were carried out to guarantee an efficient, quality, transparent and user-friendly public administration. Two essential regulations were drafted: (i) on public servants; and (ii) on the wage system in the public sector, intended to systematically regulate the problem of employment and wages in the public sector and contribute to the public administration's efficiency. The two regulations belong to the system of changes to the organisation and work of the public administration. The quality of work has improved with the introduction of electronic commerce as part of the public administration's reform.

[18] See Chapter 5: Social security.

3. Development Strategy's implementation mechanisms

The main mechanisms for carrying out the development strategy are all based on the same concept of complex national competitiveness, which (as seen in the first chapter of this Report) is not favourable for Slovenia. The SEDS determined the main mechanisms to increase complex competitiveness which relate to active structural and development policy in the following fields: (i) transition to a knowledge-based society; (ii) strengthening economic competitiveness; (iii) state efficiency; (iv) efficient operative integration into the EUís internal market; and (v) balanced regional and spatial development.

3.1. Transition to a knowledge-based society

SEDS' OBJECTIVES: 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 technologies) in all spheres of the economy and society. The parallel development of all the above factors can contribute, on a long-term basis, to the support of the knowledge-based society and thus to realising sustainable development as provided by the SEDS.

REPORT'S FINDINGS: The ***mechanisms of transition to a knowledge-based society*** *are the priority mechanisms designed for realising the development strategy. Education and training recorded quality shifts in youth education but not yet in adult education and lifelong learning. As regards the volume of investment in research and technological development and the level of corporate innovation, Slovenia is maintaining the status quo which however, due to dynamic changes occurring in the world, does not allow promotion of the development and establishment of a knowledge-based society or meeting the requirements set by the SEDS to increase the share of research and technological development in gross domestic product to about 2% by 2006. The difference between Slovenia and the EU recently recorded in the field of the Internet penetration rates indicates that Slovenia is lagging behind in promoting the development of the information society, partly as a result of an inefficient market structure. Analyses also show that Slovenia does not lag behind the EU so much in terms of human resources and knowledge creation (despite many structural problems), but more in terms of the transfer and use of knowledge, and financing mechanisms that accelerate such a transfer.*

ANALYSIS:

Creation of knowledge – education and training

Education or knowledge is the key factor of success at the national, regional,

corporate and individual levels. Knowledge is becoming an increasingly important factor of production. Comparable indicators of educational capital include the **average number of years of schooling** revealing that the education structure of the Slovenian population and persons in employment is slowly improving. At the beginning of the nineties, in terms of the average number of years of schooling of the adult population, the only EU candidate-country to overtake Slovenia was Hungary, while certain EU member-states such as Spain, Portugal, Greece, Italy and Ireland were behind Slovenia. In the second half of the nineties, the average number of years of schooling of people in employment rose by 0.3 (register of persons in employment) or 0.4 years (the labour force survey)[19]. The most educated are employees in public administration, education and other services, while the least educated workers are found in construction.

The greatest contribution to the population's rising education level in the nineties came from the significant **participation of young people in education**, which also increased due to the high level of unemployment among the young. Young people enter the labour market more educated and Slovenia is thus catching up with the advanced countries. The education of adults remains critical, as do the **participation of adults in education**, the low **share of people with a tertiary education** and the low **level of functional literacy**. The level of adult education is (despite the increase in the second half of the nineties) still relatively low, although lifelong learning is gaining importance in the current period of rapid changes and globalisation. According to an international study on adult literacy and adult participation in education and training, Slovenia is at the bottom of the 21 countries and belongs to a group which only began to introduce the concept of lifelong learning. Slovenia records a low level of functional literacy among the adult population.

Research, technological development and innovations

Investing in research and development is one of the key requirements for the creation of knowledge and improvement of the technological level of the economy, which also defines its competitiveness. In the nineties, Slovenia did not pay sufficient attention to, nor allocated sufficient resources for, the faster technological modernisation of the economy. In the period between 1995 and 1999, the **share of total expenditure on research and technological development (R&TD) in GDP** did not change significantly and a slight increase was only recorded in the last two years. With a 1.51% share of R&TD in GDP in 1999, Slovenia easily overtook the other Central European countries in transition as well as the less developed EU member-states, but still lagged behind the EU average (1.92% of GDP in 1999).

The actual decline in R&TD activity as a result of the abolition or reduction of R&TD departments in enterprises is reflected in the **lower number of researchers** in 1996 and 1997. In 1998 and 1999, the number of researchers increased but did not reach the 1996 level. In terms of R&TD expenditure and number of researchers

[19] According to the register of persons in employment, the average number of years of schooling was 10.6 in 1995 and 10.9 in 2000. The questionnaire on the labour force indicates that the average number of years of schooling rose from 11.0 to 11.4.

per 1000 persons in employment, Slovenia is better than other Central European countries but lags behind the EU member-states. Despite the weak upward trend of investments in R&TD, the said period was characterised by positive changes in the structure of sources for the financing of R&TD expenditure, including in particular a rapid **increase of the business sector's expenditure on R&TD**, accounting for 56.9% of all R&TD expenditure in 1999, which can easily be compared with EU member-states. A significant weakness of investments in R&TD by both the business and government sectors is that they are not intertwined, meaning that the business sector mostly invests within companies, whereas the state sector almost exclusively invests in the R&TD of the public sector. These directions of financing R&TD represent a barrier to the transfer of knowledge, to any improvement of the efficiency of fund allocation and to boosting economic competitiveness (Bučar, 2001).

Investments in R&TD are indirectly reflected in increased **innovation activity**, for in most countries R&TD expenditure accounts for half of the expenditure for innovations. Innovation activity is increasingly more often a prerequisite for raising corporate and economic competitiveness. In addition to the introduction of new products and technologies, it also involves the introduction of organisational innovations, innovative philosophy and culture into the entire process of business and into the creation of institutional conditions in a society that favour innovations (Bučar, Stare, 2001). The level of innovation activity in Slovenian manufacturing did not change considerably between 1994 and 1998. The share of innovative enterprises in the total number of manufacturing enterprises was 32%-33%. There are significant disparities among individual sectors: most intense innovations are recorded in the production of communication equipment and electrical machines and devices, as well as in the chemical industry; however, in the period observed the share of innovative enterprises in all of these sectors decreased. In services companies, innovation activity is even less developed than in manufacturing. Between 1996 and 1998, the share of innovative companies in the total number of services companies increased from 10% to only 12%. The share of innovative enterprises in manufacturing in the EU is more than 50%, meaning that Slovenian manufacturing lags considerably behind the EU. Existing research shows that the lack of appropriate financing of innovation activity and entrepreneurship is one of the most important reasons for the backlog in innovation activity in both Slovenia and other transition countries (Innovation Policy in Six Candidate Countries, 2001).

Application of knowledge and information-telecommunication technologies and services

The purpose of creating knowledge (through education and investments in R&TD) is to apply it as widely as possible, which can be reflected in many ways. Indicators of the knowledge application and changes in application intensity are reflected in changes of factor-intensity in commodity exports. According to data for the 1992-2000 period, Slovenian commodity exports recorded positive trends towards an increase in the **share of technology-intensive products** and **products based on the intensive use of human resources,** and a reduction of the importance of products based on natural resources or labour. The share of the first group of products

increased from 54.7% in 1992 to 64.7% in 2000, as confirmed by the increased level of product complexity in Slovenian exports. However, international comparisons reveal that the **structure of Slovenian commodity exports** is much worse than in advanced EU member-states or even in Hungary or the Czech Republic. The backlog is most pronounced in exports of technology-intensive products, accounting for 26% of Slovenian exports in 1999 compared to 32% in the Czech Republic, 46% in Hungary, 42% in Finland and 69% in Ireland (UN Statistical Office).

In the last decade, **information-communication technologies** have become the most dynamic segment of the development and application of knowledge, generating new products and services and providing, through the information-communication infrastructure, the basis for the establishment of a knowledge-based society which is also an information society. Although the indicators for individual elements of the information society are still unreliable and only available for shorter periods of time, we base our assessments on the two most frequently used. The **number of active Internet users** in the Slovenian population grew significantly, particularly in the 1996-1998 period. Slovenia was fast in introducing and using the Internet and overtook other transition countries to reach the average of EU member-states. After 1998, the dynamics slowed down and in 2001 Slovenia recorded only 19% of active Internet users in the entire population. One of the reasons could be the inappropriately organised adult education. Although Slovenia was still the most advanced of the candidate-countries in that regard (with the exception of Estonia), it lagged behind the EU average (31%). In terms of the **number of secure servers**, Slovenia can compare with the advanced EU member-states, but it lagged behind them and certain candidate-countries in terms of the total number of servers, probably due to methodological differences in the calculation of the number of servers. Likewise, Slovenia lags behind the EU member-states with regard to the volume of electronic commerce.

3.2. Strengthening economic competitiveness

According to the SEDS' objectives, the strengthening of economic competitiveness includes: (i) the creation of a competitive **corporate sector** capable of rapid responses to changes in technology and in the world market, achieving competitiveness by increasing product intensity in terms of the use of highly qualified human resources and by reducing the intensity of the use of energy and natural resources; (ii) internationalisation of the corporate sector; (iii) the integration of 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 by 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

SEDS' OBJECTIVES: The SEDS presents the following measures to strengthen the competitiveness of the corporate sector: (i) complete transition restructuring

through ownership consolidation, establishment of an efficient ownership structure and assertion of the ìrealî long-term owners in enterprises; (ii) definitely solve the problem of loss-makers with no prospects; and (iii) create the conditions for offensive development of the competitive corporate sector, especially by encouraging new domestic and foreign entries into the market, eliminating administrative barriers to investments, promoting internationalisation of the economy and encouraging the development of small and medium-sized enterprises.

REPORTíS FINDINGS: The second set of development strategy mechanisms is intended to ***strengthen competitiveness of the economy****. The process of defensive restructuring* ***in the corporate sector*** *has been completed, and the intensity of offensive restructuring largely depends on the ownership structures created between the primary and secondary privatisation. Competitiveness of the economy is increasingly dependant on productivity growth and on the reduction of unit labour costs in the existing production programmes; at the same time Slovenia lags behind in introducing new production programmes that require new investments, technological solutions and a generally offensive ownersí approach to corporate restructuring and development. This is the result of the hitherto slow restructuring and establishing of an efficient ownership structure in enterprises as well as of frequently ambiguous attidute to foreign direct investment. As regards the abolition of administrative barriers, the work done so far makes for a promising beginning; for more radical changes, however, decisions concerning land-spatial issues and labour legislation are necessary.*

ANALYSIS:

Privatisation and defensive restructuring of the corporate sector

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

The first part of the economic policy concerns the **privatisation and creation of appropriate ownership structures**. Following *primary privatisation* (completed in 1994), three typical groups of enterprises emerged in Slovenia**:** listed enterprises and two groups of non-listed enterprises: internal and external[20]. The shares of owners' groups in individual categories of enterprises after the completion of primary privatisation clearly reveal the key characteristics of the **primary privatisation**. The state and para-statal funds maintained an approximately 30% share (8% belonging directly to the state and 22% belonging to the state indirectly through the Capital and Compensation Fund). The two main groups of owners (internal and external) had on average equal shares, whereby internal owners prevailed in internal

[20] Listed companies are those quoted on the stock exchange, internal non-listed companies are not quoted on the stock exchange and are in the majority ownership of internal owners (employees, including management and former employees), external non-listed companies are not quoted on the stock exchange and are not in the majority ownership of internal owners.

enterprises and the funds, together with the state, in external enterprises. Internal owners comprised former employees (11%), employees (29%) and the management (4%). Other owners had minimum shares: the share of strategic owners after privatisation was very low (2%); foreign (financial and strategic) owners were practically excluded from the primary privatisation (0.3%).

The period from 1994 to 1999 was characterised by changes in the ownership structure **resulting from *secondary privatisation.* The state and the funds reduced their ownership shares while internal, financial and strategic owners increased theirs**. The greatest reduction was recorded in the share of funds (-11 percentage points) and the most significant increase in the share of strategic owners (+9 percentage points). Internal owners on average increased their share (+3 percentage points), yet there are great differences among groups of enterprises. The share of internal owners decreased in listed enterprises, increased in external enterprises, and dropped in internal enterprises although internal owners maintained their majority. Financial owners entered mostly internal and external enterprises, probably due to a struggle for company control.

The period of secondary privatisation has not yet brought about the ***"desired"* ownership structure, defined by management as optimal from the point of view of company performance**. Comparisons between the changes in ownership structure in the first phase of secondary privatisation (up to 1999) and in the second phase of secondary privatisation (from 2000 to the hypothetical achievement of the "desired" ownership structure) indicate that the main trends hitherto are likely to continue: the share of funds will be shrinking (by 18 percentage points), mostly on account of the increased share of strategic owners (by 12 percentage points) and company management (by 13 percentage points). A more detailed comparison reveals significant differences between the first and the expected second phase of secondary privatisation: **(i)** in the first phase, mostly para-statal funds withdrew from enterprises and are to be joined in the second phase by authorised investment companies; **(ii)** in the first phase, former employees maintained their ownership share achieved through privatisation, while in the second phase their share is likely to drop; **(iii)** in the second phase of secondary privatisation, strategic owners are likely to comprise foreigners, but their share (6%) will remain very low compared to other transition countries and in view of the importance of foreign direct investment for the modernisation of Slovenian enterprises.

The processes of **defensive restructuring** started at the beginning of the nineties and continued after the completion of primary privatisation. The biggest problems were shouldered by the state with the acquisition of the most acute and biggest loss-makers and companies that had not been privatised during primary privatisation. The national agent for the restructuring of ailing companies was the Slovenian Development Corporation, which already carried out most of the restructuring and privatisation processes, therefore its function was terminated at the end of 2001. For a decade, the state had been carrying out a special rescue and restructuring programme in the Slovenske železarne (ironworks company) which it concluded at the end of last year.

Restructuring in other enterprises took place in different forms, depending on

the ownership structures deriving from primary privatisation. Primary privatisation in Slovenia established a relatively concentrated **ownership structure**. On average, in all enterprises the biggest 5 shareholders owned about 50% of equity, which is in principle favourable for the establishment of corporate governance. On the other hand, these big shareholders comprised no strategic owners since the biggest shareholders in enterprises were usually the two para-statal funds and authorised investment companies. The problem of establishing corporate governance after primary privatisation lay not so much in ownership dispersion but more in ownership concentration in groups with opposing interests. In companies where the owners' interests were co-ordinated and oriented to long-term development, restructuring was already carried out. In other companies where the owners only had short-term interests (distributing profit), no restructuring took place and therefore such companies are facing various degrees of problems and needs for restructuring. For several years, the need to restructure the leather and textile industries has been recorded; restructuring is being carried out according to a particular national programme for these two sectors.

Strengthening the competitiveness of the corporate sector through offensive restructuring

In completing the processes of privatisation and defensive restructuring, more emphasis is being given to offensive restructuring with increasing competitiveness as the main objective. **Strengthening the competitiveness of the corporate sector through offensive restructuring** is monitored using the following indicators: competitiveness of the Slovenian corporate sector, structural changes, internationalisation and analysis of the elimination of administrative barriers to investment and business.

One of the main **indicators of economic competitiveness** is **labour productivity**. In the 1995-2000 period, total productivity[21] in Slovenia increased by 22% but was still relatively low compared to the advanced countries, although in the nineties (from 1993 on) Slovenia was one of the countries with the most dynamic productivity growth in Europe. Labour productivity rose from a third of European labour productivity in 1993 to more than 40% in 1998, whereby Slovenia reached Portugal but still lagged behind Greece. Productivity in the three biggest accession candidates – Hungary, Poland and the Czech Republic – is on average 50% lower than in Slovenia. In the first years of transition, productivity increased mostly due to the dismissal of employees, while in the last few years productivity growth has also depended on offensive restructuring. In 2001, given the high rises in employment, productivity growth slowed down, yet at the beginning of 2002 a cyclical change was recorded which will probably result in new growth in redundancies. **Unit labour costs** are an alternative indicator revealing that, in the 1995-2000 period, competitiveness of the Slovenian economy increased; the ratio of labour costs to value added per employee fell by 11.1% in the economy as a whole and by 16.8% in manufacturing. Comparisons with the EU average show that competitiveness of the

[21] Measured by value added divided by full-time equivalent employment, whereby persons in employment comprise those working full-time. See also the chapter and appendix on structural changes.

Slovenian economy, particularly in manufacturing, significantly increased because labour costs per GDP unit fell by 9.4% in Slovenia and by just 2.6% in the EU-15. However, the increased competitiveness expressed by the above two indicators is not reflected in an increase of Slovenia's **market shares**. After the 1998 record market shares of Slovenia in advanced trading partners, its share fell below the 1993 level in 2000, meaning that the lively growth of Slovenia's commodity exports at the aggregate level was more a result of exports markets growth than of the increased export competitiveness of the Slovenian economy. In the 1995-1998 period, competitiveness fell because of a worsening of the market position of Slovenian exporters in certain developing trading partners, particularly in Croatia, Russia and Hungary, and because of worsening competitiveness in important advanced markets in 1999 and 2000. Among the EU accession candidates, in the 1995-2000 period Hungary increased its market share in the EU by around 130%, Slovakia by 90%, the Czech Republic by a third and Poland by a fifth.

The main ***indicator of structural changes*** is **investment activity**. When the transition depression ended in 1993, investment activity in Slovenia increased significantly, reaching its peak in 1999 when the share of gross investment in fixed assets in GDP was 27.4% or 6 structural points more than in 1995; it then slowed down in 2000, with the share falling to 26.7%. Despite the calming down of growth in the last two years, investment activity in Slovenia continues to be relatively high; it is in fact higher than in EU member-states (Portugal excluded) and candidate-countries (with the exception of the Czech Republic and Slovakia). In terms of the SEDS' objectives, more problems are recorded in relation to the structure of investments since the share of corporate investment activity is too small. This applies in particular to investment in machinery and equipment. The analysis of the **factor structure of commodity exports**[22] for the 1995-1999 period reveals some positive trends towards growth in the share of exports based on created assets/factors of competitiveness, and towards a reduction of the share of exports based on natural resources and labour.

The SEDS' objectives – increasing the exporting of technology-intensive products as well as products with a significant quantity of human resources – are gradually being met. The strengthening of competitiveness in created assets/factors is closely related to the presence of **innovative companies in the economy**[23]. In the 1994-1998 period, the share of innovative companies in the manufacturing sector did not change and accounted for 33% in 1998 (EU 51% in 1996). Slovenia's innovative activity was also described as relatively inadequate by the WEF's global competitiveness assessment[24]. A particular aspect of "factor intensity" is **energy intensity** which is expected to fall according to the SEDS' objectives. In 2000, in Slovenia 60% of primary energy per GDP unit more was used than in the EU in 1999, but recently the energy intensity in Slovenia has been decreasing more rapidly than in the EU. Any more rapid falls are hampered by the retaining of certain "energy

[22] See the chapter on the shift to the knowledge-based society.

[23] See the chapter on the shift to the knowledge-based society.

[24] In terms of innovations, in 2001 Slovenia ranked 9th among 13 countries (Finland, Belgium, the Netherlands, Denmark, Austria, Spain, Ireland, Greece, Slovenia, Portugal, Hungary, the Czech Republic and Poland).

wasting" industries and slow restructuring towards production and services with high value added and low energy consumption. As for the future, we might expect that due to the faster GDP growth and initial high level of energy intensity, Slovenia's energy intensity will decrease more rapidly than in the EU. Realistically, given the expected increase in energy consumption and GDP we will not be able to catch up with the EU for another 20 years. Another structural and strategic objective of the SEDS is to reduce the **share of "dirty industries"[25] in the manufacturing sector**. The share of value added generated by "dirty industries" is high in Slovenia, although individual enterprises, compared to foreign competitors, are environmentally quite efficient (low emission per product unit). The increase of environmental-economic integration in the recession phase of transition was spontaneous (closing down economically and environmentally inefficient companies), but in the expansion phase of transition it could no longer be achieved without explicit efforts to improve the integration of environmental criteria into business investments. Therefore, 1998 was characterised by a shift of trend – the contribution of "dirty" industries to value added in the manufacturing sector started to rise. Today, Slovenia has too many big consumers of raw materials and energy, however, they are relatively efficient in environmental terms.

According to the SEDS, internationalisation is indispensable for the development and strengthening of competitiveness in the corporate sector. The **shares of exports and imports** and **of inward and outward foreign direct investment (FDI) in GDP** are the main ***indicators of internationalisation*** of the economy. In the 1995-2000 period, the share of inward FDI in GDP rose from 9.4% to 15.5%, while the share of outward FDI in GDP rose from 2.6% to 4.4%. The data do indeed indicate that the importance of FDI for the inward and outward internationalisation of Sloveniaís economy increased, but conceals the stagnating FDI inflows and the still relatively modest FDI outflows. Data for 2001 is more promising. Comparisons of inward FDI with EU member-states and the EU candidate-countries reveal that Slovenia belongs to the group of countries with the lowest share of FDI in GDP. In 1999, among the EU countrties, such a share was only lower in Italy and Austria, while in all accession candidates it was higher than in Slovenia. Most of the observed countries considerably increased the share of their FDI in GDP in the 1995-1999 period: such a share grew by 8.8 percentage points in the EU as a whole and by 15 or more percentage points in most candidate-countries, whereas in Slovenia it only increased by 3.8 percentage points. In terms of outward FDI, things were slightly better for Slovenia compared to other candidate-countries, although it was overtaken by three of them in 1999 (Estonia, Latvia and Hungary). As expected, in terms of the share of outward FDI in GDP Slovenia lags significantly behind the EU member-states (the only exception being Greece). Despite the constant increase in the share of FDI in GDP, which complies with the SEDSí objectives, such an increase is too slow compared to international trends. Slovenia is indeed strongly internationalised and integrated into the global economy in terms of its exports, but not so in terms of FDI. Slovenia will have to comply with the global trends if it wishes to be successfully integrated into the international economy.

[25] Including: (i) production of fibres, paper and paper products, (ii) production of metal; (iii) production of cement, lime and gypsum; (iv) production of grindstone and other non-metal mineral products; and (v) production of chemicals, chemical products and artificial fibres. They account for more than 86% of the total emissions in Slovenian manufacturing.

Within the framework of active industrial policy (agriculture and fishing excluded), **state aid** fell from 2% of GDP in 1998 to 1.1% of GDP in 2000, which is close to the EU average (0.99%). The structure of aid indicates that Slovenia usually allocates state aid to horizontal objectives (research and development, small and medium-sized companies, employment, training etc.). Less than a third is allocated to sectoral objectives, particularly to sensitive sectors – the main beneficiary is the transport sector with a 25% share. In EU member-states, sectoral objectives (mostly the transport sector) are allocated more than half of state aid (52.6%). Practically speaking, Slovenia does not have any regional objectives (only 1.7% of state aid was allocated to them in 2000), whereas in the EU such objectives are allocated 26.6% of state aid. The indicator revealing that the process of restructuring has not yet been completed in Slovenia is the **share of state aid for rescue and restructuring.** In 2000, slightly more than a tenth (11.8%) of state aid was directed to restructuring, compared to 1.4% in the EU. However, the active role of the state in the restructuring process has also been rapidly decreasing in Slovenia – we should not forget that such aid accounted for 19.4% in 1998. It may therefore be expected that aid for restructuring will continue to fall and will be redirected to other horizontal objectives of promoting the economic competitiveness of Slovenia, as provided by the SEDS.

Slovenia is not a favourable environment for entrepreneurship and investments since entrepreneurs and investors, both national and foreign ones, encounter several administrative barriers when carrying out their projects. For this reason, the ***elimination of administrative barriers to business and investments*** is an important requirement for strengthening economic competitiveness. The Commission for the Elimination of Administrative Barriers set up last year and the Government Action Plan should speed up this process. In 2001, progress was achieved in the following aspects: (i) two regulations were adopted that simplify the procedures of spatial planning and building; (ii) the procedures for the establishment of companies and self-employed persons were simplified as regards the issuing of business activity permits; (iii) the state has gradually started introducing electronic business transactions in the operations of companies with the public administration and in the provision of various consulting services to companies; (iv) the state provided free access to the Official Journal of the Republic of Slovenia in addition to free access to birth certificates – the most common administrative service – already provided on the web last year within the project of computerising administrative units; (v) following amendments to regulations on personal data protection the retrieval of personal data in administrative procedures was simplified; (vi) pursuant to provisions of the new regulations on employment and the work of foreigners, the work of the Employment Service was reorganised and now provides faster and selective management of procedures relating to labour force mobility. The Commission continues to carry out activities aimed at the elimination of administrative barriers throughout 2002 and the results can be seen in the latest report[26].

[26] The Report on implementation of the programme of eliminating administrative barriers, including the 2nd Report on the work of the Commission for the Elimination of Administrative Barriers, 016-05/2001-8.

3.2.2. Financial sector

SEDS' OBJECTIVES: The gradual approach in carrying out reforms, which is characteristic of Slovenia, is also present in ***reforms of the financial sector*** *where it has an inhibiting effect due to the excessive slowness seen in the last few years. The main purpose of the process aimed at establishing an efficient financial system is to increase its international competitiveness to provide for successful integration and functioning in the common European 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.*

REPORT'S FINDINGS: In ***reforming the financial sector****, the SEDS' directives are successfully implemented in the regulation, monitoring and harmonisation of regulations with European standards, while some backlogs are recorded in the establishment of a competitive structure of services as a result of the restructuring and privatisation which are still to be carried out. The privatisation of the two biggest banks in Slovenia is in preparation, yet the ownership transformation in the insurance sector lags behind.*

ANALYSIS: **Competition** is essential for Slovenia's banking and insurance sector, characterised by high concentration and a relatively low level of competition. In order to resolve these problems efficiently, the entry of new providers should be speeded up. The envisaged privatisation of the biggest Slovenian banks[27] will provide fresh capital inflows, positively affect the quality of management, and increase the volume and improve the structure of the available services. Parallel to privatisation, the integration of smaller banks is taking place together with the sale of banks already privatised to strategic investors[28]. Like in banking, increased foreign competition is also expected in the insurance sector, in particular with regard to the various forms of life insurance which represent the segment of insurance services with the greatest reserves for increasing the volume of business. Given the

[27] The first serious efforts to **privatise state banks** were made in 1999 when the state adopted a decision on the privatisation of the two biggest state banks: the Nova Ljubljanska banka (NLB) and the Nova kreditna banka Maribor (NKBM). The main objective of the bank privatisation programmes adopted in May is to increase the efficiency and competitiveness of banks and of the entire banking system through improved operations, a more appropriate ownership structure and the possible development of new financial products. In July 2001, the call for tenders regarding the purchase of the majority holding in the NKBM was published, followed by the tender regarding the sale of the minority holding in the NLB in September. The sale of the NKBM and the NLB will be completed in three and four steps, respectively.

[28] Parallel to privatisation of the two biggest banks, integration processes are taking place within the NLB group, which was joined by three smaller banks in 2001 and will have included the remaining three banks (Banka Domžale, Koroška banka and Banka Zasavje) by mid-2002, as well as other processes of mergers and integration. The already privatised SKB bank was acquired in the first half of 2001 by the French bank Societe Generale; private owners sold the strategic share in Banka Koper to an Italian bank; and acquisitions also took place in some smaller Slovenian banks.

uncompleted ownership transformation, the ownership structure of insurance companies is currently unclear. In January 2000, a regulation on the ownership transformation of insurance companies was adopted but it was invalidated by the Constitutional Court in mid-2001; the ownership transformation of the insurance sector has thus found itself back at the beginning.

With the privatisation process and opening-up of financial markets in Slovenia being completed, the significance of the securities market will grow. Although achieving extremely high growth rates in the period since 1994, the volume of trading (compared to GDP) in the securities market is still relatively low and mostly depends on activities related to privatisation. Given the general trends in Europe following introduction of the euro, it may be expected that the securities market will enhance its function as an intermediator for acquiring credit and equity. Its importance will grow thanks to the various funds that are already being established as a result of the reform of the disability and pension insurance system.

The **financial legislation** adopted in 1999 and 2000 and the draft laws[29] allowed for a positive step towards guaranteeing efficient control over financial services and the adoption of the *acquis*. Control over the financial sector will be carried out by three monitoring institutions, each being in charge of supervising its own segment of financial services: the Bank of Slovenia (banking), the Office for Insurance Supervision (insurance) and the Securities Market Agency (capital market).

3.2.3. Infrastructure

SEDS' OBJECTIVES: A strategic goal of developing Slovenia's economic infrastructure is to provide a reliable and cost-efficient supply of services in the fields of energy, transport and telecommunications, and utility services. Priorities are as follows: (i) continuation of the programmes of economic infrastructure building; (ii) liberalisation and privatisation of infrastructure; (iii) 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.

REPORT'S FINDINGS: In the period between 1995 and 1999, the building of ***economic infrastructure*** *recorded dynamic growth while in 2000 and 2001 an increase was only recorded in investments in telecommunications and environmental protection infrastructure. The process of economic infrastructure liberalisation began with the adoption of the main legislation and the first activities in the telecommunications sector as well as with the partial opening up of the electricity market. The process of liberalisation and establishment of independent regulatory agencies will be followed by privatisation. Private capital is not yet invested in the building of infrastructure, however institutional solutions are being prepared to facilitate and regulate the entry of private capital.*

ANALYSIS: **investments in infrastructure** recorded dynamic growth in the 1995-2000 period, being most intense in transport infrastructure. With regard to transport

[29] The legislation is described in the chapter on institutional changes.

investments, the most significant increase was recorded in investments in telecommunications; their share in total investments in 2000 was 2.6 structural points higher than in 1995. On average, 2.5% of GDP or 10.2% of total investments was spent for the construction of other transport infrastructure (telecommunications excluded), mostly for construction of the road network (2.1% of GDP). The share of investments in the road network has been decreasing since 1997 as a result of the reduced share of budget appropriations intended for the construction of motorways. Investments in energy, gas, steam and hot water supply accounted for 1.3% of GDP or 4.7% of total investments. After increasing in 1999, they have fallen significantly in the last two years. Investments in environmental protection infrastructure stagnated in 1999 but started to rise in 2000 and 2001.

In all great infrastructural systems, **liberalisation and privatisation** have their foundations in institutional arrangements[30] and some of them have already begun with the processes of liberalisation. Liberalisation of the **electricity market** started in 2001 upon opening up of the internal market. On 1 January 2002, part of the market for energy imports was opened ahead of schedule. Establishment of the Slovenian Power Plant Holding company created a strategic partnership between energy producers and represents the biggest commercial company in Slovenia whose main objectives are the building of hydroelectric power stations on the lower Sava river and the combined activity of electricity undertakings in the market for electricity sales. The holding company will seek out its place among European electricity giants with much more power. Last year, it successfully concluded negotiations with buyers for electricity supplies in 2002. In accordance with those agreements, the value of which is more than 300 million euro (a quarter is related to exports), the holding will supply electricity to all five Slovenian distribution companies, to four big domestic customers and to buyers in Italy. The liberalisation of the electricity market is controlled by the Agency for Energy as an independent regulatory body. While the process of liberalisation in the field of electricity is in full gear, liberalisation of **natural gas** will start on 1 January 2003. Liberalisation in **telecommunications** began with the institutional arrangement[31] eliminating the monopoly in fixed telephony. The adopted normative framework has not yet been fully implemented due to the transitional period (until July 2002) concerning the cost-competitiveness of leased wires prices, the cost accounting system of the operator with significant market power, the transmissibility of numbers for non-geographical numbers, and easier access to local loops (formally, the local loops in fixed telephony were loosened up on 1 January 2002). In the field of mobile telephony, three licenses were granted in 2001 for the provision of services in mobile telephony at 1800 MHz and one for UMTS services. Prices of fixed telephony continue to be regulated by the state. In 2001, adjustments were made aimed at increasing the prices of long distance calls and the phone rate, and reducing the prices of international phone calls. There are still certain telecommunication services whose prices are determined in the market and are not yet cost-oriented (for example the prices of leased wires, network interconnections). Given that in the first half of 2002 the one-year period for establishment of the Agency for Telecommunications and Broadcasting is coming to an end, new developments in this field may be expected already this year. A

[30] The legislation is described in the chapter on institutional changes.

[31] The legislation is described in the chapter on institutional changes.

further introduction of competition is also very important for the fixing of prices that will stimulate development of the information society. A gradual liberalisation of other infrastructure (**railways and post**) will take place in the years to come. The relatively **slow processes of liberalisation and privatisation** of public utilities could have a negative effect on economic development. Structural changes in rail transport are beginning to generate negative results and follow the trends seen in advanced European countries.

Private capital is not yet involved in the building and financing of infrastructure. Modifications of the main institutional solutions are, however, being prepared and are intended to regulate the entry of private capital in the building up of the infrastructural network. For this purpose, it is important to continue with elaboration of the motorway programme, which is slowing down due to a reduction of budget funding allocated to investments.

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

SEDS' OBJECTIVES: When drawing up the SEDS it became clear that the way the state is organised and functions constitutes one of the main reasons for insufficient national competitiveness, while elaboration of the Development Report showed that in most of its aspects the quality of the state is hard to assess. To a minor extent, the text in this chapter is based on indicators while it is still mostly concerned with clarifying the concepts. The state exercises its development role in three core ways: (i) ***it defines and enforces the main rules of economic activity*** *by providing the protection of economic subjects' rights and enforceability of contracts (economically efficient legislation), and by establishing a framework for efficient functioning of the market (competition policy); (ii)* ***it manages the economic resources*** *directly as the owner or supervisor of public and mixed companies, as the manager of public systems (health care, education etc.) and as the manager of public resources (general government revenues and expenditures), and indirectly with regulations and financial instruments regulating free economic initiative and influencing the allocation of resources; and (iii) it tries to be* ***internally capable of the efficient management*** *and co-ordination of economic and development policies and to function with the lowest costs possible.*

REPORT'S FINDINGS: In realising the ***state's developmental role****, improvements have been recorded in the areas of control and volume of state aid and justice, and to a lesser extent in the state's withdrawal from direct control over the economy, the regulation of real estate ownership, and public administration reform. Nevertheless, international comparisons of state efficiency and interventionism remain unfavourable. Slow improvement leads to a lower level of national competitiveness and the rising of general government expenditure relative to gross domestic product. Given the growing expenditure, tax burdens would have to be increased in order to maintain the general government deficit within macroeconomically sustainable frameworks, which reduces economic competitiveness and the medium-term potential*

for economic growth. In the light of reducing such problems, the process of drafting the budget has been amended, changes relating to wages in the public sector are being prepared, and the processes of preparing, implementing and monitoring development documents will have to be systemically upgraded.

ANALYSIS:

Rules of economic activity

In creating efficient legislation governing the economy, the SEDS emphasised the paramount importance of protecting property rights[32] and noted that there was a considerable implementation gap even though formally Slovenia had all the institutions necessary to guarantee the rule of law. The analysis and formulation of legislation should be seen from an economic point of view, not only from a mere legal one. However, there are relatively few indicators available in Slovenia. International comparisons reveal that the situation in terms of company law, commercial law and financial regulations is relatively satisfactory[33]. According to the recent EU progress report, **court backlogs** are no longer on the list of the most critical issues, but they still must be further reduced. The inefficiency of the judicial process is also reflected in a high ratio between the indicators of initiated proceedings – claims – and the indicators of concluded proceedings – sanctions and the enforcement of judgements. Although there are no fully comparable statistics available, the widespread perception of inefficiency by the public and economic entities affects their behaviour. This implies both individual and social costs of backlogs as well as the loss of economic growth due to poorly functioning markets and a reduced number of transactions as a result of high risks for investors when legal security is not be guaranteed.

In addition to court backlogs, **real estate ownership** is another critical issue. Real estate ownership is established through the land register which, however, requires full reorganisation, particularly in propulsive urban areas. In light of the functioning of a private market economy and a just tax system, it is difficult to accept that for half of all property the owners cannot be clearly established. This problem cannot be resolved only by completing the process of computerising the land register since only the existing state of data is computerised. Entry into the land register is only carried out at the request of the client, which is justified by a wish to avoid coercion (although entry is mandatory, for example, in car or livestock registration). In addition to the poor land register, other obstacles exist in the real estate market connected with unclear property rights (denationalisation procedures[34], urban planning acts

[32] Certain studies indicate that this factor can contribute to economic growth as much as, for example, education (Keefer, 2000).

[33] EBRD Transition Report for 2001.

[34] In order to solve the property problem, denationalisation claims should be settled rapidly, as suggested by the European Commission and countries in other international associations. From the adoption of the Denationalisation Act to the end of June 2001 (16th report on the implementation of the Denationalisation Act), 35,880 claims were submitted; 65% of them were resolved at first instance but only 58.3% became final. In terms of the value of claims, about 59.9% of property claims were settled by mid-2001. In one year, the percentage of property claims settled increased by 7.8%.

that have not been updated or adopted, property division among municipalities, which has not been carried out etc), mobility and spatial entrepreneurship are being further hindered.

By establishing and enforcing the relevant rules and by monitoring and supervising the behaviour of players in the market, state institutions[35] provide for the creation of socially desirable "efficient competition"[36]. **Competition policy** is active in many areas, always oriented to the main objectives of efficiency (preventing the restriction of competition and abuse of a predominant position, liberalisation of markets, mergers, state aid) and equality (protection of consumers' welfare, enabling the inflow of competitors). Data on the primary and secondary privatisation of companies indicate that the processes of interlinkage, mergers and acquisitions, which are already taking place and are necessary to increase the international competitiveness of the Slovenian economy, may have a negative effect on efficient competition and consumers. In some cases, for the purpose of liberalisation the market still has to be established as an institution. Competition policy has only developed for some years now and the existing databases (Office of Competition Protection and others) do not allow any satisfactory monitoring of the market structure or determining the effects on competition efficiency. According to the SEDS, more activities are needed to facilitate efficient competition in Slovenia. It is necessary to guarantee the transparency of competition policy (objectives and mechanisms) and thus enhance the development of knowledge and information about the policy and culture of competition in society, and reduce the uncertainties of the players concerned with competition law. In order to monitor the effects, establishment of databases and the analysis and assessment of the consequences (the impact of the actors and government intervention) on the market, thorough relevant databases and analytical tools are very important in terms of the advantages and costs for the competitiveness of individual companies and social welfare in general. In order to carry out government interventions, it is necessary to develop co-operation with the judiciary (non-compliance with delivered decisions).

Recently, positive trends have been recorded yet they are still too rare given the scope of the problem and the need to accelerate economic growth. Probably interest in solving these issues will increase when the processes of distributing ownership power in society become more stable.

Management of economic resources

In 1999, the public sector added more than a quarter (26.2%) to value added but the **influence of the state on the economy** was in fact even more significant. In addition to nearly full control over non-market activities and economic infrastructure, the state, mostly through state banks and public funds – given the dispersed private ownership – is also able to control a great part of the economy operating in conditions

[35] Government, Office for Competition Protection, specialised courts.

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

of competition. Given the lack of any detailed data, it may be estimated that the state as a potential owner directly and indirectly controls about half of the production potential. Since the response time of organisations under state control is necessarily longer due to different legal procedures (for example, public procurement), and because of the inherent politicisation of strategic decisions, meaning that political criteria may affect the choice of of the leading staff, undermining their full accountability for the consequences of business decisions, the SEDS opted for minimisation of the ownership role of the state in the economy and for a continuation of privatisation. This would stimulate economic growth and have useful consequences for public finances because the funds obtained through privatisation could be used to cut public debt and the related interest payments. Important steps have been taken in bank privatisation but opposing arguments turned up in the political debate which emphasise the advantages of public ownership - or private ownership intertwined with public ownership - as a way of guaranteeing national interests. This means that a broad development consensus, being a precondition for implementation of the SEDS, has not yet been reached in this area.

In the period of transition, Slovenia successfully retained the social security systems that helped soothe the necessary changes in the economic system, and carried out the pension reform after which the share of GDP for pension system expenditure is not increasing[37]. Compared to GDP, the **volume of general government expenditure**[38] rose in the last five years (1996-2001) by 2.6 percentage points. The greatest increase was recorded in expenditure on wages and transfers to individuals and households, meaning that room for enhancing development-stimulating expenses is shrinking. The rise in expenses was followed by an increase in the volume of general government revenues compared to GDP (from 1997 to 2001 by 1.4 percentage points). If such trends continue, it will no longer be possible to meet the SEDS' objectives to achieve a balance in public finances without increasing the general tax burden and by restructuring expenses in favour of strengthening development factors. Compared to GDP, the volume of **state aid**[39] fell to a level comparable with the EU (the number of donors was lower and the procedure for assessing the compliance of state aid with the regulations was enforced). The structure of state aid reflects the uncompleted process of transition since more than a tenth of the aid is still intended for rescue and restructuring of enterprises, while the regional criterion is insufficiently applied, indicating that there is a considerable implementa-tion gap in regional policy at the state level. The redistribution of state aid in the upcoming years according to the allocation criterion will increase its contribution to economic growth, while financing from European funds upon EU accession represents an opportunity to partially relieve domestic financial resources.

Efficient organisation

National competitiveness indicators show that the efficiency of the government and institutions is Slovenia's main development weakness. The greatest development disparity

[37] For more on this subject, see the chapter on social development.

[38] For more on this subject, see the chapter on macroeconomic stability.

[39] For more on this subject, see the chapter on the strengthening of economic competitiveness.

is the competitiveness of the business environment including the openness and regulation of the market (including labour and capital markets) as well as the regulation of competition. The assessment of the legal order and state interventionism is also unfavourable.

Interesting conclusions may be drawn from a detailed analysis of central government indicators (Gmeiner, 2002). In the last three years, Slovenia has drawn closer to Portugal, which is a comparable EU member-state in terms of development, but the structure of the assessment is also important. In 1999, bureaucratic barriers to business development were assessed as extremely high (less than 2 points out of 10), while the consensus on the economic policy within the government as well as its flexibility, transparency and efficiency of implementation were assessed as poor (below 3). In the following two years, economic policy improved (3-4) while the assessment of the spread of bureaucracy remained equally low. Since the complex and unclear administrative procedures provide fertile ground for arbitrary decisions, negative assessments regarding bribing, corruption and political influence over public services are not surprising[40]. This structure of assessment indicates that by introducing an "anti-bureaucracy" programme, establishing an office for the prevention of corruption, and relating such issues with the investment incentive programme, the government has decided to deal with the most critical issues yet the results are still to be seen[41].

The SEDS also pointed out the significance of the **organisation and co-ordination within the government in order to reduce the implementation gap** in the legal order and development programmes. The system of development planning, adopted in 1992 and subsequently often amended, was not successful. Autonomous adoption of national programmes and special development acts with financial implications without prior balancing with financing capacity of the general government resulted in significant general government obligations that could not be met. Changes in planning deriving from the main public finance legislation do not as yet provide satisfactory solutions and leave an important part of planning and co-ordinating development programmes undefined.

3.4. Balanced regional and spatial development

SEDS' OBJECTIVES: According to the SEDS, balanced regional and spatial development is part of the integral development goal. 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 the increased welfare of people 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

[40] Corruption was included in the IMDís assessment of national competitiveness for the first time in 2001. In the WEFís analysis, where again only one report is available, Slovenia ranked higher in terms of corruption (before Greece), but was low on the list with regard to bribing and trust in the honesty of politicians.

[41] See the chapter on corporate sector competitiveness.

and protect it from irrational use with the relevant systemic, institutional and instrumental bases.

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 greater independence of the regions in stimulating their own development, will help reduce the gaps seen in the levels of regional development. Given the changing (reduced) role of agriculture in economic development, such 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.

REPORT'S FINDINGS: The results of ***regional development*** *indicate that regional disparities have been increasing in the last few years. The measures of institutional building in spatial planning that have been undertaken show no results yet, for they can only be seen in a longer period of time. Changes to the agricultural policy have been highly intense and are yielding the first results in the area of land structure.*

ANALYSIS:

Balanced regional development

The main indicators used to assess the balance in regional development are GDP per capita and the registered unemployment rate. In 1999, the highest **GDP per capita**[42] was recorded in Central Slovenia and the lowest in the Pomurska region. Compared to 1996, the most significant reduction of backlogs compared to the national average was recorded by regions in the Western part of the country which, according to a synthetic assessment of regional development possibilities[43], are assessed as *prosperous regions with positively assessed development potential*. The most successful of these are Central Slovenia and the Littoral-Karst region which were above the national average already in 1996 and further increased their advantage over the other regions in 1999 when they were joined by the Goriška region with the highest GDP per capita increase among all statistical regions compared to 1996. The Goriška region is thus the third among the statistical regions that were above the national average in 1999. The Gorenjska region and Eastern Slovenia, accounting for 92% and 91% of national average GDP per capita respectively, were not able to reduce their backlog. On the contrary, backlogs were reduced by three of the four regions assessed as *stagnating regions with certain positively assessed potential*: the Notranjsko-kraška, the Podravska and the Koroška regions, whereas the Savinjska region lagged even further behind the national average. These regions account for 83% (Podravska region) to 91% (Savinjska region) of national average GDP per capita. All three regions belonging to the group of *regions with poor socio-economic conditions and limited development potential* (the Pomurska, the Lower Posavska

[42] Regional GDP per capita was first calculated in Slovenia in 1996; the latest available data refers to 1999. On the basis of data for 1996, an assessment for 1995 was prepared which, however, does not reflect the real situation but only serves as a mathematical calculation.

[43] For more on this subject, see the Economic Mirror No. 5/VII/2001.

and the Zasavska regions) increased their backlog. They account for 77% (Pomurska region) and 84% (Lower Posavska region) of Slovenian average GDP per capita.

The **registered unemployment rate**[44] indicates that there are considerable disparities among the various regions. There is a significant difference between the Western part of the country where the registered unemployment rate is below the national average and the Eastern part where it is above the national average, particularly in those regions that were once important industrial or mining regions and have an old industrial structure. At the beginning of the nineties, important economic changes took place in these regions due to the loss of foreign markets (the Podravska, the Koroška and the Zasavska regions), the unstable political situation in the world and within the country (the Koroška, the Podravska and the Littoral-Karst regions) and the old, non-competitive industrial structure featuring mostly labour-intensive industry (the Gorenjska and Savinjska regions). The changes were first reflected in growing unemployment. The Pomurska region had already encountered problems relating to the lack of jobs in the past, but given the increasing economic problems in the nearby regions, the unemployment rate continued to rise. Compared to 1997, the unemployment rate in 2000 fell in all statistical regions but the deviations from the national average did not decrease, on the contrary, in some regions they even increased. Significant negative deviations are recorded in regions with a registered unemployment rate above the average (the Podravska, the Pomurska and the Lower Posavska regions). Deviations from the national average are also increasing in Central Slovenia where unemployment is normally below the average. Positive deviations are recorded in regions where the registered unemployment rate is below average (the Goriška and the Koroška regions, Southeast Slovenia).

The growing disparities found among Slovenian regions indicate that regional policy was not adequate since it mostly aimed at **institutional building** and less at reducing regional disparities. In 2001, institutional changes in regional policy, defined in the basic institutional document adopted in 1999 and supplemented by implementing documents adopted a year later, continued. The main bodies responsible for regional structural policy (Structural Policy Council, Agency for Regional Development, Fund for Regional Development and Preservation of Rural Areas and regional development agencies) were finally established. The Agency for Regional Development set up the administrative structures necessary for obtaining accreditation for the management of resources of structural and cohesion funds, but has not obtained it yet. Regional development agencies were established at the regional level and have begun to draw up regional development programmes.

Regional development programmes are part of the **development documents** of regional policy. The strategic document for implementation of regional policy – the *Strategy of Regional Development of Slovenia* – was adopted in mid-2001. At the end of the year, the *National Development Programme 2001-2006* was adopted, defining national development priorities, programmes and subprogrammes and

[44] The registered unemployment rate at the regional level is calculated as the ratio between registered unemployed persons and the actively employed population, including the employed population and the registered unemployed persons. This indicator cannot be compared internationally and has only been available since 1997. The EU uses the ILOís methodology to calculate the unemployment rate.

representing the basis for Slovenia's negotiations on the financial allocation of structural and cohesion funds. On the basis of this programme, Slovenia and the EU will prepare and harmonise the programme document of EU assistance to Slovenia in the 2004-2006 period. The National Development Programme has two key goals: reducing Slovenia's economic backlog compared to the average seen in EU member-states, and reducing development disparities among Slovenian regions. These goals will be achieved with five priorities: (i) stimulating the corporate sector and competitiveness; (ii) knowledge, human resources development and employment; (iii) the information society, infrastructure and quality of living; (iv) restructuring of agriculture and rural development; and (v) enhancing balanced regional development. The objectives of the fifth priority comply with the goals of the Strategy for Regional Development.

Balanced spatial development

The SEDS identified the main problems and set the goals and mechanisms to attain such goals, including in the area of spatial planning which is considered to be an important welfare and development factor. Problems include poor access to peripheral areas and their depopulation, large-scale daily migrations, poor and expensive infrastructure, degraded areas and landscape, dispersed and illegal construction, and lack of building land. The goals comprise affirmation of the role of towns, mostly regional centres, the consolidation of conurbations, spatial cohesion capacity of the state, balanced development and protection of the environment, provision of access to basic supply functions and employment, and reorganisation of dispersed construction. In addition to strengthening regional centres, the mechanisms are the main incentives for bolstering spatial planning, formulating land policy, agricultural policy reform and the definition of provinces.

In trying to assess whether in **spatial planning** there are any movements towards attaining or deviating from the SEDS' objectives, we need to consider two primary issues: first, processes in spatial planning are extremely long-term processes that can not significantly change in a couple of years; second, spatial planning is an area of insufficient informatisation, meaning there is an information chain characterised by incomplete records and by the lack of spatial statistics and synthetic indicators to monitor such an area. It is thus hard to assess whether there has been any significant change to the long-term trends in spatial planning. Among activities with the most pronounced consequences for the distribution of activities in the physical environment, we should highlight the continuing role of the motorway programme which adds to the greater spatial cohesion capacity of the state and accessibility to services and employment. However, the motorway programme makes the gap even bigger by developing a regional road network and, in particular, rail transport, and their backlog will have to be reduced upon implementation of the key aspects of the motorway programme.

Last year, the **institutional activities in spatial planning** were even more pronounced than the changing trends seen in the physical environment, possibly meaning that in a few years time real changes in spatial trends will follow. The Assessment of the Status and Trends in Spatial Planning and the National Policy

of Spatial Planning adopted at the end of 2001 defined in detail the problems, goals and mechanisms already set by the SEDS. The Parliament is discussing two basic documents on spatial planning and building construction which represent significant progress in enhancing the role of spatial planning, improving the information basis for monitoring activities in the physical environment, and in speeding up the processes and disburdening investments in the physical environment. Emphasis should be put on accelerated professional preparations for the establishment of provinces.

Agricultural policy reform

The agricultural policy reform is one of the most important reforms in both Slovenia and the EU. Agriculture is not merely an industry; even the social and environmental development components are implemented through agriculture. The Programme of Agricultural Policy Reform 1999-2002 (adopted in 1998) defines ways to achieve the goals which move from economic goals to regional and environmental ones. Such movements were stimulated by pressures in the new round of negotiations between the WTO and the EU, requiring a reduction of agricultural protection rates through price support and an increase of measures not directly related to production. The *Rural Development Programme for 2000-2006* was adopted at the end of 1999 (approved in Brussels in October 2000), whereby Slovenia this year starts to benefit from the EU's pre-accession assistance. In the pre-accession period, Slovenian agriculture and rural areas will only receive minimum EU financial assistance since the European Commission granted Slovenia only 1% of the total EUR 520 million available in annual SAPARD funds. In seven years' time, Slovenia will receive from the EU EUR 45.1 million in total, accounting for 28.9% of the total costs planned for implementation of the programme. Among 15 different measures that candidate-countries may include in their programmes for pre-accession assistance, Slovenia identified four priority areas: (i) improving the competitiveness of farms; (ii) improving the competitiveness of processing and marketing of agro-food products; (iii) support for improving rural infrastructure; and (iv) diversification of economic activities in rural areas. In autumn 2001, the European Commission appointed the Agency for Agricultural Markets and Rural Development to implement the programme and the SAPARD pre-accession structural assistance. The Agency published the first public tender for the allocation of non-repayable assistance in January 2002. The Slovenian *agricultural environment programme* (adopted in 2001) represents the environmental aspect of agriculture and envisages the transition to environmentally-friendly agricultural activities.

The programme of agricultural restructuring is supported by the relatively significant **state aid**. Slovenia allocated to agriculture 45.9% of state aid in 2000 (only 20.9% in 1998), which is far more than in European states (15.5%). However, state aid for agriculture and fishing in Slovenia is not above the average of EU member-states, particularly if one adds the structural assistance from European supranational funds (the estimated share of total aid rises to 49.9%). State aid accounted for 32.9% of the total value added in Slovenian agriculture in 2000 and for just 13.7% in 1998.

In addition to unfavourable natural features, the main obstacle to increased productivity, efficiency and production intensity is the unfavourable agricultural structure reflected in small-sized farms, fragmented holdings and the poor socio-demographic structure of the agricultural work force. The **results of the sample census in agriculture** of 1997 and of the agricultural census of 2000 indicate that, after decades of stagnation, the structural transformation of Slovenian agriculture has finally begun. The number of holdings is shrinking and, given the limited surface of agricultural land, this is the precondition for the necessary increase in the size of holdings. The share of holdings with 10 or more hectares of land is increasing while the share of farms with 1-10 hectares of land is falling. According to the **census of agricultural workers** of 2000, Slovenian agriculture is characterised by a labour force in the late or past working age and by extremely low education levels. 59% of holding company owners, who are the decision-makers on farms, only completed primary school or are without any formal education, and only 15% of them completed at least one of the programmes of agricultural education. Unfavourable age and education structure is a significant obstacle to any faster restructuring of Slovenian agriculture.

4. Environmental development

SEDS' OBJECTIVES: Environmental development means the improved application of natural resources in order to achieve welfare. Environmental capital[45] *is important for development because of the services it provides: growth, reproduction, differentiation, and other environmental services which maintain and preserve the stock of living and non-living wealth. There is, thus, an important difference between* ***protection*** *and* ***development of the environment****, the first dealing with management given the envisaged surplus pressures on the environment and the latter dealing with the management of environmental capital for the long-term maximisation of renewable environmental welfare.*

As Slovenia is more developed in terms of the environment than in terms of the economy, the SEDS opted for sustainable development. The crucial message from the SEDS is that (i) environmental policy shall be in line with criteria of sustainability complemented by optimising the use of natural resources for the creation of welfare; sustainable environmental policy should not only minimise damage to the environment, but also optimise the contribution of the environmental capital to welfare; (ii) infrastructural investment will be directed at improving the infrastructure of local public services; and (iii) as far as the non-investment measures are concerned, the SEDS demands that the conventional environmental policy be institutionally strengthened.

REPORT'S FINDINGS: ***Environmental development*** *is currently an insufficient result of any sustainably integrated policy. The problems of public environment management partly derive from external factors: (i) significant changes to the management style of public affairs, which are revealed by increased public participation in public affairs management. This at first appeared as a problem of environmmental management (Aarhus convention). Interdepartmental integration of public management (particularly the environment, agriculture, transport, tourism, health, education, the economy, finance) first appeared as a demand for the reform of environmental policy; the increasingly stronger direct effects of international agreements on the direction of national development (such as Kyoto protocol etc); (ii) the changing nature of environmental problems – less and less attention is given to the few great polluters (thermal power plants, purification plants, dumping grounds) but is increasingly directed at the many small, dispersed and diverse polluters (households, services), and, furthermore, environmental development is gaining grounds over traditional environmental protection.*

Among others, important results were achieved in environmental policy's institutional strengthening and in the introduction of the envisaged environmental protection measures, and more funds were allocated to environmental protection in 1999-2001. Greater influence and integration of the environmental development policy on overall economic development will be achieved by annual monitoring

[45] By modifying the development paradigm and opting for sustainable development, the SEDS introduced a new terminology (environmental capital, environmental development etc) which was presented in the IB magazines 4/2001 (Radej) and 3/2002 (Autumn/Winter 2002).

and reporting on the state of the environment and policy implementation on the basis of indicators methodologically complying with the EU and in accordance with the legal obligations of the line ministry as laid down in the Environmental Protection Act adopted in 1993.

ANALYSIS:

The main lever of enforcing sustainable development in Slovenia is **efficient management** which, according to the SEDS, is hampered by the implementation gap (IG) in the field of the environment and other public sector. Since the environmental objectives of economic development are new and their management skills are still weak, it is difficult to integrate them into related sectors, particularly economic and financial ones. The bigger the IG, the more the sustainability requirement is violated. If current development fails to meet the first requirement of sustainability, i.e. current development shall be beneficial to the current generation, then it threatens fulfilment of the second one as well, according to which economic development should not be detrimental to future generations. Current generations seem to be decreasingly satisfied with current environmental policy – this can be seen from constantly increasing costs of legal proceedings relating to the competence of the Ministry of the Environment (increased by 17% in 2000).

With the most recent **methodology applying the environmental sustainability indicator** (WEF), the problem of the ID can be approximately quantified: in terms of environmental efficiency, Slovenia ranks 24th among 122 countries, right after Japan and before, among others, Spain, Italy and Belgium. This good ranking is only due to the favourable initial state of the environment (Slovenia ranks 9th) and not to actual improvements (in this sense Slovenia ranks 93rd with poor results in the management of municipal waste and environmental stress). This great difference was explained above when stating that in the period of transition the economy revived on account of the environment since the decrease in environmental degradation was much (s)lower than the increase in the level of economic activity. This is expressed by the WEF's indicator through a low ranking in terms of the quality of environmental regulations and management (85th). The lack of information on the state of the environment in Slovenia is reflected in Slovenia's 44th position in terms of the accessibility of information in environmental matters.

The review of the SEDS' benchmarks in the area of environmental development indicates (see table below[46]) that, according to representative indicators, the **state of environmental development in Slovenia is slowly worsening**. There are two main reasons for this: (i) technical; since figures in this first development report still refer to years before the adoption of the SEDS, it is necessary that the benchmarks are not being met or else the selected benchmarks of environmental development would not be relevant for the SEDS; (ii) in the recession phase of transition, the environmental-economic integration was spontaneous (the bankruptcy of both economically and environmentally unsustainable companies), yet in the period of development expansion (after 1993) this cannot be achieved

[46] The indicators are described in the Appendix.

without any explicit integrative policy measures, at least in planning public investments (assessment of socio-economic profitability, strategic assessment of environmental impacts etc). Environmental achievements, in order to be improved, require a shift of policy to a higher level of interdepartmental co-ordination or a lower level of IG. Therefore, it can be estimated that the worsening of environmental development is more the result of the absence of macro-integration (of environmental, social and economic aspects of management) than of micro-integration (companies do increase their environmental efficiency and economic integration). The table also shows that recent data (the current SEDS, up to 2006) are slightly less unfavourable than the previous figures (the previous SEDS, up to 2000).

A particularly significant **worsening of environmental characteristics of economic development** has been recorded in Slovenia since 1998: with a new investment incentive in the economy economic growth is again depending on additional environmental degradation instead of being vice versa. Although there is a lack of detailed research, it may be estimated that this is due to the harmonisation with the EU and to the rounding up of environmental protection regulations, pushing national development challenges in environmental development temporarily on to the back burner. Out of 1.8% of GDP, the amount of the environmental liability funds approved in the privatisation of industrial companies (1993), almost 50% or 0.8% of GDP have still not been used for rehabilitation of old environmental burdens, the placement of subsidised loans for environmental rehabilitaion is increasingly difficult, and environmental policy strongly depends on public financing (due to its reliance on grants). Given the economic development problems related to the environment, the marginalisation of certain natural resources is increasing and the irrational use of resources and space is continuing. The energy intensity of Slovenia's GDP is almost twice that of the EU average and represents one of the worst characteristics of Slovenia's development pattern; in addition to this, a great deal has been invested recently in energy-intensive industry.

A comparison between **environmental policy achievements in 2001** and the SEDS' priorities in environmental development (see Table above) reveals that the government focused on institutional building and introduction of the measures envisaged for environmental protection. Important laws (on the use of environmental liability funds, on housing construction, on spatial planning, on waters, on the use of genetic technology) and policy documents (strategy for the preservation of bio-diversity, reports to the framework UN convention on climate change, analysis of bio-diversity in Slovenia, assessment of activities and status in spatial planning in the country, draft programme of the energy consumption of wood biomass) were adopted, drafted or submitted for further procedures. Ratification of two international documents (the Kyoto Protocol on climate change and the Aarhus Convention on access to information in environmental matters) was announced but the Ministry failed to carry them out in 2001. Moreover, important institutional changes occurred last year: energy matters were transferred from the Ministry of the Economy to the Ministry of the Environment, the Environment Agency was established and the Slovenian Council for Sustainable Development began to operate. A tax on the disposal of municipal waste and lubricating oils was introduced, the CO_2 tax was adjusted to the needs of trade with greenhouse

emissions, leaded gasoline is no longer used, and other measures relating to climate change were adopted. In the accession negotiations, Slovenia closed the chapter on the environment and joined the European Environment Agency.

In the near future, more decisive steps will be necessary to optimise the management of public finances for environmental development policy purposes. The first step towards integrating environmental financial instruments could be made rapidly and simply by introducing regular reporting on approved environmental tax relief and the produced environmental impacts, mostly public and infrastructural investments (according to the statistical dissemination standards already accepted and practised, granting soft loans for environmental protection projects from the fund for financing the decommissioning of the Krško power plant, integration of environmental tax relief etc).

Financing of environmental protection in Slovenia is increasing and, according to rough estimates (official statistics are yet to be methodologically harmonised with Eurostat) is almost equal to the EU average, expressed in GDP (see Table above): one of the main objectives of the previous SEDS (up to 2000) was to raise the funds for environmental protection and this objective is being met. In the last two years, investments in the infrastructure of environmental protection have increased (in waste management, collection and purification of waste waters, water supply). Unlike in the mid-nineties, when the SEDS for the period up to 2000 was prepared, the problem in environmental management is no longer the lack of financial resources but their efficient management and allocation.

TABLE: **Synthetic review of the achievement of the SEDS' motivation goals for 2001- 2006 in environmental development in 2001**

	Measurable unit	Motivation goals [1]			Implementation of the current SEDS [1] (latest data: state or growth as per the previous year)
		Previous SEDS c: goal; (latest data as per 1995)	EU15 (c:goal; s:state)	Current SEDS' goal	
Balanced economic development index	Unnamed number	c: Improvement of the state of 1995 (0.521); ☹☹(0.440; 1998)	c: Improve; s: 0.503	Reduce difference with the EU	☹☹(1998 : 0.440)
Genuine savings index	% GDP	c (simulated): Improvement of the state of 1997 (12.9); ☹☹(11.0; 1999)	c:-; s:16.9	16.3	☹☹(1999 : 11.0)
Necessary primary energy	Mill. toe	C: Improvement of the state of 1995 (6.11) ☺(6.33; 2000)	1,519.5 (projection for 2010)	6.64 (scenario for 2010)	☹(2000 : 6.33; 1,442.4)
Share of used renewable resources (MGD/Eurostat)	% of primary energy used	C: Improvement of the state of 1995 (8.9%, municipal waste excluded) ☺(9.4; 2000)	c: 12 (goal for 2010); s: 5.9	Maintain precedence over the EU	☺(2000: 11.9 oz. 9.4 municipal waste excluded; 5.9)
Intensity per primary energy consumption	toe/mill. EUR_{1990} GDP	C: (Improvement of the state of 1995): 460 ☺(386;2000)	C: 186 (projection for 2010)	Come closer to the EU average	☺(2000: 386; 231)
Energy dependence	net imports in % of gross energy consumption	C: Not to worsen the state of 1995 (50.6%). ☺(53.5; 2000)	Will increase	Will increase	☺(2000: 53.5; 47.6)
Price of electric. for industry, retail, the OECD	SIT / kWh	c: 7% growth above inflation, 80% of the EU average ☺(2000)	c: Growth of relative energy prices	Maintain level compared to the EU average	☺(2000: 10.67; 11.19)
Price of electricity for households,retail, the OECD	%	c:-	c: -	Slight rise of prices above inflation	☺(2000: 19.50; 24.07)
Share of road trans. in total carriage of goods				Reduce.	☹(1997: 59.8; 84.7)
Share of road transp. in total passenger trans.					☺(2000: 69.2; 58.0)
Retail price of MB95, unleaded	SIT/litre	C: Come closer to the EU average also in tax terms ☺☺(2000)	c: Uniform minimum excise duty	At the EU average level	☺(2001:164.2; 208.4)
Use of pesticides - active substance	Kg/ha	c: Reduce; ☹☹(3.21; 1999)	c: Reduce (s: -).	Reduce.	☹☹(1999:3.21; commercial quantities)
Use of the active substance of NPK fertilisers		c: Reduce; ☹☹(149.7; 2000)	c: Reduce (s: 116.0).	Reduce.	☹☹2000 : (149.7)
Intensity of irrigation per useful agricultur. land	%	c: Increase; ☹(0.5; 2000)	c: -	Increase.	☹(2000 : 0.5)
Intensity of wood production: increment relative to felling	%	c: Increase; ☹(38.0; 2000)	c: Reduce	Increase.	☹1995-2000 : (38.0; 59.9)
Share of commodities exports competing in natural resources	%	c: Reduce from 16.7% (1995) ☺(15.5; 2000)	c: - s: -	Reduce.	☺2000 : (15.5)
Share of value added of manufacturing in "dirty" industries		c: Reduce from 20.3% in 1995 ☺(21.1; 2000)	c: - s: -	Reduce.	☺2000 : (21.1)
Environmental protection expenses	% GDP	c:1.5; ☹☹(1.2; 2000)	c: 5% annual growth above inflation s:1.3	1.5	☺2001 : (1.2)
Total indicative assessment of the SEDS' implementation in environmental development [2]		☹☹☹☹☹	-		☹☹☹☹

Source: IMAD Workbook No. 7/2000; updated on the basis of the same sources.
Notes: [1]Efficiency in achieving the goals: ☺☺-exceeding by at least 25%; ☺-exceeding by 10-25%; ☺-achieved 90-110%; ☹-implemented 75-90%; ☹☹-implemented less than 75%. [2] Sum, where: ☺=1 point; ☺=0 points; ☹=-1 point.

5. Social development

SEDS' OBJECTIVES: The SEDS notes three basic conditions which, if met, lead to increased welfare of people: a long and healthy life, education and information, access to resources necessary for an adequate living standard. Solid social security and social inclusion are the objectives of the social development policy.

*REPORT'S FINDINGS: For **social security**, Slovenia spends a share of its gross domestic product that is similar to that spent in EU member-states. In the period of transition, Slovenia successfully maintained the social security systems which cushioned the otherwise necessary changes of the economic system. Yet it is necessary to guarantee that the regulations encourage the people concerned to devote their own efforts to resolve their social problems and integrate in work or other forms of social activity. Attention will have to be paid to working (in)activity and education which are the main determinants and most frequent levers in reducing social exclusion and poverty. The poverty rate dropped in 1998 compared to 1993. Slovenia also carried out the reform of the pension insurance system necessary to prevent the share of gross domestic product allocated to the pension system expenditure from increasing. It regulated and upgraded the social care and family benefits systems and thus provided for the poorest part of its population in addition to regulating and modernising family care. Further, changes in the health care and insurance systems are necessary.*

ANALYSIS

Social security

The social security system is strongly influenced by social development that is an extremely important component of the population's welfare. It adds to social integration, mitigates poverty and prevents social exclusion. The main instruments used in thSe social security system to guarantee the fulfilment of its objectives are **benefits in cash and in kind**. Depending on which risk they cover and how benefits are provided, two simultaneous and parallel systems have been formed and operate within the social security system. (1) In the central government system, the main beneficiaries are the citizens or residents; benefits are financed from the budget; the system is organised and implemented by the state through its bodies. (2) Social insurance systems are composed of independent rules that have not been adopted by the state, and of institutions whose administration is co-ordinated. In the above systems, the entitlement to and amount of benefits is related to inclusion (as a rule compulsorily), while the amount at least partly depends on the payment of social insurance contributions.

In Slovenia, there are (data for July 2001) 81 cash benefits guaranteeing the social security of the population. Most derive from the central government's social security system, while the majority of people entitled to benefits and allocated resources are part of the social insurance system. For cash benefits and services available to the population in the case of certain risks, situations or necessities (old age, sickness,

disability, unemployment, child allowance, family allowance etc.), Slovenia[47] allocates GDP shares similar to the EU member-states and lags behind the EU average (data for 1998) by only 1.2 percentage points (Slovenia: 26.5% of GDP, EU-15 27.7% of GDP). There are considerable differences among individual EU member-states, ranging from 16.1% of GDP in Ireland to 33.3% of GDP in Sweden, meaning that the amount and share of public expenditure in the EU is more a result of social security systems and philosophies than an indicator of the welfare of the population. In most member-states, the share of social security expenditure in GDP has been decreasing since 1993, but has increased in Slovenia. According to a comparison of **social security funds per capita at purchasing power parity** among individual states, Slovenia spent more on social security (calculated in PPP[48]) in 1998 than Ireland, Spain, Greece and Portugal. The structure of total funds for social security in Slovenia indicates that most funds (43.3%) are allocated for old age (disability pensions excluded), followed by sickness and health care (30.7%), disability programmes and benefits (8.8%) including disability pensions, and the social security of children and families (8.8%). Old age and sickness are also at the top of the list in the EU. However, comparisons made in 1998 show that Slovenia spent more on old age (Slovenia: 11.4% of GDP, the EU: 10.8%) and sickness and health care (Slovenia: 8.0% of GDP, the EU: 7.1%) than the EU-15; it spent the same for families and children (2.1% of GDP) and the disabled (2.2%), and less for the unemployed (Slovenia: 1.4% of GDP, the EU: 2.9%) and for cases of death of the breadwinner (Slovenia: 0.5% of GDP, the EU-15 1.4%).

In the period of transition, Slovenia successfully retained the social security systems that had cushioned the necessary but radical changes experienced in the economic system. Social security systems were adjusted to the changing economic, demographic and social environments. In some areas, the need for adjustments was so great that it could only be met by introducing reforms.

Central government social security

Social security system reforms that are within the domain of the central government were mostly completed with the adoption and enforcement of amendments to the Family Benefits Act and the Social Security Act. In the latter, the two old forms of assistance were replaced by one only ñ social benefit in cash. More emphasis is given to the individualís personal responsibility to decently support themselves and the family, and to motivation for work; the benefit increased (in the case of single persons it rose to the level of minimum living expenses or the minimum wage) and is no longer assessed on the basis of the guaranteed wage. The Parenthood and Family Earnings Act also regulates maternity, paternity and parental leave types, the right to shortened working time because of parenthood, and the rights to family benefits. Some of its provisions are among the most liberal in Europe. Together with other measures for young families, this Act is intended to guarantee

[47] Slovenian statistics began to collect data on social security expenditure in the second half of the nineties on the basis of the Eurostat methodology ESSPROS.

[48] Purchasing power parity.

that basic material conditions do not significantly affect the decision to create a family.

However, a question remains as to how efficient the new regulation will be in increasing the willingness of the people concerned to direct their own efforts towards resolving their social problems and participating in work or other social activities. In this respect, continuous monitoring of the effects of the new regulation will be indispensable.

Social insurance systems

Social security systems guaranteed by social insurance underwent radical changes already enacted. The **pension system reform** aimed at modernising the pension system; it was necessary to increase the financial viability of the system, emphasise its redistribution function, make it more flexible, connect it with the labour market and introduce new forms and sources of financing. The changes in the system were drastic yet their introduction is not very dramatic for most are being introduced gradually on a long-term basis. The financial viability could not improve significantly in such a short period of time, but at least it did not become worse upon enforcement of the reform (the share of GDP on pension expenditures in the system did not increase). The generosity of the system will comply with financial capacities thanks to a reduced annual accrual rate, extended reference period for calculation of the pension basis, different rules on the indexation of pensions and reference data on wages, and increased minimum and full retirement ages. The flexibility of the pension system remunerates those who remain economically active for longer and reduces cash benefits for earlier retirement, as in the full retirement age. The redistribution function of the pension system was enhanced by introducing the widow(er)ís pension and the state pension, by reducing the ratio between the minimum and maximum pension bases, and by equalising the status of old pensioners and the newcomers for whom less favourable conditions now apply. New sources providing a decent income during old age are now systematically regulated with the possibilities of supplementary compulsory and voluntary pension insurance. Following the initial problems in establishing the institutions of financial intermediation (pension funds and mutual pension funds) and the initial hesitation of individuals and employers, there was a significant increase in the number of people integrated in the new forms of insurance in 2001 resulting in increased specific-purpose savings.

The main characteristic of **changes in the health insurance system** in the past period is a considerable rise in the extent and volume of individuals' payments for the compulsory part of the programme of medical services or activities. Like several other states, Slovenia records a certain degree of incapacity or lack of willingness to control the costs of health care. Due to decisions on the form and level of remuneration, there was (given other similar parameters) a significant increase in the (general government) expenditures while public revenues (paid contributions) could not be increased. The programme of services stayed unchanged or was even extended, and did not adjust to the changes of the ways and possibilities of providing health care; it did not give sufficient consideration to general government

restrictions. Participation in supplementary health insurance increased, while other forms of health insurance have not yet been developed.

Poverty – social exclusion

The **poverty rate** in Slovenia was (in 1998) 11.9%[49], meaning that around 76,000 households were poor (11,000 households fewer than in 1993). The poverty rate is above average in single households, households above 65 years of age, single-parent households with many children, and couples with three or more children aged up to 16. The poorest category of the population is single households above 65 years of age. The highest poverty rate is recorded in households in which no member works (56.9% of poor households). In terms of education of the reference person[50], the poorest households are those in which the reference person completed only primary school (58.1% of all poor households).

The most recent assessment of poverty, based on new methodology[51], revealed that there were 13.8% of poor persons in Slovenia in 1998, meaning that Slovenia is a country with a low poverty rate. There were on average 18% of poor persons in the EU-15.

Subjective opinions of households on the sufficiency of their monthly income are available, but caution is necessary in their interpretation. The feeling of material deprivation is frequently present in Slovenian households, for 11.7% of them believe they have great problems in supporting themselves with their monthly income. Only 7% of households shared this feeling in the EU-13[52]. Moreover, only a few people in Slovenia believe they have no major problems in making ends meet – in fact, with regard to the answer "very easy", Slovenia is last on the list although it is close to Greece, Spain, France, Italy and Portugal.

Although the poverty rate in households in 1998 fell compared to 1993, attention should be directed to (un)employment and education as the main determinants of poverty and at the same time the most important incentives to reduce poverty and social exclusion. **Social exclusion** is not the same as poverty, however, it starts with poverty and also means inequality in access to education, health, employment, cultural benefits etc. Social exclusion means restricted social contacts, exclusion from social life and marginalisation. Positive trends in education, the integration

[49] Poverty rate calculated on the basis of the poverty threshold, which amounts to 50% of the average household expenditure. Households that do not reach such threshold are deemed to be poor. Similar data for the EU for 1994 indicate that the average poverty rate in EU-13 households was 19%. The lowest poverty rate was recorded by Denmark (6%) and the highest by Ireland (25%).

[50] The person with the highest income in the household.

[51] According to EUROSTATís recommendations, the poverty threshold is 60% of the median income.

[52] Average in 1998; Sweden and Finland excluded. Disparities within the EU-13 are huge: only 2% of households in Luxembourg have problems making ends meet compared to 21% in Greece.

of adults into formal and informal learning, an increase in the number of employed people and reduction in the number of the unemployed, on a long-term basis aim at reducing poverty and social exclusion. Positive trends are shown by two important **indicators of welfare and living conditions**: the death rate of babies and expected life duration.

6. Guidelines for implementing the Strategy

Despite the relatively favourable results, accelerated economic development is still at the top of the list of national policy activities and measures due to the backlogs seen in a wide spectrum of development mechanisms and the forthcoming integration into the European internal market where competitiveness is higher while the competence of actions by nation-states is much more limited (also with regard to state aid and competition policy). Such circumstances might threaten that part of the economy that has not yet been restructured and has not asserted its competitiveness in advanced markets.

Strengthening economic competitiveness includes a wide spectrum of different activities and measures in the following areas:

- knowledge and professional qualification of the existing and new labour force;
- research and technological development, the number of researchers, introduction of innovations into business, organisational and administrative processes, faster introduction of new products, transfer of knowledge into production processes, and faster introduction of ICT and services into the economy and public administration;
- labour productivity and competitiveness of products and enterprises in national and foreign markets;
- development of the financial sector and infrastructure; and
- other areas directly or indirectly related to economic competitiveness (such as administrative barriers, spatial and location conditions).

With a suitable industrial policy to strengthen economic competitiveness it will be possible to resolve regional and environmental problems (for example, by strengthening economic competitiveness in less developed regions, restricting the development of energy-consuming and "dirty" industries). Yet neither sectoral policies, although successful, nor abundant public resources (from national or European structural sources) can have an optimal impact on future development if **macroeconomic stability** and the **efficiency of the state administration** are not guaranteed. Administrative barriers that hinder the creation of a favourable business environment, inadequate selection of development projects (investments and state aid), unregulated institutions for the co-ordination of various activities and measures, insufficient or non-existing control, and failure to assess the impacts of the adopted and implemented measures may have a negative effect on both macroeconomic stability and industrial policy measures.

6.1. Industrial policy[53]

Slovenia needs an integral industrial policy with clearly defined objectives, guidelines and divisions in priority programmes and subprogrammes as well as in measures and instruments. The Strategy for Economic Development, the Pre-accession Economic Programme and the Budget Memorandum adopted last year comply in terms of the definition of development priorities and the course of economic and structural policies. Moreover, the National Development Programme was (preliminarily) adopted last year in order to reduce disparities between the set directions and the actual allocation of funds for development. One of its significant qualities is that it contains interdepartmental programmes that are financially evaluated and – in the part where financing from public funds[54] is planned – comply with the adopted national budget. During drawing up of the National Development Programme, methods of its co-ordination through the Structural Policy Council were devised, preparations for monitoring its implementation began and, finally, efforts were made for horizontal harmonisation through strategic environmental and health impact assessments and external preliminary feasibility assessment. One weakness of the programme is that in defining the priorities it relies on the structure of EU financing sources at least as much as on the SEDS. Thus, by the time negotiations on the financial chapters are concluded, the National Development Programme will become the Single Programming Document, meaning that its contents and probably also the envisaged funds will be reduced depending on the result of the negotiations (representing a possible threat to implementation of the programme or too heavy a burden for private resources, particularly borrowing). Due to this transformation, the National Development Programme will probably not include all programmes important for development while including some which can be financed by European funds but give more emphasis to the social aspect than to the developmental one. A possible solution is to keep drawing up the national development programme as an internal programme document comprising all of the state's development priority expenditures, although some would be financed with EU funds. Such a development programme could represent the Slovenian industrial policy and replace the current formal plan of state budget development programmes, while intensification of the procedures and institutions tested so far would provide co-ordination among the ministries and compliance with the budget, along with successful monitoring of the programme's efficiency.

The most important national instruments for financing development programmes are investments and state aid. While planning and carrying out investments is adequately and inter-departmentally co-ordinated through the mechanism of public procurement (which should supplement the assessment of the conformity of

[53] Industrial policy is here intended in a broader sense, meaning a policy that comprises all activities (not only manufacturing), as considered by economically advanced (including the European Commission in the EU) and Anglo-Saxon-oriented countries. Both in practice and theory, industrial policy has different names (sectoral, structural), whereby the term here used prevails.

[54] In the envisaged general government financing, the programmes derive only from the income part of the national budget and do not take into account the resources from state funds. Similarly, the programmes where general government aid is considered according to state aid criteria do not take into account other instruments that accounted for 34% of all state aid in 2000.

investment decisions with investment programmes and business plans as well as cost-benefit analysis), state aid is not. The existing Commission for State Aid Control only monitors the conformity of state aid with the relevant adopted legal acts and does not supervise the economic appropriateness and its expected impacts on economic, regional and environmental development. Similarly, individual sectoral policies do not include an **assessment of the impacts** of their activities and measures. Given the lack of control and evaluation of measures, new needs to increase the volume of general government resources for both defined and new purposes are emerging. Constant monitoring and assessing of the measures' impacts eliminates "government failures" in the decisions and leads to the rational use of tax payers' money on one hand and to actual positive impacts on economic, environmental and social development on the other.

In individual areas of industrial policy, the guidelines deriving from the analytical part of the Report are as follows:

In the light of the SEDS and the main development problems in Slovenia, in **education and training** quality shifts are recorded in youth education, but not yet in adult education and lifelong learning. In order to speed up the positive trends, the following priority measures should be adopted: (a) increase of all (public and private) investments in education and training, particularly adult education, including the redistribution of public expenditure; (b) improvement of the quality of education and training at all levels, and (c) introduction of the concept of lifelong learning.

As regards **investments in research and technological development** and the **achieved level of corporate innovation**, Slovenia should base its economic growth and greater labour productivity mostly on the increased technological complexity of production and faster introduction of new products and services, requiring a highly trained and educated labour force. The lack of the latter could seriously hinder the absorption and transfer of new technologies into industry and service sectors. The actual level of investments in research, technological development and innovations reveals the following weaknesses: (i) an insufficient transfer of knowledge between the sphere of research and development and industry, and consequently too small a share of enterprises introducing innovations; (ii) the evaluation of scientific-research activities focuses more on being published in scientific magazines than on co-operation with industry; for this reason Slovenia lags behind the advanced countries more in terms of the relatively small number of patents than in terms of the number of articles published in scientific magazines; (iii) a disequilibrium between basic research and development research to the detriment of the latter; (iv) the limited efficiency of existing mechanisms for the transfer of knowledge between research and industry; (v) non-developed mechanisms for financing innovations and entrepreneurship in general; and (vi) an environment which does not stimulate the development of entrepreneurship (for example, the bureaucratic procedures). The SEDS envisages increasing the share of research and technological development in GDP to about 2% by 2006. If Slovenia wishes to meet this objective and at the same time eliminate the backlog compared to technologically advanced countries, the priority measures of industrial policy should be directed at overcoming the above weaknesses. Particular attention

should be given to promoting the establishment of small technology-intensive companies (spin-offs, start-ups). The existing public resources intended for research and development should be redirected from basic research to applied research and other pre-competitive research and development activities. According to the rules on state aid, applied research and other pre-competitive activities (all activities in research and development, including the creation of prototypes of new products) must necessarily integrate with the business sphere in terms of programmes and financing. In this way, as in other advanced countries, more business resources would be attracted to the sphere of science and development (it would be thus easier to meet the SEDS goal of 2% of GDP for research and development) and the transfer of knowledge to production processes would be accelerated.

The relatively fast growth seen in the number of Internet users in the EU can be associated with the **measures of active policy for developing the information society**. The recently recorded difference between Slovenia and the EU indicates that Slovenia is late in promoting development of the information society. By adopting framework legislation and establishing an independent regulatory body for telecommunications and the Ministry of Information Society responsible for conducting the relevant policy, Slovenia follows the guidelines of the SEDS aimed at eliminating the backlog compared to the EU with regard to the information society's development . Slovenia has already computerised certain areas (health, state administration, e-schools, banking) but an integral approach in the form of a national strategy and action plan is necessary to obtain optimum effects from introduction of the information society. The information society/knowledge-based society obviously does not occur spontaneously as a result of development; the development of such a society should be planned and stimulated for it affects all areas of citizens' participation (employees, consumers, citizens). In the light of industrial policy, the following priorities should be addressed in this context: (i) early and efficient enforcement of competition in terms of access to the Internet, providing rapid and inexpensive access; (ii) education and training of wider population groups in using the Internet; and (iii) priority computerisation of administrative procedures relating to the establishment of new enterprises and the promotion of entrepreneurship in general.

The **competitiveness of the economic sector** should be accelerated with the following tasks: (i) creating a favourable corporate environment facilitating fast entries to and exits from the market with minimum costs; (ii) providing enterprises with an ownership structure that is interested in early offensive restructuring; and (iii) internationalisation of the economy. The first task can be successfully carried out with the appropriate elimination of administrative barriers, favourable infrastructural integration and sufficient number of location possibilities and opportunities. The second task can be realised by rapidly regulating the status of investment funds and of companies involved in the management of such funds, and by increasing the possibility of owners opting for offensive restructuring, which is a corporate decision while the state has sufficient horizontal instruments (within the rules on state aid) to support these processes (a prerequisite is an efficient corporate programme). The third task can be carried out if exports continue to be accelerated and inward and outward foreign direct investment increases. In this context, the state's role is limited (given the restrictions on the direct promotion of

exports) but the variety of measures is still rich enough to actively intervene in the realisation of such task. The volume of state aid should no longer be reduced if we wish to strengthen economic competitiveness, which still lags behind European levels. Given the available measures and instruments, state aid should be gradually redirected from less desirable purposes (restructuring and rehabilitation of unsuccessful companies) to mostly horizontal purposes according to the priorities defined in advance. In the least developed regions, certain industries could also be saved with regional aid (support of the regular conduct of business).

In countries with a developed **financial system**, there is a series of efficient instruments and mechanisms available to support the competitiveness of the corporate sector and technological development, and to facilitate the introduction of innovations to enterprises (including small and medium-sized enterprises). In Slovenia as well as in other countries in transition, the financial system is relatively undeveloped in the sense of investment promotion (for example: risk capital funds, investment banking), therefore several support activities regarding innovations and technological development still depend on the activity of the state and other public institutions. The processes of privatisation, mergers, attracting strategic investors and restructuring of the financial system should be continued systematically and rapidly regardless of "politicisation" of the national interest emerging from the privatisation of the two biggest Slovenian banks.

In the light of industrial policy and economic competitiveness, the development and liberalisation of **infrastructure** is necessary to provide sufficient and quality supply at competitive prices.

Industrial policy should also include a **regional dimension**, meaning it should support the investments and other corporate activities (with projects that are satisfactory in terms of quality) in those regions with the greatest development backlogs. Regional policy should above all create a favourable environment for entrepreneurship and activate the exploitation of local development potential. In some aspects, regional policy in Slovenia duplicates activities already carried out under industrial policy - related to promotion of the development of small and medium-sized companies - or under agricultural policy (investments in rural areas). By doing so, it neglects the primary function it has under industrial policy. When examining the rules on state aid defined as aid to industry with a regional component, it can be assessed that aid is above all intended for industry and may only be allocated to less developed regions in certain conditions. We believe this is the main reason why there is an implementation gap with regard to regional state aid in Slovenia. Under industrial policies, individual less developed regions may be allocated significant aid (the criteria for allocating state aid according to regional criteria are the most favourable among all permissible horizontal aids) and not only for those projects that are based on regional initiatives and for which financial resources are available, managed by the ministry responsible for regional policy. Since regional aid is going to be also implemented with European structural aid, it could happen that – given the narrow approach to regional policy and regional aid – the aid received from European structural funds will disappear in small projects with no suitable impact. If there are no adequate regional projects (deriving from regional initiatives), the available structural aid might remain unused. The

experience of other European countries proves that certain countries used regional aid to resolve the problems of very big enterprises in trouble.

With regard to European structural policies, similar fears also exist in **agriculture**. Slovenian agriculture is characterised by a great sectoral specificity of the development role of ownership relations and quality of the labour force. The fragmented ownership structure of agricultural land is one of the main long-term factors of low productivity of Slovenian agriculture at the time of EU accession, but less attention is given to it than to the issue of agricultural subsidies. One possible way of resolving this issue is the Bavarian approach to land management to better control the processes leading to the view that there will be one farm only in each village while most of the land will be rented out, for example with early inheritance and similar ownership-oriented measures. A similar problem is the knowledge and professional qualification of agricultural workers that does not meet the needs of modern agriculture. European aid to Slovenian agriculture can in fact only be allocated to those agricultural producers that have sufficient (own or rented on a long-term basis) agricultural land and adequate education. Since there will only be a small number of applicants fulfilling all the above conditions (as seen in this year's public tender), European structural resources will not be fully exploited and the pressure for national resources will increase (particularly after EU accession). Since financial capacities to finance Slovenian agriculture are limited, the operators of the agricultural part of industrial policy will be forced to redistribute the existing aid for agriculture from the agro-industrial sector (which, despite the extensive aid, has not yet started the necessary processes of merging, integrating and restructuring, namely the strengthening of competitiveness) and other tasks to direct agricultural producers.

The speeding up of environmental development requires a transformation of environmental policy from a protective to a developmental one, capable of bringing about an increase of sustainable harmless use of natural development factors, mostly domestic renewable sources; natural reforestation could for example add to increased felling, the use of biomass (also in forests, heating oil is used instead of wood), water (low share of irrigated areas; electricity use), better exploitation of the economic potential of biodiversity and more efficient spatial planning. A prerequisite for the more integral functioning of environmental policy is to strengthen and intensify the use of horizontal and integrative instruments and, first, to eliminate the already critical absence of a regular annual report on the state of the environment. According to the SEDS, the absence of environmental integration is mostly a result of introverted environmental policy (transposition of the *acquis* to the detriment of performing other functions). Insufficient implementation of environmental policy was also noted in the reports of the Ombudsman, assessments of NGOs (the Pinocchio programme) and the EU. Also, in environmental protection there is often the need for increased general government funds to eliminate the most disturbing polluters. Data reveal that the volume of general government funds for environmental protection is increasing and Slovenia has already received European pre-accession assistance. We therefore believe that in environmental development, the problem is not the amount of funds provided but the selection of the most efficient environmental protection development projects. Particularly in the corporate sector, pollution of the environment could

Growth achievable in the next medium-term period

Long-term economic growth capacity can be estimated by calculating potential gross domestic product growth. Projections differ considerably according to the methods used. According to the **trend extrapolation method**, average potential growth in the period 2003-2006 will be **5.1%**. Such projection is roughly consistent with the SEDS' scenario which envisages growth to be even higher (about 5.5%) providing that structural reforms and active policy, particularly in the area of human resource development, competitiveness and technological development, are carried out. Such a projection also implies that the current slowdown of economic growth (to about 3% and 3.3% in 2001 and 2002) is a result of short-term factors of domestic and foreign demand.

The projection based on the **aggregate production function** is much more pessimistic: potential economic growth should fall **below 2.5%** in the following years. This projection is based on the assessment of future trends in the volume of particular outputs. Trends in the volume of physical capital are calculated as the extrapolation of the recent trend according to which the investment rate will continue to decrease (it began falling in 1999). Trends in the volume of labour are assessed on the assumption that the actual employment rate will have to be closer to the equilibrium rate, implying a downward or even negative (after 2003) employment growth. Trends in the volume of human capital and total factor productivity are also assessed on the basis of the trend extrapolation method, meaning that total factor productivity will fall further. The projection based on aggregate production function therefore implies that the current decrease of economic growth is not only the result of normal short-term cycles but is also a **sign of structural problems**, particularly in maintaining a high investment rate and halting the downward trend of total factor productivity.

It can thus be established that the lower economic growth rates in 2001 and 2002 compared to the potentially achievable rates have certainly been affected by cyclical factors of domestic and foreign demand, although significant structural factors also contributed to the economic slowdown. Both the analysis of growth factors based on the aggregate production function as well as the analysis based on development indicators reveal that the **main structural weaknesses** are to be found in technological development and innovation (also the information society), the transfer and application of knowledge, lifelong learning, and the capacity to finance the desired level of investment. Without economic policy measures taken in these areas, we may expect a drop in the long-term growth capacity.

Source: **Simona Bovha Padilla, Helios Padilla Mayer**, *Sources of GDP Growth, Potential Output and Output Gap in Slovenia: Mid-term Projection*, the IMAD, March 2002.

be reduced by using the vehicle of state aid, whereby aid can be allocated to the technological modernisation of equipment aimed at reducing the use of energy and achieving environmental protection standards, and to production forms that deal with recycling. In all other investment corporate projects financed from general government funds, the principle of restricting (non-financing) investments in ìdirtyî industries could be applied.

6.2. Macroeconomic policy

Relatively favourable economic results were achieved in the past few years, despite the macroeconomic disequilibriums that could seriously hinder the achievement of the SEDS' objectives. Trends in the fields of public finance, wages and prices in the last few years indicate that a deviation from mid-term projections is possible and that the restrictiveness of all macroeconomic policies will have to be increased in order to achieve and maintain stable frameworks. Although some macroeconomic disequilibriums partly derive from factors of a unique or external nature, the impacts of internal discrepancies – which are sustainable and structural – have become more obvious together with great shocks coming from the outside environment.

The restrictiveness of monetary policy and exchange rate policy and their co-ordination with fiscal and income policies are very important for continuation of the **deflation** process. Assuming that wages lag behind labour productivity growth and that the contribution of regulated prices to inflation is reduced, monetary and exchange rate policies will become the main incentives for bringing inflation down to levels comparable with the EU member-states. According to the Bank of Slovenia, this means that at the time of Slovenia's accession to the EU, inflation should not be above the levels recorded in those member-states with the highest inflation rates. This goal is consistent with the assessment of structural effects (the Balassa-Samuelson effect[55]) because of which the difference between national and "European" inflation is maintained even after fixing the tolar's exchange rate. According to our estimates, given the productivity trends in tradable and non-tradable sectors, the Balassa-Samuelson effect will add 1 to 2 percentage points to inflation in the following years. In order to further reduce inflation, structural reforms should be continued, particularly those concerning the use of indexation mechanisms, the labour market and privatisation. This year and in following years, internal inflationary pressures will be further reduced thanks to an expected better co-ordination of the regulated prices policy which will gradually reduce the contribution of regulated prices to inflation[56]. Such gradual reduction will result in the elimination of the remaining imbalances concerning regulated prices.

[55] The Balassa-Samuelson effect is reflected in the relatively faster growth of the prices of services compared to the prices of goods, as a consequence of different factor productivity growth dynamics between the sectors subject to international competitions and sectors operating mostly in the internal market. Wage growth in predominantly non-tradable sectors is not due to increased productivity (as in predominantly tradable sectors) but is due to the higher prices of services offered by these sectors (Spring Report 2001, IMAD).

[56] The main goal in price regulation is to equalise the contribution of regulated prices to inflation with their share in the price index.

The need to apply indexation clauses will decrease because of the expected fall in inflation rates. The first step towards eliminating indexation in the field of finance is the legally provided exclusion of the tolar indexation clause from all new contractual relationships for transactions of up to one year, which entered into force in July 2002. The phasing out of interest rate indexation by means of the tolar indexation clause will reduce inflationary inertia and thus assist the reduction of inflation, but there are certain risks in the initial period. A possible short-term consequence of the phasing out of indexation is an increase in nominal interest rates and a fall in savings in domestic currency. In order to reduce these risks, it is important that such phasing-out is underpinned by expectations of continued falls in inflation, and there should also be a »substitute« reference interest rate. Ideally, it should be determined by the market but, given the shallowness of the financial market, it will probably be subject to an agreement. Fulfilment of the above conditions is only possible if the monetary and fiscal policies are co-ordinated and act jointly with the banking sector. In December, the biggest Slovenian banks concluded an agreement to formulate the Slovenian Interbank Interest Rate (SMOM), which includes interest rates on liquidity deposits and liquidity loans which are determined in the domestic interbank money market. Since mid-December 2001, returns in the secondary state bonds market have been published. Nevertheless, it is still unclear how representative the above interest rates will be for players in the broad monetary market to make them assume the role of a reference interest rate.

Monetary policy priorities applied by the time of EU accession, presented by the Bank of Slovenia at the end of November 2001, clearly define the strategy and goals of the Bank of Slovenia in the period prior to joining the ERM2. The main aim of monetary policy, which is to be formally defined in the new Bank of Slovenia Act, is providing for the stability of prices within the country. The Bank of Slovenia points out that, in order to meet the nominal convergence criteria on one hand and maintain macroeconomic stability on the other, inflation should be reduced to a level of between 3% and 4% annually already before joining the ERM2. Due to the inconsistency between fulfilment of nominal convergence criteria and achievement of economic development comparable to EU member-states, which encourages faster price growth compared to advanced countries, the Bank of Slovenia decided to conduct a monetary policy facilitating the ªsmooth transfer´ into economic integration with EU economies. Implementation of monetary policy will continue to be based on two pillars, where the first pillar consists of indicators which mostly affect movements of monetary aggregates, with emphasis on the broadly defined M3 money supply aggregate. To assist in the conduct of monetary policy, reference values for M3 have been determined, namely between 12% and 18% in 2002 and between 9% and 15% in 2003. It should be mentioned here that in 2001 the M3 money supply aggregate recorded 23.9% growth, which is 6.9 percentage points more than determined as the upper margin by the Bank of Slovenia at the end of 2000. In a situation where the Bank of Sloveniaís priority is to maintain the exchange-rate level, the possibility of the central bank affecting growth of the M3 monetary aggregate is shrinking. Since increased foreign capital inflows are also expected this year as well as in the future, the question of the appropriateness of determining the reference value of the M3 monetary aggregate arises again; in fact, if such a value was exceeded, on a long-term basis the central bankís credibility

would be reduced and it would hardly achieve its goal ñ reducing inflation to a level comparable with the EU member-states.

The second pillar of the Bank of Slovenia's monetary policy consists of indicators affecting price stability and the sustainability of monetary policy, such as the exchange rate, balance of payments, difference between exchange rates within the country and abroad, movements of wages, and movements of controlled prices. In a situation where the increased dynamics of capital flows and structural surplus of the monetary market are expected to keep obstructing the conduct of monetary policy and thus slow down the development of operations in the open market, the Bank of Slovenia will apply instruments so as to influence the exchange rate, interest rates and the quantity of money in circulation. By signalling the value of the nominal exchange rate, it will mitigate, within the exchange rate policy, changes in the real tolar's exchange rate that do not result from the relatively higher productivity growth of the Slovenian economy. At the same time, by changing the interest rate of temporary purchases and sales of foreign exchange, it will influence the volume of money issued and indirectly the difference between interest rates in the country and abroad which, in addition to changes in the dynamics of the exchange rate, mostly affects the volume of international capital flows.

In 2000, Slovenia began to implement an **employment policy** programme which follows the employment policy orientation of the EU. The common directions adjust to the new conditions and challenges but the fundamental pillars of the policy will probably remain unchanged in the coming years: increasing the population's employability (first pillar), promoting entrepreneurship (second pillar), facilitating and stimulating individuals' and companies' adaptability (third pillar), as well as providing equal employment opportunities for men, women and disadvantaged groups (fourth pillar). The new approach to employment policy complements the traditional active employment programmes with measures for increasing the flexibility of operation and employment, fiscal incentives, measures for the promotion of entrepreneurship and for increasing the qualifications and education of the population, as well as measures providing equal opportunity in access to work for different social groups and preventing their social exclusion. The main goals of the strategy for development of the labour market and employment by 2006 include raising the level of education, increasing employment, reducing unemployment and the rapid integration of the unemployed into programmes or new jobs.

The **general government deficit** recorded in 2000 and 2001 and its underlying reasons emphasise the need to guarantee stable sources of financing and the necessary restructuring and reduction of general government expenditure compared to GDP. Pressure on general government expenditure for wages will be maintained in 2002. Similarly, given the legally adopted indexation method, pressure on expenses for pension and disability insurance will increase in 2002 because of the significant rise in wages in 2001. In order to increase taxes on consumption, at the beginning of 2002 the two VAT rates were increased, the threshold of wage taxation was raised, and the rates of payroll tax were reduced slightly, thus reducing labour costs. In 2002, the rate of compulsory health insurance contributions has been raised. In order to disburden labour and increase the burden on capital, it is necessary

to speed up activities directed at the drafting of a new income tax act and corporate income tax act, and the reform of property tax.

In 2002, the budget year will again be brought into line with the calendar year, meaning that the annual expenditure of the national budget will be financed by the revenue of 11 months of VAT and excise duties (without the revenue of January 2003). Therefore, the current budget deficit recorded in 2002 will increase by the "compensatory deficit", whereby the total general government deficit in 2002 will account for 2.5% of GDP. Within the structure of budget expenditure, the share of funds for investments and investment transfers will increase according to the planned accelerated investment activity as a form of promotion of domestic consumption. The selected method of adjusting fiscal policy to reduced economic growth projections for 2002, causing the share of general government expenditure relative to GDP to rise, increased the current general government deficit (a permissible increase of the general government deficit to 0.3% of GDP if the planned revenues are not generated).

Given the increased share of wages in general government expenditure, a new **wage system in the public sector is** becoming even more necessary. The new system of wages will have to provide the transparency of wages for staff working in the public sector and control over the wage bill in this sector. The draft Wage System in the Public Sector Act is already being negotiated by the social partners, to be adopted in the first half of 2002 and to come into force in 2003.

The sustainability of **public debt** growth, reflected in a stable debt level in the share of GDP, will only be continued if the policy of gradual reduction of the budget deficit to balance the budget by 2005 is consistently implemented. To contain the debt, the following measures are necessary: reducing the share of indexed debt in the entire portfolio to reduce the risk relating to inflation; managing interest and currency risks by selecting the appropriate maturity of new debts and by foreign borrowing in euros; advanced payment of the central government debt with planned revenue on the balance of lending and repayments from the privatisation of equity participation; and replacing expensive debt with less expensive forms through active debt management.

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Analytical Appendix 1

Structural Changes in the Slovenian Economy

Editor in Chief:

Rotija KMET

1. Structural Changes in the Slovenian Economy

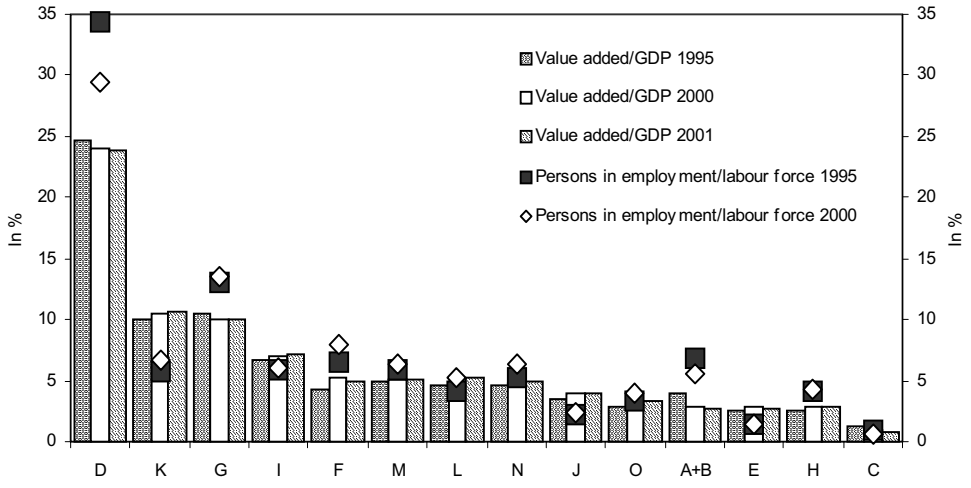
The Strategy for the Economic Development of Slovenia 2001-2006 (SEDS) does not directly interfere with policies applied in individual sectors of the economy. However, it does point to some basic changes in the production structure of gross domestic product that are expected to result from Sloveniaís economic development and its integration into the European Union. In pointing to these changes, the strategy takes into account the processes of globalisation and European market integration, intensive technological development as well as the knowledge-based society.

In an attempt to highlight some of the structural changes the Slovenian economy underwent in the 1995 to 2000 period, this chapter seeks to find out whether the changes represent a solid foundation for achieving the goals set out in the SEDS.

1.1. Structural changes among different sectors

The structural change faced by the Slovenian economy in the second half of the 1990s has gradually brought Slovenia closer to the advanced economies. While agriculture (A+B) lost its role in the economy relatively quickly and the share of industry (from C to E) dropped gradually, it was the share of services (from G to O) **in the structure of gross domestic product** that increased most dramatically. In addition, construction also became more important (see Table 1 and Graph 1). These trends are estimated to have continued in 2001, the only exception being in

Graph 1: **Structure of GDP and persons in employment[1] in individual sectors in 1995, 2000 and 2001**



Source: IMAD Autumn Report, 2001.
Note:[1] according to national accounts statistics.

Table 1: **Structure of GDP and persons in employment[1] in individual sectors in 1995, 2000 and 2001**

	Structure of gross domestic product, in %			Structure of persons in employment, in %		Value added[2]/person in employment, in SIT thousand	
	1995	2000	2001 est	1995	2000	1995	2000
Agriculture, fishing (A+B)	3.9	2.9	2.7	6.9	5.6	1,541	1,819
Industry and construction (C-F)	32.6	33.1	32.2	43.5	39.4	2,017	2,829
Industry (C-E)	28.3	27.7	27.3	36.9	31.5	2,061	2,975
Services (G-O)	50.2	52.3	53.2	49.6	55.0	2,731	2,982
Market	35.6	37.1	-	33.1	37.1	2,896	3,110
Non-market	14.6	15.2	-	16.5	17.9	2,398	2,716

Source: IMAD Autumn Report, 2001.
Notes: [1] according to national accounts statistics, [2] in 1995 constant prices.

construction, which shrank in 2001. Despite these positive trends, Slovenia still lags considerably behind advanced world economies with regard to the share services represent in gross domestic product. The share of services in value added in Australia, France, the USA and the Netherlands exceeded 70% in 1995, while in other advanced economies this share ranged from 60% to 70% (World Development Report, 1997, World Bank, p. 237). The **structure of persons in employment in individual sectors** is another indicator showing that in the 1995-2000 period the Slovenian economy was subject to a structural change which resulted in a stronger services sector (see Graph 1).

Another important aspect of structural change is **the proportion of market and non-market-oriented activities**, which slightly changed to the benefit of non-market-oriented ones in the five-year period (see Table 2). The latter rose to 17.3 percent of value added, which somewhat exceeds the EU average of 15% of value added in 1997 (Eurostat Yearbook 2000, pp. 222-223). The rise was chiefly fuelled by the many new jobs and salary rises in general government sector services, chiefly in public administration, defence and compulsory social security (L) as part of the countryís efforts to strengthen public administration in the period of building institutions of a modern state and integration with the EU. In that period, the public administration absorbed part of the workforce that became redundant when industry was being restructured.

Table 2: **Structure of the Slovenian economy as revealed by the shares of market/non-market activities in value added and the number of persons in employment [1] in 1995 and 2000**

	Structure of value added, in %		Structure of value added, in %	
	1995	2000	1995	2000
All activities (A - O)	100.0	100.0	100.0	100.0
Market-oriented activities	83.1	82.7	83.5	82.1
Non-market-oriented activities[2]	16.9	17.3	16.5	17.9

Source: SORS, calculations by the IMAD.
Notes: [1] according to national accounts statistics, [2] non-market oriented activities comprise collective and individual services provided by the general government and the activities of non-profit institutions serving households (NPISH).

The information and communications technologies sector[1] (the ICT sector) assumed an increasingly important role in the Slovenian economy in the 1995 to 2000 period. Employing 3.6% of all workers in Slovenian companies in 2000, the ICT sector created 6% of the value added of companies, which is 1.7 percentage points more than in 1995. Both segments of this sector, namely services and manufacturing, saw above-average growth in value added in comparison with the companiesí average, with the segment of services accounting for 73% of value added of the entire ICT. While services related to computers posted the fastest growth of all ICT services (their value added rising from 11% to 24% of the ICT sector), the manufacturing of electronic valves and other electronic components grew fastest in the manufacturing segment of the ICT sector.

2. Structural Changes Within Individual Sectors

2.1. Agriculture

Agriculture (A+B) does not play a major role in either the countryís gross domestic product or the number of persons it employs. What is more, its role has dropped over the years (see Graph 1 and Table 1). Typical of all developing economies, this was hardly an unusual development yet it did happen quite quickly. This relatively rapid change in the role agriculture had played in the Slovenian economy was primarily fuelled by an ongoing reduction in the volume of agricultural production over a period of three years, that is from 1997 to 1999, which came about mainly as a result of natural disasters. The 1995-2000 period saw a considerable rise in the share of farming of animals in the net volume of agricultural output. Consequently, the growing of crops contributed merely just over a quarter (28%) of agricultural output in 2000, with the rest coming from animal farming. Only five years earlier, in 1995, this ratio was 31 to 69, and 35 to 65 in 1990. Not only was the growing of crops affected by bad weather, but agricultural policy itself focussed most strongly on measures facilitating the farming of animals, a sector which seems best suited for Slovenia given its geographical features.

As the available data indicate (European Commission: The 2001 Agricultural Yearbook), agriculture accounted for 1.7% of value added in the EU in 2000. However, there are conspicuous differences between different EU member-states,

[1] According to the OECD's methodology, the ICT sector consists of the following sub-sectors (based on the Standard Classification of Activities – SCA): Wholesale of computers, computer peripheral equipment and software, and other office machinery and equipment (SCA 5164), Telecommunications (SCA 642), Computer and related activities (SCA 72), Manufacture of office machinery and computers (SCA 300), Manufacture of insulated wire and cable (SCA 313), Manufacture of electronic valves & other electronic components (SCA 321), Manufacture of telecommunications equipment ((SCA 322), Manufacture of TV & radio receivers, sound or video etc apparatus (SCA 323), Manufacture of medical and surgical equipment & orthopaedic appliances (331).

with by far the largest shares of gross domestic product being contributed to by Greece (6.8%), Spain (3.7%) and Ireland (2.6%). Slovenian agricultureís 2.9% share in gross domestic product from 2000 thus places the country high on the list of European countries. Despite this, a comparison with value added per employee shows that Slovenian agriculture is lagging quite a lot behind the EUís average productivity. This is partly the result of the more difficult farming conditions in Slovenia than in the EU and the inappropriate distribution of agricultural land. Moreover, it also reflects the sluggish restructuring which would otherwise boost this sectorís productivity.

2. Industry and construction

Regardless of the gradual stagnation of industry over the last decade, the industry and construction sector still accounts for as much as one-third of Sloveniaís gross domestic product. The industry sector encompasses three sub-sectors; while manufacturing is its most important segment, the remaining two - mining, and electricity, gas and water supply - represent only a tiny part of the Slovenian economy, between them accounting for less than 4% of gross domestic product.

Manufacturing

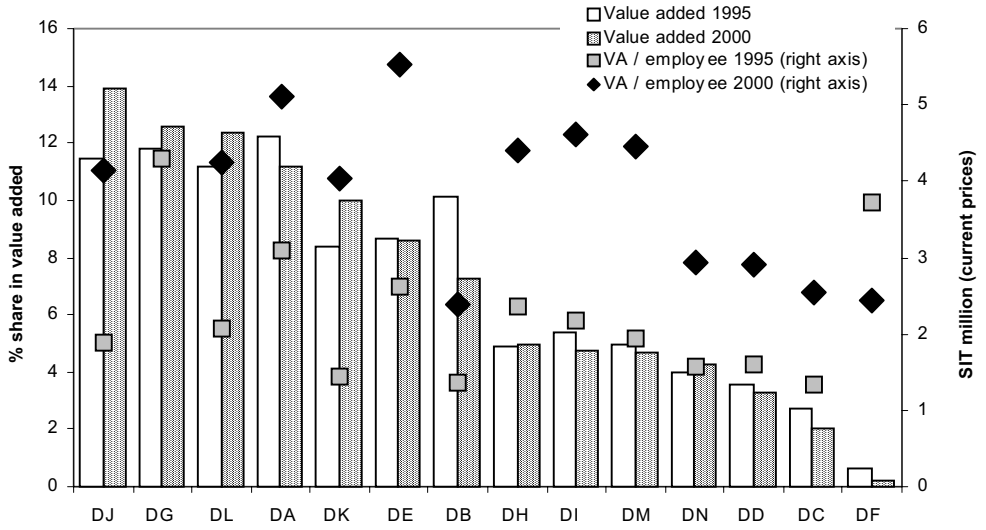
With the share of manufacturing (D) in Sloveniaís value added gradually falling (27.8% in 2000), the country has advanced closer to the EU, where manufacturing on average accounted for 20.7% of all value added in 1997 (Eurostat Yearbook 2000, p. 220). Ireland was the EU member with the largest share, namely 33.2%, followed by Finland (26.1%), Portugal (23.5%) and Germany (23.4%). However, the share of manufacturing in overall value added dropped below 20% in as many as seven EU members.

Manufacturing has retained its traditional role of the leading sector in the production structure of gross domestic product despite its steady fall. Further, its productivity increased substantially in the 1995 to 2000 period, primarily the result of massive layoffs. While the share manufacturing represented in gross domestic product dropped by 0.6 of a percentage point, the share of workers employed in manufacturing in the structure of persons in employment fell by up to 5 percentage points. The following branches of manufacturing posted above-average productivity growth, measured in terms of real[2] growth in value added per employee in companies[3]: **manufacturing of machinery and equipment** (111.0%), **manufacturing of transport equipment** (73.8%), **manufacturing of basic metals** (65.2%) and **manufacturing of non-metallic products** (60.2%). **Manufacturing of chemical products** ìmerelyî posted 49.4% growth in value added per employee in real terms, but this branch of manufacturing was one of the most productive as

[2] Growth rates in real terms were based on the index of factory-gate prices in manufacturing, issued by the SORS.

[3] Companies are the predominant form of organisation in manufacturing, proof of which is the fact that they created up to 92% of entire value added in manufacturing in 2000.

Graph 2: **Structure of value added and value added per employee[1] in manufacturing[2] in 1995 and 2000**



Source: AP, calculations by the IMAD.
Notes: [1] Based on data on those companies which made 92% of value added per employee of the manufacturing sector in 2000. [2] Manufacturing includes 14 subsectors: DA – Food products, beverages, tobacco, DB – Textiles, textile products, DC – Leather, leather products, DD – Manufacture of wood and wood products, DE – Paper, publishing, printing, DF – Coke, refined petroleum products, nuclear fuel, DG – Chemicals, chemical products, DH – Rubber and plastic products, DI – Other non-metallic mineral products, DJ – Basic metals and fabricated metal products, DK – Machinery and equipment, DL – Electrical and optical equipment, DM – Transport equipment, DN – Furniture, manufacturing not elsewhere classified.

early as 1995 and, as the data for 2000 reveal, it topped the list of the most productive sectors of manufacturing with SIT 8.513 million per employee.

Judging by the value added made by companies, it has been estimated that the biggest structural change within manufacturing took place in **the manufacturing of basic metals**, **manufacturing of machinery and equipment** as well as **manufacturing of electrical and optical equipment**, where the shares of value added compared to all manufacturing ranged from 8.5% to 11.5% in 1995, and increased by one to two percentage points on average in the period up until 2000. All these subsectors may be considered as largely export-oriented, as over one-half of all revenues the companies in these three subsectors posted were made in foreign markets. At the same time, these three manufacturing subsectors were the leading ones in attracting foreign direct investment in the 1995-2000 period (see also the Indicator of Merchandise Exports by Factor Inputs).

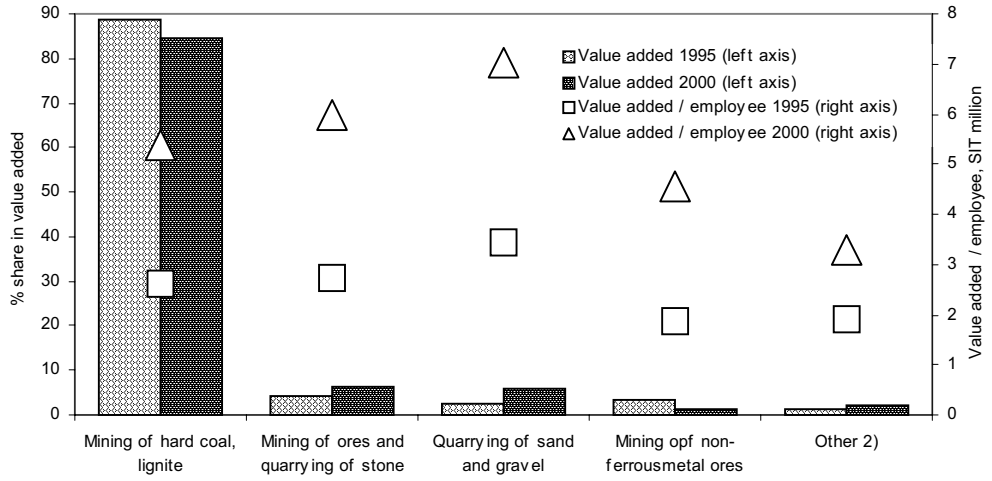
Stagnation most severely affected the **manufacturing of textile and fur products**, a subsector whose share of value added dropped from 10.1% to 7.3% in the 1995 to 2000 period and whose workforce plunged by 25.8%. This is one of the subsectors which, together with the **manufacturing of leather and leather products** and **manufacturing of refined petroleum products and nuclear fuel,** is faced with the most serious structural problems and will need to transfer part of its production capacity to other sectors.

Mining

Mining (C) plays a relatively small part in the overall structure of the Slovenian economy (0.9% of GDP in 2000) and even dropped in the 1995-2000 period by 0.3 of a percentage point. As Graph 3 shows, **mining of coal and lignite** is by far the most important segment of Sloveniaís mining industry in terms of value added and the number of employees even after both of these shares dropped below 85% in the five-year period. Companies in this subsector alone make 78% of the value added of all mining. The drop below 85% was chiefly a result of coal mining decreasing in line with the gradual closure of coal mines. 967,000 tonnes of coal was produced in 1995, a figure achieved before the coal mines of Zagorje, Senovo and Kanižarica were shut down. After the closure, the volume of coal extracted dropped by nearly one-quarter in 2000. The volume of lignite taken out in 2000 amounted to 3,743 million tonnes, down 4.4% from 1995. Moreover, the mining workforce plummeted by 41.2% in the 1995-2000 period. Coal mining in the EU accounts for 15.1% of the entire primary energy produced by the Union itself (Eurostat figures for 1998), whereas in Slovenia this figure is 35.7% (SORS figures for 2000). However, the comparison between the EU and Slovenia shows no significant difference in the consumption of coal, as this fuel accounts for some 15.2% of the EUís primary energy and for 21.4% in Slovenia (including imported coal).

As for the other major segments of (non-energy) mining, it was the **operation of gravel and sand pits** that underwent major structural change (see Graph 3). Measured in tonnes, the volume of gravel and sand increased by as much as 44.1% in the five-year period, which can be partly attributed to the ongoing construction of motorways in Slovenia.

Graph 3: **Structure of value added and value added per employee[1] in mining in 1995 and 2000**

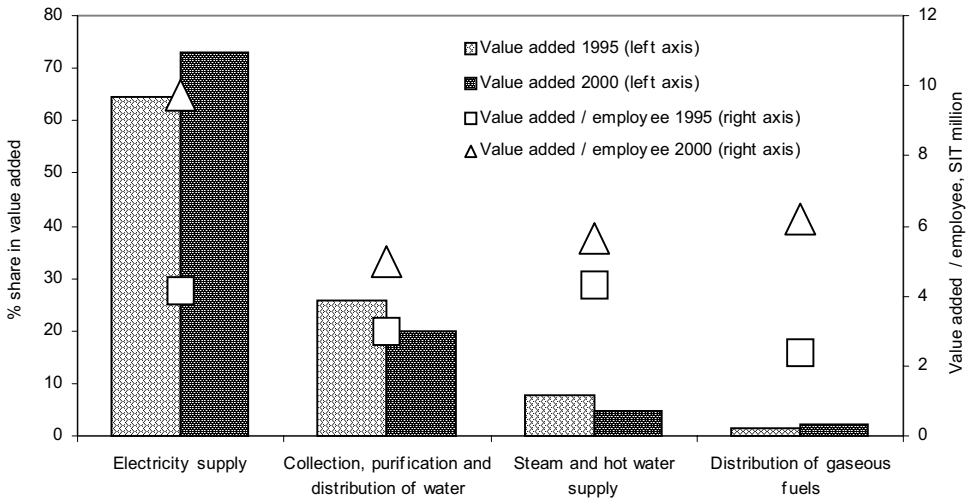


Source: AP, calculations by the IMAD.
Note: [1] Based on data concerning companies that generated 78% of value added in mining in 2000.

Electricity, gas and water supply

Electricity, gas and water supply (E) represented a relatively small, but fairly stable share of both gross domestic product (3.2% in 2000) and the number of persons in employment (1.4%) in the period under scrutiny. On the other hand, the 1995 to 2000 period saw a significant structural change in value added[4] within the sector of supply of electricity, gas and water when the value added of the **supply of electricity** rose from slightly less than two-thirds to nearly three-quarters. The structure of electricity output by different types of power stations did fluctuate over the years, but this can hardly be considered a structural shift. Compared to the EUís average electricity output structure, Slovenia has a larger share of power produced by (the cleaner and cheaper) hydroelectric power stations than by the classical (non-nuclear) steam power stations. **Collection, purification and distribution of water** is an important activity, employing nearly one-third of the labour force in the entire supply of electricity, gas and water, yet the share of its value added dropped significantly (see Graph 5), which may be at least partly explained by the 5.6% fall in the amount of water supplied from public waterworks in the 1995 to 1999 period. **Steam and hot water supply** is another subsector whose value added dropped significantly, although the final consumption of district heating (measured by TJ) increased by 1.0%. The value added of the **distribution of gaseous fuels** went slightly up, partly as a result of a 17.1% increase in the final consumption of natural gas (measured in Sm^3). While the consumption of gas in the overall use of primary energy already totals around 22% in the EU (Eurostat

Graph 4: **Structure of value added and value added per employee[1] in the supply of electricity, gas and water in 1995 and 2000**



Source: AP, calculations by the IMAD.
Note: [1] Based on data concerning those companies which in 2000 made 85% of value added in the supply of electricity, gas and water.

[4] Based on data about those companies which made nearly 85% of the entire value added of sector E in 2000.

figures for 1998), in Slovenia it represents a mere 13% of all primary energy (SORS data for 2000).

Construction

According to estimates, construction shrank in 2001 after gaining significant importance in the Slovenian economy in the second half of 1990s (see Table 1) as well as making 5.3% of gross domestic product and giving jobs to 7.9% of all persons in employment in 2000.

As indicated by the value of construction works in the period from 1995 to 1999, the share of **civil engineering** increased, most notably the shares of railway construction works and complex industrial buildings. Moreover, this period was also marked by the hectic construction of motorways as part of the National Programme of the Construction of Motorways. As a result, nearly 220 kilometres of motorways and other roads were built and opened to traffic as part of the Programme in the period from 1 January 1994 to 1 November 2001. Meanwhile, less than 200 kilometres of motorways had been constructed in Slovenia prior to 1994. A falling trend can be observed in **building construction** in the examined period; despite the many housing facilities, shopping facilities and industrial buildings being constructed building construction nevertheless lagged behind civil engineering quite significantly.

While no final figures on the structure of construction works are available for 2000 and 2001, the value of works carried out by construction companies employing 10 or more workers lead to the conclusion that the share of building construction in overall construction kept falling in 2000. However, data for the first three-quarters of 2001 do not confirm this trend anymore, but show that the value of construction works in civil engineering fell drastically, which could be linked to the slowdown in the construction of motorways due to restrictions on public spending.

2.3. Services

In the service sectors (G-O), **market services** generated 71% of value added, while their share in the number of people in employment in the full-time equivalent is somewhat lower (67.5%), which shows that market services are on average more productive than non-market services. Compared to the EU average, the share of market services in all services in Slovenia is somewhat smaller[5]. Despite the extremely dynamic growth of market services, the ratio between market and non-market services changed little from 1995 to 2000, as non-market services also posted extraordinarily fast growth.

Business and financial services (K and J) and other personal and social services (O) recorded the highest value-added growth among the **predominantly market-**

[5] The share of value added of market services in all services in the EU amounted to 77.7% in 1997 (Eurostat Yearbook 2000, pp. 222-223).

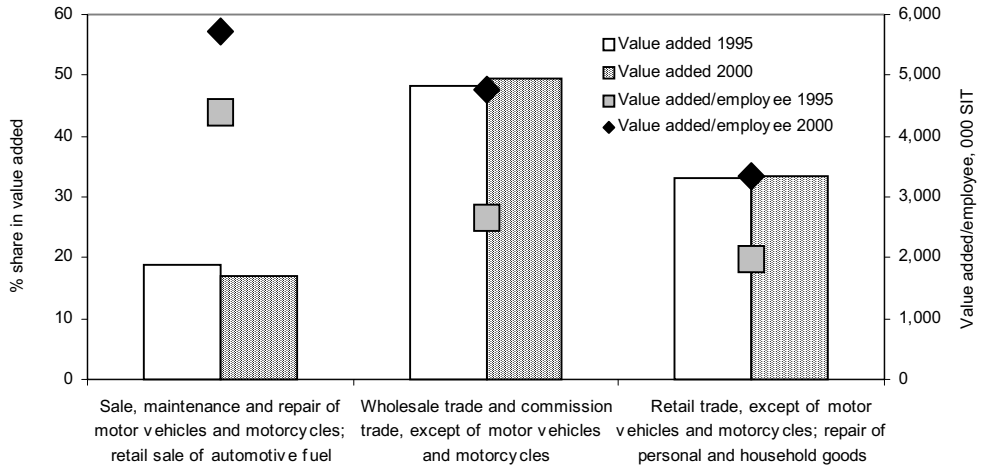
oriented services in the five-year period analysed. Trade is the only activity whose share in gross domestic product declined, although its share in the number of persons in employment increased. As for **predominantly non-market oriented services**, public administration, defence and compulsory social security (L) gained the most in gross domestic product's structure. Taking into account changes in the structure of persons in employment, health and social security are also among the more "expansive" services in the field of predominantly non-market-oriented services.

Trade and repair of motor vehicles

Wholesale and retail, repair of motor vehicles and personal and household goods (G) was the second largest sector in Sloveniaís gross domestic product structure in 1995 (behind manufacturing ñ D). However, the dynamic growth of business activities (K) has reduced its significance in recent years (see Graph 5). Nevertheless, wholesale and retail, as a labour-intensive activity, is the second largest activity according to the number of persons in employment (the first among services).

The structure of value added[6] in wholesale and retail trade saw no major structural changes in the three main segments of the sector (G) in the 1995-2000 period (see Graph 5). The most important segment, **wholesale trade and commission trade, excluding motor vehicles and cycles**, increased its share marginally. Given how the number of companies in the segment and the number of persons in employment dropped in the same period (by 5.8% and 6.7%, respectively), it has been assessed

Graph 5: **Structure of value added and value added per employee[1] in wholesale and retail trade, repair of motor vehicles and personal and household goods in 1995 and 2000**.



Source: AP, SORS, calculations by the IMAD. **Note:** [1] Based on data for those companies generating 84.5 percent of value added in wholesale and retail, repair of motor vehicles and personal and household goods in 2000.

[6] The analysis of the value added structure is based on data for companies (creating 84.5% of the entire value added in G in 2000).

that the increased efficiency of companies is a result of the restructuring of wholesale trade. The segment **retail trade, excluding motor vehicles; repair of personal and household goods** also increased its share in value added. Within retail trade, the importance of *retail sale in non-specialised stores* increased significantly, which is attributed to the arrival of new big traders and the consolidation of companies in the sector. These processes caused the decline or specialisation of smaller businesses, reflected in the increased number of companies and private individuals in the segment of *retail sale in other specialised stores*. Only the **sale, maintenance and repair of motor vehicles; retail sale of motor fuel** suffered a setback in the structure of value added in wholesale and retail trade (G). The share of *retail sale of automotive fuel* recorded a sharp drop in the segment (1995: 9.1%; 2000: 5.5%), which can be explained by the increasing price of crude oil in global markets that domestic retail prices followed with some delay. On the other hand, the *sale of motor vehicles* increased its share considerably (from 7.0% to 8.1%), and managed at the same time to improve its export capacity.

Hotels and Restaurants

The hotels and restaurants sector (H) is one of the smaller activities of the Slovenian economy. The segment has been approaching 3% of gross domestic product in recent years, while its share in the structure of persons in employment has already exceeded 4%.

Only data for 1995 are available for the structure of value added in the hotels and restaurants sector (40.9% hotels and other short-term accommodation; 59.1% restaurants and bars; SORS, 1999), therefore the subsequent analysis of hotels and restaurants is based on the number of persons in employment and business entities in 1997-2000[7]. Data suggest that **activities** focused primarily on the **preparation**

Table 3: **Structure of activities in hotels and restaurants according to persons in employment and business entities in 1995 and 2000**

	Structure of persons in employment, in %				Structure of business entities, in %			
	Total		Self-employed[1]		Total		Natural persons[2]	
	1997	2000	1997	2000	1997	2000	1997	2000
Hotels and restaurants	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Hotels	24.7	25.7	0.7	3.1	3.3	3.5	0.3	1.2
Camp sites & other short-stay accommodation	2.0	4.7	2.2	0.9	21.0	17.5	22.6	18.4
Restaurants	49.6	45.1	75.3	65.3	43.2	39.6	52.2	43.4
Bars	16.4	19.1	21.1	28.8	29.8	36.7	24.3	35.7
Canteens and catering	7.3	5.5	0.6	1.8	2.7	2.7	0.7	1.3

Source: SORS, calculations by the IMAD.
Notes: [1] -The self-employed column includes self-employed persons (independent entrepreneurs and persons performing professional activities) and those employed by independent entrepreneurs; [2] Natural persons are independent entrepreneurs, subsidiaries of independent entrepreneurs and registered people leasing rooms.

[7] Analysis of the structure of value added cannot be done on the basis of data for companies, as they only create a third of value added in the hotels and restaurants sector.

of food (food service, canteens and catering) were shrinking, while the primary **tourist activities**, such as hotels, holiday homes, camping sites and other provision of lodging, gained in importance (see Table 3). The latter can be attributed to the increasing number of tourists which, in addition to the good 2000 tourist season, was the result of a more diverse offer and an improvement in hotel services. Although the market is saturated with bars, inns and discos, the analysed period indicates the substantially increased share of **bars** which is, in part, also a result of the restructuring of mostly privately-run restaurants into bars (see data on the structure of physical entities in Table 3).

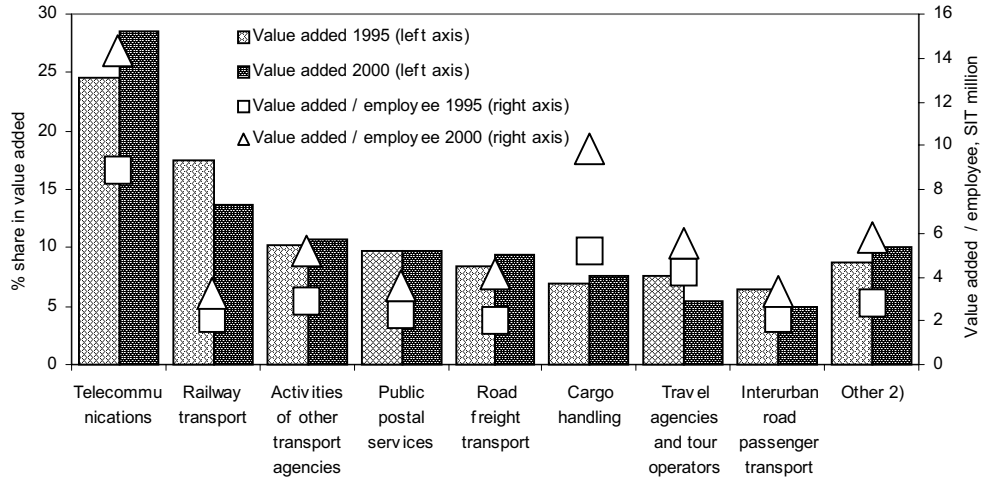
Transport, storage and communication

Transport, storage and communication (I) generated 6.7% of gross domestic product in 1995 and 7.0% in 2000. The sector employed 5.9% of all persons in employment in 1995, compared to 6.0% in 2000.

Data for companies (generating 74% of value added in I activities in 2000) reveal that the structure of value added in transport, storage and communication changed remarkably in the five-year period leading up to 2000. The area of **telecommunications** (see Graph 6) recorded the most positive structural shift. As evident from the growing numbers of (fixed- and mobile-line) subscriptions (including users of pre-paid packages), the segment of speech telephone services alone more than tripled in size.

There were far less favourable movements in road and rail transport, however, as the share of value added of **rail transport** plummeted, mostly as a result of the lower volume of freight transport (by 7% when measured in tkm). On the other

Graph 6: **Structure of value added and value added per employee[1] in transport, storage and communication, in %**



Source: AP, calculations by the IMAD.
Note: [1] Based on data for those companies creating 74% of value added in transport, storage and communication (2000). [2] Cumulated activities with less than 5% of value added in transport, storage and communication.

hand, **freight transport by road** increased its share in value added; public freight transport by road, which excludes transport by independent road haulers and transport on the own account of organisations** organisationsí in-house transport services?**, increased by 20.1% (measured in tkm) in the analysed period. That the entire road transport activity is expanding is also evident from the rapid enlargement of the ìvehicle poolî, as the number of registered freight vehicles and haulers increased by as much as 28.6% in the 1995-2000 period. It has been concluded that the abovementioned structural changes are totally inappropriate from the point of view of achieving higher environmental (less pollution), socio-economic (lower external costs and lower cost per unit of transport) and transport (less accidents, traffic relief) targets. For the same reasons, we include the shrinking share of **inter-urban passenger land transport** in value added among the less favourable structural changes in transport, which is chiefly a consequence of the strong decline of public passenger road transport ñ excluding transport by independent road haulers and transport for the own account of organisations ñ which shrunk by 37% in this period.

Financial intermediation

Financial intermediation (J) generated 3.5% of gross domestic product in 1995 and 3.9% in 2000, employing 2.2% and 2.4% of all persons in employment in the respective years.

There were considerable structural changes within financial intermediation from 1995 to 2000, as **insurance and pension funding, except compulsory social security**, as well as **activities auxiliary to financial intermediation** increased their share in the analysed period[8] (see Table 4). Consequently, the main activity ñ **financial intermediation** ñ saw a serious drop in its share in value addedís structure. These structural changes indicate that the Slovenian financial market is gradually starting to introduce new services.

Indicators of financial market development in Slovenia from 1995 to 2000 also confirm the financial sectorís gradual development (see Table 5). The net interest margin is still not showing any clear signs of decline. The greatest change was noted with the share of market capitalisation in GDP, which is also a result of the

Table 4: **Structure of value added in financial intermediation in 1995 and 2000, in %**

	Value added structure, in %	
	1995	2000
Financial intermediation	100.0	100.0
Financial intermediation, except insurance and pension funding	66.9	54.2
Insurance and pension funding, except compulsory social security	19.6	23.3
Activities auxiliary to financial intermediation	13.5	22.5

Source: SORS.

[8] Data for 2000 is not yet final.

Table 5: **Selected indicators of financial market development in Slovenia in 1995 and 2000**

	1995	2000
Share of total assets in GDP (in %)	67.5	78.8
Net interest margin[2] (v%)	4.9	4.5
Share of market capitalisation[1] in GDP (in %)	4.5	28.2
Share of bank loans to private sector[3] in GDP (in %)	27.4	38.9
Share of private sector bank deposits in GDP (in %)	34.9	48.3

Source: Annual report BS.
Notes: [1] in the Ljubljana Stock Exchange, [2] Net interest (together with revaluing interest) / average gross interest-bearing assets, [3] The private sector includes companies, citizens and other financial organisations.

fact that the capital market only started to develop in Slovenia at the beginning of the 1990s. The share of total assets in gross domestic product increased by over 11% in the observed period (see Table 5). Nevertheless, the gap between Slovenia and the EUís average increased from 1995 to 1997 (the latest available data for the EU): Slovenia achieved 30.5% of the EUís average in 1995, and only 28.6% in 1997.

Real estate, renting and business activities

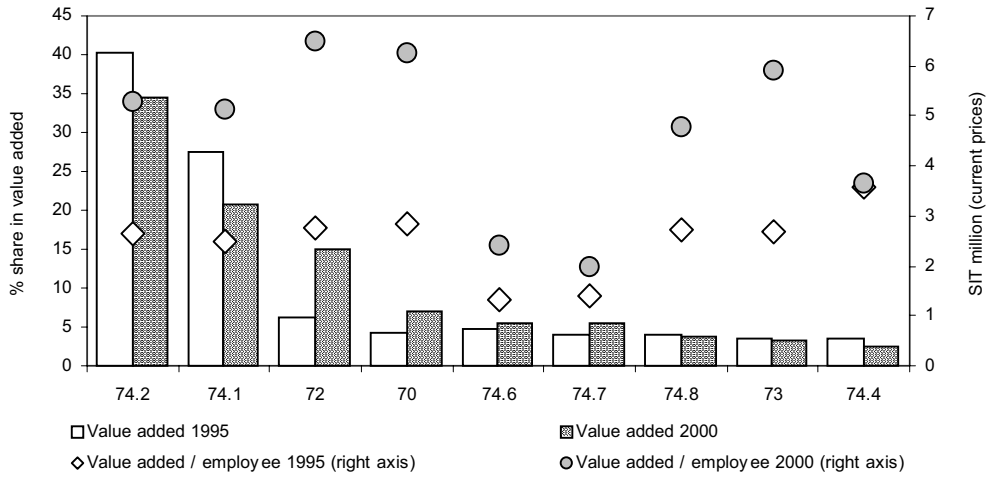
Real estate, renting and business activities (K) are among the fastest growing activities in advanced economies. To a large extent the dynamic development of business services is crucial for economic growth as it boosts productivity growth in manufacturing and other services. The sector accounted for 10.1% of Sloveniaís gross domestic product in 1995 and 10.5% in 2000, employing 5.7% and 6.7% of all persons in employment in 1995 and 2000, respectively.

The largest structural changes within business services[9] took place in recent years in **computer services** and the services of **real estate activities** (see Graph 7), which can be considered a favourable structural change as these are some of the activities with the highest value added per employee among activities under K, as well as within the entire segment of services (only telecommunication services have higher value added per employee). The exceptionally rapid growth of the computer activitiesí share is also very relevant from the aspect of introducing the information society, an important factor in increasing the competitive ability of the Slovenian economy. It is this very point of view that also makes **research and development** crucial; although its relevance within the activities under K lost some ground to the extremely propulsive computer activities, it has not been losing importance within the entire Slovenian economy[10]. **Projecting and technical**

[9] Business services represent 53.5% (in 2000) of value added in activities under K (real estate, renting and business services), while gross rent represents the remaining share.

[10] The share of value added generated by companies in research and development increased by 0.1 of a percentage point from 1995 to 2000 in the framework of all companies (companies created almost 60% of value added in the Slovenian economy in 2000), while its share in persons in employment rose by 0.4 of a percentage point in the same period.

Graph 7: **Structure of value added and value added per employee[1] in real estate, renting and business activities in 1995 and 2000**



Source: AP, calculations by the IMAD.
Notes: [1] Based on data for those companies creating 77% (in 2000) of value added in business services (save assessed gross annuity). [2]Only departments and sections with a share of at least 3% in the value added of activities under K are shown.
Legend: 70 – Real estate activities; 72 – Computer and related activities; 73 – Research and development; 74.1 – Legal, accounting, bookkeeping, market research, consultancy; holdings; 74.2 – Architectural & engineering activities and related technical consultancy; 74.4 – Advertising; 74.6 – Investigation and security services; 74.7 – Industrial cleaning.

consultancy still generates the highest share of value added in group K. However, its share dropped substantially in the 1995-2000 period (see Graph 7), mostly as a result of many companies (predominantly computer consultancies) registering themselves under other codes of the SCA classification.

Public services

Public services[11] include public administration, defence and compulsory social security (L), education (M), health and social work (N) and other community, social and personal service activities (O). In the previous five-year period, all of the above activities increased their share in the economyís structure, with their cumulative share in gross domestic product totalling 18.2% in 2000. Still, public services account for a smaller share of gross domestic product than in the EU (average 19.9% in 2000), where their importance has been falling since 1993. As the reasons for the fast increase in the importance of public administration have been analysed in the initial part of the chapter, the following paragraphs will focus on structural changes in health, social work and education.

Table 6 shows that *social work activities* recorded a strong rise within **health and social work** (N), mostly as a result of the flourishing activity of companies for the

[11] According to Eurostatís methodology.

Table 6: **Structure of persons in employment in health and social work in 1997 and 2000**

	Structure of persons in employment[1], in %	
	1997	2000
Health and social work	100.0	100.0
Health	67.6	59.5
Veterinary activities	2.6	1.9
Social work activities	29.8	38.6
Old people's homes	9.9	10.2
Organisations for handicapped persons	11.4	18.0

Source: SORS, calculations by the IMAD.
Note: according to monthly sources.

disabled (86-percent growth in the number of persons in employment from 1997 to 2000). The number of people in employment in *human health services* did increase from 1997 to 2000, however, growth was much more sluggish than in social work, causing the share of human health services to drop considerably in the structure of persons in employment in activities under N.

Health and social work (N) is the only public service activity noted for major structural changes leading towards the strengthening of market activities, which already generated 20% of value added in 1999, five percentage points more than in 1995. The increasing importance of market services is largely a result of an expansion in market activities in *human health services*. This is underpinned by data from the final accounts of institutions, bodies and organisations, indicating a fall in the number of employees in public health institutes and specialist clinics, as well as data on private medical practices, which confirm the rapid expansion of the network of public health services based on public-private funding. In 2000, 22.2% of all active doctors and dentists thus worked in private practices, most of them operating under license agreements. The stronger role of private service providers and the individualisation of what they offer are crucial to the formation of an efficient public sector and the resulting increase in the economyís competitive ability as one of the key targets set down in the SEDS.

Table 7: **Structure of value added and persons in employment in education**

	Structure of value added, in %		Structure of persons in employment, in %	
	1995	1999	1997	2000
Education	100.0	100.0	100.0	100.0
Primary education	57.5	54.7	63.5	64.1
Secondary education	21.2	19.1	19.9	18.3
Higher education	13.8	19.4	10.6	11.3
Adult and other education	7.5	6.7	6.1	6.3

Source: SORS, AP, calculations by the IMAD.
Note: [1] Value added has been calculated from the accounting statements of institutions and other legal entities that prepared accounting statements in line with the old law on accounting, as well as statistical data drawn from balance sheets and profit and loss accounts of companies. In 1999, institutions and companies together generated 94% of value added in education.

The structure of value added in **education** in the 1995-2000 period is characterised by the growing role of *higher education* (see Table 7). In addition to the rapid increase in the number of persons in employment, the growing share of higher education in the education segment is also evident from data on the exceptionally fast rise in the number of people enrolled in higher-education programmes and the number of teaching staff[12]. The increasing role of higher education is an important structural move in the transition towards a knowledge-based society, one of the main goals laid down in the SEDS. It has to be noted, however, that the quality of education needs to be improved alongside raising peopleís education levels, which is hard to verify from these structural changes[13]. Another of the SEDSí priorities is to improve the training and education of adults, an area where relevant changes are yet to be noted. The share of *adult education* in value added dropped a fraction from 1995 to 1999, however, it is favourable that its share in the structure of persons in employment was increasing rapidly in the last two years (see also changes in structure of persons in employment in Table 7).

3. Conclusions

Structural changes characteristic of the Slovenian economy from 1995 to 2000 can be assessed as predominantly favourable. **The process of restructuring towards the strengthening of service sectors continued**, parallel with the shrinking role of agriculture and industry. However, Slovenia is still far behind advanced world economies in terms of the share of services in gross domestic product.

Structural changes within individual sectors also confirm the positive movements. **In industry**, especially manufacturing, **as well as in predominantly market-oriented services, activities with high value added per employee gained in importance**. *Metal, chemical and machinery industries, as well as the production of electrical and optical equipment* made important progress in manufacturing, while the traditional labour-intensive activities, especially *textile and footwear industry*, lost ground. *Telecommunications and computer services*, crucial to the development of a knowledge-based and competitive economy, recorded exceptionally rapid growth among predominantly market-oriented service activities. Another positive movement in this respect is the rapid expansion of *higher education* seen in recent years, however, *adult education* has still not been marked by the changes anticipated by the SEDS, which underscores the growing importance of life-long learning. The development and increasing importance of new services in financial intermediation (*insurance, and pension funding, activities auxiliary to*

[12] In the 2000/2001 school year, the number of students enrolled in higher education programmes, together with school teachers, was 33.6% more than in 1997/1998. There is also an increasing number of vocational colleges, where the number of students increased by 4.5-times in the past four years. The number of teaching staff went up 11.3% from 1997 to 2000.

[13] One of the indicators of quality in education is the proportion between teaching staff and students, which came close to the 1997 level in the 2000/01 academic year, after having considerably worsened in the two previous years (see Slovenian Economic Mirror 11/2001. p. 22).

financial intermediation) is also an important aspect of economic development and strengthening of the economyís competitive ability.

There have also been positive changes in some **traditional service activities**, such as retail and wholesale and hotels and restaurants. *Wholesale and retail trade* saw lively restructuring, which has already improved the efficiency of both activities. Meanwhile, restructuring of hotels and the growing importance of predominantly tourism-oriented activities can be seen as positive changes in the activity of *hotels and restaurants*.

On the other hand, it must be pointed out that *transport, storage and communication* saw negative changes, as road freight transport expanded (at the expense of rail freight transport), which is an explicitly negative structural change in terms of environmental development. Also unfavourable is the sluggish restructuring of agriculture towards increasing productivity, and the weak increase in the economic importance of market services. The **growing volume of public services**, especially *public administration, defence and compulsory social security* (Sloveniaís integration into the EU and NATO) and *health and social work* (ageing of the population) has been anticipated by the SEDS. However, it needs to be emphasised that, in addition to the growing number of employees and consequently higher value added, **it is crucial to promote the role of private service providers in the future and to establish an efficient public sector**.

Analytical Appendix 2

Indicators

Editor:

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List of indicators

SYNTESISED DEVELOPMENT INDICATORS:

- GDP per capita in purchasing power standard
- Human development index
- Balanced development index
- National competitiveness index by IMD
- National competitiveness index by WEF
- Regional disparities in gross domestic product
- Regional disparities in unemployment

ECONOMIC DEVELOPMENT:

Macroeconomic Stability

- Real gross domestic product growth
- Inflation
- Unemployment rate
- Employment rate
- Public finance balance
- Balance of payments
- External debt
- General government debt
- Country risk

Competitiveness of the Economy

- Labour productivity
- Unit labour costs
- Market share
- Composition of merchandise exports by factor inputs
- Investment
- Foreign direct investment
- Private sector’s share in gross domestic product

Knowledge-based Society

- Average number of schooling years of persons in employment
- Share of the population who has at least finished secundary education
- Number of active internet users
- Number of secure servers per one million people
- Number of researchers per 1000 employed persons
- The share of innovation companies in manufacturing
- Gross domestic expenditure on research and development

Developmental Role of the State

- General government expenditure relative to GDP
- State aid

ENVIRONMENTAL DEVELOPMENT:

- Genuine saving index
- Energy intensity
- The share of "dirty industries" in manufacturing
- Road freight transport
- Use of mineral fertilisers per cultivated agricultural area
- Use of pesticides per cultivated agricultural area
- Use of renewable energy sources
- Tree-felling intensity

SOCIAL DEVELOPMENT:

- Life expectancy
- Infant mortality
- Jobless households

GDP per capita in purchasing power standard

One of the main goals of the Strategy for the Economic Development of Slovenia is to raise the level of economic development without undermining the environmental and social components of development. One of the most widespread indicators showing the level of a country's development, its efficiency and living standards is gross domestic product per capita expressed in purchasing power standards. This is obtained by transforming gross domestic product into an artificial currency by means of purchasing power standards.

According to Eurostat, **Slovenia's** GDP per capita in purchasing power standards achieved 64% of the EU's average level in **1996**. The only country to record a higher level among the **EU candidate-countries** was Cyprus (83% of the EU's average). Within a period of four years, four countries reduced their levels of development compared to 1996, while other countries improved their levels (see table). Slovenia and Hungary made the most progress. A comparison of Slovenia and the Czech Republic, countries that were at about the same level of development in 1996 according to this indicator, reveals that Slovenia improved its position relative to the EU's average by 5 percentage points up until 2000, while the Czech Republic dropped 5 percentage points. Recording PPS 15,600 of gross domestic product per capita, **Slovenia** remained in second place among the candidate-countries in 2000, right after Cyprus, which was 17% better than Slovenia (19% in 1996).

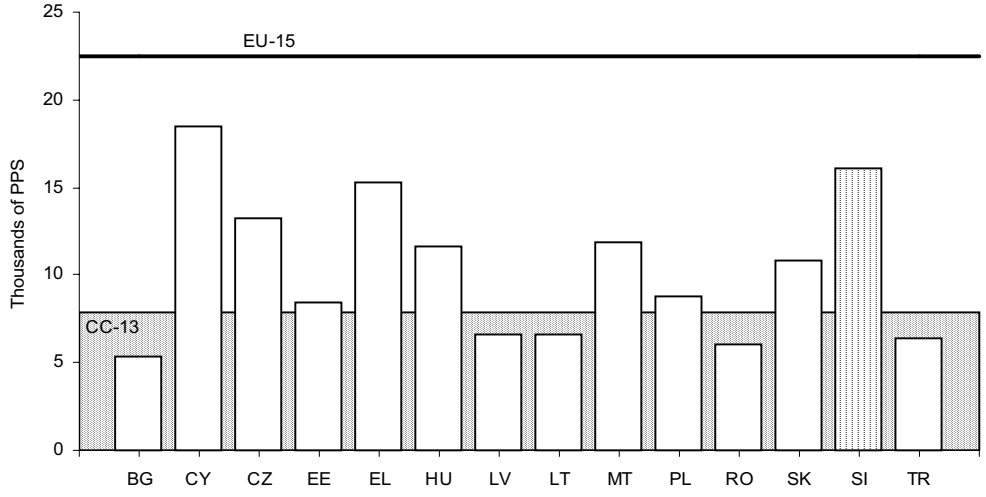
Since 1995, Slovenia has reduced its development gap behind the advanced market economies. In 1995-2000, gross domestic product per capita in purchasing power standards increased from 64% to 69% of the EU's average. In 1997, Slovenia caught up with Greece, the least developed EU member, and has drawn closer to Portugal. **Slovenia's development gap behind the EU's average** (as well as some advanced EU member-states such as Austria, Belgium and Denmark) was reduced by over 10 percentage points from 1995 to 2000. An analysis shows that Slovenia's gross domestic product per capita in purchasing power standards in 2000 was about the same as the EU's average in 1984. The bridging of this development gap is one of Slovenia's **strategic orientations**, which will require further acceleration in productivity growth of the Slovenian economy. Provided that the scenario of Slovenia's economic growth (an average annual GDP per capita growth of 5.5%) and the EU member-states' scenario (the Lisbon strategy: 3% average annual growth) are implemented, Slovenia should reach the EU's average in 2015.

Table: **Gross domestic product per capita in purchasing power standards in EU candidate-countries and a comparison with the EU's average in 1996-20000**

	GDP per capita[1] in PPS2[2]					GDP p.c. PPS, EU - 15 = 100				
	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000
Bulgaria (BG)	5,400	5,100	5,500	5,700	6,300	29	26	27	27	28
Cyprus (CY)	15,400	16,000	17,000	18,100	19,400	83	83	84	85	86
Czech Republic (CZ)	11,900	12,100	12,100	12,400	13,200	64	62	60	59	59
Estonia (EE)	6,200	7,100	7,700	7,800	8,600	34	37	38	37	38
Hungary (HU)	8,500	9,200	9,800	10,600	11,500	46	47	48	50	51
Latvia (LV)	4,800	5,400	5,700	6,100	6,700	26	28	28	29	30
Lithuania (LT)	6,000	6,600	7,100	7,000	7,500	32	34	35	33	33
Malta (MT)	9,900	10,600	11,100	11,700	12,600	54	54	55	55	56
Poland (PL)	6,600	7,300	7,800	8,300	8,900	36	37	38	39	39
Romania (RO)	5,300	5,100	5,000	5,000	5,200	29	26	25	23	23
Slovakia (SK)	8,500	9,300	9,800	10,200	10,800	46	48	48	48	48
Slovenia (SI)	**11,800**	**12,800**	**13,500**	**14,500**	**15,600**	**64**	**66**	**67**	**68**	**69**
Turkey (TR)	5,100	5,600	5,800	5,600	5,900	27	29	29	26	26
Candidate-countries	6,400	6,800	7,100	7,200	7,600	34	35	35	34	34
EU-15	18,500	19,400	20,300	21,300	22,500	100	100	100	100	100

Source: Eurostat, Statistics in focus, Theme 2-5/2002.
Notes: [1] GDP per capita calculated using the number of population from national accounts,
[2] Estimates in PPS based on the results of the European Comparison Programme published by OECD/Eurostat.

Graph: **Gross domestic product per capita in thousands of PPS in EU candidate-countries and a comparison with the EU's average of 2000**



Source: Eurostat.
Notes: CC-13 Candidate countries Bulgaria, Cyprus, Czech Rep., Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia, Slovenia, Turkey.

Human development index

The **concept of the human development index**[1] (HDI) stems from the assumption that economic and social development are inter-related and that the human being is placed at the centre of development. A comparison with previous years for which the index is available shows that both the value of the index and **Slovenia's rank in the world** have been gradually improving. The human development index, which was calculated on the basis of a new formula,[2] increased gradually in **1992-1997**, while the latest calculations for **1998** revealed no changes in the total value of the index, and Slovenia was again ranked in 28th place out of 174 countries, or 29th place according to the UNDP's calculations (see graph). Slovenia kept the same place in **1999** on a scale of 162 countries, according to the UNDP.

Figures for **1999** (the latest available data from the UNDP) show that Slovenia achieved the highest rank in the **gross enrolment ratio** and was placed among the first 20 countries. Slovenia was in 30th place together with Portugal according to the GDP index (the closest country in transition was the Czech Republic in 38th place) and in 32nd place together with Portugal and Chile according to the **life expectancy index** (all countries in transition/EU candidate-countries lagged behind Slovenia). Slovenia was overtaken by Malta in the latter ranking, a country that was placed behind Slovenia for many years. So, Slovenia recorded the biggest gaps in the indicator which is one of the most important[3] (synthesised) indicators showing the population's general welfare.

Indicators that make up the index do not change markedly in one year unless there are major social and economic changes or negative social effects caused by inadequate policies. The relatively steep rise in the HDI seen over the last few years (1990s) was mainly underpinned by significant rises in gross domestic product and gross enrolment ratio (see table). Despite its ongoing improvement, life expectancy had a minor contribution to improvement of the HDI.

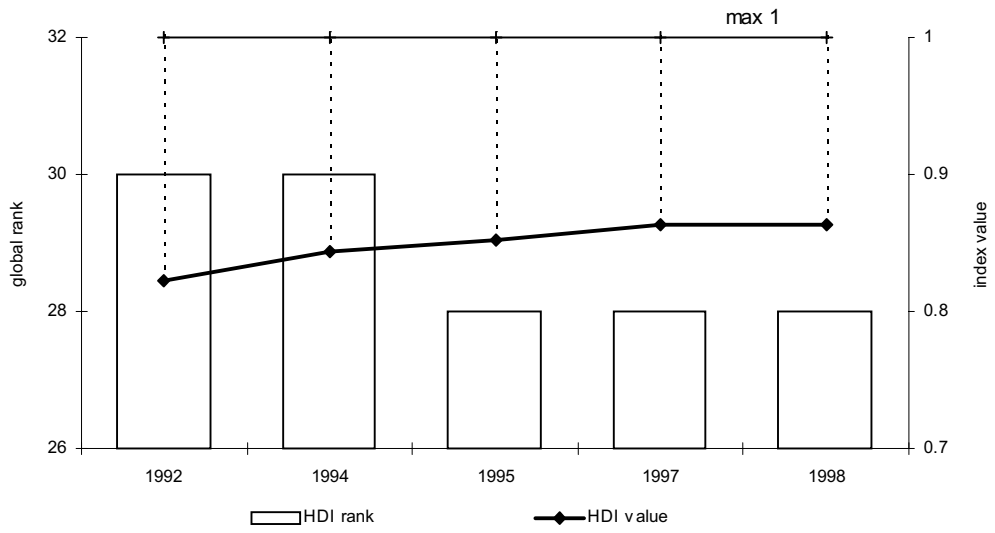
The human development index shows that Slovenia's overall position is relatively favourable: the HDI and its components place Slovenia in the top one-third of the total ranking (incorporating the richest countries), i.e. in the group of countries with a high level of human development (see graph). The gradual improvement of the index at the national level seen over the last few years points to a slow but steady positive trend in development, which is in line with the **guidelines** from the **Strategy for the Economic Development of Slovenia**. However, the graph shows that Slovenia still lags behind the maximum level of social development (=1) despite its high rank, unlike Canada[4] and Norway, which have been drawing close to that level for many years. This is why Slovenia should face the challenge of finding ways to draw closer to the level of full development measured by the HDI. Devising policies in isolation from one another is therefore completely ineffective. Even though the socio-economic environment changed markedly in the transition period, the integration of social and economic policies remains a precondition for successful implementation of the Strategy.

Table: **Values of the human development index (HDI) and its components for Slovenia in 1995 -1999**

	1995[1]	1997[1]	1998[1]	1999[2]
Life expectancy	74.52	74.9	75.0	75.3
Life expectancy index	0.83	0.83	0.83	0.84
Gross enrolment ratio	79.1	82.0	82.0	83.0
Education index	0.924	0.93	0.93	0.94
GDP per capita by purchasing power parity	12,600	14,000	14,800	15,977
GDP index	0.81	0.825	0.83	0.85
HDI[3]	0.852	0.864	0.864	0.874
Rank in the world	28.0	28.0	28.0	29.0

Source: Human Development Report - Slovenia 1999. Hanžek, M. (ed.). Ljubljana: UNDP, IMAD, p. 17. Human Development Report - Slovenia 2000-2001. Hanžek, M. (ed.). Ljubljana: UNDP, IMAD, p. 24.
Notes: [1] calculations by the IMAD, [2] calculations by the UNDP, [3] human development index.

Graph: **The value of the human development index and ranks for Slovenia[1] in 1992-1998**



Source: Human Development Report – Slovenia 1999. Hanžek, M. (ed.). Ljubljana: UNDP, IMAD.
Note: [1] Calculations by the IMAD.

[1] The human development index is an aggregate indicator composed of three (independent) indices that show separately three areas of development: health (life expectancy), education (literacy index and gross enrolment ratio), and living standards (gorss domestic product in purchasing power parities).

[2] See Human Development Report, 1999. New York/Oxford: Oxford University Press, pp. 159-160; and Human Development Report, 2000. Hanžek, M. (ed.) Ljubljana: UNDP&IMAD, p. 16. Javornik, J. (2000): Human Development – Indices. V: Vendramin, M. (ed.).: Slovenian Economic Mirror, no. 12, vol. V, p. 13/I.

[3] The correlation coefficient shows that life expectancy is strongly and positively correlated with the enrolment ratio and the HDI (see Human Development Report – Slovenia 1999, p. 12).

[4] Canada was the first country to overshoot the HDI level of 0.9.

Balanced development index

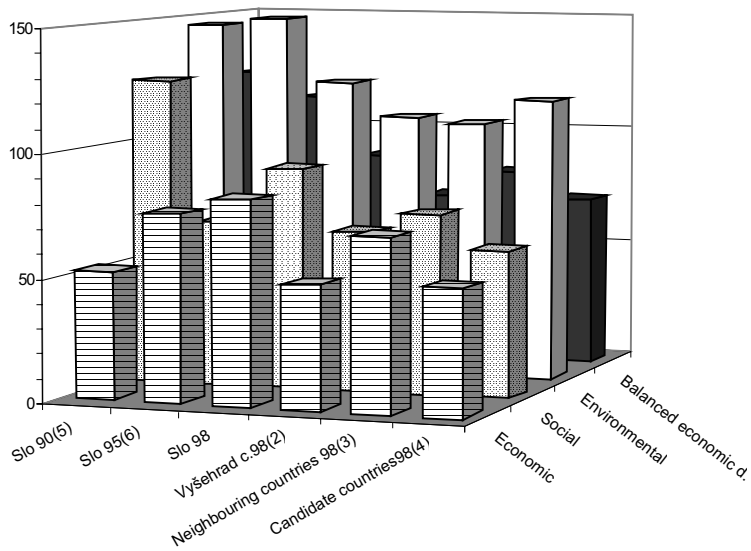
The principal sustainable objective of the Strategy for the Economic Development of Slovenia (SEDS) is the balanced development of the economic, social, and environmental aspects of welfare. Growing gross domestic product does not necessarily mean that a country is managing to develop after a model which it can repeat indefinitely, and simultaneously take account of the environmental and social aspects of economic growth. To examine how balanced economic development is from these three aspects a balanced development index (BDI) was elaborated consisting of around 300 indicators. In simple terms: the BDI measures how successful development is in extracting welfare from the resources available, which are all "there for the taking".

Applying the BDI reveals that development patterns differ from country to country, and that the 1990s saw little convergence between the **most advanced countries** (the **EU**, weighted by the number of inhabitants, Norway, Sweden). The disparities between the five top ranking countries (Austria, Denmark, Sweden, Norway, Finland) and the bottom five (Greece, Portugal, Belgium, Italy, Spain) did not narrow according to the BDI. In 1998, the biggest disparities between them were in social development (1 against 0.35), and the smallest in economic development (1:0.60); the difference in environmental development was 1:0.44, and the overall disparity revealed by the BDI was 1:0.45. The **countries in transition** narrowed the gap behind the EU average in the 1990-1998 period. They changed their development patterns through vigorous progress in economic development (slightly less than Slovenia), stagnated socially in relative terms, and improved environmental development twice as much as Slovenia.

In 1990 **Slovenia** lagged behind the EU in terms of economic development more than it outpaced the Union in social and environmental development. During the **market transition period** which ensued the following shifts occurred: (i) the gap in economic development was more than halved; (ii) the advantage in social development turned into an gap behind the EU which exceeds one-third of the original advantage; (iii) the advantage in environmental development fell by nearly one-fifth; on average, the other countries in transition have managed to nearly catch up with Slovenia in environmental development. Compared to 1990, Slovenia's BDI was thus lower in 1998. The **first phase of the transition** was relatively sustainable owing to the combined economic and environmental effects of market restructuring (see the indicator "Share of added value from dirty industries in manufacturing"), while the results of the social development understandably worsened. The revival of the economy in the **second phase of the transition** (after 1995) was achieved on the account of sustainability, because of the inferior environmental development, although the gap in social and economic development was narrowed. If the environmental development had improved in balance with the economic development, the BDI would have reached 0.66 in 1998, and Slovenia's overall achievement in exploiting its natural development potential would have reached the level of Ireland (1998). **After the transition,** it is therefore imperative for Slovenia to enhance the integral character of the environmental and social aspects of investments in produced (economic) development factors. This is necessary to ensure that the increased economic activities will primarily increase the level of activation of the social and environmental capital. During the period under study, Slovenia indeed managed to exploit less than half of the available economic resources – the worst results were in the social field, the best in the environment. In terms of sustainability, Slovenia faces, like all other countries, not only the developmental "problem of the future generations" (because of the country's dependence on the use of non-renewable sources): owing to the low

level the needs of the present generation are satisfied, Slovenia also faces a problem which is the result of the non-exploitation of domestically available resources in the past, including natural and produced resources and, of course, in particular renewable ones. The present generation is therefore deprived of a degree of welfare that would have no negative effects for future generations. For this reason, sustainable development must also be defined considering the present (population and policies), and a distinction is therefore made between strategies for asserting sustainability in the medium term (as envisaged by the SEDS; to increase the use of domestic renewable sources), and in the long term (optimising the limits of sustainability, see also the "Genuine Savings Index"). Accelerating environmental development would require a transformation of the environment policy from a protection to a development approach; such an approach would be capable of enhancing the sustainable use of non-hazardous natural development factors, in particular domestic renewable sources. For instance, increasing wood felling in overgrown areas, making better use of wood biomass (even in Slovenia's forested areas wood for heating is notably being replaced by gas oil), of water resources (increasing areas under irrigation and the use of hydro-electric power), making better use of biodiversity's economic potential, and ensuring more efficient physical planning. A condition for the integral efficiency of environment policy is to strengthen and intensify the use of horizontal and integrating instruments; this first of all requires the elaboration and publication of regular annual reports on the condition of the environment; the absence of such reports has indeed reached a critical stage. According to the SEDS, the absence of an integral approach to the environment is largely the result of a self-contained environment policy (transposition of the EU's *acquis* to the detriment of the implementation of other functions). That Slovenia's environment policy is being implemented inadequately has also been pointed out in the human rights ombudsman's reports, assessments of non-government organisations (the Pinocchio action), and by the EU.

Graph: **Comparison of the level and composition of sustainable development in Slovenia with the EU average [1] (EU average = 100) in 1998**



Source: Seljak J. 2001. Kazalec uravnoteženega razvoja (Balanced Development Index). Ljubljana: IMAD, 195 pp.
Notes: [1] excluding Luxembourg; (2) Visegrad countries: Poland, Czech Republic, Hungary, Slovakia; (3) neighbouring countries; Croatia taken as the average candidate; (4) EU candidate-members; excluding Bulgaria, Romania, Cyprus, Slovenia; (5) compared to EU 1990; (6) compared to EU 1995.

National competitiveness index by IMD

The **concept of national competitiveness** is being established as a comprehensive system that attempts to monitor social development opportunities and social structures and relations by means of a wide range of indicators, therefore trying to move beyond the conventional focus on economic activity and results expressed through GDP growth. Several definitions and methodologies are used to measure national competitiveness and they derive from different theoretical assumptions. The Swiss **IMD** institute uses a system of 286 indicators to measure a country's capacity to increase national wealth and its capacity to create such national environment that allows companies to be competitive (through economic restructuring, national and corporate efficiency, and infrastructure).

Slovenia's national competitiveness assessed by the IMD in the group of 49 countries was volatile in **1999-2001.**[1] A comparison of ranks shows that Slovenia slid to 39th place in 2001 after having climbed to 36th place in 2000. Slovenia achieved the highest place in business efficiency (34th place in 2001), followed by infrastructure (37th place) and economic performance (38th place), while the lowest rank was recorded in government efficiency (44th place). Compared to 2000, Slovenia fell the most in economic performance, going down 8 places, and in infrastructure, going down 1 place. Relative improvement was seen in government efficiency, going up 1 place, while Slovenia's position in business efficiency remained unchanged. Slovenia's rank in the aggregate national competitiveness index was the lowest in **comparison to EU candidate-countries**[2] and **some EU member-states**, except Poland (see table). Broken down by competitiveness areas, Slovenia overtook Poland, the Czech Republic, Slovakia and Portugal in business efficiency, and Slovakia, Poland, and Greece in economic performance, but it lagged behind all those countries except Poland in government efficiency and infrastructure.

In the field of **economic performance**, comprising 68 indicators that describe the macroeconomic conditions of the domestic economy, Slovenia achieved the lowest level of competitiveness in international investment (43rd place), which was partly the result of the fact that FDI indicators show absolute values of flows and stock, which are of course low for small countries. Slovenia was placed highest in employment (29th place). Slovenia recorded ranks higher than the aggregate index in domestic economy (34th place), international trade (32nd place), and prices (34th place).

The **government efficiency indicators** (84 indicators) monitor the extent to which government policies direct and support national competitiveness. The largest national development gap was identified in the business framework, where Slovenia was ranked 48th, the one before last. This group comprises indicators of openness and market regulations, competition regulations, labour and capital market regulations. Slovenia's government got the highest score in public finance[3] (30th place) and education (31st place) and lowest score in fiscal policy[4] (44th place) and institutional framework (39th place).

Business efficiency indicators (60 indicators) assess whether companies are innovative, profitable and responsible. Slovenia got the highest score in productivity (28th place), while potential for development was seen in management practices (30th place) and the impact of globalisation (33rd place). Slovenia was ranked lowest in the labour market group (44th place), while competitiveness in financial markets was equally critical (40th place).

The **infrastructure indicators** (74 indicators) measure the extent to which technological, scientific and human resources meet the needs of the business sector. Among the five groups, the value system was ranked lowest (41st place), while technological infrastructure was ranked highest (27th place). Slovenia was put in 28th place in basic infrastructure, it recorded much worse results in health and the environment (35th place) and even worse in scientific infrastructure (39th place).

The analysis of national competitiveness by means of the IMD indicators therefore shows that the **main weaknesses of Slovenia's national competitiveness** lie in government and institutional efficiency to create a competitive business environment and devise a competitive fiscal policy. According to the IMD, the main challenges for improving national competitiveness include an increase in foreign investment, improvement in public administration efficiency, consolidation and privatisation of the banking and insurance sectors and improvement in their control, privatisation and deregulation of the main infrastructural sectors (telecommunications, energy etc). It is necessary to pay more attention to market and competition regulation and the establishment of quality and transparent institutional relations so as to support market processes. Given that technological development is a central issue in economic development, it should be stressed that steps taken in scientific and technological infrastructure are highly important even though these areas were ranked relatively high (39th and 27th places). This is why the upgrading of the technological level of producing goods and services through innovation is a priority of paramount importance for Slovenia, together with an adequate regulation of the business environment.

Table: **Slovenia's rank in the aggregate national competitiveness index and the input factor indices shown in the group of selected EU member-states and countries in transition in 2000 and 2001**

	Aggregate index		Economic performance		Government efficiency		Business efficiency		Infrastructure	
	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000
Austria	14	15	27	18	11	15	12	17	11	14
Estonia	22	n	24	n	16	n	25	n	24	n
Hungary	27	26	18	27	22	21	29	25	27	25
Greece	30	34	39	38	33	35	26	29	26	31
Italy	32	32	25	16	40	43	27	30	28	30
Portugal	34	29	35	20	32	26	35	36	33	27
Czech Rep.	35	40	20	29	30	36	43	44	32	39
Slovakia	37	n	48	n	28	n	37	n	29	n
Slovenia	**39**	**36**	**38**	**30**	**44**	**45**	**34**	**34**	**37**	**36**
Poland	47	38	41	36	48	39	46	41	48	40

Source: The World Competitiveness Yearbook 2001, IMD.
Note: n - the country was not assessed.

[1] Sloveniaís competitiveness was measured in the group of 49 countries using the IMD methodology for the third time in 2001. In 2000, the methodolgy was changed, so comparisons are only sensible between 2001 and 2000.

[2] We have selected those candidate-countries that border on Western Europe: Czech Republic, Estonia, Hungary, Poland, Slovakia and Slovenia (they are included in the IMD list). We have added EU members that are comparable to Slovenia in terms of GDP per capita (Greece and Portugal) and border on Slovenia (Austria and Italy).

[3] Indicators of central government budget surplus/deficit, debt, debt servicing etc.

[4] Indicators of fiscal policy instruments (tax rates, tax evasion etc), the structure of general government revenues etc.

National competitiveness index by WEF

The WEF's national competitiveness index has its theoretical foundations in the new **growth theory**, according to which societies progress from low levels of development and income (economic development is based on endogenous factors of production) through medium levels (based on investment and foreign technology) to high levels of development (based on the country's own innovation). Factors that change in line with the level of development are the structural basis necessary for the overall competitiveness of the environment and companies, production methods, competition, and the role of the government. The WEF has devised two aggregate indices of national competitiveness to achieve high annual GDP per capita growth rates: the **current competitiveness index** (CCI)[1], and the **growth competitiveness index** (GCI),[2] showing the ability to achieve high and competitive growth in the next five years. In order to calculate the GCI, the WEF has roughly divided countries into innovation-driven (core) economies and non-innovating (non-core) economies.[3]

Slovenia's national competitiveness was assessed by the WEF in a group of 75 countries for the first time in **2001-2002**. Slovenia was placed 31st in the GCI, together with Estonia, and was put in the group of countries with high growth potential. It was placed 32nd in the CCI, in the group of countries whose income levels will be unsustainable in the future without substantial macroeconomic reform (Argentina, Russia).[4] The fact that Slovenia's income is relatively high given the assessed current level of competitiveness is revealed by Slovenia's high place in GDP per capita (26th place in 2000) and real GDP per capita growth in 1999-2000 (17th place).

Compared to the selected EU candidate-countries and EU member-states,[5] Slovenia was ranked ahead of Greece, the Czech Republic, Slovakia and Poland in both the GCI and CCI. Slovenia's ranks vary according to different **areas covered by the GCI and CCI** (see table). It achieved the highest place in the **sophistication of company operations and strategy** (28th place), overtaking all candidate-countries as well as Portugal and Greece. This was followed by public institutions, technology (Estonia was in the lead, the Czech Republic and Slovakia were also ahead of Slovenia), and the **quality of the national business environment**, while the lowest level of competitiveness was revealed in the macroeconomic environment: Greece, which was below Slovenia in both aggregate indices, was placed ahead of Slovenia, while Estonia, a more competitive country, was placed below Slovenia.

The GCI is broken down into several components. Within the **technology index** (18 indicators grouped into 3 sub-indices), which describes the processes of technological advancement separately for core and non-core innovators, Slovenia recorded the lowest level of competitiveness in the sub-index of *information and communications technologies* (the indicators of the Internet, networks etc), taking 28th place. Slovenia took highest place in the sub-index of *technology transfer* (14th out of 51 non-core countries), which is only composed for the non-core innovators (the indicators of FDI importance for technology transfer, the percentage of skill-based exports), however, the only countries placed below Slovenia were Poland (15th) and Greece (31st). Slovenia was ranked relatively high in the *innovation* sub-index composed of skilled human resources, well-developed market incentive structures for science, and intensive interaction between scientific and business sectors), being ranked 27th behind Austria (5th), Italy (21st), Greece (25th), and Estonia (26th). The **public institutions index** monitors the state of contractual relations and law, and corruption in public institutions. As far as corruption is concerned, Slovenia recorded the same rank as in the aggregate index (31st place), while its rank in contracts and law was lower (36th place). Countries ranked ahead of Slovenia were the same as in the GCI. According to the WEF, Slovenia's biggest national development drawback is the **competitiveness of the macroeconomic environment**, the third index under the GCI, which is shown by its low 39th place. This index incorporates *macroeconomic stability, country credit rating,* and *government expenditure*. The lowest score was revealed by *government expenditure* (60th place); the higher-ranking selected countries

were Estonia (51st place), Poland (57th place) and Greece (59th place), while a lower-ranking country was Austria (72nd place). The *country credit rating* sub-index put Slovenia in 27th place, showing that it has a positive potential for development. Slovenia was ranked 32nd in *macroeconomic stability*.

To sum up, the analysis of national competitiveness shows that the main **weaknesses of Slovenia's national competitiveness** revolve around the main market concepts: the regulation of institutional relations of co-operation and competition. It is necessary to establish a higher level of social co-operation between the authorities at all levels, synergy between the public administration and the private sector, co-operation between the state and the universities as well as between the universities and the private sector. The key challenges in improving national competitiveness involve the introduction of state-of-the-art technology and innovation through foreign direct investment, and co-operation between the university, state and corporate sectors, a priority that is absolutely essential for Slovenia.

Table: **Slovenia's rank in the aggregate growth competitiveness index (GCI), the aggregate current competitiveness index (CCI) and their sub-indices compared to selected EU member-states and EU candidate-countries in 2000 and 2001**

	Aggregate indices					GCI components						CCI components			
	Growth competitiveness (GCI)			Current competit. (CCI)		Technology		Public institut.		Macroeconomic environ.		Company operations and strategy		Quality of the nat. business environ.	
	-		-	-	-	1/2[a]. 1/3[b]		1/4[a]. 1/3[b]		1/4[a]. 1/3[b]		-		-	
	2001		2000	2001	2000	2001		2001		2001		01	00	01	00
Austria[a]	18	5.33	17	13	13	16	5.45	15	5.98	26	4.46	11	12	13	12
Portugal[b]	25	4.92	22	31	28	25	5.27	25	5.25	35	4.24	38	35	29	27
Italy[a]	26	4.90	29	24	24	31	5.01	27	5.05	23	4.53	13	17	24	26
Hungary[b]	28	4.87	25	26	32	21	5.39	26	5.20	38	4.04	33	34	25	31
Estonia[b]	29	4.87	n	27	n	8	5.68	29	4.99	43	3.94	32	n	26	n
Slovenia[b]	**31**	**4.70**	**n**	**32**	**n**	**30**	**5.18**	**30**	**4.90**	**39**	**4.02**	**28**	**n**	**35**	**n**
Greece[b]	36	4.46	33	43	33	38	4.62	40	4.50	32	4.26	51	32	42	33
Czech Rep.[b]	37	4.41	31	35	34	20	5.39	53	4.04	49	3.81	41	41	33	34
Slovakia[b]	40	4.36	38	39	36	29	5.18	38	4.54	64	3.35	57	31	36	36
Poland[b]	41	4.30	34	41	41	35	4.75	41	4.40	50	3.75	55	36	40	41

Source: The Global Competitiveness Report 2001-2002, WEF, Oxford University Press.
Note: n - the country was not assessed; a - core-innovating economies, b - non-core innovating economies; r - rank, v - index value; [1] each GCI component is composed of sub-indices with different weights and they have different roles according to a country's level of development.

[1] The CCI evaluates the underlying conditions defining the current level of productivity in each economy (it measures a range of institutions, market structures and economic policies using a microeconomic approach), and estimates whether GDP growth rates are in line with these conditions and sustainable in the long term.

[2] The GCI strives to estimate the underlying conditions for growth over the coming five years (the GCI sub-indices have different weights depending on the level of a countryís development).

[3] The measure for placing a country into one of these groups is the number of US utility patents registered per million population. 15 patents is the threshold. The highest number of patents is recorded in the USA (308.7) and the lowest in Zimbabwe (0). Slovenia, registering 8 patents, is in the lead of non-core economies, while Hong Kong SAR, recording 26.3 patents, belongs to core economies.

[4] The WEFís results confirm that micro-reforms must go beyond reducing the role of the government and preventing market distortions. The government must assume a number of important positive roles necessary for making progress, such as investment in specialised human resources, the building of innovation capacities, support to the development of clusters, and the promotion of advanced demand using regulatory standards.

[5] We have selected those candidate-countries that border Western Europe: Czech Republic, Estonia, Hungary, Poland, Slovakia and Slovenia. We have added some EU member-states: those that are comparable to Slovenia in terms of GDP per capita (Greece and Portugal) and neighbouring countries (Austria and Italy).

Regional disparities in gross domestic product

The Strategy for the Economic Development of Slovenia identifies balanced regional development as part of its integral development objective, as monitored by the indicators of regional disparities. One of the key indicators used to measure balanced regional development is GDP per capita.

In 1999 gross domestic product (GDP) per capita[1] was highest in Central Slovenia, exceeding the country's average by 34%. Slightly above the average was the Obalno-kraška region, while the lowest GDP was recorded by the Pomurska region, which lagged behind the country's average by 23%. According to this indicator, the difference between the top and bottom regions was thus 1:1.75, or 0.05 of a percentage point more than in 1996, when the ratio was 1:1.70. The coefficient of variation of GDP across statistical regions within Slovenia increased from 15.1 in 1996 to 16.7 in 1999. Compared to 1996, regions in the western half of the country were most successful in closing the gap behind the country's average. According to the aggregate evaluation of the development potential of Slovenia's regions[2], these are **prosperous regions with positively assessed development potential**. Leading among them are Central Slovenia and the Obalno-kraška regions, which exceeded the Slovenian average already in 1996, and slightly increased their advantage over the other regions in 1999; they were, joined by the Goriška region which saw the highest growth in GDP per capita compared to 1996 among all the statistical regions (by 3.4 index points). In 1999 the Goriška region was thus the third one to exceed the country's average. The other two regions from the group of prosperous regions – Gorenjska and the South-eastern region, whose GDP per capita are 92% and 91% respectively of the Slovenian average, failed to narrow the gap behind the country's average, but they did succeed in narrowing the gap behind the average of the EU-15, thereby making it feasible for Slovenia to achieve faster GDP growth than in the EU countries.

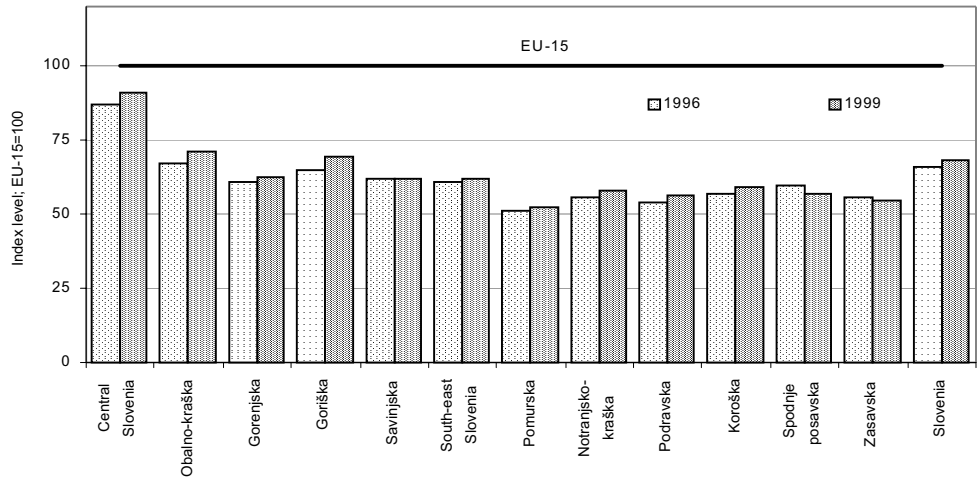
The gap behind the Slovenian average was also narrowed by three of the four regions which the aggregate evaluation of regional development potential ranked as **stagnant regions with some positively assessed development potential**. These are the Notranjsko-Karst, Podravska and Koroška regions, whereas the Savinjska Region, which also belongs to this group lags behind the Slovenian average by 3.4 index points. These regions achieve between 83% (Podravska) and 91% (Savinjska) of the Slovenian average GDP per capita

The three regions which the aggregate evaluation of regional development potential ranks as **regions with unfavourable social and economic conditions and limited development potential** (Pomurska, Spodnjeposavska and Zasavska) saw their gap behind the country's average increase. In the 1996-1999 period, the gap expanded most in the Spodnjeposavska region, by 7.1 index points. The three regions achieve between 77% (Pomurska) and 84% (Spodnjeposavska) of the Slovenian average.

Compared to the average in the EU-15 countries, the Slovenian statistical regions in general recorded between 55% and 63% of the EU-15's average in 1999, with no region exceeding the Union's average. The GDP per capita indicator thus shows relatively small disparities between most of the country's statistical regions. The biggest exceptions are Central Slovenia with 91% and the Obalno-kraška region with 71% of

the EU-15 average, while all the other regions register below 75% of the Union's average. The worst figure is that for the Pomurska region, which achieves only 52% of the European average. In the 1996-1999 period, all the statistical regions managed to narrow the gap behind the EU-15 average faster than vis-ŕ-vis Slovenia's average. If this trend is to continue, the regions will succeed in closing the gap behind the average development of EU members at a faster pace; however, the regional disparities within Slovenia will increase and this is not in line with the envisaged **objectives of the Strategy for the Economic Development of Slovenia (SEDS)**.

Graph: **Regional disparities in GDP per capita in Slovenia in the 1996-1999 period**



Source: SORS, the IMADis calculations.

[1] The regional GDP per capita was first calculated in Slovenia in 1996 and the most recent data are available for 1999. The estimate for 1995 was made on the basis of the 1996 figures. The estimate is only a mathematical computation and does not reflect the actual situation.

[2] See more in Slovenian Economic Mirror, 5/2001.

Regional disparities in unemployment

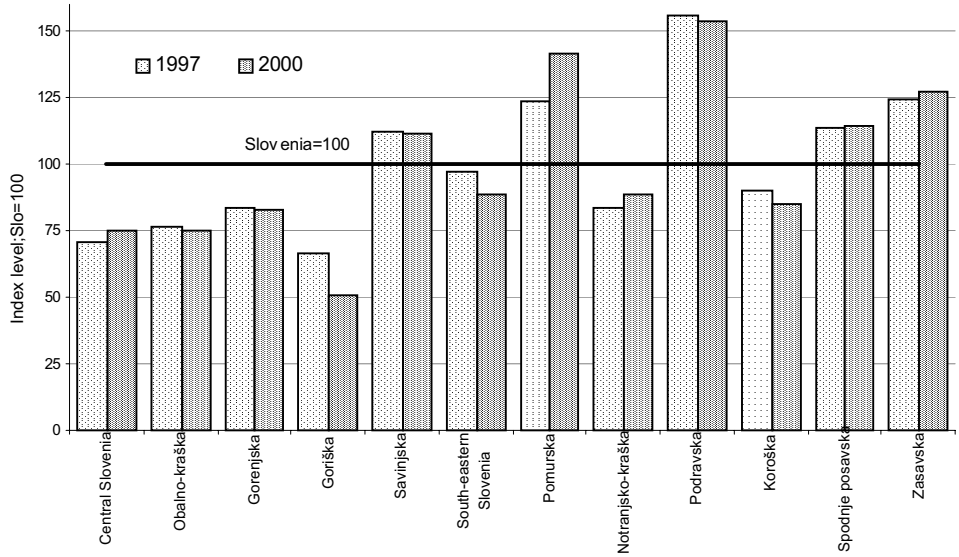
Balanced regional development can also be monitored by regional disparities seen in the unemployment rate. **The registered unemployment rate**[1] reveals major differences between Slovenia's regions. The most obvious difference is that between the western half of the country, where registered unemployment is considerably lower and below the national average, and the eastern half, where it exceeds the national average. In 2000, the highest registered unemployment rate (18.7%) was recorded by the Podravska region and exceeded the national average by 53.5%. Above-average unemployment rates were also recorded by the Pomurje, Zasavska, Spodnjeposavska and Savinjska regions. The lowest registered unemployment rate has been found for several years in the Goriška region, and it is also quite low in the Obalno-kraška and Central Slovenia regions

Registered unemployment rates exceeding the national average are generally typical of those regions which were important industrial or mining regions in the past, and which are burdened by an outdated industrial structure. In the early 1990s, significant economic changes occurred in these regions, as a result of the loss of foreign markets (Podravska, Koroška, Zasavska), unstable political conditions in the world and in Slovenia (Koroška, Podravska, Obalno-kraška), and the lack of competitiveness of the old industrial structures and labour-intensive industries (Gorenjska, Savinjska). The changed economic conditions were first reflected in growing unemployment. In the Pomurje region, the lack of job vacancies were already a problem in the past and the growing economic problems of neighbouring regions only added to the unemployment rate there.

The difference between the two regions with the lowest and highest registered unemployment rates stood at 1:2.7 in 1997, and had climbed to 1:3 by 2000 (the coefficient of variation of unemployment across statistical regions in Slovenia reached 30.5 in 2000 after having recorded 26.6 in 1997). In 2000 and compared to 1997 the registered unemployment rate fell in all statistical regions. The biggest drop was recorded in the Goriška region, followed by South-eastern Slovenia. In spite of the lower registered unemployment rates in absolute terms in all statistical regions, regional disparities have not narrowed, on the contrary, they have widened in some regions. The negative disparities which have been increasing in recent years continue to be biggest in all regions with registered unemployment rates above the average (Podravska, Pomurska and Spodnjeposavska regions). Disparities from the national average are also increasing in Central Slovenia, which has a below-average registered unemployment rate. Positive disparities are recorded in those regions whose registered unemployment rate is below average (Goriška, South-eastern Slovenia, Koroška). A continuation of these trends is expected to increase regional disparities, a development that is not in line with the objectives of the SEDS.

[1] The registered unemployment rate on the regional level is based on the ratio between the registered unemployed and the population in employment, in which the population in employment and registered unmployed persons are included. This indicator is not internationally comparable and has been available since 1997. The EU's indicator is that of the surveyed unemployment rate and is based on the ILO's methodology.

Graph: **Regional disparities of the registered unemployment rate in the 1997-2000 period**



Source: SORS, the IMADis calculations.

Real gross domestic product growth

After the transition depression which hit Slovenia in 1987 and continued into the first two years of independence, gross domestic product (GDP) started to grow in 1993, thereby herlading a period of intensive production restructuring and looking for new markets. The 5.4% **economic growth** recorded in 1994 reflected the return to increased exploitation of existing capacities, and the favourable international economic environment. In **1995-2000**, the dynamics of the growing economic activity slowed down slightly compared to 1994, but GDP growth was still high and recorded an average of 4.3% a year.

Being a small and open economy, Slovenia is highly sensitive to external economic conditions. The international economic environment was largely beneficial to Slovenia even though economic trends in the EU were volatile. The main lever of economic growth was **exports**, except in 1999. In 1995-2000, the average annual rise in exports of goods and services was 6.2% and exports relative to GDP increased by 3.9 percentage points (59.1% in 2000). The opening-up of the economy was accompanied by rapid import growth (an average annual rise of 8.3% in 1995-2000).

The **structure of domestic demand** was favourable from the point of view of development opportunities. The average annual rise in gross fixed capital formation was almost three times faster than final consumption growth (11.3% as against 4.0%) and dynamic growth was especially seen in economic infrastructure investment. Investment rose fastest in 1999, going up by 19.1% in real terms, and its share in GDP was 27.4% of GDP (see also Investment Relative to GDP). In the same year, domestic demand driven by expectations of the introduction of value-added tax more than offset the negative effects of the international environment. In 1999, final consumption growth was above the average of 1995-2000, going up by 5.6%. The GDP growth structure changed in 2000, primarily due to the modest investment growth and, as a result, investment relative to GDP dropped to 26.7%.

The investment fall, which continued in **2001**, was mainly triggered by public funding restrictions and was sustained by the low business confidence in the private sector in the course of 2001, which is estimated to have led to lower shares of investment in GDP than anticipated in the medium-term plans. The fall in investment in 2001 was strongly underpinned by the slowing GDP growth as well as the less favourable conditions in the international economic environment; the latter is estimated to undermine economic growth primarily in 2002 and lead to cyclical discrepancies from **medium-term projections**. It is as yet (February 2002) difficult to assess the extent to which the economic slowdown experienced in 2001 and 2002 will affect the implementation and feasibility of the medium-term macroeconomic scenario, projecting real GDP growth between 4.2% and 5.7% **up until 2006**. The assumption behind the latest forecasts is that economic growth in the leading world economies will resume in the second half of 2002 and that the effects of negative global developments on Slovenia will be buffered by export growth to the markets of South-eastern Europe, the revival of domestic private consumption after stalling for two years, and the greater investment activity of the government sector. In such conditions, economic growth should again achieve the levels proposed in the medium-term scenario as early as in 2003.

Table 1: **Growth in gross domestic product (GDP) and its main components in Slovenian in 1996-2001**

Real growth rates, %	1996	1997	1998	1999	2000	2001
GDP	3.5	4.6	3.8	5.2	4.6	3.0
Expenditure structure of GDP						
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 fixed capital formation	8.9	11.6	11.3	19.1	0.2	-1.9
Production structure of GDP						
Agriculture, forestry, fishing	1.1	-2.9	3.1	-2.1	-1.0	-2.1
Industry	1.5	6.2	4.1	2.7	7.8	4.1
Construction	13.2	7.7	4.6	15.8	2.8	-3.5
Services	4.2	2.8	3.4	4.8	4.2	3.6

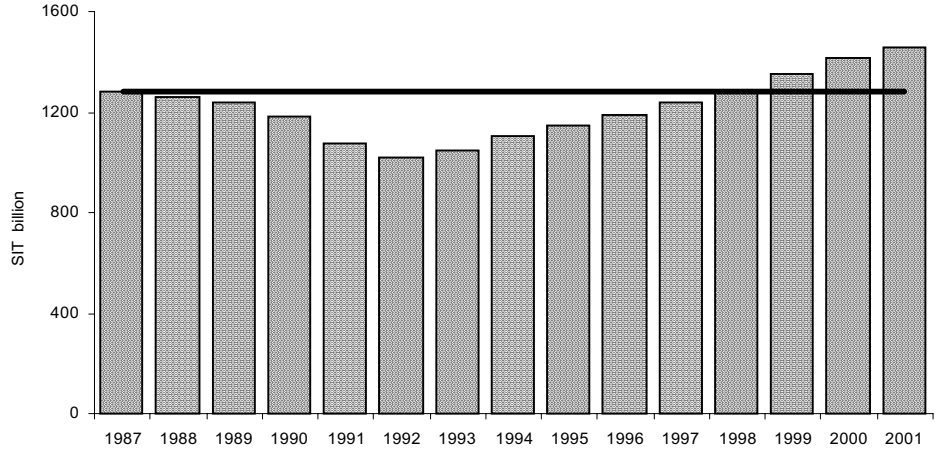
Source: SORS.

Table 2: **Contribution of expenditure components to gross domestic product (GDP) growth in Slovenia in 1996-2001**

	1996	1997	1998	1999	2000	2001
Real GDP growth, %	3.5	4.6	3.8	5.2	4.6	3.0
Contribution of individual components to GDP growth, percentage points						
Exports of goods and services	2.0	6.4	4.0	1.1	7.4	3.9
Imports of goods and services	-1.2	-6.7	-6.3	-5.3	-4.0	-1.4
Private consumption	1.1	1.6	1.9	3.4	0.5	1.0
Government consumption	0.7	0.9	1.1	0.9	0.6	0.6
Gross investment	0.9	2.4	3.1	5.1	0.1	-1.1

Source: SORS.

Graph: **Gross domestic product, 1992 constant prices**



Source: SORS.

Inflation

Price stabilisation played an important role in consolidating the economy in the early period of independence. The gradual deceleration of **consumer prices rises**, which started after 1992,[1] was assisted by a restrictive monetary policy, the slowing depreciation of the tolar, income policy reforms, and the start of structural reforms. Inflation deceleration was further underpinned by favourable price movements abroad, with external price volatility being only partly translated into domestic prices because of the rigid system of administered prices. In 1999, the falling trend was interrupted by rising world commodity prices and the introduction of value-added tax. The increased monthly price volatility, which was partly due to a new system of regulating fuel prices, was accompanied by persistent rises up until the middle of 2001 when the inflation rate began to fall and reached 7.0% at the end of the year.

The **prices of services** rose faster than the **prices of goods** throughout the entire period, which may be accounted for by differences between industries as regards the volume of international trade, which in turn leads to different levels of productivity and wage growth and, consequently, different dynamics of price rises (the Balassa-Samuelson effect).

The **prices under various regimes of regulation** represented about 30% of the price index in 1992-1997, with the percentage varying accoring to changes in the weighting system of the index. The contribution of administered prices to inflation fluctuated around their share in the index, with the exception of 1993 and 1997 when the upward pressure of administered prices strengthened due to higher oil prices. The share of administered prices fell to about 17% in 1997 mainly as a result of liberalised food and heating energy prices, as well as due to liberalised insurance services prices and changes in the price index; this share fell to about 13% in the following years and remained at about the same level in 2001. After 1997, the contribution of administered prices to inflation was invariably higher than their percentage in the price index; in the last two years, the difference between the two figures mainly increased due to higher oil and other commodity prices. In the second half of 2001, administered prices were again primarily pushed up by the prices of services.

As laid down in the nominal convergence criteria **for accession to the EU**, Slovenia's inflation rate should not exceed the average level of the three member-states recording the lowest price rises by more than 1.5 percentage points before entering the EMU (at the end of 2001, Slovenia's price rises were 5.7 percentage points higher). In order to bring inflation down to EU comparable levels, Slovenia will have to finish structural reforms to help reduce the share of administered prices in the consumer price index and bring rises of the remaining administered prices into line with their contribution to inflation on one hand, and help reduce upward pressures on prices exerted through differences in productivity levels between largely tradable and non-tradable sectors. At the same time, the narrowing gap between rises in tradable and non-tradable prices will minimise pressures on the tolar's appreciation, which is among the main factors hampering the process of further disinflation in the context of increased financial inflows from abroad.

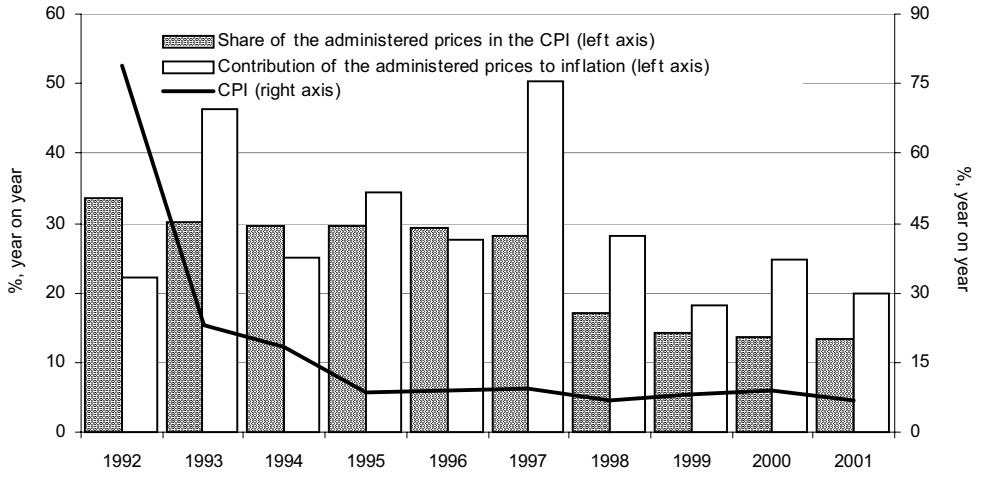
[1] The average inflation rate in 1992 was 201.3%.

Table: **Rises in consumer prices in Slovenia and the EU in 1995-2000**

	1995	1996	1997	1998	1999	2000	2001
Slovenia, year-on-year rises, %:							
Inflation*	9.0	9.0	8.8	6.5	8.0	8.9	7.0
Goods	7.1	8.0	8.5	5.6	7.8	8.8	6.2
Services	15.9	12.2	9.8	9.3	8.8	9.2	9.6
Administered prices	10.0	8.4	16.9	11.1	10.4	16.0	10.5
Energy	8.2	5.6	20.9	13.2	11.0	18.9	6.7
Other	11.4	10.6	12.4	8.6	9.6	12.0	17.0
Core inflation	na	7.2	6.4	5.0	4.1	6.9	7.4
European Union, year-on-year rises, %:							
Consumer prices (CPI)	na	1.9	1.5	0.8	1.7	2.6	2.1

Source: SORS (CPI data), administered prices: the IMAD's estimates (estimates of administered price rises, core inflation: truncated average), the IMAD's estimates; Eurostat (figures for the EU).
Note: * up until 1998 inflation was measured by retail prices, inflation has been measured by the consumer price index since 1998. n.a. - not available.

Graph: **Contribution of administered prices to Slovenia's inflation in 1992-2001**



Source: SORS (CPI data), calculations by the IMAD.

Unemployment rate

The rate of unemployment is one of the main indicators measuring the match between supply and demand in the labour market and one of the most synthetic indicators measuring the scope of social problems caused by structural imbalances in the labour market.

Unemployment became one of the biggest economic and social problems as the economy was adjusted to market principles and new ownership relations in the early 1990s. The early period of transition, which mainly hit heavy industry, was characterised by large-scale male unemployment, while the period since 1997 has seen substantial big female unemployment. The pick-up of economic activity after 1993 only contributed to a slight fall in **survey unemployment**. The number of the unemployed established by the labour force survey ranged at around 70,000 in 1995-2000 and the survey unemployment rate came in at 7%-8%. The average number of the unemployed dropped to 63,000 and the average unemployment rate to 6.4% only in 2001. Slovenia's unemployment measured by international methodology (ILO) has been slightly above the OECD average since 1998, but below the EU average ever since it began to be measured.

The **number of registered unemployed** ranged at about 125,000 in 1993-1998 and the registered unemployment rate was between 14% and 14.5%. Both the number and rate of registered unemployment were on a downturn in the last three years, beginning in 1999. In 2001, the average annual rate dropped to 11.6% and the number of unemployed to below 102,000. However, the fall in registered unemployment did not necessarily involve lower **inflows into unemployment**. On the contrary, both inflows of first-time job-seekers and people losing their jobs increased in the last three years, while direct flows from unemployment to employment decreased. Substantial deletions from unemployment registers were due to other reasons, such as a failure to report at the employment service office, being one of the most important ones, and the striking-off on one's own accord, both of which implies that the unemployed found jobs 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 often involved or hid the termination of employment agreed to take place after a certain period of time or under certain conditions. The loss of a job due to bankruptcy, redundancy, or the termination or quitting a public works job was less important and recorded stable levels. The main **reason for the slow fall in registered unemployment** was high structural unemployment, which dropped very slowly and was caused by laying-off redundant, mainly older and unskilled workers. Another reason for the sustained inflows into unemployment was fixed-term employment, which employers used to avoid high redundancy costs and shift some of the business risk onto the shoulders of their employees.

The reduction of both survey and registered unemployment is one of the main social **goals of the Strategy for the Economic Development of Slovenia**, but this can only be achieved if employment rises at an annual rate of over 1%. Economic conditions seen in 2001 allowed employment to rise (up by an annual rate of 1.4%), but on account of lower productivity growth. However, since productivity growth is one of the main conditions for sustaining competitiveness of the Slovenian economy in foreign markets, employment growth will only be possible in conditions of strong economic growth. Steps taken to reduce unemployment primarily include those that help accelerate economic growth. Direct measures taken in the labour market (active employment policy), on the other hand, should accommodate labour force supply to the expected needs. As Slovenia

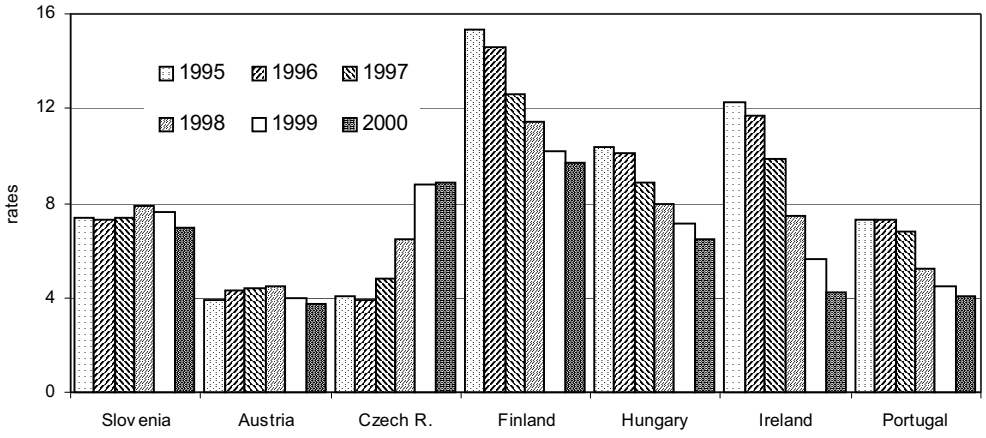
is a small economy with a high level of openness, a wide range of measures taken within the active employment policy may result more in buffering the negative effects of tough conditions in the labour market than in bolstering employment. The experience of other small countries (Ireland, Finland, Austria) shows it is important to actively involve all social partners in the process of devising policies aimed at reducing unemployment (the government, employers and trade unions).

Table: **Employment rates by age, gender and sectors according to the labour force survey in Slovenia and the EU in 1995-2000**

	1995	1996	1997	1998	1999	2000
Employment rates, %						
Slovenia	64.0	63.4	65.4	65.1	63.8	64.6
male	68.4	67.1	69.7	69.6	68.3	68.8
female	59.7	59.7	61.0	60.5	59.2	60.2
15-24	33.8	30.9	38.0	36.9	34.3	33.6
25-49	87.0	86.4	85.6	85.4	85.3	85.6
50-64	35.8	36.1	36.4	36.4	35.3	37.3
EU	...	...	60.1	60.8	62.1	63.1
male	...	...	69.9	71.5	71.6	73.4
female	...	...	50.4	51.1	52.6	53.8
Employment rates by sectors, %						
Slovenia						
Agriculture	6.7	6.4	8.3	7.4	6.5	6.4
Industry and construction	27.7	26.6	26.2	25.5	24.4	24.4
Services	29.7	29.9	30.6	31.8	32.8	33.2
European Union						
Agriculture	...	...	3.0	3.0	2.8	2.7
Industry and construction	...	...	17.7	18.2	18.4	18.5
Services	...	...	39.5	40.5	41.6	42.7

Source: SORS, Eurostat.

Graph: **Comparison of unemployment rates in selected countries**



Source: the SORS, OECD.

Employment rate

The employment rate is used to measure economic utilisation of the working-age population. The rate of employment is on one hand affected by supply factors in the labour market such as enrolment in regular education by younger age groups and the retirement system in older age groups, both of which reduce the available working-age population, and the general customs of female employment, and on the other, by demand factors in the labour market (employment opportunities) which primarily depend on the economic cycle, investment and the relationship between the cost of labour and the cost of capital.

Slovenia's employment rate calculated on the basis of survey data, which include informally employed people (who may also be either students or retired people) was relatively high and stable in the second half of the 1990s. It was about 69% of the working-age population for men and 60% for women (people aged 15-64; compared within the group of the same gender). **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. 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.

Employment growth is **one of the strategic goals** of the National Programme of Labour Market Development and Employment up until 2006, as well as one of the implicit development orientations of the Strategy for the Economic Development of Slovenia. The rise in employment will depend on domestic factors of stimulating economic development, but primarily on the effectiveness of Slovenia's accession to the European Union both in terms of further growth in exports and competition brought about by the Slovenian market's integration with the single EU market.

Active employment policy guidelines laid down in the Strategy for the Economic Development of Slovenia and the National Programme of Labour Market Development are aligned with the **four pillars** of the EU's employment policy formulated by the Commission in 1997. The most important role continues to be played by programmes of **improving employability**, especially the programmes of raising education levels and reducing structural imbalances in the labour market. It is necessary to cut the number of dropouts from vocational, secondary and tertiary education, improve the position of young people in the labour market, and promote the culture of lifelong learning. The programmes of **promoting entrepreneurship** aim to foster entrepreneurial culture, improve conditions for job-creation in companies, and support partnership in ensuring sustainable development and creating jobs under local employment initiatives; they also include efforts to reduce the shadow economy and informal employment, and the ongoing monitoring of the effects of tax burden and tax incentives on employment. The programmes of **encouraging the adaptability of businesses and employees**, which aim to increase the flexibility and competitiveness of the economy, require an active involvement of all three social partners and stress the importance of investment in human resources so as to bolster national competitiveness. As the economy develops, it will be necessary to further reduce the number of jobs in industry and create new jobs in services. The programmes of **equal employment opportunities** aim to reduce segmentation in the labour market and activate unemployed women, long-term unemployed, the disabled and other handicapped people.

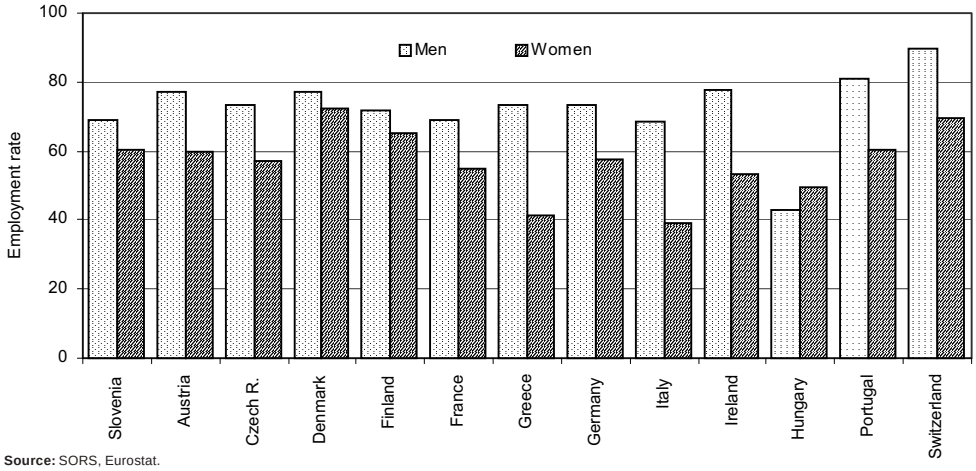
The new employment policy concept puts more stress on the **role of social partners** in both formulating and implementing policy, however, this has not started sufficiently at the local level. It will be necessary to further stimulate social dialogue, define new areas, and build a formal framework for the expansion of social dialogue. Employment policy also depends on an adequate **legal framework**, which will have to be upgraded by aligning the Employment and Insurance against Unemployment Act to the EU guidelines in the field of the free movement of persons and modern procedures of promoting employment. The new Employment Act should increase flexibility in hiring and firing workers and regulate different forms of flexible employment. Over the last few years, Slovenia passed the Employment and Work of Foreigners Act, the Shadow Economy and Informal Employment Act, and the National Occupational Qualifications Act, which have filled the legal gap or introduced new regulations in these areas.

Table: **Employment rates by age, gender and sectors according to the labour force survey in Slovenia and the EU in 1995-2000**

	1995	1996	1997	1998	1999	2000
Employment rates, %						
Slovenia	64.0	63.4	65.4	65.1	63.8	64.6
male	68.4	67.1	69.7	69.6	68.3	68.8
female	59.7	59.7	61.0	60.5	59.2	60.2
15-24	33.8	30.9	38.0	36.9	34.3	33.6
25-49	87.0	86.4	85.6	85.4	85.3	85.6
50-64	35.8	36.1	36.4	36.4	35.3	37.3
EU			60.1	60.8	62.1	63.1
male			69.9	71.5	71.6	73.4
female			50.4	51.1	52.6	53.8
Rates of activity by sectors, %						
Slovenia						
Agriculture	6.7	6.4	8.3	7.4	6.5	6.4
Industry and construction	27.7	26.6	26.2	25.5	24.4	24.4
Services	29.7	29.9	30.6	31.8	32.8	33.2
European Union						
Agriculture			3.0	3.0	2.8	2.7
Industry and construction			17.7	18.2	18.4	18.5
Services			39.5	40.5	41.6	42.7

Source: SORS, Eurostat.

Graph: **Employment rates in Slovenia and selected European countries by gender, 2000**



Source: SORS, Eurostat.

Public finance balance

The Strategy for the Economic Development of Slovenia up to 2000 anticipated a gradual balancing of the public finance account in the period covered by that document (1995-2000). Each year's public finance policy was closely defined in budget memorandums, which planned for a fiscal deficit of 1% of GDP in each of those years (except in 1996 when a balanced public finance account was envisaged).

The public finance policy for **1995** aimed at balanced public finances, which was successfully realised (see table). Balanced public finances played an important role in consolidating the economy because it did not create any additional pressures on interest and exchange rates through external borrowing. The main role of fiscal policy was to identify fiscal sources that were stable, capable of generating revenue and not burdening the economy. Slovenia's fiscal system needed a fast and close adjustment to the EU's system. The gradual reduction of direct taxes, primarily those exerting pressure on labour costs, helped bolster economic competitiveness. In 1995, social security contribution rates began to be reduced and revenues from international trade began to decline slightly. Import taxes fell further in **1996** as a result of Slovenia's increasing integration into international associations and the implementation of free-trade agreements, which led to the reduction or abolition of customs duty rates. In the same year, social security contribution rates fell further and the resulting shortfalls were only partly transferred to payroll tax. In spite of this, the public finance account recorded a surplus of 0.3% of GDP in 1996 because the main part of the effects of the reduced social contribution rates was transferred to the next year. Hence, the goal of balanced public finances set in the budget memorandum was achieved.

The public finance balance was undermined in **1997**, when the revenue side was affected by the reduced social security contribution rates and falls in revenues from customs duties and import taxes, which were not replaced by new tax sources. Further, 1997 was a post-election year. General government expenditure was affected by pressures from wage rises and employment growth in the public sector. This was followed by rises in expenditure on pensions, disability benefits and other social transfers allocated on the basis of the existing social security systems. Economic policy measures were taken to buffer pressures on general government expenditure and ensure stable revenue sources, but the fiscal deficit nevertheless equalled 1.2% of GDP in 1997 and exceeded the level projected in the budget memorandum. Austerity measures were taken in both the revenue and expenditure sides, which helped the fiscal deficit to fall slightly in **1998** despite the economic growth slowdown and recorded the level planned in economic policy goals.

In **1999**, Slovenia introduced value-added tax and excise duties, and the tax reform generated significantly higher turnover tax revenues than anticipated (high purchases in anticipation of changes in the tax system and final assessments of turnover tax) and transferred revenues from value-added tax and excise duties collected in January 2000 to the 1999 national budget. Public finances were thus consolidated and the economic policy goal was achieved: the fiscal deficit totalled 0.6% of GDP in 1999. In **2000**, conditions in public finances again deteriorated. The inflation rate, which was higher than anticipated in the budget, exerted additional pressure on general government expenditure, especially expenditure on wages and pensions. Domestic spending slowed down substantially after the sharp rise in 1999 underpinned by the tax reform, so revenues from value-added tax were below expectations. Economic growth was also lower, resulting in lower compulsory levies. Part of the pension fund expenditure was covered

by funding from the Capital Company. In spite of this, the fiscal deficit reached 1.4% of GDP in 2000, 0.4 of a percentage point higher than laid down in the budget memorandum. The budget memorandum envisaged that the fiscal deficit would drop to around 1% of GDP in **2001**, but the forecasts were not met. Compulsory levies rose more slowly than general government revenues as a result of the slowing economic activity, which was partly replaced by other capital and concession revenues, but the fiscal deficit was still estimated at 1.4% of GDP in 2001.

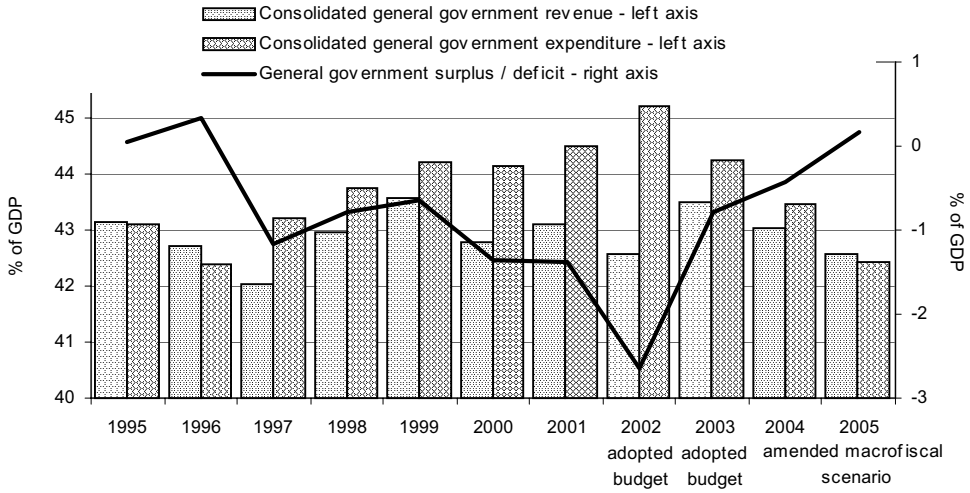
The **guidelines** for the period up to **2006** project a gradual reduction of the fiscal deficit, however, the pace of achieving this goal depends on the readiness to reduce general government expenditure because any increase in the tax burden would have negative consequences for economic competitiveness.

Table: **Consolidated general government revenue and expenditure according to the GFS-IMF methodology for 1995-2001, % of GDP**

	1995	1996	1997	1998	1999	2000	2001 forecast
General government revenue	43.1	42.7	42.0	43.0	43.6	42.8	43.1
General government expenditure	43.1	42.4	43.2	43.8	44.2	44.2	44.5
Surplus/deficit	0.0	0.3	-1.2	-0.8	-0.6	-1.4	-1.4
Surplus/deficit according to budget memorandum	-0.5	0.0	-1.0	-1.0	-1.0	-1.0	-1.0

Source: Ministry of Finance, calculations by the IMAD.

Graph: **Consolidated general government revenue and expenditure for Slovenia, 1995-2005**



Source: Ministry of Finance, calculations by the IMAD.

Balance of payments

The 1995-2000 period can be divided into two parts. In **1995-1997**, Slovenia recorded a roughly balanced current account of the balance of payments. Foreign currency inflows generated by current transactions, which were typical of 1992-1994, were replaced by increased inflows generated by financial transactions. The trade deficit totalled 4.6% of GDP. Even though the surplus in services trade was too low to cover the entire trade deficit (which averaged 3.2% of GDP), surpluses in factor incomes and current transfers helped maintain a balanced current account. In 1997, imports started to rise steeply, which was mainly due to trade liberalisation (lower import duties), which also pushed up export growth together with the strong foreign demand, so the external balance was not undermined. Domestic investment was mainly financed by domestic savings, since the savings-investment gap was narrow, accounting for just 0.1% of GDP.

The period of a current account deficit began in **1998**. The direct and indirect impact of the Asian and Russian financial crises on economic developments 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. The nominal trade deficit remained at the 1997 level primarily due to improved terms of trade. However, the shrinking tourism receipts led to a lower surplus in services trade, and surpluses in factor incomes and current transfers were no longer able to keep the current account in balance. The deficit amounted to 0.8% of GDP in 1998. The widest trade deficit in the period after 1992 was seen in **1999** (6.3% of GDP), which was caused by stagnant real exports of goods to the countries of former Yugoslavia, the sharp falls 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. The current account deficit totalled 3.9% of GDP in 1999, which raised the issue of its long-term sustainability.[1] 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 additionally underpinned by increased sales to the countries of former Yugoslavia, which were stimulated by the stabilisation of military and political conditions in these areas. However, the current account deficit remained relatively wide, representing an estimated[2] 3.4% of GDP, despite the high export growth and subdued import growth. This was due to the worsened terms of trade (down 5 index points), resulting from the rising oil and other commodity prices in international markets, and higher import prices, resulting from higher inflation rates in the main supplying countries. The income effect (measured by export market growth) was weakened because of the external price effect (measured by the terms of trade).

In **2001**, the continued favourable export trends and sustained modest import growth led to a surplus in the current account of the balance of payments. Export growth rates decelerated gradually in the course of the year due to the slowing economic activity in the EU, leading to lower levels of export orders for Slovenian companies, however, these income shortfalls were partly replaced by higher exports to former Yugoslavia and Russia, and the export purchasing power (the real value of export incomes) in these markets climbed by 17.5% and 56.3%, respectively, in the first three quarters of 2001. The modest real import growth continued to be influenced by weak domestic consumption. Imports of investment goods fell in real terms as a result of low investment activity, while imports of intermediate goods rose in real terms in line with manufacturing's production activity. The trade deficit expressed in US dollars narrowed mainly as a result of the trends described

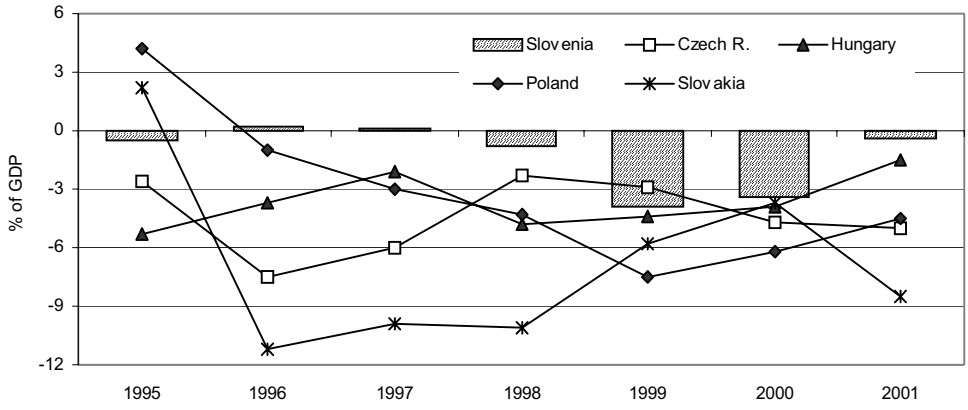
above, while the help of the terms of trade was minimal, as they only edged up 0.3% compared to the year before. In the first three quarters of 2001, domestic savings were USD 28.5 million higher than domestic investment, and the current account surplus widened to about USD 100 million up to November. The current account surplus strongly underpinned the rise in total foreign exchange reserves, which totalled USD 5.7 billion at the end of 2001, USD 1.4 billion higher than at end-2000. The final current account balance for 2001 was slightly negative because the methodology prescribes that reinvested earnings be included in capital expenditures at the end of the year, but the deficit was still significantly lower than forecast in **medium-term projections** from the Strategy for Economic Development. The discrepancy towards a narrower deficit was due to the GDP growth structure in 2001: external trade accounted for its main part, while the contribution of domestic consumption was modest. So the external disequilibrium, which increased sharply in 1999 because of high domestic spending and was maintained at high levels in 2000 mainly due to the worsened terms of trade, was reduced significantly in 2001. The structure of inflows in the capital and financial account also improved markedly, so the sustainability of the current account should not be undermined even if the deficit widens in 2002 as a result of slowing foreign demand and rising domestic consumption.

Table: **The current account of the balance of payments in Slovenia in 1995-2001, % of GDP**

	1995	1996	1997	1998	1999	2000	2001 forecast
Current account	**-0.5**	**0.2**	**0.1**	**-0.8**	**-3.9**	**-3.4**	**-0.4**
Trade balance	-5.1	-4.4	-4.3	-4.0	-6.2	-6.3	-3.3
Services balance	3.1	3.4	3.5	2.5	1.8	2.4	2.7

Source: SORS, BS, calculations and forecasts by the IMAD.

Graph: **The current account balance in Slovenia and selected transition countries in 1995-2001, % of GDP**



Source: SORS, BS, NEWTON, Country Report, January 2002.

[1] According to estimates made by foreign institutions (the EBRD, the IMF) and the IMAD, the 2%-3% deficit may be considered sustainable.

[2] The final figures on reinvested earnings for 2000 are still unavailable, so capital expenditures include an estimated figues of USD 97.6 million.

External debt

External debt as a percentage share of GDP is one indicator of macroeconomic stability. Even though external borrowing is mainly associated with development financing, a high level of indebtedness can seriously undermine the sustainability of the current account deficit. At the end of November 2001, Slovenia's external debt totalled USD 6.7 billion, USD 494 million more than at the end of 2000 and 3.5 times more than in 1991. External debt started to rise fast in 1995 primarily due to the increased borrowing of the private sector. 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 at the end of 2000. **Long-term external debt** (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 main part of private debt was made up of loans taken out in foreign commercial banks.

Reasons underlying private external debt growth were more favourable credit terms, Slovenia's improved credit rating in international financial markets, the readiness of foreign commercial banks to lend to Slovenian entities, the lower rise in exchange rates compared to domestic inflation, and the insufficient long-term credit potential of domestic banks. In February 1995, the Bank of Slovenia introduced a deposit of 40% on each loan disbursement of up to a five-year maturity in order to hold back the private sector's external borrowing, however, this measure produced little effect (banks and enterprises were granted loans of over five-year maturity without difficulty). Debt growth slowed down only when the BS introduced a measure to extend the period for which no deposit is required from five to seven years (July 1996). In 1997, the volume of new loans was lower than the year before for the first time after 1991. In 1999, the volume of new loans again rose markedly and recorded the highest level since independence, which was due to the reduction of the deposit rate on foreign loans to 0% (February 1999),[1] more favourable terms of external borrowing, as well as the record high current account deficit (see the Balance of Payments).

The level of external borrowing rose further in **2000**. According to the structure of borrowing, companies represented 56.7%, banks 29.8%, and the government 12.5% of all loans raised abroad. External borrowing of domestic enterprises continued to be boosted by the lower interest rates available abroad and easier access to large loans. The average terms of new borrowing from private creditors improved slightly, even though interest rates climbed from 4.4% to 5.6%, but the maturity period extended to 7.2 years (7.1 years the year before) and the grace period to 4.3 years (3.8 years the year before). At the end of 2000, the external debt structure broken down by creditors changed: the share of external debt taken out in international financial organisations fell by 1 percentage point to 11.0% of long-term debt, while the share of private creditors increased, especially that of commercial banks.

The trend of accelerated external borrowing could threaten the sustainability of the current account of the balance of payments. At the end of 2000, Slovenia moved to the group of countries with medium-level indebtedness[2] as regards the percentage of external debt in GDP, while other external indebtedness indicators still put Slovenia way below the critical levels. A **synthesised estimate** of all **four indebtedness indicators** shows that the current account deficit was sustainable in 2000, meaning that it was within the limits when no

short-term economic policy measures are necessary. An important role related to this issue was played by the solvency of the economy, which takes into account potential GDP growth, movements in real exchange rates, the desired level of foreign exchange reserves, and the co-ordinated effect of macroeconomic policies, in addition to the stability of external debt relative to GDP.

According to preliminary figures from the BS, Slovenia's external debt equalled USD 6,711 million at the end of November 2001. Given that the current account of the balance of payments was in equilibrium in the first eleven months of 2001 (a small surplus) and both foreign direct investment inflows and foreign currency inflows generated by the exchange for euros were high, borrowing requirements were low in **2001**, while high capital inflows pushed up total foreign exchange reserves. As a result, the ratio of foreign exchange reserves to external debt improved from 0.704 at end-2000 to 0.803 at end-November 2001. Hence, the potential threat of unsustainable financing of the current account was reduced as some indebtedness indicators improved in 2001, or at least fell slowly. Current external borrowing trends do not put under threat the medium-term macroeconomic projections of the Strategy for the Economic Development of Slovenia.

Table 1: **Slovenia's external debt stock in 1991-2001, USD million**

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	30. Nov. 2001
Total debt stock	1,866	1,741	1,873	2,258	2,970	4,010	4,176	4,959	5,491	6,217	6,711
Long-term debt	1,765	1,659	1,744	2,172	2,916	3,960	4,041	4,849	5,374	6,118	6,625
Public and publicly-guaranteed debt	1,357	1,203	1,206	1,331	1,437	2,025	2,067	2,370	2,542	2,665	2,741
Private non-guaranteed debt	408	456	538	841	1,479	1,935	1,974	2,479	2,832	3,453	3,784
Use of IMF credit	-	-	12	7	4	1	-	-	-	-	-
Short-term debt	101	82	117	79	50	49	135	110	117	99	186

Source: Monthly Bulletin of the Bank of Slovenia.

Table 2: **Slovenia's indebtedness indicators according to the World Bank in 1995-2001, %**

Indicators	Low	Medium	Critical	1995	1996	1997	1998	1999	2000	2001 forecast
EDT/GDP	30	30-50	50	15.8	21.1	22.6	25.1	26.9	34.3	36.6
EDT/XGS	165	165-275	275	28.6	38.0	39.4	44.2	51.3	58.1	61.3
TDS/XGS	18	18-30	30	7.1	8.9	8.8	13.8	8.0	9.7	12.8
INT/XGS	12	12-20	20	1.6	1.9	2.2	2.1	2.3	2.8	3.0

Source: SORS, BS, calculations and forecasts by the IMAD.
Note: 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).

[1] The Bank of Slovenia reduced the deposit on foreign loans to 0% when the Europe Agreement entered into force, thereby suspending implementation of this measure rather than abolishing it altogether.

[2] The World Bank's methodology (see Table 2).

General government debt

General government debt includes (i) central government debt, (ii) debt of local government bodies and organisations, and (iii) debt of the Pension and Disability Insurance Institute (PDII) and the Health Insurance Institute (HII). Slovenia's **goal** is to maintain a stable or falling percentage of debt in GDP and a balanced or positive primary account, which should ensure a sustainable fiscal deficit. This goal differs from the Maastricht public debt criterion, which was set arbitrarily – public debt should not exceed 60% of GDP – and is restrictive for all EU member-states and requires that they reduce the percentage of public debt in the future. This discrepancy arises from the fact that Slovenia's macroeconomic conditions differ from those of EU members.

Slovenia first published information about its central government debt in 1993. In 1993-2000, **central government debt** increased as a result of borrowing to finance the budget deficit and extra-budgetary programmes[1] and its autonomous growth due to the indexation of principal and exchange rate changes. Borrowing was both short- and long-term. The main goal of short-term borrowing was to level off liquidity fluctuations and bridge the interim periods between long-term borrowings in domestic and foreign markets. Long-term borrowing aimed to stabilise debt refinancing, expand the range of investors (at the regional level and by including new institutional investors), ensure an adequate currency and interest rate structure. In **1993-1996**, the Government mainly borrowed to finance extra-budgetary programmes (resolve the problems of Slovenian companies' claims on Iraq, Angola and Cuba and foreign currency savings in Slovenia, rebuild Slovenia's national roads, and finance the basic development programmes of armed forces) and to repay due debt, but it did not borrow to finance the budget. In **1996**, Slovenia regulated by law the issue of debt succession of former Yugoslavia with the London and Paris Clubs of creditors and issued NFA[2] bonds totalling USD 812 million on the basis of an agreement with the consortium of commercial banks (the London Club). It also issued the first five-year Eurobonds in August, totalling USD 325 million. In **1997**, central government debt increased as a result of financing the budget deficit and liabilities related to the succession of the debt of former Yugoslavia. Slovenia issued the second (seven-year) Eurobond totalling DEM 400 million to finance the budget deficit. In January 1998, the fiscal year was extended for the first time and expenditures of the 1997 calendar year were covered by revenues of almost 13 months (including January 1998), which led to higher liquidity borrowing and increasingly higher interest payments.[3] In **1998**, the Treasury introduced regular auctions of three-month treasury bills, and the third (ten-year) Eurobond was issued in a total amount of EUR 500 million (mainly used for early repayment of NFA bonds). In **1999**, debt primarily increased because of indexation of principal, exchange rate changes and borrowing to finance the budget deficit. The fourth (ten-year) Eurobond was issued in a total amount of EUR 400 million, the Treasury continued to auction three-month treasury bills and issued a six-month treasury bill for the first time. In **2000**, central government debt was mainly pushed up by its autonomous growth and by financing of the budget deficit. For the purposes of domestic financing, the Treasury issued five new bonds to finance the budget deficit and repay principal, and increased the range of short-term securities in May 2000 by regular issuing of twelve-month treasury bills. Slovenia issued the third ten-year Eurobond totalling EUR 500 million.

Local government debt ranged at around 0.1% of GDP from 1996 to end-2000, with the low percentage being due to restrictive legal provisions, and was only composed of internal debt. The **Pension and Disability Insurance Institute** and the **Health Insurance Institute** borrowed in the domestic market mainly for liquidity needs. Shortfalls in funds for pensions were covered by (central) government borrowing up to 2000, and solely by borrowing of the PDII as of 2000, as laid down in a Government decision.

The underlying principle of **debt management** is to balance the goals of minimising borrowing cost and achieving appropriate levels of risk.[4] The Government will reduce inflation-related risks by decreasing the share of indexed debt in the total portfolio, and it will manage interest and exchange rate risks by selecting an adequate maturity of new borrowing and by external borrowing in euros. The Government will manage refinancing risks by adjusting principal due in the given period. In **2002-2006**, the Government will earmark the planned receipts from financial claims and capital investments from privatisation for the early repayment of central government debt. In the oncoming period, Slovenia plans to replace expensive debt with cheaper forms in order to manage debt more actively. If Slovenia conducts a consistent policy of gradually reducing the budget deficit with a

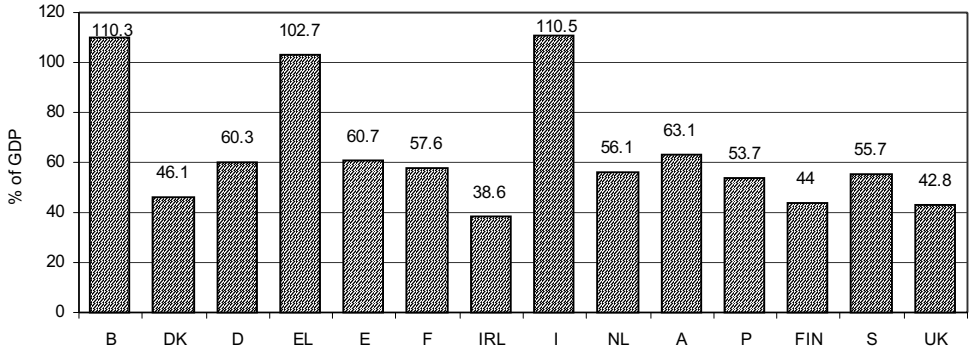
view to achieving a balanced budget up to 2005, the dynamics of debt growth should be manageable in 2002-2006 and reflected in a stable debt level relative to GDP.

Table: **General government debt of the Republic of Slovenia in 1996-2000, SIT billion**

	1996	1997	1998	1999	2000
Central government debt	**580.7**	**673.2**	**771.3**	**893.3**	**1,013.3**
% of GDP	22.7	23.2	23.7	24.5	25.1
Internal debt	355.5	399.6	475.5	498.5	505.1
% of GDP	13.9	13.7	14.6	13.7	12.5
External debt	225.2	273.6	295.8	394.8	508.3
% of GDP	8.8	9.4	9.1	10.8	12.6
Succession	106.7	106.9	26.1	26.0	25.3
% of GDP	4.2	3.7	0.8	0.7	0.6
Paris Club	14.9	10.8	8.1	7.6	7.3
% of GDP	0.6	0.4	0.2	0.2	0.2
London Club	91.8	96.1	18.1	18.4	17.9
% of GDP	3.6	3.3	0.6	0.5	0.4
Other external debt	118.5	166.7	269.6	368.8	483.0
% of GDP	4.6	5.7	8.3	10.1	12.0
Local government debt	**4.5**	**4.3**	**4.2**	**4.4**	**4.2**
% of GDP	0.2	0.1	0.1	0.1	0.1
Internal debt	4.5	4.3	4.2	4.4	4.2
% of GDP	0.2	0.1	0.1	0.1	0.1
External debt	0.0	0.0	0.0	0.0	0.0
PDII and HII	**-**	**8.7**	**5.0**	**10.0**	**23.4**
% of GDP	-	0.3	0.2	0.3	0.6
Internal debt	-	8.7	5.0	10.0	23.4
% of GDP	-	0.3	0.2	0.3	0.6
External debt		0.0	0.0	0.0	0.0
General government debt	**585.2**	**686.2**	**780.5**	**907.7**	**1,041.0**
% of GDP	22.9	23.6	24.0	24.9	25.8

Source: Ministry of Finance.
Note: PDII - Pension and Disability Insurance Institute, HII - Health Insurance Institute.

Graph: **General government debt in EU member-states in 2000, % of GDP**



Source: Ministry of Finance, Eurostat.

[1] Extra-budgetary programmes include the programmes of bank rehabilitation and the related issue of individual foreign currency deposits, rehabilitation of the economic system, the basic development programmes of armed forces, and the succession of the debt of the former Socialist Federal Republic of Yugoslavia.

[2] New Financing Agreement.

[3] Government debt is always shown for the calendar year, which is why the calculation of changes in debt need to take into account the deficit financed by the Government within the calendar year.

[4] The most important risks involve inflation, interest and exchnage rate risks, and the refinancing risk.

Country risk

Country risk is one of the indicators that reveal the effectiveness of economic development. It affects the cost of external borrowing and through this the sustainability of external and public debt. Slovenia's country risk was first assessed in 1996 after Slovenia established formal relations with official and commercial creditors of former Yugoslavia, legally regulated the problem of debt succession of former Yugoslavia, and made an agreement with the Paris Club (official creditors) and the London Club (a consortium of commercial banks) to assume 18% of former Yugoslavia's outstanding debt. In May 1996, a country risk assessment was made by three agencies: Moody's, Standard&Poor's and Fitch IBCA, and all three gave Slovenia the highest initial rating of all Central and Eastern European Countries. This analysis focuses on the **country risk assessment of long-term government bonds** denominated in a foreign currency (long-term foreign currency rating), which is important for setting the spread in long-term government securities. The high initial rating was due to the favourable assessment made in all three country-risk components (political, social and economic risk). The biggest weight among **economic components** is held by gross domestic product per capita, gross domestic product growth, inflation, public finance and current account balance, external debt to foreign exchange inflows, economic development (whether a country is classified as industrialised according to the IMF's criteria), and default history. The values of these economic indicators (providing the basis for the first economic risk assessment) put Slovenia in the group of countries with strong payment quality in **1995**. The 4.1% economic growth was achieved with an almost balanced current account and government finances, gross domestic product per capita totalled USD 9,431, inflation dropped to below 10% towards the end of the year, the level of external indebtedness was low, and foreign exchange receipts (revenues from exports of goods and services) were three times higher than total external debt. Given that Slovenia's new borrowing only began after 1991 and was modest up to 1995 (the assumed allocated debt of former Yugoslavia amounted to USD 1,765 million, while new borrowing totalled USD 1.2 billion up to end-1995), Slovenia faced no difficulty in debt repayment. The initial high rating remained unchanged for several years. Country ratings were unaffected by undermined public finance balance in 1997 and undermined external balance in 1999 which was accompanied by a faster rise in external debt. These imbalances were within the limits of sustainability, and external indebtedness indicators still put Slovenia in the group of countries with low levels of indebtedness according to the World Bank criteria, i.e. countries with a low debt service ratio and a very low share of short-term debt, which is one of the risk factors in debt repayment. In **1999**, Fitch IBCA corrected its country risk assessment from A- to A, Moody's corrected its assessment from A3 to A2 in **2000**, while the assessment of Standard&Poor's remained the same. These upward corrections made in spite of deterioration in some macroeconomic indicators in 1999 were primarily due to the enforcement of the Europe Agreement, which confirmed Slovenia's commitment to meeting the Copenhagen criteria. Standard&Poor's, whose initial rating of Slovenia was higher than that of Moody's and Fitch IBCA, pointed out the slow implementation of structural reforms as the main setback to improving its rating in 2000 (labour market reform, privatisation of banks and energy enterprises, development of the financial sector). From the point of view of the **Strategy for the Economic Development of Slovenia**, this suggests that factors facilitating an improvement in Slovenia's country risk rating, or its promotion to high-quality countries, are the application of the main mechanisms for increasing the complex competitiveness of the state and further building of macroeconomic stability.

In May 1996, when Slovenia's country risk was assessed for the first time, Standard&Poor's gave a higher rating only to Cyprus among **EU candidate-countries**. The Czech Republic got the same rating as Slovenia, but it dropped in 1998 due to the economic crisis and was also assessed lower than Slovenia in early 2002. As far as **EU members** are concerned, Greece was ranked below Slovenia in 1996, while in 2002 the two countries got the same country risk rating (Greece only caught up with Slovenia in March 2001). 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 assessments (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-
14 Nov 2000	A2	25 Jan 2002	A	15 Sept 1999	A

Table 2: **The initial country risk and prospects assessment made by Standard&Poor's for Slovenia, selected EU candidate-countries, Greece and Croatia, and the latest available country risk assessments made by Standard&Poor's and Moody'ss**

	Initial assessment		Latest assessment	
	Standard&Poor's		Standard&Poor's (25 Jan 2002)	Moody's (22 Jan 2002)
Slovenia	A/Stable/	May 96	A/Stable/	A2/Stable/
Hungary	BB+/Positive/	April 92	A-/Stable/	A3/Stable/
Czech Rep.	BBB/Positive/	July 93	A-/Stable/	Baa1/Stable/
Poland	BB/Positive/	June 95	BBB+/Stable/	Baa1/Stable/
Slovakia	BB-/Stable/	February 94	BBB-/Positive/	Baa3/Stable/
Estonia	BBB+/Stable/	December 97	A-/Stable/	Baa1/Stable/
Croatia	BBB-/Stable/	January 97	BBB-/Stable/	Baa3/Stable/
Cyprus	AA-/Stable/	August 91	A/Stable/	A2/Stable/
Greece	BBB/-/	September 88	A/Positive/	A2/Stable/

Note: prospects, or estimates of further economic, social and political development, are given in a descriptive form: Positive, Stable and Negative.

Labour productivity

Labour productivity is one of the main synthetic indicators of economic development. It is chiefly influenced by the technological equipping of labour (physical capital), the knowledge and skills of people in employment (human capital), and the organisation and relations in production, and in the economy and society as a whole (social capital).

Compared with developed countries, **Slovenia's** labour productivity is still relatively low, in spite of the fact that Slovenia was one of the countries in Europe with the most dynamic growth of productivity in the **1990s** (from 1993 onwards). After the initial transition period, the Slovenian economy adapted to the new markets and ownership relations; on one hand, unprofitable production lines were abandoned, in particular in manufacturing; on the other hand pressures to increase productivity mounted as a result of the wider engagement in the more demanding European markets. In the first years of transition, productivity increased mainly as the result of the lay-offs of redundant, usually older or insufficiently qualified workers, while only in recent years has productivity growth probably been also influenced by the effects of restructuring; the number of those employed has indeed been increasing since 1998 but no drop in productivity growth was recorded up to and including 2000. In the **1995-2000 period,** Slovenia's total productivity thus increased by 22%, or on average by 4.1% annually. The fastest growth was recorded in manufacturing (on average over 7% annually!) and construction, while the slowest growth was encountered in financial and other business services.

That productivity growth was also influenced by restructuring and not only by lay-offs is confirmed by other indicators, e.g. the increased share of investment in machinery and equipment in the period up to 2000, and by the gradual improvement of the workforce's and employed population's qualification structure – one of the most important factors of productivity. When hiring new employees, employers prefer younger and better qualified persons, whereas lay-offs involve redundant, usually older, and inadequately qualified workers.

Compared with the European Union Slovenia's labour productivity (measured by value added per person in employment) climbed from approximately one-third of the EU's level in 1993 to over 40% in 1998. Slovenia is roughly at the level of Portugal, but is still lagging behind Greece while productivity in the **three biggest candidate-members** (Hungary, the Czech Republic, and Poland) is on average about half that of Slovenia. Despite the fast productivity growth seen in manufacturing, Slovenia records the widest gap behind the EU in this sector, achieving just 36% of the EU average in 1998. However, Slovenia's productivity in manufacturing is way above the levels of most advanced countries in transition. The productivity level closest to the EU average was achieved in agriculture (54% of the EU average in 1998); productivity in the public and other services is above the EU average (55% of the EU average in 1998), primarily as a result of the high education level of workers in these branches.

Productivity growth is one of the key **objectives of the Strategy for the Economic Development of Slovenia (SEDS)**. Higher productivity is to provide the Slovenian economy with greater competitiveness, which will stimulate economic growth and increase the welfare of the population. The principle of sustainable development is to be the safety mechanism used to balance the demands of economic development with the demands of social and environmental development. It is, however, highly important just how the higher productivity is achieved: either by cutting employment or by achieving greater product quality and better marketing for product sales. Productivity growth is necessarily the result of the scope and adequate structure of investment, not only in physical capital, but also in human capital and, last but not least, social capital.

A trend of positive productivity growth faster that that of bigger developed countries is

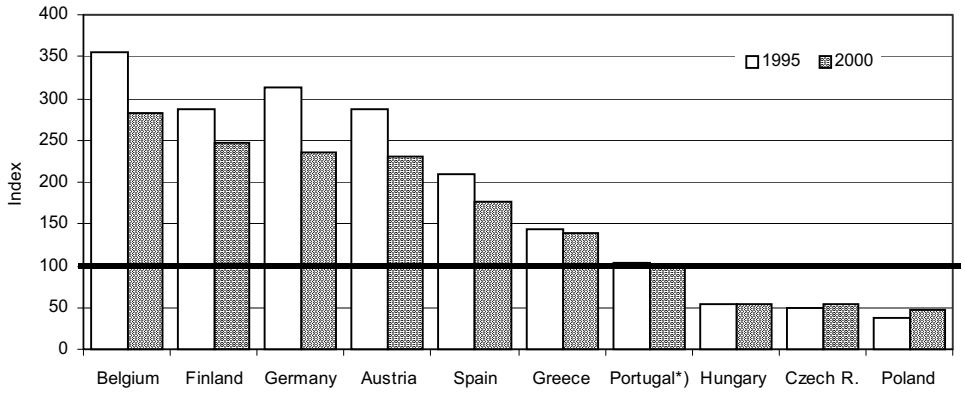
imperative for Slovenia if the country wants to preserve and strengthen its position in foreign markets. In the 1990s, productivity growth was already partially in line with the objectives of the SEDS, but in the first half of the decade it was mainly the result of reduced employment. **In 2001,** and in view of high employment growth, productivity growth dropped slightly but in early **2002** a cyclical turn seems to start, which will probably result in more lay-offs. For about two years investment in machines and equipment has been falling and this is bad news for productivity growth because it is a development which usually entails staff reductions. On the other hand, more people are engaged in formal education and in the future an increased inflow of graduates of secondary schools can be expected. Measures aimed at restructuring and boosting the competitiveness of the business sector are required in line with demands of the SEDS. If these measurers are to be reflected in the future, greater productivity of industry and of other sectors of the Slovenian economy, investment must be encouraged; investment of a nature that enables companies to employ workers with higher formal qualifications and which will increase the results of the Slovenian business sector in foreign markets.

Table: **Productivity in Slovenia in 2000 by activities and dynamics of productivity growth in selected European countries in the 1995 - 2000 period**

	Total	Agriculture (A-B)	Industry (C-E)	Constructi-on (F)	Trade, hotels & restaurants, transport (G-I)	Financial and business services (J-K)	Public and other services (L-O)
Slovenia 2000, EUR, current prices	**18,439.5**	11,749.5	19,209.1	14,478.6	17,083.4	31,148.9	16,721.1
Productivity growth in the 1995-2000 period (annual average, in %)							
Slovenia	**4.1**	3.4	7.6	4.9	2.8	0.6	1.2
Belgium	**1.4**	4.1	4.1	1.5	0.6	1.2	-0.6
Germany	**1.5**	5.4	2.2	1.0	1.9	-0.9	-0.1
Greece	**3.0**	3.5	2.9	2.7	4.9	0.2	-0.4
Austria	**2.2**	3.9	5.1	2.5	2.2	-1.4	-1.1
Finland	**3.0**	5.1	5.7	-0.1	3.1	0.1	0.2
Czech Republic	**2.8**	11.3	3.2	-6.3	4.1	3.7	-1.8

Sources: SORS, Eurostat.

Graph: **Total productivity index in selected European countries compared to Slovenia in the 1995-2000 period, Slovenia = 100**



Sources: SORS, Eurostat.
Note: * year 1998.

Unit labour costs

Unit labour costs are an indicator of cost competitiveness, comparing 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 (in the full-time equivalent) improved in the Slovenian economy, especially in manufacturing. Unit labour costs expressed in terms of labour costs to gross domestic product and value added fell by 9.4% and 11.1% in the Slovenian economy, and by 16.8% in manufacturing. In 2000, one unit of gross domestic product was produced by 0.6 of a single unit of labour costs, while one unit of value added was generated by 0.69 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 in 2000 (1995 saw no difference): one unit of value added was generated by 0.65 of a unit of labour costs.

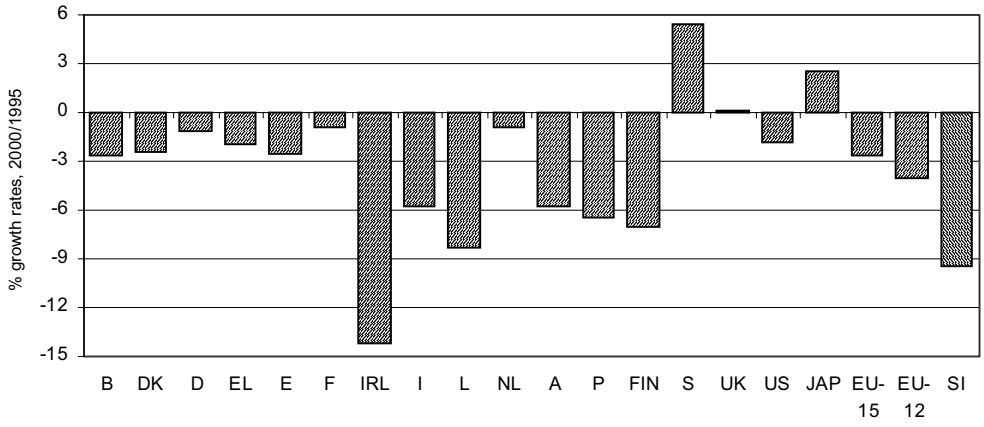
A **comparison with the EU-15 average and the EURO-12** shows that the Slovenian economy's competitiveness measured by unit labour costs improved in 1995-2000. Ireland was the only EU member-state to record a bigger fall in unit labour costs than Slovenia (down 14.2%, see graph). Compared to the main trading partners, the improvement of the Slovenian economy's competitiveness was above average in relation to Germany and France, and below average against Austria and Italy.

Table: **Unit labour costs in Slovenia and the EU in 1996-2000, % annual growth rates**

	1996	1997	1998	1999	2000	2000/ 1995	Ratio 1995	Ratio 2000
Unit labour costs[1]								
Slovenian economy	-4.77	-2.37	-2.45	-1.31	1.17	-9.44	0.66	0.60
EU-15	-0.90	-0.85	-0.97	0.13	0.00	-2.60	..	..
EU-12	-0.97	-1.22	-1.40	-0.06	-0.39	-4.00	..	..
Unit labour costs[2]								
Slovenian economy	-4.99	-3.57	-2.10	-0.71	-0.12	-11.06	0.78	0.69
Slovenian manufacturing	-6.73	-6.88	-1.47	-2.69	-0.06	-16.78	0.78	0.65

Source: SORS' National Accounts Statistics, Eurostat.
Notes: [1] compensation per employee in current prices divided by gross domestic product per total employment in current prices, [2] compensation per employee in current prices divided by value added per total employment in current prices.

Graph: Unit labour costs growth (total economy) in Slovenia and the EU in 1995-2000



Source: SORSí 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 of its export competitiveness, or whether the growth or decline of the export markets themselves is involved. The fall of the **Slovenian economy's market share in its main trading partners** from 0.6% in 1995 to 0.49% in 2000 shows that the otherwise robust growth of Slovenia's merchandise exports in the 1995-2000 period (by 46.8% in real terms) was at the aggregate level the result of the growth of export markets, and not of the economy's improved export competitiveness. The deteriorated competitiveness of Slovenia's merchandise exports in the 1995-1998 period, measured as its fallen market share in export markets, was the result of the worsened market position of Slovenian exporters in some emerging trading partners, in particular Croatia, Russia, and Hungary, while it was also brought about by reduced competitiveness in the main developed markets in the 1999-2000 period. Among developed trading partners, a big fall in Slovenia's market share was recorded in the German, French, Italian, and American markets. After the 1998 record Slovenian market share in developed trading partners, the share dropped below the 1993 level in 2000. At the same time, the market shares in Bosnia and Herzegovina, Macedonia, and the FR 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 half lower in 2000. **Among EU candidate-members,** Hungary increased its market share by around 1.3 times in the 1995-2000 period, Slovakia by 0.9 times, while the Czech Republic's market share grew by approximately one-third, and Poland's market share by a fifth. The data for the first nine months of 2001 indicate an improvement of Slovenia's export competitiveness in its principal markets, but the results are below those of Hungary, the Czech Republic, Poland, and Slovakia, at least as far as the EU market is concerned.

Figures on the movements of **Slovenia's market share in the world goods market** further confirm that the fall in the EU-15 markets in 1999 and 2000 (by 12%) was not the result of the reorientation of merchandise exports to other markets, because the fall on the global scale was even more pronounced (17.5 %). In this period, the position of the Slovenian exporters worsened more in the EU market compared to countries that are non-members of the EU (Slovenia's market share in the EU's imports from non-member states dropped by no less than 19.6%). The trend **by individual production groups or subgroups of industrial products** is very similar (see graph). An exception is "other transport equipment", which increased their market share in 1999 and 2000 in both the world and EU markets, and the growth of its share in the EU's imports from non-member states was even the highest. The rise in the market shares of chemicals, office machines and telecommunication equipment, and textiles in the EU was the result of a re-orientation to those markets. Looking at industrial products that record above-average market shares in the EU, one sees that clothing and automotive products recorded the strongest fall in competitiveness (the latter took place after a significant market share increase in 1998 underpinned by high car export levels), while the competitiveness of other semi-manufactures, electrical machinery and apparatus, and other consumer goods[1] worsened less than on average.

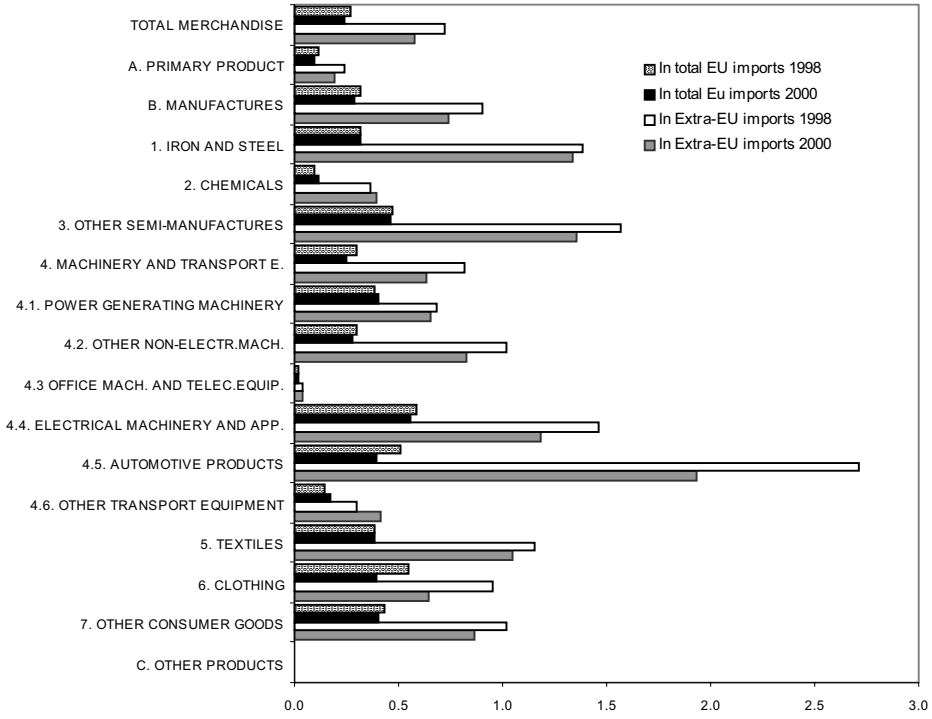
The fall of Slovenia's market share seen in the 1995-2000 period was at least in part due to the predominantly defensive restructuring of the corporate sector and the related processes of rationalisation, reducing capacities, discontinuing non-profitable product ranges and similar measures aimed at adjusting production to changes in market and other conditions. Business results, particularly those of manufacturing, confirm a significant increase in the gross operating profit ratio 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%). In spite of these developments, the 1995-2000 period reveals a particularly problematic fall in Slovenia's export competitiveness in comparison with non-members of the EU or other candidate-members.

Table: **Slovenia's market share[1] in the most important trading partners, in %**

	1995	1996	1997	1998	1999	2000	2001[2]
TOTAL	0.596	0.579	0.578	0.581	0.520	0.489	0.516
EU-7	0.439	0.432	0.449	0.462	0.429	0.406	0.419
Germany	0.541	0.554	0.553	0.546	0.554	0.479	0.497
Italy	0.588	0.533	0.607	0.575	0.542	0.506	0.503
France	0.251	0.219	0.176	0.264	0.171	0.205	0.222
Austria	0.808	0.818	0.872	0.913	0.895	0.950	1.011
United Kingdom	0.086	0.056	0.048	0.051	0.053	0.055	0.080
The Netherlands	0.066	0.068	0.069	0.076	0.077	0.077	0.079
Belgium	0.045	0.046	0.054	0.096	0.081	0.055	0.057
USA	0.034	0.030	0.027	0.027	0.024	0.021	0.021
Switzerland	0.089	0.087	0.092	0.097	0.111	0.123	0.112
Croatia	11.864	10.978	9.194	9.722	8.628	8.726	8.903
Czech Republic	0.523	0.530	0.541	0.518	0.566	0.468	0.473
Hungary	0.746	0.649	0.566	0.549	0.519	0.524	0.482
Poland	0.361	0.382	0.366	0.385	0.414	0.463	0.492
Slovakia	0.593	0.513	0.546	0.564	0.548	0.543	0.566
Russia	0.500	0.433	0.444	0.394	0.319	0.426	0.524

Sources: SORS, OECD, WIIW.
Notes: [1] market shares are calculated as the weighted averages of Slovenia's merchandise exports relative to imports of the main trading partners, determined by the volume of their share 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.

Graph: **Sloveniaís market shares in the EU-15, in %**



Sources: SORS, WTO, the IMADís calculations.

[1] Prefabricated buildings, sanitary, plumbinh and heating devices, lamps (81); furniture and parts (82); suitcases, handbags, etc (83); scientific and controlling instruments (87); photographic equipment, optical goods and clocks (88); miscellaneous manufactured articles (89, except 891).

Composition of merchandise exports by factor inputs

The analysis of merchandise exports by factor content aims to establish what 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.

In the period of overcoming the transition depression (**1995-1999**), the structure of inputs used in production changed significantly as a result of the effects of economic policy measures.

Over the last few years, the structure of Slovenia's merchandise exports[1] recorded the biggest increase in **technology-intensive** and **human-capital intensive products**[2] (created or derived factors of competitiveness), the same as the Czech Republic, Hungary and Slovakia. The total share of these products in Slovenia's exports increased from 60% in 1995 to 63% in 1999 (higher shares were recorded by Germany, Austria, Finland, Ireland, the UK, France, Sweden, and the transition countries of the Czech Republic and Hungary); the share of technology-intensive products climbed from 24.9% in 1995 to 26.6% in 1999, while the share of human-capital intensive products was up from 35.1% to 36.7%.

Commodity groups produced by an intensive use of primary factors of production (natural resources and labour) accounted for 36% of Slovenia's merchandise exports in 1999, drawing close to the shares of Belgium, Italy, the Netherlands and Spain. The lowest shares in the EU were recorded by Austria, Finland, Ireland, Sweden and the UK. **Unskilled-labour intensive products**[3] represented 21.4% of Slovenia's merchandise exports in 1999. Their share has been on a steady fall since 1995 (they accounted for 23.3% of exports in 1995), but is still substantially higher than in most EU member-states and was higher than in some transition countries in 1999 (Czech Republic, Hungary, Slovakia). EU members that recorded larger shares than Slovenia in 1999 were Italy, Greece and Portugal. The main groups of labour-intensive manufactures exported from Slovenia were: furniture, men's and women's coats, footwear and other clothing. These five groups accounted for up to 60% of Slovenia's unskilled-labour-intensive exports.

Natural-resource intensive products[4] represented 15% of Slovenia's merchandise exports in 1999, and here Slovenia was closest to Austria, Finland, Hungary and the Czech Republic. The main groups of natural-resource intensive products in Slovenia's exports of goods were: food, beverages, crude materials, mineral fuels, animal and vegetable oils and fats, leather, veneers and other wood in the rough or roughly squared and ferrous and non-ferrous metals.

In 1995-1999, the share of exports produced with a high content of created factors of production rose by about 0.8 of a percentage point a year (proportionate falls were seen in the share of exports produced by an intensive use of natural resorces). In **2000**, structural shifts towards the more intensive use of created factors increased, with the share of exports involving created factors of production rising by 1.4 percentage points (the same falls were seen in the share of exports involving natural inputs); the share of unskilled-labour intensive exports dropped by 1.6 percentage points, while the share of

resource-intensive exports increased by 0.2 of a percentage point.

The favourable trends of falling shares of unskilled-labour intensive and natural-resource intensive exports and the rising shares of human-capital intensive exports stagnated or worsened after 1998, while the trend of rising shares of technology-intensive exports continued. This suggests a discrepancy from the Strategy for the Economic Development of Slovenia, according to which Slovenia should become more competitive in both technological and human created factors of production.

Table: **The structure of Slovenia's merchandise exports by factors content in 1992-2001, %**

Relative factor intensity groups	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001[1]
Natural-resource intensive	20.6	20.9	17.7	16.7	16.3	16.6	15.6	15.3	15.5	15.4
Unskilled-labour intensive	24.7	26.4	24.8	23.3	22.7	21.6	21.3	21.4	19.8	20.1
Technology-intensive	21.3	21.9	24.4	24.9	25.7	26.4	25.9	26.6	27.6	28.4
Human-capital intensive	33.4	30.8	33.1	35.1	35.4	35.5	37.2	36.7	37.1	36.1

Source: ITC COMTRADE database of the United Nations Statistics Division, SORS, calculations by the IMAD (Zakotnik, 2000a).
Note: [1] figures for Jan-Nov 2001.

[1] The breakdown of Sloveniaís exports of goods is based on the methodology devised by the United Nations (United Nations Conference on Trade and Development).

[2] The group of manufactures with high-technology intensity include exported goods with the highest shares of expenditure on research and development 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 because both generally require more sophisticated inputs. Products with high human-capital intensity only include those with lower shares of expenditure on research and development than technology-intensive products (paints, rubber, radio and television apparatus etc).

[3] The group of unskilled-labour-intensive products includes manufactures with the lowest value added per employee (clothing, textile products, furniture, glass).

[4] Natural-resource intensive products are characterised by low value added per product, a high content of natural resources and relatively simple production technology: food, beverages, raw materials, mineral fuels, animal and vegetable oils and fats, leather, veneer and other wood in the rough or roughly squared, ferrous and non-ferrous metals.

Investment

Investment is one of the key factors of economic growth. On one hand, it helps increase production capacities and brings new technology and know-how. On the other, it boosts aggregate demand, thus affecting employment and household income as well as bolstering household consumption.

In **Slovenia**, investment demand rose sharply after 1993 (the end of transition depression) and recorded the biggest rise in 1999 (up 19.1% in real terms). In the same year, **gross fixed capital formation relative to gross domestic product** (GDP) equalled 27.4%, 6 percentage points more than in 1995. The investment-savings gap, which is financed by foreign savings, was the widest in the given five-year period (4% of GDP) as a result of the slowing household savings seen at the same time. In 2000, investment activity decelerated and the share of gross fixed capital formation in GDP fell to 26.7%. The slowing investment growth coupled with rising household savings led to a fall in the investment-savings gap to 3.2% of GDP.

The **technical structure of investment** shows that investment growth was mainly underpinned by **investment in other buildings and constructions**, going up by 75.5% in 2000 from 1995 in real terms. This investment saw the highest annual growth rates in 1996 and 1999. In 1996, motorway construction was under way at an accelerated pace, and this activity also fuelled dynamic investment growth in 1999 (motorway construction was at a peak this year) along with stronger railway construction; investment not related to economic infrastructure was strong in the construction of industrial buildings and trade and services buildings. **Residential building investment** climbed by 35.0% in 2000 over 1995 and its share relative to GDP increased from 3.3% in 1995 to 4.0% in 1998 and 1999, but the share fell to 3.8% in 2000 as a result of slowing residential building construction. In 1995-2000, **investment in producers' durable goods** surged by 60.2% in real terms, which was largely boosted by investment in other machinery and equipment (machinery and equipment excluding transport equipment). The latter rose fastest in 1997-1999 (an average annual rise of 17.8%). Despite this strong real rise, investment in other machinery and equipment relative to GDP (current prices) did not rise as much as investment in buildings and constructions because the prices of machinery and equipment rose more slowly than those of buildings and constructions.

The slowdown in investment activity seen in **2000** was triggered by falls in two important investment aggregates (see graph): residential building investment and investment in other buildings and constructions, down 2.7% and 1% in real terms, respectively, while investment in machinery and equipment, representing a solid third of all fixed capital formation, slowed down to 3.1%. The slowdown strengthened further in **2001**. In the third quarter, gross fixed capital formation fell year on year for the fourth time in a row. Investment falls were due to the curbing of fiscal spending, mainly leading to slow motorway construction, and slowdowns in the US and European economies, which affected the investment decisions of Slovenian enterprises.

Slovenia's gross fixed capital formation relative to GDP is higher **than in EU member-states** (except Portugal; see table), which is not surprising given that EU economies are more developed than Slovenia's. As far as EU candidate-countries are concerned, Slovenia is one of the more developed countries in transition with relatively high propensity to invest (see table). Countries that record higher shares of fixed capital formation in GDP than Slovenia are the Czech Republic and Slovakia (in 1995, Slovenia was behind Estonia,

Lithuania, Czech Republic and Slovakia).

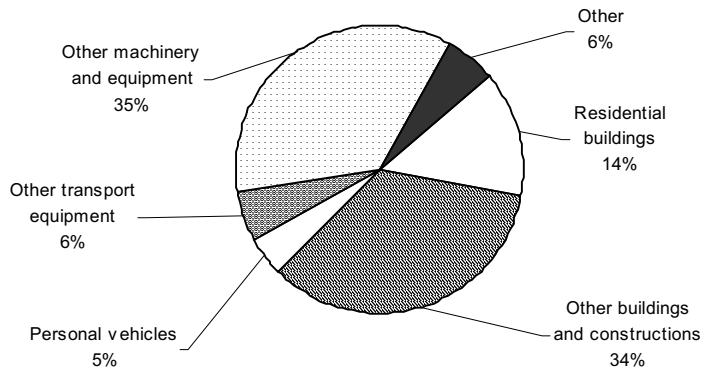
Investment relative to GDP should increase slightly in the oncoming years, as laid down in the **Strategy for the Economic Development of Slovenia**. Investment dynamics seen over the last two years were largely cycle-related and were thus not in line with these strategic priorities.

Table: **Gross fixed capital formation relative to gross domestic product in Slovenia, EU members and selected EU candidates in 1995-2000**

in %	1995	1996	1997	1998	1999	2000
Slovenia	**21.4**	**22.5**	**23.4**	**24.6**	**27.4**	**26.7**
EU-15	**19.8**	**19.6**	**19.4**	**19.9**	**20.2**	**20.6**
Belgium	19.9	19.9	20.4	20.6	20.9	21.1
Denmark	18.6	18.6	19.6	20.5	20.2	21.6
Germany	22.4	21.8	21.4	21.4	21.6	21.6
Greece	18.6	19.5	19.8	21.1	21.7	22.7
Spain	22.0	21.6	21.9	22.8	24.0	25.3
France	18.8	18.5	18.0	18.4	19.1	19.7
Ireland	17.2	18.8	20.3	22.1	23.5	23.6
Italy	18.3	18.3	18.3	18.5	19.0	19.6
Luxembourg	21.7	21.3	22.2	21.2	23.8	20.9
Netherlands	20.3	21.1	21.5	21.5	22.5	22.7
Austria	23.3	23.3	23.5	23.6	23.3	23.7
Portugal	22.8	23.4	25.6	26.8	27.4	28.6
Finland	16.3	17.0	18.0	18.7	19.0	19.3
Sweden	15.5	15.7	15.2	16.0	16.8	17.1
UK	16.3	16.5	16.6	17.6	17.2	17.5
EU candidate-countries						
Bulgaria	15.3	13.6	10.8	11.6	15.9	16.2
Czech Republic	32.0	31.9	30.6	29.0	27.9	28.3
Estonia	25.9	26.7	28.0	29.6	24.9	23.4
Hungary	20.0	21.4	22.2	23.6	23.9	24.3
Lithuania	23.0	23.0	24.4	24.3	22.1	18.7
Latvia	15.1	18.1	18.7	27.3	25.1	24.6
Poland	18.6	20.7	23.5	25.1	25.5	25.3
Romania	21.4	23.0	21.2	18.3	18.0	18.5
Slovakia	26.4	34.2	35.9	38.0	30.8	30.0

Source: SORS; Eurostat, New Cronos.

Graph: **Technical structure of gross fixed capital formation in Slovenia, 2000**



Source: SORS.

Foreign direct investment

The shares of exports and imports and inward and outward foreign direct investment (FDI) in gross domestic product (GDP) are the main indicators of an economy's internationalisation. The percentage of inward FDI stock in GDP climbed from 9.4% to 15.5% in 1995-2000, while the share of outward FDI in GDP from 2.6% to 4.4%. This shows the growing importance of FDI for the inward and outward internationalisation of the Slovenian economy, however, this conceals the stagnant FDI inflows and the still modest FDI outflows. Figures for 2001 are more promising: in January-November, FDI inflows totalled USD 131 million and FDI outflows amounted to USD 77 million, the highest annual levels recorded so far.

As far as **inward FDI** is concerned, a comparison with EU member-states and EU candidate-countries clearly shows that Slovenia is among countries with the lowest shares of FDI stock in GDP. EU members that recorded lower shares in 1999 were only Italy and Austria, while all candidate-countries recorded higher shares of FDI in GDP than Slovenia. Countries just ahead of Slovenia were Slovakia, Romania and Poland. EU candidate-countries with the highest shares of FDI in GDP were Estonia (47.9%), Hungary (39.9%), the Czech Republic (33.0%) and Latvia (26.9%). Most countries covered in the analysis increased significantly their shares of FDI stock in GDP in 1995-1999: up 8.8 percentage points in the EU as a whole and up 3.8 percentage points in Slovenia. Among EU member-states, these shares rose more slowly than in Slovenia only in Greece and Spain, while the same growth was seen in Austria, Italy and Portugal. Most candidate-countries recorded increases of 15 percentage points or more, while the weakest rise in addition to Slovenia was seen in Slovakia, going up by 7.3 percentage points.

Slovenia recorded slightly better results compared to other candidates in the area of **outward FDI**. Three countries – Estonia, Latvia and Hungary – nevertheless overtook Slovenia in 1999, while the shares of outward FDI in GDP rose much faster in Estonia and Hungary in 1995-1999. As expected, Slovenia was way behind the EU member-states in terms of outward FDI relative to GDP (except Greece; see graph).

The **analysis of the degree of internationalisation of the Slovenian economy** shows interesting results if we have a look at Slovenia's shares in different global macroeconomic aggregates. These shares were as follows: (i) global FDI inflows (1998-2000): 0.0201%; (ii) global inward FDI stock: 0.0445%; (iii) global FDI outflows (1998-2000): 0.0036%; (iv) global outward FDI stock: 0.0133%; (v) global GDP: 0.0568%; and (vi) global exports: 0.152%. What stands out is the wide difference between the high share in exports and the low share in inward and outward FDI.

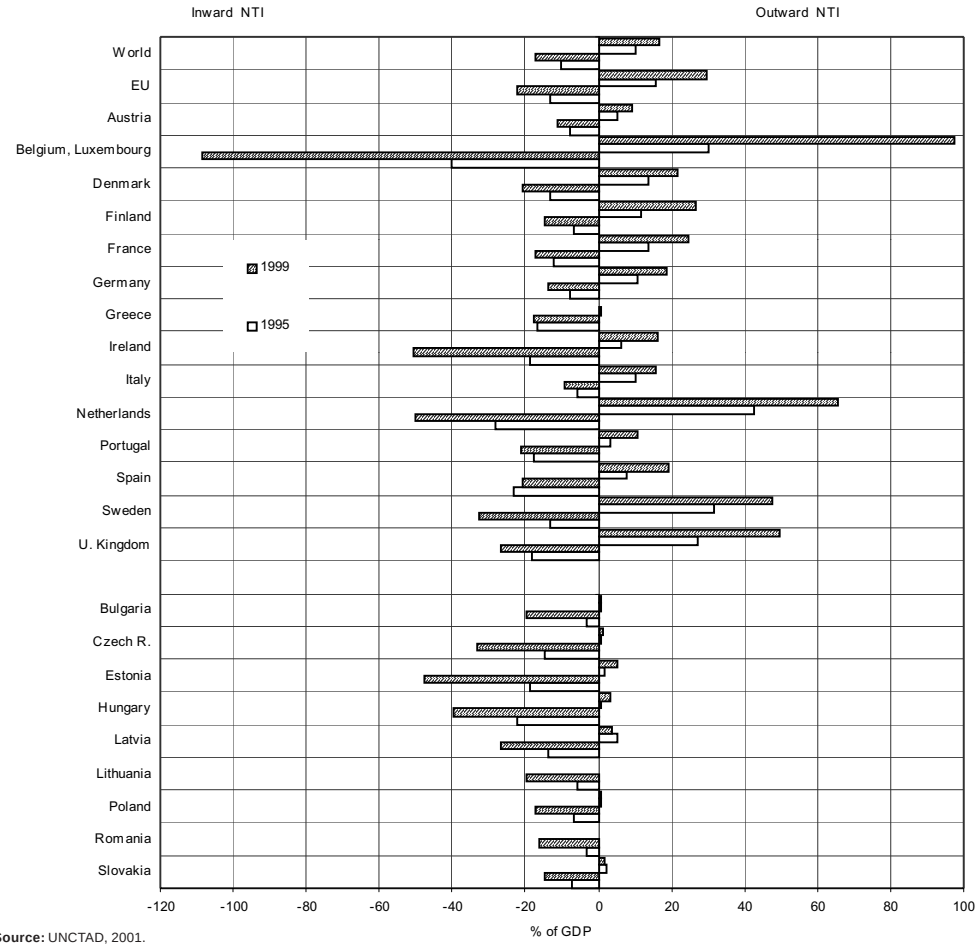
The **Strategy for the Economic Development of Slovenia** (SEDS) identifies comprehensive internationalisation of the Slovenian economy as one of the main mechanisms of bolstering corporate sector competitiveness. The Slovenian economy's internationalisation is now primarily taking place through external trade rather than FDI. While Slovenia is highly integrated into the world economy as regards exports, its position in FDI flows is the opposite. Despite the constantly rising shares of inward and outward FDI in GDP, which are in line with the SEDS' guidelines, they are still lower than in most reference countries, i.e. in EU members and EU candidates. Considering the fact that globally the sales of foreign subsidies (USD 15.680 billion in 2000) are two times more important than exports (USD 7.036 billion in 2000; UNCTAD 2001) in supplying foreign markets, it is clear that Slovenia will have to adjust to these trends if it wants to be well-integrated into international trade.

Table: **Flows and stocks of inward and outward FDI[1] in Slovenia in 1993-2000[2]**

USD million	1993	1994	1995	1996	1997	1998	1999	2000
Inward FDI								
Year-end stock	954.3	1,325.9	1,763.4	1,998.1	2,207.3	2,765.8	2,656.5	2,808.5
Annual inflows[3]	112.6	128.1	177.4	194.0	375.2	247.9	181.2	175.5
Stock as % of GDP	7.5	9.2	9.4	10.6	12.1	14.1	13.2	15.5
Outward FDI								
Year-end stock	280.6	354.0	489.9	459.5	459.4	608.3	605.0	794.0
Annual outflows[4]	-1.3	2.9	5.1	-6.3	-35.6	1.7	-37.5	-66.0
Stock as % of GDP	2.2	2.5	2.6	2.4	1.5	3.1	3.0	4.4

Source: Bank of Slovenia.
Notes: [1] companies in which a foreign investor holds a 10% or higher stake, [2] figures for the period after 1996 include the foreign direct investment of companies in second affiliation, [3] inflows are in principle lower than changes in stock because external financial transactions only cover part of changes in stock; the main difference is that inflows do not cover changes in net liabilities to a foreign investor, while inflows do not include figures on companies in second affiliation; balance of payments figures for the period after 1995 include reinvested earnings, [4] a negative sign denotes outflows.

Graph: **Inward and outward FDI stock as a percentage of GDP in EU member-states and candidate-countries in 1995 and 1999, %**



Source: UNCTAD, 2001.

Private sector's share in gross domestic product

Over the last decade, privatisation was one of the most important structural reforms in both Slovenia and other Central and Eastern European countries in transition; yet it was an equally important issue in advanced world economies. While the main **goal** of the early phase of **privatisation** was to establish a functioning market economy, the later phases were underlined by the need to attract new investment, improve corporate governance and reduce fiscal deficits, furthermore, privatisation was a constituent part of the process of liberalising certain sectors, such as the energy sector and telecommunications. Privatisation helps increase the private sector's share in gross domestic product, which is one of the indicators used to measure progress in structural reforms.

The statistical office (SORS) first published information about the size of the private sector in the Slovenian economy in 2001. According to these figures, **gross value added of the private sector** totalled SIT 2,344 billion in 1999, representing 73.7% of the Slovenian economy's total gross value added and 64.2% of gross domestic product. As the SORS' figures are only available for 1999, we used the EBRD's estimates to analyse recent trends and make international comparisons; these figures differ somewhat from the SORS' (they reveal a 65% share of the private sector in Slovenia's GDP in 2000, about the same as the SORS' estimate for 1999), but they cover all Central and Eastern European transition countries and show long time series.

Following movements in the private sector's share in gross domestic product in Slovenia and other countries in transition (EU candidate-countries), we can distinguish two periods. The first period covers the **first half of the 1990s** and was characterised by a relatively rapid rise of the private sector relative to GDP, which was due to the mass privatisation of the corporate sector undertaken in this period. In the second period, namely the second half of the decade, expansion of the private sector relative to GDP slowed down as expected. This was a period when privatisation was carried out as part of restructuring certain sectors, e.g. the banking, telecommunications, and other sectors.

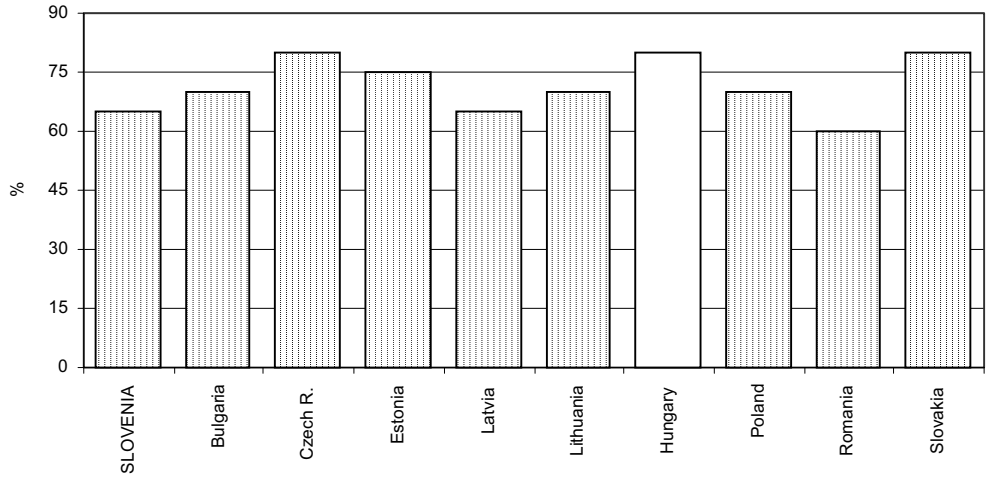
At the **end of the 1990s**, the private sector represented 60%-80% of GDP in those countries. The share of the Slovenian private sector was close to the lower end of this band (see table and graph), which reflected the gradualist approach to structural reforms in Slovenia compared to other developed transition countries. To date, Slovenia has concluded the privatisation of market activities, it is gradually privatising public utilities and is getting ready to sell the stakes held by the state in the financial sector. Further growth of the private sector relative to GDP is also envisaged in the **Strategy for the Economic Development of Slovenia** in those parts speaking about the need to conclude transitional restructuring of the corporate and financial sectors, public utilities reforms, and the liberalisation of sectors such as telecommunications and energy.

Table: **Private sector's share in gross domestic product in selected EU candidate-countries in 1992-2000**

in %	1992	1993	1994	1995	1996	1997	1998	1999	2000
SLOVENIA	30	40	45	50	55	60	60	60	65
Bulgaria	25	35	40	50	55	60	65	70	70
Czech Republic	30	45	65	70	75	75	75	80	80
Estonia	25	40	55	65	70	70	70	75	75
Latvia	25	30	40	55	60	60	65	65	65
Lithuania	20	35	60	65	70	70	70	70	70
Hungary	40	50	55	60	70	75	80	80	80
Poland	45	50	55	60	60	65	65	65	70
Romania	25	35	40	45	55	60	60	60	60
Slovakia	30	45	55	60	70	75	75	75	80

Source: EBRD Transition Report 2001.

Graph: **Private sectorís share in gross domestic product in selected EU candidate-countries in 2000**



Source: EBRD Transition Report 2001.

Average number of schooling years of persons in employment

Modern production processes and competition in increasingly inter-dependent international markets on one hand, and the levels achieved in public services and social standards on the other, call for an increasingly educated labour force, since know-how and working skills are becoming a crucial production and development factor in post-industrialised societies. Hence, education and the ability to use knowledge creatively are becoming important components of competitiveness of a particular economy. The synthesised indicator showing a population's education structure is the average number of schooling years.[1]

Slovenia's education structure of persons in employment is still poor, albeit improving, compared to advanced industrialised countries and the needs created by Slovenia's integration into the EU's single market. In general, the number of employees with secondary vocational or lower education is too high and the number of employees with higher education is too low, which is particularly true of the corporate sector and sectors exposed to external competition. In industry, only less than 5% of employees have a higher education, the same goes for construction, hotels and restaurants and transport sectors, while wholesale and retail trade crossed this threshold in 2000. The highest education structure is recorded in education, public administration and financial intermediation, activities that employ over 20% of workers with higher education, while the poorest one is recorded in the sectors of hotels and restaurants and construction (here it worsened further in 1995-2000). In 1995-2000, the education structure improved in all activities, except in construction and health and social work. It improved fastest in education and public administration.

The average number of schooling years of **persons in employment** established by the **labour force survey** (which also covers persons in informal employment) is higher than that shown by employment registers (which only include formally employed and self-employed people), which is partly due to the relatively high education levels of informally employed people, especially those on work contracts and temporary employment contracts, which include the retired people and students (still) not employed full time.

Transition to a knowledge-based society is one of the main **orientations** of the **Strategy for the Economic Development of Slovenia**. This should mainly be implemented through human resource development policy and particularly through formal and informal education and training. Special attention is given to the quality of education and raising the education levels of the adult population. However, the planning and promotion of youth and adult higher education must go hand in hand with efforts to change the employment climate and ensure a structural balance between the education system and demand in the labour market.

The number of vacancies requiring **lower education** is already lower than the number of school leavers with such education, so job-seekers who have only finished primary or lower vocational school will find it extremely difficult to get a job. According to the projections, the same will happen to those who have only finished **secondary vocational school** as early as the middle of the decade. People having finished a **4-5 year secondary school** will enjoy the biggest employment opportunities, however, this area is already faced with big structural imbalances. The greatest task of adult education will therefore be to help young adults to finish secondary education at least, with particular attention being paid to resolving occupational structural imbalances. Surpluses of job-seekers who have finished **higher education** may also emerge if the employees' education structure continues to change as slowly as in the previous decade, when inflows of graduates are estimated to have exceeded demand; some of this trend is now reflected in the number of unemployed with a higher education. Over 100,000 graduates are expected to flood the labour market in the next decade as a reflection of the current high number of students; if the proportion of employees with a

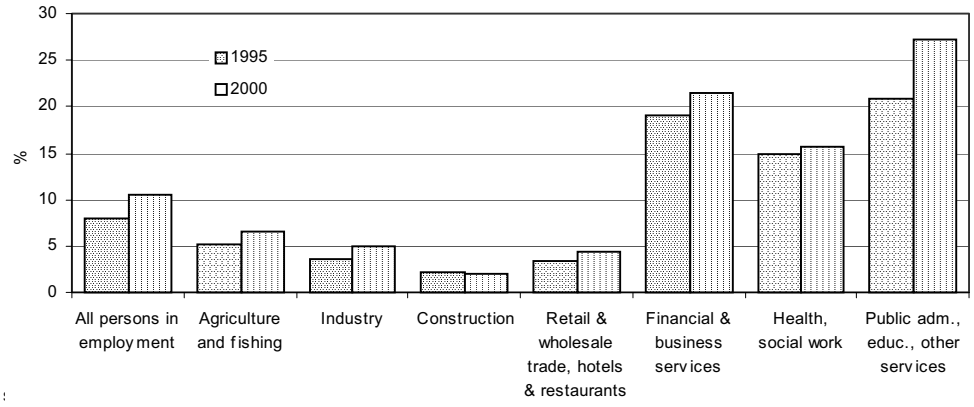
higher education continues to rise as slowly as in the previous decade, Slovenia will need less than 50,000 new graduates. It is very likely that the high number of graduates will stimulate the process of hiring people with a higher education, however, this will entail additional investment and changes in human resource policy, especially in manufacturing industries. It should also be pointed out that opportunities for employment growth will continue to be limited. Employment growth is primarily possible in service sectors because of the high capital intensity of industrial production, however, these sectors are still insufficiently prepared for competition in the EU's single market. The government in co-operation with the social partners will therefore have to devise a policy that stimulates the hiring of graduates.

Table: **Average number of schooling years of persons in employment in Slovenia in 1995-2000**

	1995	1996	1997	1998	1999	2000
Persons in employment according to the SORS' register, excluding farmers	10.6	10.7	10.7	10.8	10.8	10.9
Agriculture and fishing (comp.)	10.1	10.2	10.3	10.3	10.4	10.4
Industry	9.8	9.8	9.9	9.9	10.0	10.0
Construction	9.7	9.7	9.6	9.6	9.6	9.6
Wholesale & retail trade, hotels & restaurants, transport	10.3	10.4	10.4	10.4	10.5	10.5
Financial intermediation, business services	12.0	12.0	12.1	12.1	12.1	12.2
Health and social work	11.8	11.8	11.7	11.7	11.7	11.7
Public administ., education and other services	12.5	12.5	12.6	12.7	12.7	12.8
Persons in employment according to the LFS1[1]	11.0	11.1	11.0	11.2	11.3	11.4
aged 15-39	11.3	11.2	11.3	11.4	11.5	11.6
aged over 40	10.7	10.9	10.7	10.9	11.0	11.1
Unemployed according to the LFS1[1]	10.2	10.2	10.3	10.3	10.3	10.4
aged 15-39	10.7	10.5	10.5	10.4	10.5	10.9
aged over 40	8.9	9.4	9.9	10.2	10.0	9.6

Source: the SORS.
Note: [1] Labour Force Survey.

Graph: **Percentage of employees with higher education, by activities, Slovenia in 1995 and 2000**



[1] The average number of schooling years is a formal indicator of education which says nothing about the quality of education and the actual knowledge and skills possessed by a population. It only measures formal education, but leaves out the increasingly important additional training of employees.

Share of the population who has at least finished secundary education

The census carried out in 1991 showed that Slovenia had a relatively poor **education structure**: the average number of schooling years of people aged 25 and over was 9.7 years, and only 53.5% of the population had finished secondary or tertiary education. The latest figures from the labour force survey reveal an improvement in the Slovenian population's education structure. This was primarily due to higher youth enrolment in secondary and higher education institutions (partly the result of high youth unemployment in the 1990s), while adult education shrank considerably in the 1990s.

The relatively high youth unemployment – a rate of around 18% in the last five years according to the labour force survey and up to around 25% in the early 1990s – forces young people to extend formal education, which has resulted in the actual duration of education being longer than envisaged by some national priorities in this area. In 2000, up to around 94% of the generation was enrolled in secondary schools (82% in 1995) and over 77% of the generation had finished at least one secondary education level (a solid 70% in 1995). The enrolment of full-time students is also on an increase: they currently represent over 30% of the generation as against close to 24% in 1995, with 22% of the generation graduating as against 18% in 1995. Hence, the population's education structure is improving as a result of inflows of better-educated young people. According to the labour force survey, the **percentage of people** aged 25 and over who have finished **secondary or higher education** increased from close to 69% in 1995 to 73% in 2001.

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).

In addition to the Strategy for the Economic Development of Slovenia, which includes priorities in education (one of them is to raise education levels), Slovenia has devised two documents setting out the **target education and education structure projections**. They are the National Higher Education Programme and the National Adult Education Programme. The goal of the former is to achieve 50% enrolment of a generation in tertiary education, while the number of students per 1000 people should range at around 35. The latter programme is equally ambitious: enrolment in programmes to finish primary education should increase to include *half* of the population aged 15-49 without this education by 2010 (*one-third* according to the second alternative), *one-third* of the population aged 15-49 without secondary education should be given an opportunity to finish this education level (a *quarter* according to the second alternative), and *one-tenth* of the population aged 15-49 with finished secondary education and currently not enrolled in higher education should be enabled to finish a professional college programme.

The goal of 35 students per 1000 people has already been exceeded. The number of students (excluding pre-graduation ones) per 1000 people is projected to range at around 36 in the future, and at around 40 if pre-graduation students are included. However, the goal of 50% enrolment in full-time higher education is questionable considering the current organisational structure of higher education. Full-time students excluding pre-graduation ones currently represent 30% of the generation, or 37% if pre-graduation students are included, and all students excluding pre-graduation ones account for 48% of the population, or about 53% if pre-graduation students are included. The percentage of graduates in the generation is lower, albeit increasing, and is still below 25%.

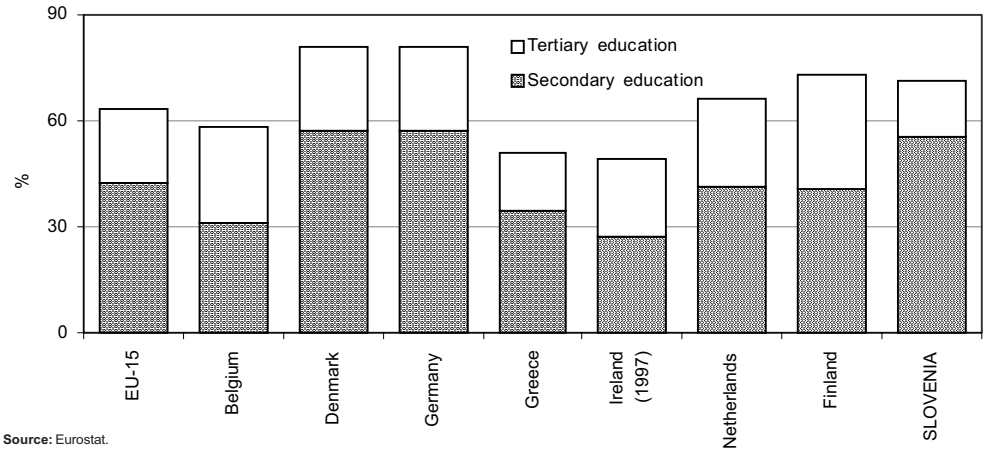
The **enrolment of adults in formal education** has again increased over the last few years after falling significantly in the 1990s, even though the National Programme of Adult Education is still under discussion. Formal adult education should primarily enable adults having too low or inappropriate education to get a better education status, which explains the effort of young adults with unfinished primary school to finish at least primary or lower vocational school for adults, however, this is not and will not be enough to improve their employment opportunities. They will at least have to finish one of the 4-5 year secondary schools. However, there are big structural problems in employing adults with finished secondary education, since the percentage of unemployed with finished secondary education is the same as the percentage of unskilled unemployed. Adult secondary education should therefore focus on resolving these structural imbalances.

Table: **Percentage of people who have at least finished secondary education in Slovenia in 1995-2001**

	1995	1996	1997	1998	1999	2000	2001
Population's education structure							
% of people with at least secondary education	65.2	67.4	67.1	69.1	70.4	71.2	73.2
Secondary education:	50.9	53.9	53.2	53.8	54.8	55.5	57.1
vocational	25.2	27.6	27.1	27.2	26.8	24.7	25.9
technical or general	25.7	26.4	26.1	26.7	28.0	30.8	31.2
Tertiary education:	14.2	13.4	13.9	15.3	15.6	15.7	16.1
junior college	7.5	6.9	7.2	7.7	7.6	7.3	7.0
higher education	6.1	5.8	6.0	6.8	7.2	7.6	8.2
post-graduate studies	0.7	0.7	0.7	0.7	0.8	0.9	1.0
Indicators of youth education							
Finished secondary education (% of generation)	70.4	74.8	74.1	74.4	76.7	77.5	na
Full-time graduates (% of generation)	17.8	19.9	19.9	19.6	22.4	21.7	na
Enrolled in secondary schools (% of generation aged 16-19)	82.0	84.1	87.0	88.2	89.2	94.0	na
Full-time students (% of generation aged 20-24)	23.6	24.5	25.4	27.6	29.6	30.3	na

Source: SORS, calculations by the IMAD
Note: na - not available.

Graph: **Percentage of the population who have at least finished secondary education in Slovenia, the EU and selected EU member-states in 2000**



Source: Eurostat.

Number of active internet users

Use of the Internet is one of the most common indicators showing the level of development of the information society. The **number of active users of the Internet** – those using the Internet at least once a week – increased six-fold in Slovenia in **1996-2001** (see table): the accelerated rise seen earlier in the period slowed down later: in 1996 3% of the population actively used the Internet, in 2001 the figure was 19%. The relatively high growth rates of the first years were followed by a slower rise of active users in following years (see table). That growth is tending to slow down as the number of users increases seems reasonable in view of the achieved level, but a comparison with the EU shows that high growth rates of Internet penetration are still achievable. Slovenia recorded better results in this area than some EU members in 1998 and drew very close to the EU average (EU 9.2%, Slovenia 9%); however, in later years it dropped significantly behind the EU average: in 2001 the percentage share of active Internet users in the total population was 31% in the EU, as against only 19% in Slovenia. The slowing growth in Internet use is largely the result of the slow rise in **access to the Internet from home**, an area in which Slovenia exceeded the EU average some years ago, but already lagged behind it in 2000 (21% in Slovenia, 28% in the EU). A survey on the digital divide in Slovenia (Vehovar, Vukčevič, 2001) points to the cost of access and equipment as one of the main factors influencing access to the Internet from home – the key condition for active use of the Internet.[1]

Growth in Internet use is slowing down not only in comparison to the EU, but also **in comparison to some EU candidate-members**. Slovenia is still way above the average of those countries as regards the percentage share of Internet users (5.5% in 2000), but in 2000 it already lagged well behind Estonia (a year earlier Slovenia and Estonia shared first place) and Cyprus (see graph).

The relatively high growth of the numbers of Internet users in the European Union can be associated with measures taken as part of an active policy to develop the information society in recent years. The growing gap with other countries suggests that Slovenia is late in its efforts to systematically stimulate the development of the information society. Slovenia is following the guidelines set out in the **Strategy for the Economic Development of Slovenia,** 2001 – 2006 (SEDS), aimed at reducing the information society gap behind the EU by adopting a framework law which established an independent regulatory body for telecommunications and a Ministry for the Information Society. Some activities (health, state administration, education, banking) are being equipped with information technologies; however, a comprehensive approach formulated in a national strategy or action plan is required to enjoy the optimal effects of introducing the information society, but Slovenia is way behind the EU as regards such programmes. The first step was taken by adopting the eEurope Plus Action Plan (May 2001), aimed at assisting candidate-members in following the EU model which systematically stimulates the information society. The adopted legislation should be enforced as soon as possible because it will not only introduce cost-recovery prices but also enable lower costs by increasing market competition.

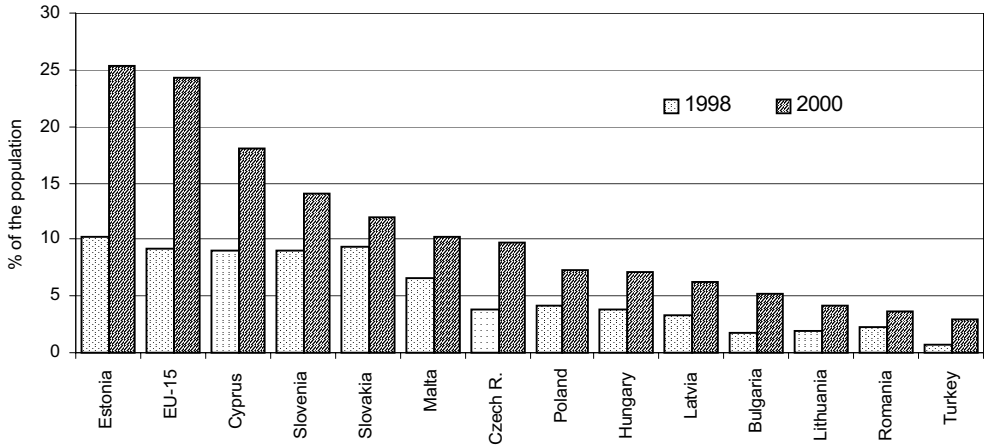
Projections of the survey "Internet use in Slovenia" show that Slovenia is capable of increasing its share of active Internet users in the total population to 65%, provided that conditions similarly favourable as those in the EU are created (pro-active national policy, low telecommunications prices); however, if the conditions are highly unfavourable Internet penetration may reach just 40%.

Table: **Selected indicators of Internet use in Slovenia in the 1996-2001 period**

Percentages	1996	1997	1998	1999	2000	2001
% of active Internet users in total population	3	6	9	11	14	19
Access to the Internet[2]:						
Households[2]	3	8	9	15	21	-
Small enterprises[2]	7	31	57	77	88	-
Medium-sized enterprises[2]	16	37	69	89	97	-
Large enterprises[2]	25	53	82	96	99	-

Source: Survey "Internet Use in Slovenia", Faculty of Social Sciences.
Notes: [1] people who access the Internet at least once a week; [2] percent share of households/enterprises with access to the Internet relative to total households/small/medium-sized/large enterprises.

Graph: **Number of Internet users in Slovenia, EU candidate-members and the EU in 1999 and 2000**



Source: Survey "Internet Use in Slovenia" (data for Slovenia); Eurostat, Statistics in Focus, Information Society Statistics, Theme 4-37/2001 (data for other countries).

[1] Three-quarters of active Internet users have access to the Internet from their homes (Vehovar, Vukičevič, 2001).

Number of secure servers per one million people

One of the indicators showing the level of development of the information society is the **number of secure servers per one million people**. This indicator emerged recently as a result of the increasing importance of security in Internet transactions, which is a precondition for the use of the Internet for business purposes. Secure servers provide security at the level of connection between two computers or at the level of a document, and they are most frequently used by banks and other financial institutions, credit card issuers, software dealers, armed forces, government offices etc (RIS). The number of secure servers is increasing given that information transmitted through regular servers is not sufficiently protected. In 1999, there were 32 secure servers per one million people in **Slovenia**, over 2.5 times more than the year before and very close to developed European countries. In the **European Union**, the number of secure servers ranged from 10 in Ireland and the Netherlands to 40 in Luxembourg. Secure servers are also monitored in relation to whether they use weak[1] or strong encryption. Slovenia recorded somewhat less favourable results in this field: the ratio of weak to strong encryption servers was 2:1, while developed countries predominantly used strong encryption servers.

Slovenia's relatively high level of development as regards the density of secure servers is in stark contrast to figures on the **number of servers**, which put Slovenia in the group of poorly developed countries. This is an indicator that has been used to measure information society development for a long time and therefore allows long-term comparisons, however, the indicator is methodologically questionable. According to some experts (Remec, Vehovar, 1999), the number of servers in **Slovenia** is underestimated. A fact supporting this claim is that figures only cover servers included in the *si* domain, while servers operating under the domains of *org, com* and *net* are excluded. Recording 1.4 servers **per 100 people**, Slovenia was way behind the **EU average** (3.3) and the average of **Central and Eastern European countries** (Estonia 3.1 and the Czech Republic 1.8) in 2001. Putting aside methodological discrepancies that undermine any comparison between countries, we find that the trend of a slowing rise in the number of servers over the last few years is particularly critical. Figures on the number of servers reveal a steep rise in 1995-1998, almost stagnation in 1998-2000, and resumed growth in 2001. The graph shows that the value of the indicators more than doubled in the EU in 1998-2001, with a similar trend being recorded in some developed EU candidate-countries.

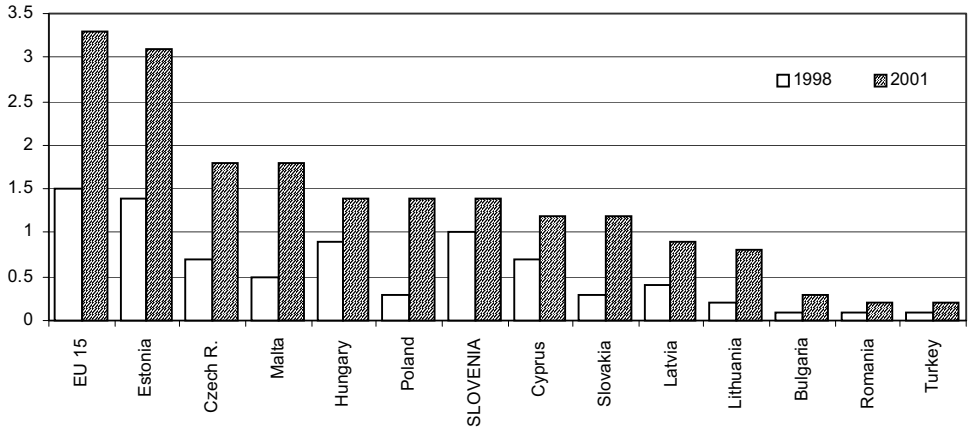
Slovenia's relatively high rank as regards the density of secure servers and the trend of a rapid rise in the number of servers seen in the early period of information society development can be accounted for by the high proportion of companies using information technologies[2] and the introduction of information technologies in activities such as health, state administration and banking. The slow further rise in the number of servers seen over the last few years has been very likely due to the high cost of leased lines, which is why 90% of companies opted for dialling access to the Internet instead of hiring a line (Vehovar, Kuhar, 2001). The enforcement of legislation already passed, which should introduce cost-recovery prices and establish competition in the market, and the adoption of the national strategy for information society development would therefore significantly help Slovenia catch up to advanced countries in this field, which is one of the priorities of the **Strategy for the Economic Development of Slovenia**.

Table: **The number of secure servers per million people in Slovenia, selected EU member-states and the USA**

	1997	1998	1999
SLOVENIA	-	12	32
USA	30	30	60
Luxembourg	10	25	40
Sweden	5	15	30
Finland	5	15	20
Austria	3	10	15
Ireland	3	15	10
Denmark	2	10	10
Germany	2	5	15
Netherlands	5	5	10

Source: RIS, Security in Internet Transactions, http://www.ris.org.

Graph: **The number of servers per 100 people – Slovenia compared to EU candidate-countries and the European Union**



Source: RIS, Eurostat: Statistics in Focus, Information Society Statistics, Theme 4-37/2001.

[1] It is easier to decode weak coding.

[2] Almost 100% of large and medium-sized companies and almost 90% of small companies have access to the Internet, over 60% of large and medium-sized companies and almost 40% of small companies have their web sites, about 30% of companies uses the system of electronic orders (RIS). However, recent estimates show that Slovenian companies rarely use electronic commerce (less than 1% of the value of total orders is done through e-commerce).

Number of researchers per 1000 employed persons

The number of researchers shows the level of actual incorporation of human resources in research and development (R&D) activities, which reveals the potential intensity of producing, exploiting and using new (technological) knowledge. In **1996-1999, Slovenia** recorded an average of 4.5 researchers[1] per 1000 employed persons. The number started to decline after 1996 and failed to reach the level of 1996 in 1999 despite the resumed rise after 1998 (see table). The **composition** of researches by **gender** saw little change: the share of female researchers only rose by one percentage point to 33.6%. More dynamic change was seen in **sectoral distribution** of researches (see table). The share of researches rose the most in the **business sector**, up 6.2 percentage points or by an average of 2.5% a year, but significantly less in the **government sector** (up 1.3 percentage points). These structural changes are in line with the goals of the National Research Programme adopted in 1995, and the same goals are also incorporated in the new draft National Research Programme for 2002-2006.

One of the priorities of the policy of promoting scientific and R&D activities in 2002-2006 is to increase the share of R&D staff in the business sector, while both programmes stress the importance of strong and internationally competitive research cores in the science and business sectors. Since there was a mistake in reporting the number of researches in the full-time equivalent in **higher education** in 1993-1995, we will only analyse this sector for the period after 1995. Namely, figures showing the activity of university researchers also included teaching, which is why their research activity was overestimated (this is also reflected in the overall number of researches for 1995). Hence, the share of researches in higher education fell by 1.9 percentage points in 1996-1999.

Even though the share of researches in the business sector was on a steady increase, the structure of state budget expenditure on R&D remained inadequate (insufficient funding for applied research) and even worsened further in 1997-1999. In 1999 (the latest available data), the structure of state budget expenditure on R&D was as follows: 57.1% on basic research (51.2% in 1997), 25.4% on applied research (23.1%) and 17.5% on experimental development (25.7%). The fact that this structure is inadequate is further supported by the funding structure of the former Ministry of Science and Technology. In 1990, the ratio of basic to applied research was 70:30, but this ratio changed to 83:17 up until 1999 to the detriment of applied research (Bučar, Stare, 2001, p. 12).

An international comparison of the number of researches per 1000 people shows that Slovenia is ahead of the Visegrad group of countries and those EU member-states whose level of development is closely followed by Slovenia, but it strongly lags behind advanced European countries and the European average (5.3 researches per 1000 people in 1998).

The **Strategy for the Economic Development of Slovenia** identifies the expansion of R&D activities, especially in the private sector, as one of the main levers of raising labour productivity and national competitiveness (see also Expenditure on R&D Relative to GDP). Movements in the number of researches and changes in the structure of expenditure on R&D activity reveal that the last few years (for which data are available) have seen positive shifts. However, what is critical in Slovenia is not only the number of researches (the volume of R&D activity), but also the insufficient level of co-operation between industry and the R&D sector as well as between research institutes themselves.

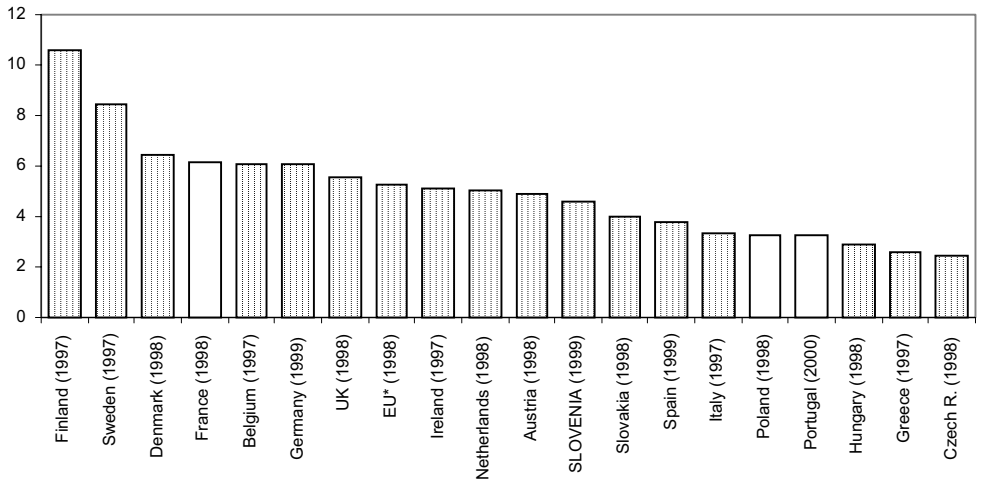
The problems of excessive attention paid to basic research and the neglect of applied research have been pointed out in Slovenia for some time. This discrepancy is in part rooted in the system of financing and evaluating R&D activities itself. On one hand, the R&D sector is not encouraged to sell or transfer its know-how to the business sector and, on the other, criteria for evaluating R&D activities are excessively focused on bibliographical criteria (e.g. the index of scientific quotations). Co-operation with industry results in little, if any, recognition of R&D success (Bučar, Stare, 2001). If Slovenia wants to bridge the gap between R&D and industry and improve their co-operation and knowledge transfer, it should set up more comprehensive criteria for evaluating and financing R&D on one hand and find out whether the adopted programmes are being implemented on the other.

Table: **The number of researches in the full-time equivalnet in Slovenia in 1995-1999**

Year	No. of researches	Researches broken down by sector of employment, %			
		Business sector	Government sector	Higher education	Private non-profit sector
1995	4,897[1]	28.6	32.8	35.91	2.7
1996	4,489	30.5	35.2	31.4	2.8
1997	4,022	34.0	34.8	28.4	2.8
1998	4,285	34.0	35.0	28.8	2.2
1999	4,427	34.8	34.1	29.5	1.6

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

Graph: **The number of researchers in the full-time equivalent per 1000 employed persons in Slovenia, EU member-states and Visegrad countries**



Source: Statistical Yearbook, various issues, the SORS; Rapid Reports. Population according to the labour force survey; calculations by the IMAD.
Note: Luxembourg excluded from the EU average.

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

The share of innovation companies in manufacturing

In the early 1990s, the loss of former Yugoslav markets and the re-orientation to demanding Western markets forced Slovenian companies to adopt survival strategies and undertake defensive restructuring, which resulted in negative effects on research and development activity and technological advancement. As a result, many companies dissolved their R&D departments together with their information bases and specialist libraries. This led to a low level of research and innovation activity in the business sector and the slow increase in technology-intensive products and services. Innovation is nowadays crucial for business entities to perform successfully in highly integrated, competitive and saturated markets. Innovation per se influences and boosts competitiveness, which in turn raises innovation to a higher level.

The SORS' statistical research carried out in the field of innovation[1] allows us to analyse changes in the share of innovation companies in manufacturing. According to the figures, the **share of innovation companies in manufacturing** barely changed in **Slovenia** in 1994-1998 (see table) and was significantly lower than in the **EU** in 1994-1996 (the latest available figures for the EU), representing 32% and 51%, respectively).

As expected, the most **innovation-intensive industries**, which are also highly technology-intensive ones, were the pharmaceutical industry and the manufacture of rubber and plastic products. The share of innovation companies is also relatively high in the manufacture of motor vehicles and trailers, one of the labour-intensive industries (see also Composition of Merchandise Exports by Factor Inputs), and above average relative to manufacturing's average in the food industry. Industries with the highest shares of innovation companies also recorded the biggest rises in their innovation activity in 1994-1998 (the period for which data are available), such as rubber and food industries and the manufacture of motor vehicles and trailers, while the share of innovation companies increased significantly in the textiles industry, suggesting that restructuring produced some positive results.

Industries recording **relatively low shares of innovation companies** are largely traditional and labour-intensive ones such as leather and wood-processing industries and the manufacture of clothing. Low shares of innovation companies, which dropped further in the given period, were also seen publishing and printing and the manufacture of pulp and paper. In addition to the latter two industries, innovation dropped in the manufacture of office equipment and computers, metals, leather and leather products, and electrical machinery and equipment.

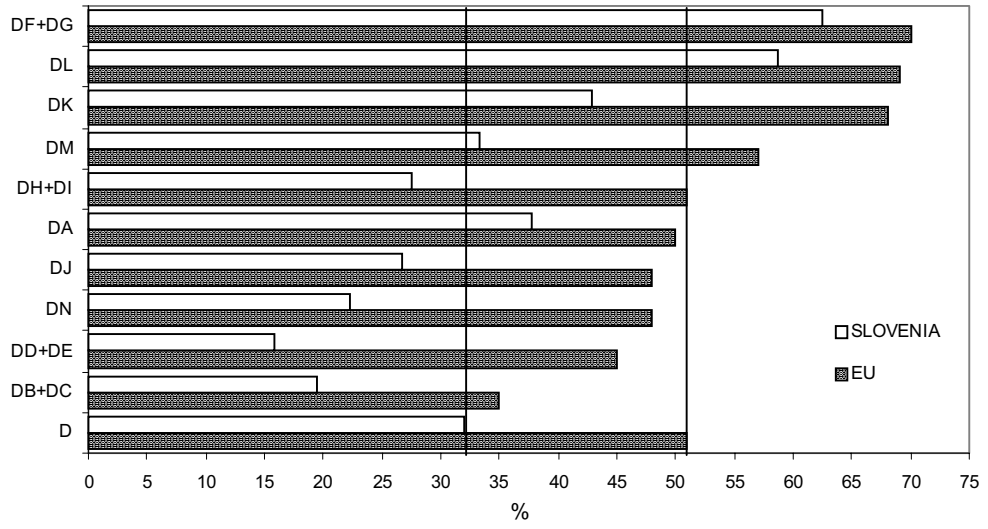
According to the latest figures, productivity of the Slovenian economy, and industry in particular, still lags strongly behind the EU average (see Labour Productivity), suggesting that there is still **significant room for narrowing the competitiveness and technology gaps**. A more intensive development of new technologies would give a powerful boost to the Slovenian economy, what is more, the mere identification of the existing setbacks in the research and innovation processes would provide a strong incentive. It is absolutely essential to improve co-operation between the university and industry, while industry itself will have to direct more resources to creating the culture of innovation at the level of company (the ongoing stimulation of innovation). The global competitiveness methodology developed by the WEF[2] also identified these two areas as responsible for Slovenia's relatively poor results in innovation activity. Slovenia was ranked 9th in the field of innovation within the group of 13 reference countries in 2001 (Finland, Belgium, the Netherlands, Denmark, Austria, Spain, Ireland, Greece, Slovenia, Portugal, Hungary, Czech Republic, Poland). Last but not least, Slovenia should change the relationship between basic and applied research to the benefit of the latter (see also The Number of Researchers and R&D Expenditure Relative to GDP), which would undoubtedly help bolster innovation activity in Slovenia.

Table: **Percentage of innovation companies in manufacturing** [1]

		1996 [2]	1998 [3]
D	Manufacturing	32	33
DA	Manufacture of food, beverages and tobacco	38	44
DB/17	Manufacture of textiles	29	38
DB/18	Manufacture of wearing apparel, dressing, and dyeing of fur	6	10
DC	Manufacture of leather and leather products	25	19
DD	Manufacture of wood and wood products	16	15
DE/21	Manufacture of pulp, paper and paper products	25	16
DE/22	Publishing and printing	11	7
DF	Manufacture of coke and refined petroleum products	-	-
DG	Manufacture of chemicals and chemical products	66	53
DH	Manufacture of rubber and plastic products	24	30
DI	Manufacture of other non-metallic mineral products	30	25
DJ/27	Manufacture of basic metals	41	30
DJ/28	Manufacture of fabricated metal products, except machines	24	25
DK	Manufacture of machinery and equipment	43	44
DL/30	Manufacture of office machinery and computers	23	17
DL/31	Manufacture of electrical machinery and apparatus	76	59
DL/32	Manufacture of radio and TV and communication equipment	76	63
DL/33	Manufacture of medical, precision and optical instruments	41	45
DM/34	Manufacture of motor vehicles and trailers	32	45
DM/35	Manufacture of other transport equipment	40	33
DN/36	Manufacture of furniture, other manufacturing	23	26
DN/37	Recycling	17	17

Source: Rapid Reports. Research and Development, Science and Technology. Innovation activity in manufacturing, Slovenia, 1996 and 1998.
Notes: [1] a subsection is a unit representing 100%, [2] figures for 1994-1996, [3] figures for 1997-1998.

Graph: **Percentage of innovation companies in manufacturing[1] in Slovenia and the EU, 1996**



Source: Statistics on Innovation in Europe, Data 1996–1997, 2000 Edition, European Communities 2001; Rapid Reports. Research and Development, Science and Technology. Innovation activity in manufacturing, Slovenia, 1996 and 1998.

[1] The SORSí statistical research is harmonised with the OECDís Oslo methodology and is done every second year. Innovation activities include: R&D, purchases of machinery and equipment used to introduce new or technologically upgraded products or production processes, purchases of intangible assets such as patents, licences, trade marks, models and know-how, industrial engineering, industrial design and trial production, employee training to introduce new or technologically upgraded products or production processes, and marketing new products.

[2] World Economic Forum.

Gross domestic expenditure on research and development

Research and development (R&D) is a key vehicle for economic development in a knowledge-based society. Improved or new technological production processes and the production of new products also mean that technologically more sophisticated goods or products with higher added value are produced – a fundamental objective of the Strategy for the Economic Development of Slovenia (SEDS).

In the 1993-1995 period gross domestic expenditure on R&D was overestimated due to an error related to the number of researchers in the higher education sector, expressed as the full-time equivalent. Though these people also carried out teaching activities, their gross wages were fully included in the gross domestic expenditure on R&D, instead of just the share related to their research and development. Because the data for that period are not comparable to more recent figures, it is sensible to only analyse the post-1995 period. The volume of gross domestic expenditure on R&D, expressed as their share in GDP, grew annually by an average 1.45% in the 1996-1999 period. An international comparison shows that the gross expenditure on R&D, expressed as a share in GDP, was 0.4 of a percentage point lower in Slovenia in 1999 than the EU average, a slightly narrower gap than in 1996 (see table). The Mediterranean members of the EU and the countries of the Visegrad group allocate a lower share of GDP to R&D than Slovenia, but in the more developed countries of the EU (Scandinavia and the central, big countries) the share is considerably higher.

While the gross domestic expenditure on R&D hardly changed in Slovenia in 1996 and 1997 (1.4% of GDP), a gradual but slow increase started in 1998 (to 1.51% of GDP). A positive shift in funding R&D was seen in the business sector, which increased its share in the funding structure of R&D (by nearly 8 structural points, see graph). However, in spite of this increase the business sector's share in gross domestic expenditure on R&D is still considerably lower than in the EU (Slovenia 1999: 0.83% of GDP; EU 1999: 1.25% of GDP). In the EU, the notable growth of the business sector's expenditure (expressed as a share of GDP) on R&D was recorded in recent years. The shares of other sectors in the funding structure of R&D dropped between 1996 and 1999, in particular the government's share[1] (by 6.6 structural points) and the higher education sector's share (by 3.8 structural points). In this case, too, the shifts in the funding structure of R&D expenditure are similar to those in the EU, but in the EU only the government share (in the funding structure of R&D expenditure) is decreasing while that of the higher education sector remains unchanged.

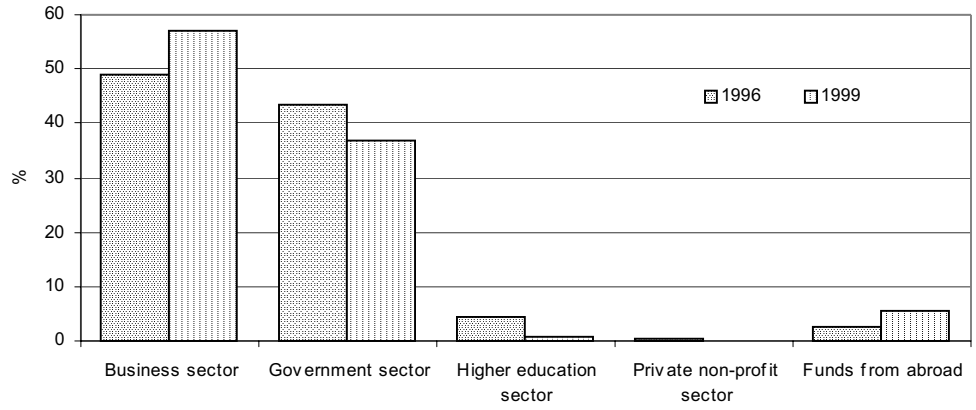
The objective of the Strategy for the Economic Development of Slovenia in the field monitored by this indicator is to increase investment in research and development to around 2% of gross domestic product. Most of this increase is to come from investment made by the private sector, because future technological development will be primarily initiated and stimulated by the entrepreneurial sector, and is expected to depend less on direct government financial incentives. According to the SEDS, government investment in R&D is to increase to a level that would keep up with the volume of the entrepreneurial sector's investments for these purposes. As shown by the above analysis, the indicator's value gradually increased over the last two years (1998-99), and the structure of funding sources developed in the desired direction. The SEDS also points out that higher national competitiveness is not feasible without the simultaneous restructuring of R&D in the sense of increasing the share of applied research and experimental development. In addition to further increasing expenditure on R&D in the future, major efforts will have to be dedicated to knowledge transfer (between research institutes and the industrial sector) and its commercialisation.

Table: **Gross domestic expenditure on research and development as a percent of GDP in Slovenia, EU members and the Visegrad countries**

	1995	1996	1997	1998	1999	2000
Slovenia	**1.7** [1]	**1.4**	**1.4**	**1.48**	**1.51**	**-**
EU-15	**1.90**	**1.88**	**1.86**	**1.87**	**1.92**	**1.90**
Belgium	1.72	1.81	1.87	1.90	1.98	-
Denmark	1.84	1.85	1.94	2.02	2.00	-
Germany	2.26	2.26	2.29	2.31	2.44	2.46
Greece	0.49	-	0.51	-	-	-
Spain	0.81	0.83	0.82	0.90	0.89	0.90 [2]
France	2.31	2.30	2.22	2.17	2.19	2.15
Ireland	1.34	1.40	1.39	-	-	-
Italy	1.00	1.01	0.99	0.98	1.04	-
Netherlands	1.99	2.03	2.04	1.94	-	-
Austria	1.56	1.60	1.69	1.81	1.83	1.79
Portugal	0.57	-	0.62	-	0.76	-
Finland	2.29	2.54	2.72	2.89	3.19	-
Sweden	3.46	-	3.68	3.75	3.80	-
UK	1.98	1.91	1.83	1.83	1.87	1.84
Visegrad countries						
Czech Rep.	-	1.03	1.17	1.27	1.29	-
Hungary	-	0.65	0.72	0.68	0.68	-
Poland	0.69	0.71	0.71	0.72	0.75	-
Slovakia	0.98	0.97	1.13	0.82	0.68	-

Source: Statistics in Focus, Theme 9-Science and Technology, 6/2001, European Communities, 2001; Statistične informacije. Raziskovanje in razvoj, znanost in tehnologija. Raziskovalno-razvojna dejavnost, Slovenija, 1999, p. 237/2001, SORS; Main Science and Technology Indicators, OECD, 2001.
Note: [1] overestimated figure due to an error in the number of researchers in the higher education sector, expressed as the full-time equivalent; [2] preliminary data.

Graph: **Structure of the funding sources of gross domestic expenditure on R&D in Slovenia**



Source: Statistične informacije. Raziskovanje in razvoj, znanost in tehnologija. Raziskovalno-razvojna dejavnost, Slovenija, 1999, p. 237/2001, SORS.

[1] Gross domestic expenditure on R&D does not equal government budget funds spent on R&D because the latter also include budget funding used to finance R&D abroad: further differences between the two sets of data are due to the different periods involved (e.g. the budget year is not always the same as the calendar year).

General government expenditure relative to GDP

After gaining independence, Slovenia experienced significant pressures to increase general government expenditure, while the process of transition required its restructuring. At that time, Slovenia set up national institutions and provided conditions for their functioning, resolved structural problems of the economy arising from the loss of markets, and started to rehabilitate the banking and corporate sectors. The state administration was relatively expensive due to the small size of the country, while the social security systems were relatively well developed.

So general government expenditure relative to gross domestic product gradually climbed from 42.1% of GDP in **1992** and ranged at about 43.5% of GDP. In **1995-1996**, general government expenditure decelerated slightly and rose more slowly than gross domestic product. In 1996, the percentage of general government expenditure in gross domestic product fell to 42.4%. In **1997-2000**, general government expenditure rose faster than gross domestic product, except in 2000. As a result, the share of general government expenditure rose gradually after 1996 and represented up to 44.8% of gross domestic product in 2001.

While upward pressures on general government expenditure mainly came from resolving transitional problems in the early years of independence, the period after 1995 saw the growing weight of the **rising employment and wages**, which contributed the most to the rise in general government expenditure relative to GDP up until 2001. The Wage Relationship Act was passed in mid-1994, which triggered the first wave of pressures to increase public expenditure on wages. This was followed by other waves, which led to a 1.1 percentage point rise in expenditure on wages and contributions relative to GDP in the next two years (see table). The restrictive wages policy in the public sector eased slightly real government expenditure growth on wages in 1998 so the percentage of wages and contributions in GDP fell in the same year and the level of 9.6% of GDP was maintained up until 2000. In 2001, the share climbed again, going up by 0.5 of a percentage point. Hence, general government spending on wages and contributions climbed from 8.7% of gross domestic product in 1995 to 10.1% in 2001.

Significant real rises were seen in **expenditure on social transfers**, which was due to the relatively well-developed social security system and indexation mechanisms. Their share in gross domestic product rose from 5.3% in 1995 to 6.1% in 2001. The composition of social transfers changed to the benefit of higher shares for employment (unemployment), child care (the universal child benefit) and war veterans protection (the enforcement of new laws). After 1995, significant pressure on general government expenditure came from the **pension fund**, which was triggered by changes in demographic, economic and social conditions, but the pressure eased in 2001 after the pension reform began to be implemented in 2000 (see table).

Expenditure on **interest payments** relative to GDP started to rise after 1997. The percentage climbed from 1.2% of GDP in 1995-1997 to 1.6% of GDP in 2001.

Expenditure on **subsidies and transfers to the corporate sector** accounted for up to 2.8% of GDP in 1992 primarily due to the implementation of active employment policy and consolidation of insolvent large corporations. The share fell gradually in the following

years and halved to 1.4% of GDP in 2001.

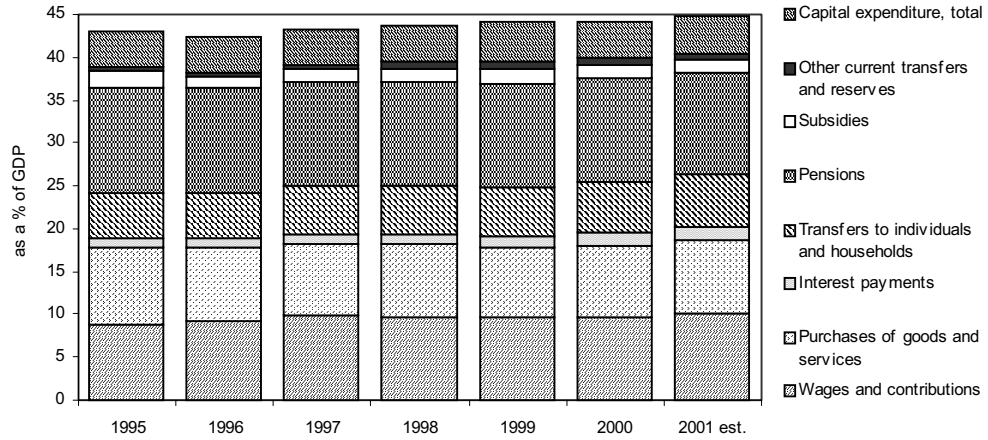
Capital expenditure accounted for about 4.2% of GDP in 1995-2001 (see table). In the process of negotiating general government expenditure, capital expenditure was gradually reduced on account of the traditional government expenditure (wages, material costs and interest) and social transfers even though the rising share of investment is crucial for accelerating development.

Table: **The structure of general government expenditure in Slovenia in 1995-2001, % of GDP**

	1995	1996	1997	1998	1999	2000	2001
General government expenditure, total	43.1	42.4	43.2	43.7	44.2	44.1	44.8
Wages and contributions	8.7	9.2	9.8	9.6	9.6	9.6	10.1
Purchases of goods and services	9.0	8.6	8.4	8.5	8.1	8.3	8.6
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	12.0
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	0.8
Capital expenditure, total	4.2	4.2	4.2	4.3	4.6	4.2	4.2

Source: Ministry of Finance

Graph: **Economic structure of general government expenditure relative to GDP**



Source: MF Bulletin, calculations by the IMAD.

State aid

The **synthesised indicator** 'state aid as a percent of GDP' shows that Slovenia's state aid represented 2.07% of GDP in 2000, 0.46 of a percentage point less than in 1998, but 0.89 of a percentage point more than the EU's annual average. All EU members with the highest shares of state aid recorded lower levels than Slovenia (1.74% in Finland and 1.56% in Portugal). However, a comparison of Slovenia and the EU is incomplete without the following indicators: (i) **state aid per employee**, which totalled EUR 530 in Slovenia in 2000 (EUR 593 in 1998), 5.9% lower than in the EU (EUR 563); (ii) **state aid excluding agriculture and fishing** relative to GDP, which equalled 1.1% of GDP in Slovenia in 2000 (2.0% in 1998) and was only 0.11 of a percentage point higher than in the EU (0.99%).

The synthesised indicator therefore shows that Slovenia is reducing the scope of active industrial policy and is gradually drawing close to EU member-states. However, **analytical indicators** show that Slovenia earmarked up to 45.9% of state aid for agriculture in 2000 (only 20.9% in 1998), significantly more than EU member-states (15.5%). But if we take into account agricultural structural aid given at the level of the Union, Slovenia's share of state aid allocated to agriculture and fishing is not higher than in the EU as a whole, recording an estimated share of 49.9%. If we use the same method in non-agricultural activities and add the EU's structural and other aid to the average level of EU-members' state aid (the calculation cannot be made due to methodological differences), the estimated share of all active aid allocated by Slovenia to the economy is equal to the average level of the EU.

In 2000, total state aid per employee was 5.9% lower than the EU average, and close to 40% lower if agriculture is excluded. However, this indicator does not imply that Slovenia's state aid per employee is too low, it suggests that Slovenia's value added, or GDP, per employee is too low.

Analytical indicators show that Slovenia mainly pursues horizontal goals within active industrial policy (excluding agriculture and fishing), which is acceptable and justified from the point of view of industrial policy theory and competition policy. Only close to one-third of **aid** is allocated to sensitive industries **through sectoral objectives**, with the transport sector receiving 25% of such aid. EU member-states allocate over 50% of aid for sectoral goals (52.6%), the most for the transport sector. Slovenia has few regional objectives (they only accounted for 1.7% of aid in 2000), while the EU allocates up to 26.6% of aid through these goals.

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 2000, Slovenia earmarked a solid tenth of all state aid (11.8%) for restructuring, while EU member-states only 1.4%. But, compared to 1998, the state's active role in the restructuring process diminished rapidly.

The number of state aid allocators fell in 2001 as the number of ministries was reduced and the Ministry of the Economy was consolidated, while the compulsory notification system helped state aid to be allocated in line with the EU's rules. Further, Slovenia adopted the **Strategy for Economic Development** as its main development planning document for the period up to 2006 and the National Development Programme as it implementing aspect. Both documents should help pursue active industrial policy

systematically and reduce the number of different aid schemes designed to follow the same or similar purposes.

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

	Slovenia 1998	Slovenia 2000	European Union 1997-1999 (annual average)
Synthesised indicator			
Total state aid, % of GDP	2.53	2.07	1.18
Analytical indicators			
Total state aid per employee, EUR	593	530	563
State aid (excluding agriculture and fishing), % of GDP	2.0	1.1	0.99
State aid (excluding agriculture and fishing) per employee, EUR	469	287	475
State aid for agriculture and fishing, % of total state aid	20.9	45.9	15.5
State aid (excluding agriculture and fishing) for horizontal objectives, % of total state aid	66.9	65	19.5
State aid (excluding agriculture and fishing) for regional objectives, % of total state aid	0.7	1.7	26.6
State aid (excluding agriculture and fishing) for rescue and restructuring, % of total state aid	19.4	11.8	1.4

Source: 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, and data from the European Commission: Ninth Survey on State Aid in the European Union, Commission of the European Communities, Brussels, 18 July 2001.

Genuine saving index

The Strategy for the Economic Development of Slovenia (SEDS) opts for sustainable development, implying that the stock of development factors (in quantitative and qualitative terms) should be maintained as the economy grows. The success of this particular strategy can be measured by the genuine savings index, which shows changes in the stock of produced and natural development factors relative to a given year's GDP. If the index is positive, the stock has increased and thus increased the achievable future welfare. The SEDS envisaged that the genuine savings index would climb from 12.9% GDP in 1997 to 16.2% GDP in 2006. In reality, however, the index had already dropped to 11.0% in 1999.

Slovenia's positive genuine savings index means that its development potential is not endangered. But that is not quite satisfactory because the index is among the lowest **in the international environment**: (i) the items which otherwise boost the index are low (new investment); (ii) the high percentage of depreciation in GDP in the index may be the result of "creative" accounting when assessing the privatisation value of industrial enterprises. Furthermore, companies are allowed to report part of their initial privatisation value as long-term ecological provisions (around 1.8% GDP), thus reducing the purchase value and accelerating the rehabilitation of past environmental degradation. These provisions, however, are not included in new investments, meaning that they artificially lower the value of the index. The genuine savings index will be less and less underestimated with the continuing elimination of these provisions. Further, the total of deductible items in Slovenia's index is among the lowest. The causes of the sustainability problem are not so much in high environmental degradation as in the meagre new investments; and this means that Slovenia's sustainable development potential is relatively favourable compared to other countries; with the exception, however, of CO_2 emissions.

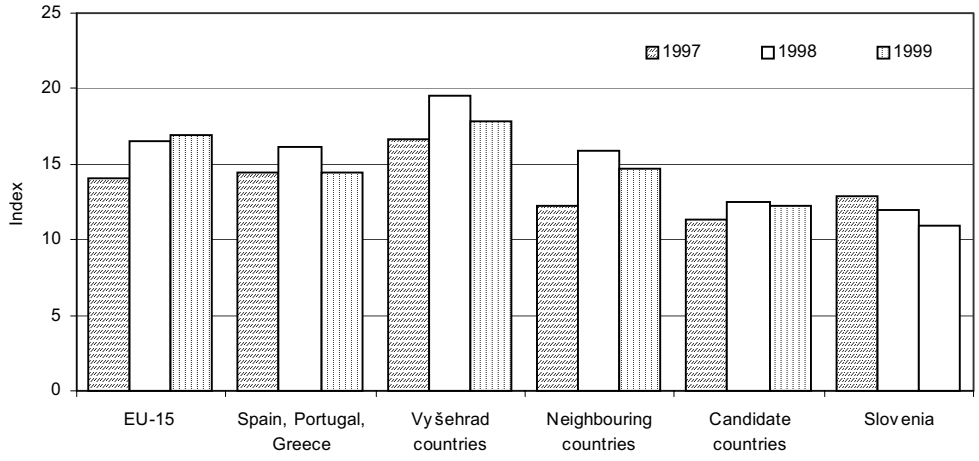
Macroeconomic projections anticipate an increase of the use and stock of produced development factors, in particular as a result of catching up in economic development. "All" Slovenia has to do is to ensure that **future** investments will not be in conflict with domestic development factors. As indicated by the case of the capacity expansion of the country's biggest producer of aluminium - a major consumer of 24-hour electricity; currently the biggest industrial investment in Slovenia (over USD 100 million) - the danger is considerable. Because of the economic structural imbalances of the transition, the investment is appropriate in business terms: in the long term the surplus of 24-hour electricity power will be allocated usefully (considering domestic demands). By taking over the "surplus power", the investor also reckons to have the cheapest power available but fails to take account of the negative external effects. Furthermore, additional price cuts can be expected following liberalisation of the electricity trading market, and no changes to the basic conditions, e.g. the introduction of an environmental transaction tax, are as yet anticipated. The investment is not non-sustainable by itself, but it is an example of how an implementation gap influences development integration.

Table: **Sustainability of economic development assessed by the genuine savings index, 1999**

	Sg	Changes in capital stock, % of GDP			Sg	Changes in capital stock, % of GDP	
		Increase in produced assets[1]	Fall in non-produced assets[2]			Increase in produced assets[1]	Fall in non-produced assets[2]
	1=2-3	2	3		4=5-6	5	6
EU-15	16.9	17.3	0.4	Latvia	11.2	12.1	0.9
Spain, Greece, Portugal	14.4	14.8	0.4	Ireland	32.2	32.6	0.4
Vyšehrad countries[3]	17.8	19.2	1.4	Italy	14.6	14.8	0.2
Neighbouring countries	14.7	15.3	0.6	Hungary	19.3	20.3	1.0
EU candidate-countries[4]	12.3	14.2	1.9	Germany	15.0	15.2	0.2
Austria	16.2	16.4	0.2	Netherlands	19.1	19.4	0.3
Belgium	18.1	18.4	0.3	Norway	19.1	20.9	1.8
Estonia	12.8	15.0	2.2	Poland	12.8	14.9	2.1
Finland	18.9	19.2	0.3	Portugal	16.2	16.6	0.4
France	14.6	14.7	0.1	Slovenia	11.0	11.5	0.5
Greece	11.3	11.7	0.4	Spain	15.8	16.1	0.3
Croatia	8.5	9.6	1.1	Sweden	17.0	17.2	0.2
Lithuania	7.3	8.1	0.8	Slovakia	19.5	20.7	1.2
				U.K.	7.7	8.2	0.5

Source: the World Bank; projections and estimates by the IMAD.
Notes: [1] gross national savings minus consumption of fixed capital plus expenditure on education; [2] exploitation of hydrocarbons minus exploitation of mineral raw materials minus tree felling minus CO_2 emissions; [3] Slovakia, Poland, Czech Republic, Hungary; [4] the Luxembourg group, excluding Cyprus and Slovenia.

Graph: **Genuine saving index, 1997–1999**



Source and notes: see table.

Energy intensity

In **2000 Slovenia**[1] consumed 386 toe (tonnes of oil equivalents) of primary energy to produce 1 million in GDP, expressed in 1990 constant EUR prices, as against the 231 toe needed in the **EU in 1999.** In other words, Slovenia consumed approximately two-thirds more energy than the EU members to produce one unit of GDP. There are, however, considerable differences in energy intensity between the fifteen countries of the EU. The least "energy wasteful" countries in the EU were Denmark, Italy, Austria, and Ireland, consuming below 200 toe/EUR_{1990} 1 million, while the most wasteful ones were Portugal, Greece and Belgium, consuming over 300 toe/EUR_{1990} 1 million.

Slovenia's energy intensity was about the same as the USA's (395 toe/EUR_{1990} 1 million in 1998), but this fact does not change the essential need for Slovenia to pursue a strategy of reducing energy intensity in the future. Over the last few years, Slovenia's energy intensity has fallen faster than the EU's, where it fell by nearly 10% in the previous decade.
No fully comparable figures are available for **Central and Eastern European countries**, but the EBRD's Transition Report 2001 shows that Bulgaria, Romania, Lithuania, Slovakia and the Czech Republic saw higher energy intensity than Slovenia's, while Poland, Hungary, Latvia, and Estonia recorded lower intensity (measured in toe/USD 1000, current prices).

The **EU** has established that energy consumption continues to increase as the economy grows, albeit at lower rates. Structural changes in the economy have brought about some improvement, particularly the increased share of services, while efforts to save energy have had less effect. Over the past ten years, the EU countries which recorded the best results in reducing energy intensity were Germany (replacement of obsolete and inefficient technologies in the former East Germany), Ireland (high economic growth, particularly in energy non-intensive activities and services) and Luxembourg (winding-up of steel works in the mid-nineties). Though the EU has set no quantitative goals as regards future energy intensity levels, the main development scenarios envisage a 2% annual drop in 2000-2010 based on the assumption of further restructuring in favour of the services. Greater improvement options are offered by the energy insulation of buildings (reduced losses) and a better utilisation of energy equipment (technology, energy labels). The intensity of energy consumption will be further reduced by the increased re-orientation to natural gas and further expansion of a (decentralised) combined production of electricity and heat.

In **Slovenia**, any rapid reduction of energy intensity is hampered by the fact that energy-wasteful industries are being maintained or even expanded, and by the slow restructuring in favour of production and service industries which generate high added value and consume little energy. The measures taken to achieve efficient energy consumption - stimulating energy saving plans in companies, advising and assistance in renovating buildings, reduction of average petroleum product consumption in transport by stimulating public transport - cannot reduce energy intensity significantly because of existing technological and other constraints. From a development standpoint, all macroeconomic decisions aimed at expanding and prolonging operations of energy intensive industries are arguable, such as increasing the capacity of steel, aluminium (Talum), paper and, to some extent, chemical industries. Considering the present liberalisation of the electricity market it might be useful to compensate possible price reductions with the introduction of a "green tax" on the reproductive use of (electric)

energy. This would ensure that decisions on allocations take more account of the aspect of energy intensity, and would also gather the means for the necessary investments.

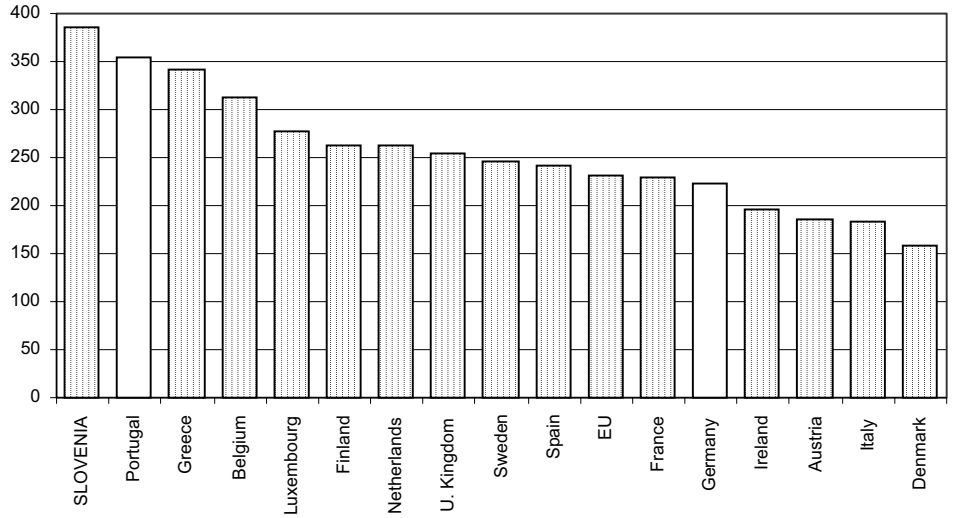
Slovenia's energy intensity is likely to fall faster (that is to say, to improve) than in the EU mainly because of its higher GDP growth and its initial high level of energy intensity. In order to reduce that level, substantial funds will be invested (in line with the "Strategy and action plan to reduce greenhouse gases" of the Ministry of the Environment and Spatial Planning). However, assuming reasonable energy consumption and GDP growth scenarios, Slovenia is not likely to catch up with the EU average in the next 20 years.

Table: **Energy intensity in Slovenia and the European Union in the 1990-2000 period, in toe/mio EUR$_{1990}$**

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Slovenia	n.a.	n.a.	n.a.	n.a.	427	460	464	452	426	397	386
EU-15	255	251	246	248	241	240	245	238	236	231	n.a.

Sources: Ministry of the Environment and Spatial Planning, Ministry of the Economy, Ministry of Economic Affairs, Statistical Yearbook of Slovenia's Energy Sector, various issues (figures on primary energy consumption in Slovenia); Bank of Slovenia, Bulletin of the BS (euro exchange rate); SORS, Statistical Yearbook 2001, Rapid Reports no. 941-01-31/2000 (GDP for Slovenia); EC, Energy and Transport in Figures, Energy (figures for the EU); the IMAD's calculations (Slovenia's GDP expressed in 1990 EUR constant prices).
Note: n.a. - not available.

Graph: **Energy intensity in Slovenia in 2000 and in European Union countries in 1999, in toe/mio EUR$_{1990}$**



Sources: Ministry of the Environment and Physical Planning, Statistical Yearbook of Sloveniaś Energy Sector 2000 (data on the primary energy consumption in Slovenia); BS, Bulletin of the Bank of Slovenia, no. 12/2001 (euro exchange rate); SORS, Statistical Yearbook 2001 (GDP for Slovenia); EEA, Environmental sustainability indicators in the structural indicators (data for the EU); the IMADis calculations (conversion of Slovenian GDP into EUR at 1990 EUR constant prices).

[1] In calculating Slovenia's energy intensity, figures on the primary energy consumption from the Statistical Yearbook of the Energy Sector (MEPP) were used to cover longer time series (SORS also published similar data but only for 2000, and the figure differs from that of the Statistical Yearbook by just 0.4%).

The share of "dirty industries" in manufacturing

The share of manufacturing in value added is declining as the service sectors are rising relatively fast (manufacturing fell from 29.0% in 1995 to 27.8% in 2000). Manufacturing's economic and environmental characteristics are one of the main determinants of Slovenia's economic sustainability due to: (i) its size and extensiveness; (ii) close links with non-industrial activities: crafts, agriculture, production services and information technologies; and (iii) (social) consequences brought about by transition and the introduction of a new generation of technologies which are more environmentally friendly.

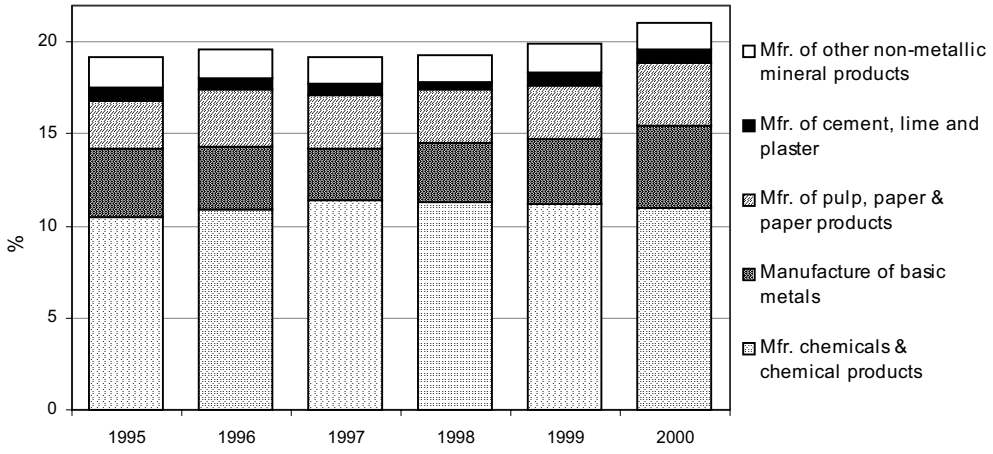
Dirty industries, i.e. the highest-ranking sectors as regards emission intensity per unit of output,[1] account for over 86% of total emissions estimated for Slovenia's manufacturing. In 1995-2001, their total average annual production volumes climbed faster than those of manufacturing, up 3.4% and 2.5%, respectively. The **share** of these industries in manufacturing's **value added** (VA) stagnated in 1995-1998, it increased by 0.6 of a percentage point in 1999 and by a further 1.2 percentage points in 2000 (mainly in the manufacture of metals and manufacture of pulp, paper and paper products; see also Composition of Merchandise Exports by Factor Inputs). The proportion of VA generated by dirty industries is high in Slovenia, even though individual companies are sufficiently environmentally efficient compared to foreign competitors (low levels of emissions per unit of production). This suggests that the high proportion of dirty industries is more a macroeconomic than microeconomic problem. In the recession phase of transition, improvement in environmental and economic integration was spontaneous (bankruptcy of economically and environmentally inefficient companies), but improvement in the expansion period of transition was impossible without focused efforts aimed at integrating environmental criteria into business investment. As shown by the graph, the trend reversed in 1998, when the contribution of dirty industries to VA started to rise. Slovenia currently records too high a number of large consumers of raw materials and energy, even though they are relatively environmentally efficient. This is a serious sign of a 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 tightening of environmental and technical standards and policies because of the non-elasticity of dirty industries to changes in environmental economic conditions.

Environmental integration has been primarily introduced in dirty industries because they have been forced to do so by foreign competition. However, it should be noted that foreign competition raises the environmental standards of domestic companies more in foreign than in domestic markets since Slovenian companies tend to follow standards established in foreign markets. **Foreign investment inflows**, for example, trigger a reverse process, with domestic companies setting the benchmark for foreign ones, so that they take advantage of weaknesses of domestic companies, for example low environmental standards in production. Hence, foreign direct investment may lead to a higher share of dirty industries, which is critically high as it is. This share might increase further in the future unless the government tightens environmental criteria of investment and business operations, which were taken on by harmonising laws with the *acquis,* in its process of directing both foreign and domestic investment. Priority should be given to a better integration of economic and environmental aspects in energy intensive companies and activities which will be exposed to major changes in management practices upon liberalisation of the market (see also Energy Intensity).

Consumption of final energy per unit of VA in manufacturing fell in Slovenia in 1995-1999, with the average annual value added rising 4.0% and final energy consumption falling 2.1%. In 2000, manufacturing's VA rose by 8.6% in real terms and final energy consumption climbed by 1.7%, while in 2001, energy consumption per unit of VA is estimated to have fallen again. The rise in final energy consumption in manufacturing was mainly underpinned by higher electricity (especially in chemical and metal industries) and gas consumption (especially in paper and metal industries) in 2000, and by higher consumption of coke (metal and non-metal industries) and gas fuels (non-metal industries) in 2001. Manufacturing's CO_2 emissions increased by 0.6% in 2001 because of increased use of final energy. Abatement necessary to meet the Kyoto commitments will put Slovenia under bigger pressure from current non-sustainability than previously expected.

Development policy designed in the context of the new development paradigm introduces new criteria of investment efficiency and effectiveness, thus contributing to a long-term reduction of environmental degradation together with economic growth. To this end, development policy selects priority investment projects from the existing development programmes on the basis of different criteria, where the Directive on Integrated Pollution Control is crucial (96/61/EC). In order to meet these goals, Slovenia negotiated a four-year transitional period to carry out a financially highly demanding project of adapting 15 most problematic companies. At the macroeconomic level, it is necessary to ensure a sufficient level of qualitative improvement so that additional pressures on the environment from the planned production volume growth are neutralised. Qualitative changes should primarily help reduce the relative environmental degradation. Since investment in qualitative improvements is financed through growth in volumes, business entities themselves raise their competitive edge by integrating environmental criteria in business investment while, at the macroeconomic level, reinvesting part of value added in improving factors of production create room for further economic growth without additional pressure on the environment. Environmental and economic integration contributes to increasing the mutual support of the micro- and macroeconomic goals of environmental protection and accelerated economic growth.

Graph: **Percentage of value added of dirty industries in manufacturing's value added in Slovenia in 1995-2000**



Sources: AP, SORS.

[1] Iron and steel, non-ferrous metals, industrial chemicals, cellulose and paper, and non-metal mineral products.

Road freight transport

The SORS' transport statistics regularly monitor the entire rail freight transport and public road freight transport, excluding that of independent private carriers and the own-account transportation of companies. This only covers about one-third of total road freight transport. As a result, the share of road transport calculated using these figures is heavily underestimated and internationally incomparable, furthermore, many other countries' methodologies are not harmonised. The SORS has participated in the Eurostat's pilot survey on road freight transport in order to improve the monitoring of road freight transport, and for the first time calculated the total volume of Slovenia's road freight transport; figures cover the second half of 1997 and the first half of 1998.
This is currently the only internationally comparable figure and new data are being prepared for 1999 and 2000.

From July 1997 to June 1998, **road freight transport** accounted for 59.8% of total road and railway **freight transport in Slovenia**; the EU as a whole recorded over 80% in the early 1990s and up to 84.7% in 1999. As far as member-states are concerned, Austria was the only country with a proportion lower than Slovenia (a solid 50%), while the highest shares were seen in Greece and the Netherlands (over 95%). **Central and Eastern European countries**, except Hungary (69.0%), recorded lower shares of road freight transport than Slovenia (below 30% in the Baltic states and Romania). The size of road freight transport shares in individual countries largely depends on historical and geographical factors.

The **growing shares of road freight transport** in Europe have been the result of factors such as the high adaptability of this type of transport (door-to-door), more relaxed regulations and controls, and strong competition within this activity and against other types of transport, which allow relatively lower (competitive) prices, as well as the result of higher external costs not included in transport prices. These unpaid costs become social costs. This is where **railway freight transport has an advantage over road transport**. 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. Another advantage is that safety in rail transport is considerably higher than in road freight transport.

Therefore, the **EU's and Slovenia's transport policy goal** is to increase or at least maintain current market shares of railways in freight transport (the EU's policy includes an increase of waterway freight transport). This should be achieved by promoting inter-modal and combined freight transport (Slovenia, for example, subsidises combined freight transport). The EU tries to revitalise rail transport by greater harmonisation of rules and procedures regulating this area (licences, permissions, market access) so as to create a single European railway system which will be more competitive to road transport. Slovenia follows EU's guidelines by appropriate harmonisation of laws (the Road Transport Act, the Railway Transport Act). Neither Slovenia nor the EU has set quantitative goals for each type of transport as regards their shares in total freight transport.

Factors that may help prevent any further rises in the share of road freight transport in Slovenia are adequate price and tax policies, which should set the complete price structure for road and rail transport (external effects, minimising unprofitable investment, the introduction of taxation based on differentiated environmental criteria). Slovenia's accession to the EU can facilitate the entry of domestic carriers in member-states' markets

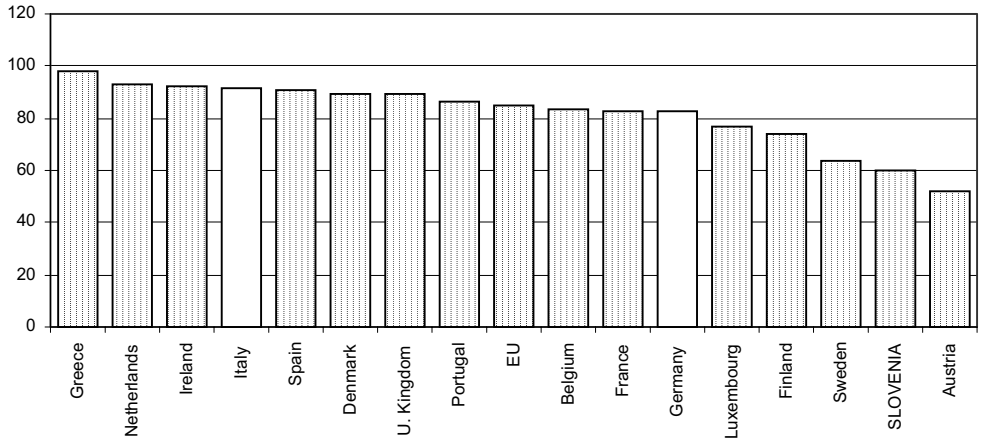
(however, this may also result in tighter competition in the domestic market) and raise the volume of road transport and domestic road transport activity, but this would also cause the value of the road freight transport indicator to rise. The value of this indicator may be reduced by further developing the port of Koper, to which rail transport is closely linked, and by upgrading the Slovenian railway network (the construction of the second rail track on the Divača-Koper railway line) so as to allow an increased volume of rail transport. A more even distribution of investment funds between roads (motorways) and railways is envisaged by the Strategy for the Economic Development of Slovenia, contrary to the previous trend of allocating significantly higher amounts for motorway construction.

Table: **Percentage of road transport in total freight transport (roads and railways) in Slovenia and the European Union in 1990-2000 (tkm)**

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Slovenia[1]	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	59.8	n.a.	n.a.	n.a.
Slovenia[2]	45.0	48.4	46.8	46.8	44.1	36.1	40.1	38.4	40.0	40.2	42.2
EU-15	78.5	n.a.	n.a.	83.3	83.4	83.7	83.9	83.5	83.9	84.7	n.a.

Source: Eurostat, Statistics in focus, Transport, theme 7-2/1999; the SORS, Statistical Yearbook, various issues; EC, Energy and Transport in Figures, Transport; calculations by the IMAD.
Notes: [1] July 97-June98; figures taken from the Eurostat's pilot survey conducted in co-operation with the SORS; including inland and international road transport (excluding transit); [2] excluding transport of individual private carriers and the own transportation of companies; n.a. - not available.

Graph: **Percentage of road transport in total freight transport (roads and railways) in Slovenia in 1997 and EU member-states in 1999 (tkm)**



Source: Eurostat, Statistics in focus, Transport, theme 7-2/1999; the SORS, Statistical Yearbook, various issues; EC, Energy and Transport in Figures, Transport; calculations by the IMAD.
Note: [1] July 97-June98; figures taken from the Eurostat's pilot survey conducted in co-operation with the SORS; including inland and international road transport (excluding transit).

Use of mineral fertilisers per cultivated agricultural area

Intensive agriculture is one of the biggest environment polluters. Its negative effects mainly derive from the excessive and inadequate use of pesticides, the extreme concentration of stockbreeding and the liquid manure that it brings, and the excessive use of mineral fertilisers. Nitrogen fertilisers are the most critical ones. According to SORS data, a total of nearly 175 tons of mineral fertilisers was used in **2000** in Slovenia, that is 343 kg per hectare of cultivated agricultural area. The use of the three main macro-nutriments (NPK), that is nitrogen, phosphorus and potassium, amounted to a total of 75.4 thousand tons or 148 kg/ha of cultivated agricultural area, and this represents 43% of the total quantity of mineral fertilisers used. Among macro-nutriments, nitrogen ranks first (69 kg/ha), followed by potassium (44 kg/ha), and phosphorus (36 kg/ha). The used quantities of NPK fertilisers per cultivated agricultural area increased from **1995 to including 1998,** and then started to fall. In **2000** the amount used was 11% higher than in 1995. A comparison between the use of fertilisers in agricultural companies and on family farms shows that farmers use nearly three times less mineral fertilisers per cultivated area than agricultural companies. The reason for this considerable difference clearly lies more in the relatively high prices of mineral fertilisers, which considerably increase production costs, than in the ecological awareness of farmers.

A comparison of the use of NPK fertilisers in Slovenia with their use in **EU countries**[1] shows - for 1997, the last year data are available[2] - that the EU countries used over a fifth less mineral fertilisers per cultivated agricultural area than Slovenia[3]. The differences are considerable in the use of potassium and phosphorus, and less in the use of nitrogen. Because nitrogen is the element which has the greatest effect on plant growth, that is on boosting crops, producers pay particular attention to ensure its use in sufficient quantities; without adequate and current analyses, however, the quantities often tend to be excessive. The use of NPK fertilisers in the EU has been falling over the past few years and in 1997 it was 20% below the 1990 level. The differences in use between individual countries are, however, considerable: Austria, Portugal and Spain use extremely low quantities, while they are much higher in countries with intensive agriculture – Belgium, the Netherlands, and Denmark.

The figures thus show that the use of NPK fertilisers in Slovenia is relatively high, and that it entails high environmental pollution. The problem is all the more acute because there are big differences between their use in individual areas of Slovenia, that is between the intensive agriculture seen on the plains and the extensive agriculture existing in mountainous areas. Farmers often tend to use fertilisers based on their own experiences, without having the soil analysed by professionals, and this occasionally leads to pollution hot spots.

The data shown below and their analysis refer to the period when Slovenia's **agricultural policy reform** had still not really taken off. The agri-environmental programme underwent trial implementation in 2001 and will be implemented comprehensively over the next five-year period up to 2006; it is to introduce an essential novelty to agriculture in Slovenia: an environmental development component, which is the optimum and in some areas even the only feasible approach to competitive agricultural production. In addition to preserving the soil's fertility, biodiversity, and protected areas, the main objective of this development is the general reduction of the negative effects of agriculture on the environment. The programme includes various measures of direct payments; important among them in the sense of reducing the use of fertilisers and pesticides are integral

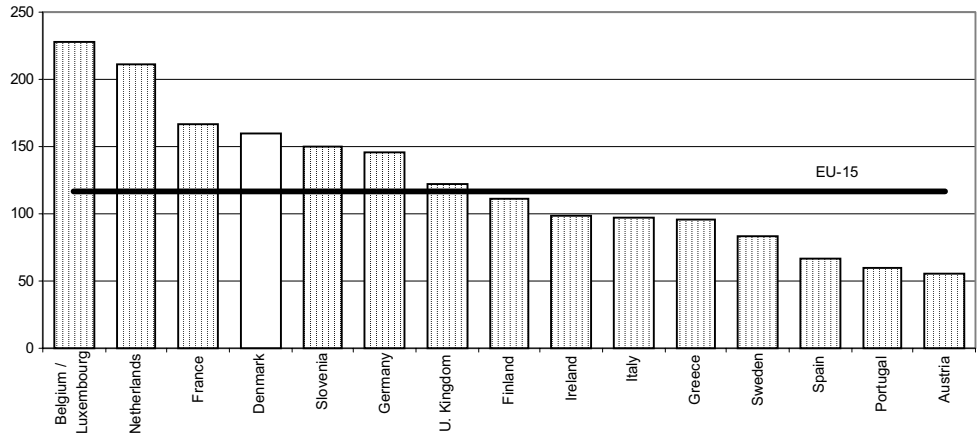
fruit-growing and wine-growing, integral horticulture, and ecological agriculture[4]. The programme is expected to be well received, and between 20% and 40% of cultivated areas are to gradually included. Its implementation will also lead to lower total use of mineral fertilisers and reduce environmental pollution.

Table: **Use of NPK fertilisers[1] in Slovenia in the 1995–2000 period, in kg/ha of cultivated agricultural area**

Year	N	P_2O_5	K_2O	NPK	NPK, growth
	Nitrogen	Phosphorus	Potassium	Total	in %, 1995=0
1995	60.4	33.2	40.3	133.9	
1996	60.5	33.4	41.2	135.0	0.8
1997	69.0	35.5	45.2	149.7	11.8
1998	70.9	38.3	46.8	156.0	16.5
1999	69.0	39.6	49.0	157.6	11.8
2000	68.5	36.1	43.5	148.1	10.5
Agricultural companies	176.2	85.3	112.8	374.3	..
Family farms	61.8	33.1	39.2	134.1	..

Source: SORS, Statistical Yearbook 2001.
Note: [1] Macro-nutriments: nitrogen, phosphorus, potassium.

Graph: **Use of NPK fertilisers[1] in Slovenia and in the EU countries in 1997, in kg/ha of cultivated agricultural area**



Sources: Eurostat Yearbook. A Statistical Eye on Europe, Edition 98/99, 2000. SORS.
Notes: [1] Macro-nutriments: nitrogen, phosphorus, potassium.
Slovenia ñ calendar year; EU ñ ïfertiliser yearî, that is from July 1 of one year to June 31 of the next year.

[1] Attention should be drawn to the fact that the periods for the data differ between Slovenia and the EU: the Slovenian statistics refer to data in the calendar year, those in the EU to data in the "fertiliser year", that is from July 1 of one year to June 31 of the next year.

[2] Eurostat Yearbook - Edition 2001 also contains data for 1998 but only the total quantities, they cannot be calculated per cultivated area in the EU-15 because there are no data on the total area of cultivated land.

[3] According to data of the Eurostat Yearbook - Edition 98/99 the difference between Slovenia and the EU average is much smaller. The corrected data of Eurostat Yearbook - Edition 2000 increased the difference.

[4] Integral agriculture produces high-quality crops of healthy food in an economically acceptable way, while the use of fertilisers and pesticides is carefully selected and minimised In ecological agriculture, the use of all non-natural, chemical and synthesised substances is forbidden.

Use of pesticides per cultivated agricultural area

Pesticides are ranked among the environmentally most hazardous inputs because their residues, harmful to the environment and humankind, remain in the air, ground, and plants for a long time. According to the SORS' data, 1,602 tons of commercial pesticides were used in Slovenia **in 1991**[1] or 3.2 kg per hectare of cultivated agricultural area. More than half were fungicides and more than a quarter herbicides, while the rest consisted of insecticides and other substances[2]. The total use of pesticides per cultivated agricultural area increased slowly towards the end of the 1990s, after a sharp fall early in the decade: in 1999 the total quantity was 15% higher than in 1995. The use of fungicides is rising fastest. An important factor in the use of pesticides is weather conditions. They have a big effect on the occurrence and fast spread of diseases, pests and weed growth. There is also a big difference in the use of pesticides between agricultural companies and family farms. Farms use six times less pesticides per cultivated agricultural area than agricultural companies. The reason for this difference lies not in the environmental awareness of the producers but in the economics of production, because greater use of pesticides considerably increases production costs.

A comparison of the use of pesticides between Slovenia and the most comparable foreign countries cannot be made directly. While abroad the statistical data collected and published refer to the active substance in pesticides, the Slovenian statistics only collect and publish data on the commercial quantities of pesticides which include, in addition to the active substances, chemical solvents and additives.

The figures on the sales of pesticides in **EU countries** show that their use has been on an increase since 1994 and was 14% higher in 1998 than in 1994. The biggest increase is recorded for the use of fungicides, followed by herbicides, while the use of insecticides has fallen. The use of pesticides per cultivated agricultural area is highest in those countries with intensive agriculture, in particular Belgium and the Netherlands, but also in the United Kingdom and France.

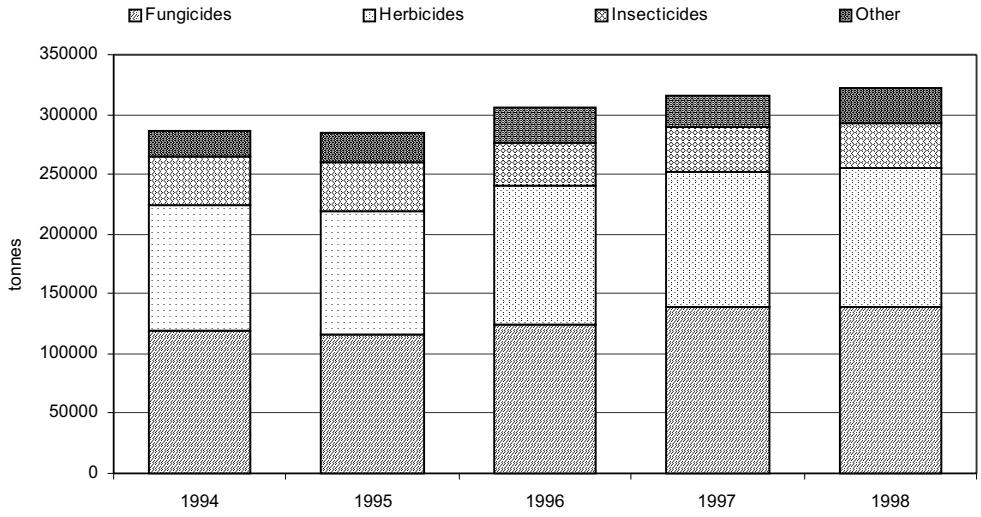
The data shown below and their analysis refer to the period when Slovenia's **agricultural policy reform** had not really taken off yet. The agri-environmental programme underwent trial implementation in 2001 and will be implemented comprehensively over the next five-year period up to 2006; it is to introduce an essential novelty to agriculture in Slovenia: an environmental development component which is the optimum, and in some areas even the only feasible, approach to competitive agricultural production. In addition to preserving the soil's fertility, biodiversity, and protected areas, the main objective of this development is a general reduction of the negative effects of agriculture on the environment. The programme includes various measures of direct payments; important among them in the sense of reducing the use of fertilisers and pesticides are integral fruit-growing and wine-growing, integral horticulture, and ecological agriculture[3]. The programme is expected to be well received, and between 20% and 40% of cultivated areas are to gradually included. Its implementation will also lead to a lower total use of mineral fertilisers and reduce environmental pollution.

Table: **Use of pesticides in Slovenia in kg/ha of cultivated agricultural area in the 1995 - 1999 period**

	Fungicides	Herbicides	Insecticides	Others	Total	Total growth in %, 1995=100
1995	1.29	0.78	0.48	0.23	2.78	
1996	1.26	0.81	0.46	0.22	2.75	-0.9
1997	1.40	0.97	0.36	0.20	2.94	5.8
1998	1.71	0.87	0.31	0.21	3.11	11.9
1999	1.78	0.87	0.38	0.18	3.21	15.6
Agricultural companies	8.44	4.05	2.13	0.74	15.36	..
Family farms	1.33	0.65	0.27	0.15	2.39	..

Source: SORS, Statistical Yearbook 2001.

Graph: **Sales of active substances of pesticides in the European Union in the 1994–1998 period, in tons**



Source: Eurostat Yearbook, A Statistical Eye on Europe, Edition 2001.

[1] SORS has not yet published the data for 2000.

[2] Fungicides are substances used to protect plants against diseases, insecticiodes are used for protrection against pests, and herbicides ares substances used to destroy weeds.

[3] Integral agriculture produces high-quality crops of healthy food in an economically acceptable way, while the use of fertilisers and pesticides is carefully selected and minimised In ecological agriculture, the use of all non-natural, chemical and synthesised substances is forbidden.

Use of renewable energy sources

In 2000 **the share of renewable energy sources[1] in total primary energy consumption in Slovenia** was 11.9%, that is approximately twice as much as **in the EU**, where the share was 5.9%. The highest shares of renewable energy sources among the EU countries are recorded by Sweden, Austria, and Finland (over 20%), with the lowest shares coming from the United Kingdom, Belgium, Luxembourg, and the Netherlands (under 2%). Among **Central and Eastern European countries** (in some countries the use of renewable sources is not yet monitored adequately), Lithuania has the highest share (32.6%) while shares in other countries are lower than in Slovenia. Romania and Estonia are not far behind though, while Hungary, the Czech Republic and Slovakia have low shares of renewable energy sources (under 3%). These big differences mainly derive from the different natural characteristics of individual countries. **The average structure of renewable energy sources in the EU is as follows**: biomass 63.9%, hydro energy 31.0%, geothermal energy 3.5%, wind energy 1.2%, and solar energy 0.4%. According to figures gathered by the SORS, the structure of renewable energy sources in Slovenia consists of 56.6% biomass and 43.4% hydro-energy (other sources are not registered). This means that new or alternative sources of energy (geothermal, solar, wind energy) are poorly utilised in the EU as well.

Renewable energy sources are as important as domestic energy sources because they reduce a country's energy dependence, while increasing the reliability of energy supply; they also contribute to environmental protection and cut CO_2 emissions Increasing the use of renewable energy sources also improves the utilisation of local development factors (energy sources, labour).

The EU's orientation towards stimulating the use of renewable energy sources is motivated in particular by the Kyoto commitments to an 8% reduction, compared to the 1990 level, of greenhouse gas emissions by the 2008-2012 period. Renewable energy sources are to partially replace the use of fossil fuels. The EU therefore decided to double the share of renewable sources by 2010, that is up to 12%. The countries with the best natural conditions should increase the use of renewable sources even more (regardless of the attained level). Without the necessary financial measures in the form of support, tax relief, and financial assistance, these objectives are, however, quite utopian in view of the present trends (there are not many options in the EU to increase the use of "classical" renewable sources, e.g. hydro energy from big power plants).

Slovenia's strategic orientations continue to be chiefly aimed at developing classical renewable sources which are not fully utilised yet, and this may suggest that the country's orientation is more realistic. The share of renewable energy sources would see a major increase in Slovenia through the accelerated construction of a series of hydro power plants along the Sava. Slovenia has yet to make full use of locally available renewable sources, for instance by increasing wood felling on overgrown agricultural land. Recently, major attention has therefore been devoted to utilisation of wood biomass (Ministry of the Environment and Spatial Planning: Programme of Utilisation of Wood Biomass for Energy Purposes – Operating Programme for the 2001-2004 period). These programmes envisage the construction of district heating systems at the local level, including the co-production of electric energy. The Programme of Utilisation of Wood Biomass for Energy Purposes envisages the programme's implementation (construction of boiler plants), supported by budget subsidies, to contribute a 26% share to the reduction of greenhouse gas emissions in accordance with the commitments of the Kyoto Protocol. An increase

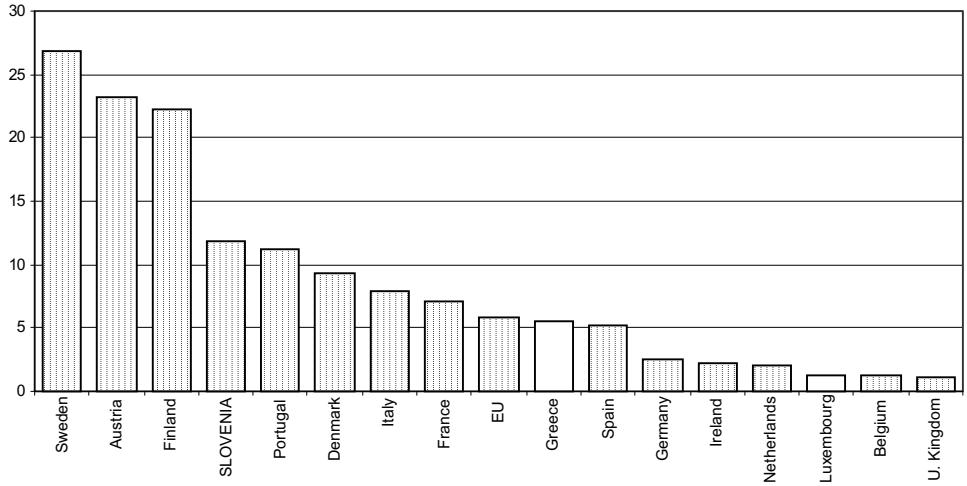
of the share of renewable sources may also reduce the use of non-renewable sources, for instance by closing down domestic coal mines. In spite of the fact that the strategic objective regarding the share of renewable sources is not quantified, Slovenia's clear political orientation is to preserve its advantage over the European average and this means that the share of renewable sources must increase.

Table: **Percentage of road transport in total freight transport (roads and railways) in Slovenia and the European Union in 1990-2000 (tkm)**

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Slovenia[1]	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	59.8	n.a.	n.a.	n.a.
Slovenia[2]	45.0	48.4	46.8	46.8	44.1	36.1	40.1	38.4	40.0	40.2	42.2
EU-15	78.5	n.a.	n.a.	83.3	83.4	83.7	83.9	83.5	83.9	84.7	n.a.

Source: Eurostat, Statistics in focus, Transport, theme 7-2/1999; the SORS, Statistical Yearbook, various issues; EC, Energy and Transport in Figures, Transport; calculations by the IMAD.
Notes: [1] July 97-June98; figures taken from the Eurostat's pilot survey conducted in co-operation with the SORS; including inland and international road transport (excluding transit); [2] excluding transport of individual private carriers and the own transportation of companies; n.a. - not available.

Graph: **Share of renewable sources in total primary energy consumption in Slovenia in 2000 and the EU countries in 1999, in %**



Sources: SORS, Statistical Yearbook 2001 (excluding geothermal, solar and wind energy, including energy from waste and the big hydro energy plants); EC, Energy and Transport in Figures 2001, Energy; the IMADís calculations.

[1] The data on the use of renewable energy sources in Slovenia were taken from the Statistical Yearbook of the Energy Sector (Ministry of the Environment and Spatial Planning) and from the Statistical Yearbook published by SORS. The latter published an integral energy balance (for 2000) for the first time. The data from the SORS are likely to be the most complete ones on renewable sources, although they do not include geothermal, solar, or wind energy. The Ministry's yearbook does not include data on geothermal energy or energy from waste.

Tree-felling intensity

Forests cover over 1.1 million hectares of **Slovenia's** surface area, representing 55% of the total area, which puts Slovenia among the countries that are rich in forest. **Forest area** is constantly extending, primarily due to the overgrowing of land which is secluded or unsuitable for agricultural production. The **growing stock** is increasing in step with the expanding forest area: over the last decade, it has increased by over one-quarter. The **annual wood increment** totalled 6.8 million m^3 in 2000, 11% more than in 1999. Total **removal of trees**, which fell significantly in the early 1990s and rose slightly in the second half of the decade, was over one-fifth lower on average than planned in forest management plans. The difference between the approved and realised tree-felling was almost entirely due to lower removal in private forests. The main reason underlying this trend is the insufficient profitability of tree-felling, as the revenues hardly cover the cost of removal and transport.

The **tree-felling intensity**, expressed as a ratio of annual removal levels to the annual wood increment, has fallen significantly over the last decades: it was over 100% in the period after World War II, dropped to 46% in 1990 and went down further to just 39% in 2000.

In 1995-2000, the intensity of tree exploitation in Slovenia was significantly lower than in **EU member-states**, recording an average of close to 60%. Italy was the only country to record a lower tree-felling intensity than Slovenia.

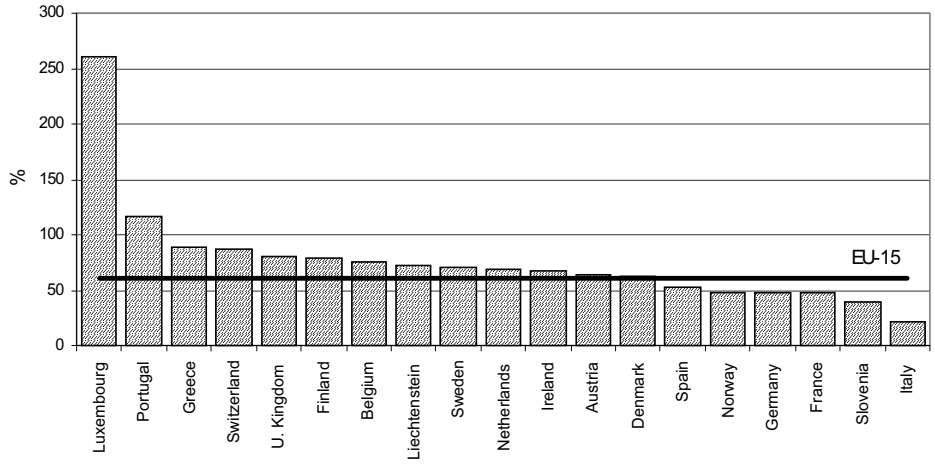
The low intensity of forest exploitation is neither in line with the guidelines of pan-European forest protection nor the main orientations of the **Strategy for the Economic Development of Slovenia**. Slovenia significantly neglects the production function of forests. The low levels of tree removal have other negative consequences in addition to the loss of the opportunity to exploit a renewable natural resource for sale or processing (see also Renewable Resources), such as lower employment opportunities in rural areas and a poorer quality structure of raw wood categories which has negative effects on the net yield in forestry.

Table: **Tree-felling intensity in Slovenia in 1995-2000**

	Forest area	Annual removal	Annual increment	Growing stock	Removal intensity	Removal growth
	'000 ha	'000 m3	'000 m3	'000 m3	%	%,1995=0
1995	1,097.9	2,092	5,995	228,493	34.9	
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	20.1
1998	1,111.0	2,470	6,140	232,688	40.2	15.3
1999	1,115.7	2,396	6,248	237,276	38.3	9.9
2000	1,115.7	2,609	6,872	262,795	38.0	8.8
Annual average (1995-2000)		2,411	6,244		38.6	

Source: the SORS, Statistical Yearbook 2001.

Graph: **Tree-felling intensity in Slovenia, EU member-states and selected transition countries in 1995-2000**



Source: Eurostat – NewCronos, OECD.

Life expectancy

Higher life expectancy means lower mortality, i.e. better health and hygienic living conditions and habits. Life expectancy is in correlation with the level of economic development, but it also depends on geographical, ecological and general cultural conditions. Higher life expectancy is one of the indirect goals of the Strategy for the Economic Development of Slovenia, and realisation of this goal would at the same time fulfil the Strategy's underlying guideline of raising the population's welfare.

In **Slovenia**, life expectancy has been on an increase for at least 150 years. Over the last 20 years, life expectancy increased by four years, slightly more for men than for women. In **1995-1999** alone, after a short stall in the early 1990s, life expectancy increased by 1.1 years for men and 1.0 year for women. In 1999 (the latest official figure provided by the SORS), it was 71.4 years for men and 78.8 years for women.

A comparison of Slovenia's mortality with that of other European countries shows that life expectancy in Slovenia is lower than in any **EU member-state**, but longer than in other **countries in transition**. Differences in men are wider than in women; Slovenia's female life expectancy is only slightly below the levels of Portugal, Ireland and Denmark. The gaps behind the EU average have reduced over the last few years: they shrank from 3.9 years in 1995 to 3.2 years in 1999 for men, and from 3 years to 2.1 years for women.

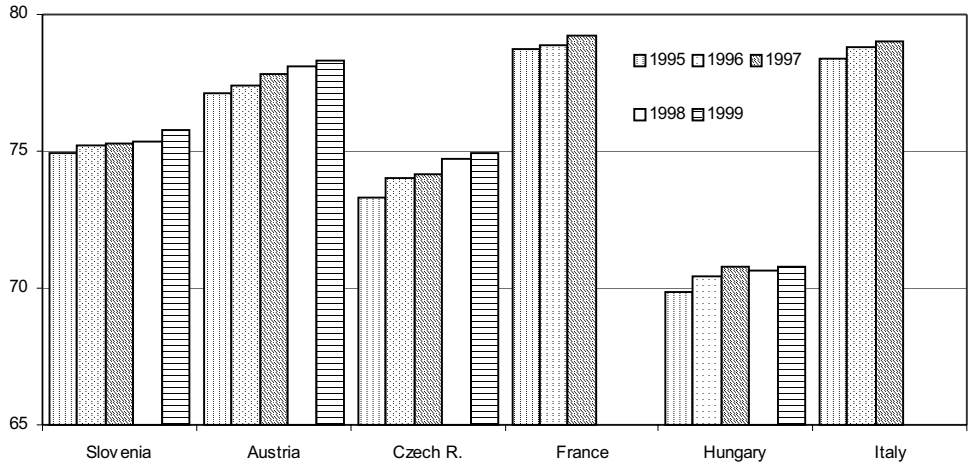
The increasing life expectancy coupled with a birth rate lower than the one necessary to maintain a stable level of the population can lead to the **ageing of the population** and bring about the problems related to this process. They are mainly the economic problem of growing demand for health and social protection of the elderly and the economic problem of covering the cost of pension insurance. These problems can undermine public finance stability on one hand and the level of health and social security of the population on the other. This is why countries faced with the accelerated ageing of the population, which will be particularly acute after 2010 (in almost all European countries), are responding to these problems by reforming health and pension insurance systems. Steps envisaged in the **Strategy for the Economic Development of Slovenia** include a further expansion of sources for social insurance, i.e. the contraction of rights covered by general government expenditure and the transfer of some rights to capital funding on one hand, and the partial privatisation of social security service providers on the other. The pension reform, which Slovenia has already carried out, is the main step taken in this direction, however, it will be necessary to further adjust both the pension and health systems, particularly the financing systems and the provision of services of the latter.

Table: **Life expectancy in Slovenia and the EU in 1995-1999**

	1995	1996	1997	1998	1999
Slovenia					
men	70.3	70.3	71.0	71.1	71.4
women	77.8	78.3	78.6	78.7	78.8
difference	7.5	8.0	7.6	7.6	7.4
EU:					
men	74.2	74.4	74.8	74.5	74.6
women	80.8	81.0	81.2	80.8	80.9
difference	6.6	6.6	6.2	6.3	6.3

Source: the SORS, the WHO, Eurostat.

Graph: **Life expectancy in Slovenia and selected European countries in 1995-1999**



Source: the WHO.

Infant mortality

Infant mortality is an indicator of social standards: low infant mortality is a sign of the high level of living conditions and the high level of the health protection of mothers and babies. The indicator reveals a strong negative correlation with the level of gross domestic product per capita and a positive correlation with the level of education. Infant mortality is an indicator also showing the population's welfare, with the increase in welfare being one the main goals of the Strategy for the Economic Development of Slovenia.

Slovenia's infant mortality is one of the lowest in Europe and the world (Human Development Report 1999: 78). Over the last 20 years, it has fallen by close to one-third: from 15.3 dead babies aged up to 1 year per 1000 live-born children in 1980 to 5.6 in 1995. Since then, infant mortality has ranged at around five and revealed a downward trend. Slovenia's current level of infant mortality is roughly the same as the **EU average** (see table) and slightly higher than in more advanced EU member-states. Scandinavian countries record the lowest levels of infant mortality. In Sweden, less than 3 babies died per 1000 of live-born children in 1999.

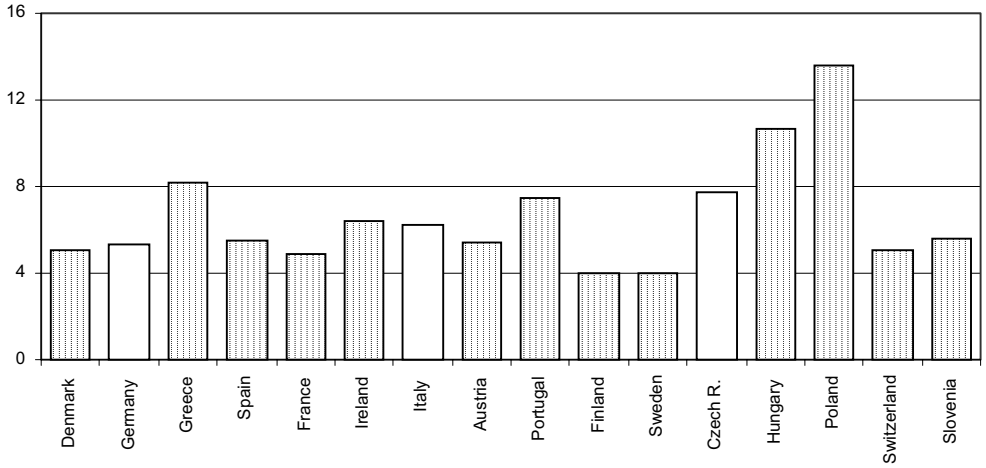
The slowing falling trend of infant mortality seen over the last few years can be accounted for by changes in society, particularly those producing economic and social inequities, which lead to the population's poorer health conditions. In order to improve this indicator, Slovenia should focus on **general measures** aimed at increasing welfare (the Strategy's main objective); **specific preventive measures** including pre-natal and neo-natal health protection, and programmes of health at work, healthy cities and health promotion in hospitals, which are being carried out under the auspices of the World Health Organisation; and **individual measures** undertaken on the basis of individual treatment of each death case.

Table: **Infant mortality (per 1000 of live-born children) in Slovenia and the EU, 1995-1999**

	1995	1996	1997	1998	1999
Slovenia	5.5	4.7	5.2	5.2	4.5
EU average	5.6	5.5	5.3	5.2	5.0

Source: the SORS, the WHO, Eurostat.

Graph: **Infant mortality per 1000 live-born children in selected European countries, 1995**



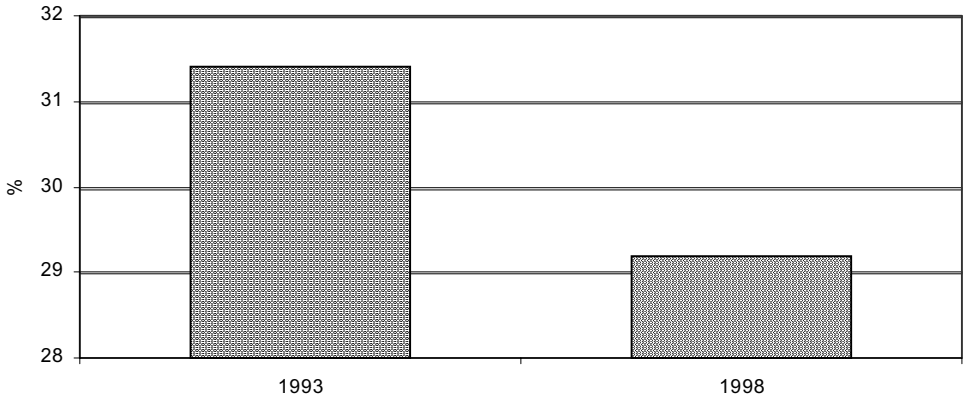
Source: the WHO.

Jobless households

The indicator "jobless households" (the share of households without any member in employment) is one of the indicators used to observe social cohesion. With unemployment being the major cause of poverty – in addition to poor qualifications – the indicator measures the degree to which households are threatened by poverty.

According to the SORS' data, no less than 56.9% of the poor households in **Slovenia** have no member in employment. **Jobless households** are a group of the population that is highly exposed to (material/social) deprivation. In 1993 their share was 31.4%, and slightly lower in 1998 (29.2%). In the same period the poverty level also dropped (from 13.6% to 11.9%). Owing to the lack of material resources, 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. A better education structure of the population, brought about by including the young in education, as well as increased formal and informal education of adults, would contribute to improving the material position of households in combination with an active employment strategy.

Graph: **Jobless households in Slovenia in the 1993-1998 period, in %**



Sources: SORS, Household Budget Survey; (the original source of the data for this structural indicator is the Labour Force Survey; when data derived from this survey are available, they will be used by the IMAD).

Statistical Appendix

Table 1: **Selected indicators showing the strengths and weaknesses of competitiveness input factors for Slovenia for 2001, IMD**

Indicator[1]	Strengths	Rank 2001	Indicator [1]	Weaknesses	Rank 2001
Group of indicators: **Economic Performance**					
1.4.08	Youth unemployment	5	1.4.03	Employment growth	47
1.5.02	Cost-of-living index [2]	17	1.3.04	Direct investment flows inward (gross)	46
1.2.11	Exports of commercial serv., % GDP	17	1.5.01	Inflation	45
1.4.02	Employment, % of population	22	1.1.26	Inflation forecast	42
1.2.01	Current account balance	29			
1.3.03	Direct investment abroad	29			
Group of indicators: **Government Efficiency**					
2.5.09	Illiteracy	2	2.4.20	Access of foreign financial institutions [a]	49
2.2.07	Average corporate tax rate on profit	3	2.4.09	Product and service liability [a]	49
2.3.01	Real short-term interest rates	7	2.4.23	Investment incentives [a]	49
2.1.08	Interest payment	8	2.4.12	Unemployment legislation [a]	49
2.1.04	Central government domestic debt	15	2.5.13	Company-university co-operation [a]	49
			2.4.21	Access to local capital markets [a]	48
			2.4.05	Parallel (black-market, barter) economy [a]	48
			2.4.24	Investment protection schemes (availability) [a]	47
			2.2.04	Employee's social security contribution rate	47
			2.4.18	Foreign investors (may get control in comp.) [a]	47

Continued on the next page.

Table 1:**Selected indicators showing the strengths and weaknesses of competitiveness input factors for Slovenia for 2001, IMD IMD**

Indicator[1]	Strengths	Rank 2001	Indicator[1]	Weaknesses	Rank 2001
Group of indicators: **Business Efficiency**					
3.5.03	Relocation of production [a]	9	3.2.15	Availability of finance skills [a]	49
3.1.01	Overall productivity, real growth	10	3.2.18	Availability of senior managers [a]	49
3.2.13	Female labour force	10	3.2.14	Skilled labour [a]	49
3.2.05	Working hours	14	3.4.03	Corporate credibility [a]	49
3.1.10	Productivity in services (PPP)	16	3.2.07	Worker motivation [a]	49
3.4.10	Social responsibility [a]	19	3.4.04	Corporate boards [a]	48
3.4.07	Entrepreneurship [a]	19	3.3.06	Stock markets [a]	48
3.2.16	Skilled labour [a]	19	3.2.17	International experience [a]	47
3.2.02	Unit labour costs	20	3.2.06	Labour relations [a]	47
3.4.06	Customer satisfaction	21	3.3.11	Transparency of financial institutions [a]	47
Group of indicators: **Infrastructure**					
4.3.07	Total R&D personnel per capita	15	4.4.15	Sustainable development [a]	48
4.2.01	Investment in telecommunications	15	4.4.17	Environmental laws [a]	47
4.3.09	Total R&D personnel in business p.c.	18	4.3.10	Basic research [a]	45
4.2.04	International telephone costs	19	4.3.16	Science & technology and youth [a]	44
4.4.01	Total health expenditure	21	4.3.20	Patent and copyright protection [a]	44
4.3.03	Total expenditure on R&D	22	4.5.04	Harassment and violence	43
4.1.18	Electricity costs for industrial clients	22	4.4.10	Alcohol and drug abuse [a]	43
4.2.03	Cellular mobile phones subscribers	25	4.5.03	Equal opportunity [a]	42
4.4.05	Health infrastructure	25	4.5.02	Flexibility and adaptability [a]	41
4.2.11	Electronic commerce	26	4.3.11	Development and application of technology [a]	41

Source: The World Competitiveness Yearbook, International Institute for Management and Development, 2001
Key: [1] - first number denotes the input factor, second number denotes the subindex, third number denotes the index; [2] - the index of cost of the basket of goods (excluding real estate) in major cities (New York = 100) a - the survey; the indicator in the grey cell displays a particularly high correlation with aggregate competitiveness, ß coefficient 0.85 or higher.

Table 2: **Selected indicators showing the strengths and weaknesses of competitiveness input factors for Slovenia for 2001, WEF**

Indicator[1]	Strengths	Rank 2001	Indicator[1]	Weaknesses	Rank 2001
Group of indicators: **Growth Competitiveness Index GCI**					
-	**–**	-		**Innovation**	
-	**–**	-	3.01	Firm-level innovation	58
-	**–**	-		**Information and communications technology (ICT)**	
-	**–**	-	4.08	Government prioritisation of ICT	58
-	**–**		4.07	Quality of competition in Internet serv. providers	54
	Technological diffusion			**Technological diffusion**	
3.23	Skill-based exports	7	3.04	FDI and technology transfer	68
	Macroeconomic environment	-		**Macroeconomic environment**	
2.03	Access to credit	14	2.28	Inflation	58
2.29	Real exchange rate	15			
Skupina kazalcev: **Indeks tekoče konkurenčnosti CCI**					
Company operations and strategy					
10.09	Control of international distribution	21	10.14	Extent of incentive compensation	52
10.04	Capacity for innovation	25	10.07	Extent of marketing	50
10.10	Extent of regional sales	31	10.06	Production process sophistication	37
Quality of the business environment					
6.10	Extent of bureaucratic red tape	20	9.06	State of cluster development	69
5.12	Quality of public schools	21	2.07	Financial market sophistication	51
2.18	Hidden trade barriers	28	2.09	Venture capital availability	41

Continued on the next page.

Table 2: **Selected indicators showing the strengths and weaknesses of competitiveness input factors for Slovenia for 2001, WEF**

Indicator[1]	Strengths	Rank 2001	Indicator[1]	Weaknesses	Rank 2001
Group of indicators: **Other Indicators**					
Technology					
3.14	Minorities in the economy	15	4.04	Quality of competition in telecommunication sector	55
-	-	-	3.03	Firm-level technology absorption	48
Infrastructure					
5.13	Difference in quality of schools	10	5.07	Air transport infrastructure quality	51
Public institutions					
6.06	Competence of public officials	12	6.13	Unreported profits and wages	59
-	-	-	8.06	Days to start a firm	54
-	-	-	7.05	Irregular payments in loan applications	47
Macroeconomic environment					
2.32	Corporate income tax rate	7	2.11	Foreign access to local capital markets	69
2.27	Investment rate	12	2.10	Access to capital markets	59
-	-	-	2.13	Entry into banking industry	59
-	-	-	2.17	Sources of investment finance	56
-	-	-	2.33	Value-added tax rate	53
-	-	-	2.16	Local equity market access	52
-	-	-	2.31	Average tariff rate	52
-	-	-	2.04	Exchange rate and exports	50
-	-	-	2.15	Access to bond markets	48
-	-	-	2.12	Perceived interest rate gap	47
-	-	-	1.09	Employment to population ratio	46
-	-	-		**Company practices**	
-	-	-	10.19	Hiring and firing practices	66
-	-	-	10.20	Employment rules	57
-	-	-	10.21	Co-operation in labour-employer relations	55
-	-	-	10.15	Reliance on professional management	47

Source: The Global Competitiveness Report, World Economic Forum, 2001.
Key: [1] - first number denotes the input factor, second number denotes the subindex, third number denotes the index; [a] - the survey; the indicator in the grey cell displays a particularly high correlation with aggregate competitiveness, ß coefficient 0.85 or higher.