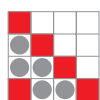
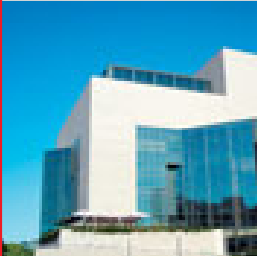


# Annual Report on Croatian Competitiveness 2004



Nacionalno  
Vijeće za  
Konkurentnost

National  
Competitiveness  
Council

The National Competitiveness Council (NCC) acts as an advisory body that brings together leaders from the business community, the Government, the trade unions, and education and science in Croatia. The NCC was founded in 2002 by government decision, at the initiative of the private sector and the Croatian Employers' Association. The NCC encourages dialogue between the private and public sector, raises awareness and knowledge of the importance of competitiveness, and develops consensus on the major economic issues facing Croatia and the Croatian economy. It also recommends and monitors policies and measures that will contribute to the long-term sustainable improvement of productivity and competitiveness of Croatia.

Through its annual reports, the NCC compares and evaluates Croatia's competitiveness. The report is based on numerous economic indicators and on a methodology for analyzing competitiveness that the World Economic Forum conducts in more than 100 countries in the world. Croatia has been included in the WEF's analyses since 2002, and the NCC has become its official partner in the Global Competitiveness Programme.

National Competitiveness Council

Ul. P. Hatza 12

10 000 Zagreb

Tel. (01) 4897 583, 4897 555

Fax (01) 4897 580

[www.konkurentnost.hr/nvk](http://www.konkurentnost.hr/nvk)

ANNUAL REPORT ON  
CROATIAN COMPETITIVENESS

2004

This report was compiled in cooperation with  
the Institute for International Relations

**National Competitiveness Council**

Zagreb, May 2005

Volume 2

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Josip Juraj Strossmayer University, Osijek, Economics  
Faculty of Osijek, Professor

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### Slavko Krajcar, PhD

University of Zagreb, Faculty of Electrical Engineering  
and Computing, Professor

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### National Competitiveness Council

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General Secretary

### Ružica Šimić

Advisor

### Jadranka Pepelugoski-Gable

Associate

Dear Reader,

You have in front of you the second report on Croatia's competitiveness compiled by the National Competitiveness Council. The report shows that Croatia continues to lag behind comparable countries, despite having a rate of economic growth near the average for transition countries. This is certainly a cause for concern.

The report points out a set of areas in which Croatia lags behind, but it also identifies a set of elements of competitiveness in which we note changes for the better. However, in the end, the overall picture depicts a relative decline in the country's competitiveness since 2002, when we issued the first report on Croatia's competitiveness.

There is not much good news since all of the key problems and their causes identified and discussed in 2002 continue to plague the Croatian economy. In fact, some problems have become even more prevalent in the structure of Croatian society (for example, corruption). And those changes that have been initiated have been too fragmentary and too slow. Countries in a similar state of transition as Croatia have actually carried out economic reforms more quickly and more effectively. This report should be seen as a sign that the policy of going slow and postponing reforms has weakened our competitiveness. Moreover, this policy also weakens the country's prospects for membership in the European Union (EU) and to find prosperity in an expanded Union.

We must make Croatia competitive. We must turn this worrisome trend around!

The Report suggests that we must work urgently in three directions. First, we must speed up structural reforms related to the transition process and EU accession. Second, we must develop activities to improve our cost competitiveness, to improve the work of public administration, to make public expenditure more productive, to promote innovation in production and business processes, and to create a more attractive business climate. Third, we must prepare scenarios and platforms for our negotiations with the EU. Recommendations for detailed priorities as well as specific activities and measures relating to these three strategic areas are outlined both in this Report and earlier in the "55 Recommendations for the Improvement of Croatia's Competitiveness", which the Council presented to the public in March 2004.

The findings of this report show that the "55 Recommendations" are more relevant today than ever. Although work is taking place on the implementation of these measures, the depth of our problems and the degree of lag require much greater activity by the Government, trade unions, business and experts.

The National Competitiveness Council believes that the diagnosis of our problems and the clear picture of our lagging behind will have a mobilizing effect, and will help to accelerate growth and the restructuring of the Croatian economy.

Sincerely,



Darko Marinac  
President, National Competitiveness Council

Dear Sirs,

Amsterdam  
Barcelona  
Beijing  
Berlin  
Brussels  
Bucharest  
Budapest  
Detroit  
Düsseldorf  
Frankfurt  
Hamburg  
Kiev  
Lisbon  
London  
Madrid  
Milan  
Moscow  
Munich  
New York  
Paris  
Prague  
Riga  
Rome  
São Paulo  
Shanghai  
Stuttgart  
Tokyo  
Vienna  
Warsaw  
**Zagreb**  
Zurich

The previous report of the National Competitiveness Council concluded that Croatia urgently needs a substantial transformation of its economy into a knowledge-based, efficient and export-oriented economy. Please permit us to comment briefly on the development of the Croatian economy since that last report.

The conditions for founding domestic companies, as well as the influx of foreign investments, have not significantly improved. The efficiency of the state administration has remained unchanged, while subsidies to unprofitable enterprises are still too high. The absence of more meaningful tax reforms and interruptions in the path toward the European Union are not making any easier the lives of Croatian companies and entrepreneurs.

In specific regard to Croatian enterprises, while the majority of them are working to increase labor productivity, they are not taking into account that other companies in the EU and in Central and Eastern Europe, not to mention many Asian countries, are also working hard to increase their labor productivity. One fact of greatest concern is that companies in these latter countries are advancing more quickly than Croatian firms, and that this is leading to an even greater productivity gap. From a consultant's perspective, the next important problem is the absence of an orientation toward international markets.

In general, the state of the Croatian economy is unsatisfactory. All segments of our small country, politicians as well as business people, must combine their energies more decisively and focus them on one objective: more rapid advancement.

In that sense, we ask you to broaden your vision, to expand your business orientation, to take courage and to be willing to take risks, but especially to move ahead faster and decisively.

We fully express our appreciation for the initiative and the work of the National Competitiveness Council and support the attached report with our highest professional commitment.



Dr. Roland Falb  
Roland Berger Strategy Consultants  
Managing Partner



Dr. Vladimir Preveden  
Roland Berger Strategy Consultants  
Managing Director

*Too little and too slow:*

*We have to run just to stay in place-  
to get ahead, we have to run faster than others!*

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## INTRODUCTION

In 2003 and 2004, the Croatian economy faced the challenges of structural change and competition from the world market. At the same time, Croatia had to speed up its adjustment to the requirements for accession to the European Union (EU). At the beginning of 2003, Croatia submitted its application for membership in the EU. In June 2004, it became an official candidate for membership.

The conditions for joining the EU are not only harmonization of institutions, but also the ability to ensure economic growth and competitiveness in the market of an enlarged EU. This Report aims to provide a comprehensive assessment of the degree to which Croatia has improved its competitiveness in the last two years. Increased competitiveness would not only provide a solid basis for further growth. It would also improve prospects for successful accession.

This Report of the Council is methodologically and formally similar to the first Report issued in 2002. The analysis of the Competitiveness of the Croatian economy in this Report is based on statistical data for the period from 2002 to the end of 2004, and on the results of the World Economic Forum's Global Competitiveness Reports for 2003-2004 and 2004-2005. The analysis of competitiveness is based on almost two hundred indicators. These indicators represent a combination of "soft" and "hard" data. The "hard" data include standard economic and technological indicators, while the "soft" data are gathered on the basis of surveys of business people carried out by the World Economic Forum. These data express the assessments of representatives of the business sector in various countries. The polling agency Henda Ltd. of Zagreb carried out the surveys for the National Competitiveness Council. The combination of "hard" and "soft" indicators serves to rank the competitiveness of countries and to analyze change in rank or in particular dimensions of competitiveness. This method has been verified through numerous analyses carried out by the WEF. To find out more about the approach, analysis and results, please see [www.weforum.org](http://www.weforum.org).

In this year's Report, Croatia is compared with 10 countries (Italy, Austria, Ireland, Portugal, Slovakia, Hungary, Slovenia, Bulgaria, Romania, and Serbia and Montenegro). Italy and Austria are developed members of the EU 15 with whom Croatia has neighborly economic relations. They serve as a reference point for the developed part of the EU. Ireland, once one of the undeveloped peripheral economies of the EU, has become a developed country, and might be a model for a country like Croatia. Portugal belongs to the group of less developed countries of the EU who compete with Croatia in EU markets. Slovakia, Hungary and Slovenia are central European countries, like Croatia. They cooperate and compete with Croatia. Bulgaria and Romania are competitors with Croatia in third markets, and also countries that, despite differences in size, are similar to Croatia in many dimensions of development. Serbia and Montenegro is a competitive economy with which Croatia also has some economic similarities, and a similar institutional heritage.

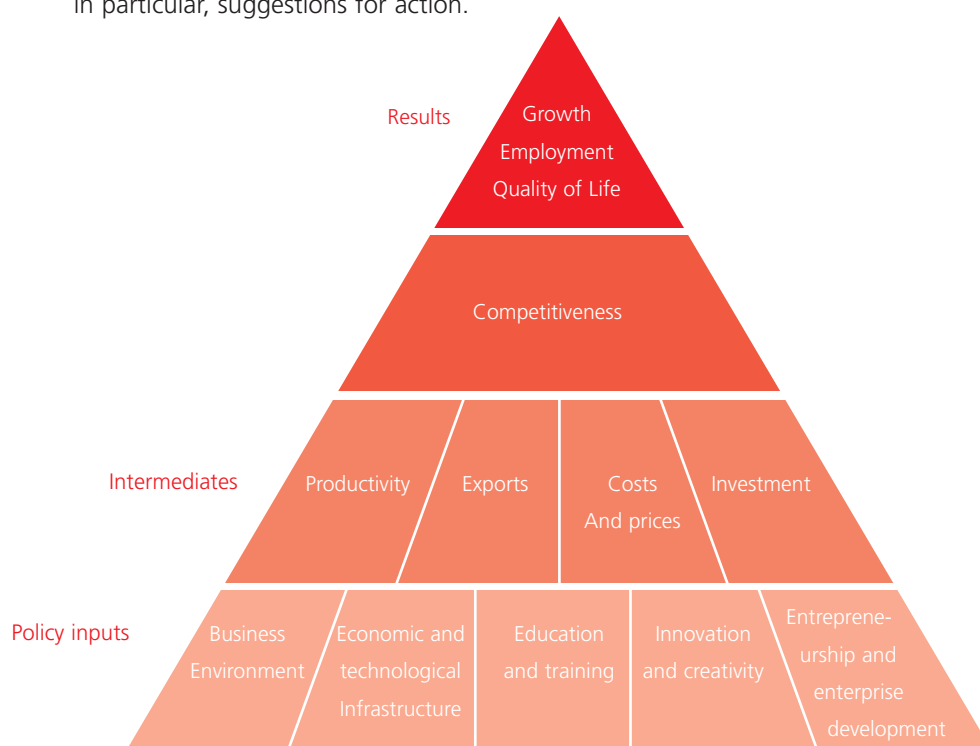
## Conceptual Approach and Structure of the Report

### ■ *What is competitiveness and what is the competitiveness pyramid?*

Competitiveness is a country's ability to succeed on the world market. Success on the world market allows a better living standard for all. It is the result of a variety of factors, particularly competitiveness at the enterprise level and a favorable business climate that stimulates the introduction of new products, processes and investment. All of these factors working together lead to increased productivity, higher income and sustainable development.

The framework used to structure this year's analysis of competitiveness is the competitiveness pyramid.<sup>1</sup> The structure of the Report as a whole follows the structure and logic of the competitiveness pyramid - from macroeconomic results and competitiveness, through intermediates, and on to basic competitiveness factors. At the highest level, the results of competitiveness are examined through the result of competitiveness, which is rapid economic growth that ensures increasing employment and, in the final analysis, raises the quality of life. The level of competitiveness is also shown by the ability to achieve economic growth, as well as by the results of policy inputs that are on lower levels of the pyramid.

The first part of the Report shows the results of competitiveness on the basis of macroeconomic indicators of economic growth and employment. The second part of the Report is based on the comparative ranking of Croatia in the World Economic Forum's Global Competitiveness Reports. The third part of the Report evaluates intermediates of competitiveness, that is, productivity, investment, exports and costs and prices. The fourth part of the Report analyzes the extent to which Croatia has improved its basic competitiveness policy inputs (business environment, technological and economic infrastructure, education and training, entrepreneurship and enterprise growth, and activities related to innovation, quality and development). The fifth part of the Report provides conclusions, and in particular, suggestions for action.



<sup>1</sup> The approach to competitiveness and the conceptual framework of the Report, just like the first Report, is based on the philosophical approach of the Irish Annual Competitiveness Report. See: [http://www.forfast.ie/ncc\\_annual\\_04.index.html](http://www.forfast.ie/ncc_annual_04.index.html)

## SUMMARY

### **Growth, Employment, Quality of Life**

The rate of GDP growth, which has been relatively satisfactory up to now, is slowing. The sources of GDP growth in Croatia have been public investment and domestic consumption, not exports and innovation. Such growth will be hard to sustain in the long-run. Croatia is stagnating-other countries are changing and advancing significantly faster.

### **Productivity, Exports, Investment, Costs and Prices**

Total productivity has risen, and has been accompanied by modest employment growth. Croatia's share in EU markets has been recovering slowly, but the offer of exports is not yet of adequate quality. Private sector investment is inadequate. Although the share of taxes and contributions in total labor costs continues to be reduced, because of its high labor costs relative to productivity, Croatia remains uncompetitive in comparison to other countries in Central and Southeast Europe.

### **Business Environment**

Public administration is not effective enough. The degree of corruption is worrisome, and the quality of the judiciary is inadequate. The share of government consumption in GDP is too high, public expenditures are unproductive despite high levels of investment expenditures, and overall fiscal adjustment has been implemented very slowly. Croatia lags behind in establishing mechanisms of competition on markets for goods, finance and labor. Reforms have been enacted, but have been implemented too slowly.

### **Economic and Technological Infrastructure**

Basic telephony is better developed in Croatia than elsewhere in Central Europe, but IT capacities have not been converted into advantages. We still lag behind in internet usage. The price of telecommunication services is relatively high, and competition among internet service providers is weak. Public services have only slowly changed to the internet. The price of diesel fuel, electricity and gas are near the average of comparable countries, but ecological standards are respected less in Croatian enterprises than in Central Europe. On average, the state of infrastructure and air quality is better than in Central Europe.

### **Education and Training**

At the moment, education does not serve as a lever to increase competitiveness because of weaknesses in both supply and demand. Croatia has a small number of college graduates and a very small percentage of the labor force participates in life-long learning. The limited ability of the educational system to adapt to changes in demand on the labor market represents a major limitation.

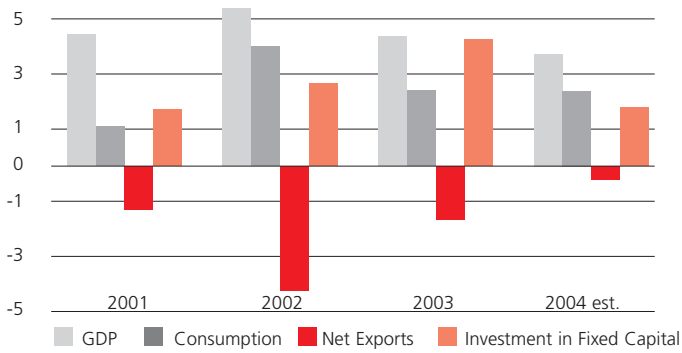
### **Entrepreneurship and Enterprise Growth**

The conditions for founding new companies have worsened, and the rate of formation of new enterprises is low. The growth of enterprises is limited by weak entrepreneurial behavior of managers. Managers' assessment of the flexibility of employment and wage determination is relatively favorable. Relations between employees and employers are inadequately cooperative. The availability and quality of local suppliers and the development of local clusters have been worsening. It is apparent that many markets are monopolized. Foreign direct investment represents a relatively large share of GDP, but it is not export oriented.

### **Innovation and Creativity**

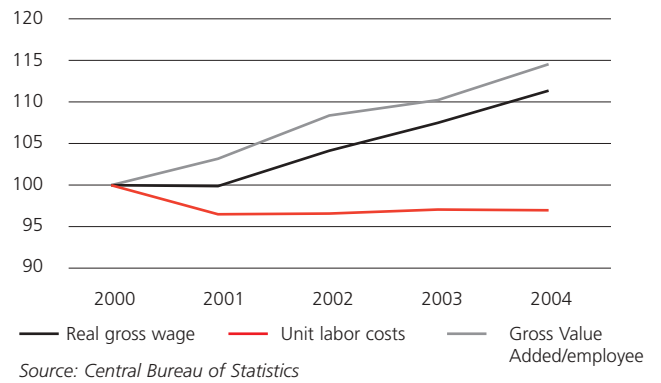
Croatia lags behind in innovation not only in products but also in processes. The business sector employs too few researchers. Business sector expenditures on R&D are too low, and investment in the public research sector has remained at the same level. Croatian enterprises lag behind in the implementation of standards of quality control.

Croatia: Sources of GDP Growth



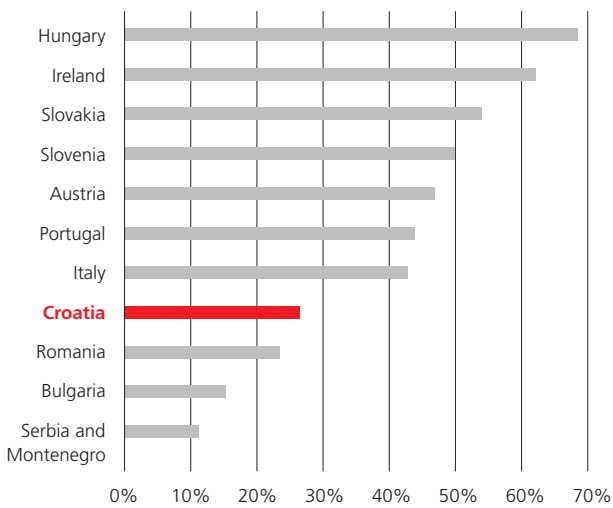
Source: Central Bureau of Statistics

Productivity and Unit Labor Costs (2000=100)



Source: Central Bureau of Statistics

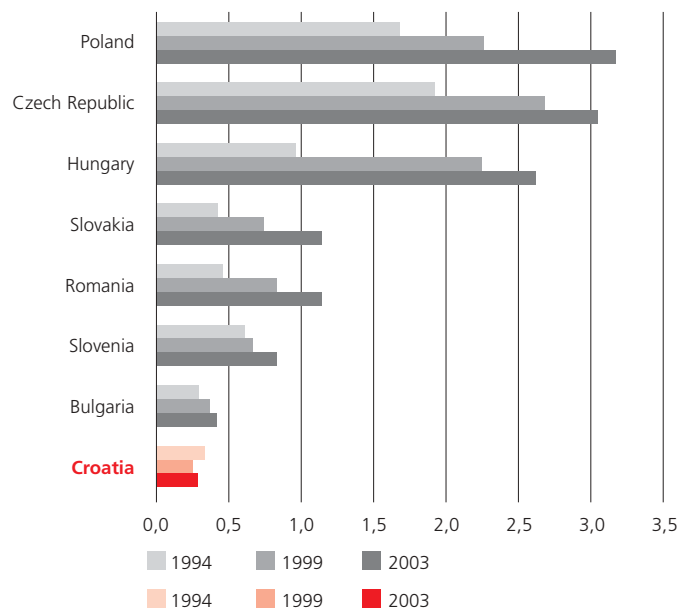
Share of Complex Products in Exports in the EU 25 (2003)



Note: Complex products include vehicles, machines, electrical machines and equipment, instruments and pharmaceutical products.

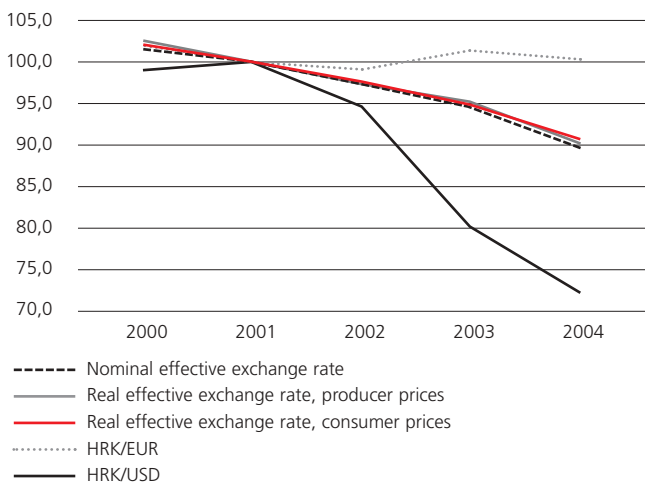
Source: Eurostat COMEXT

Market Share in EU 15 Imports (%)



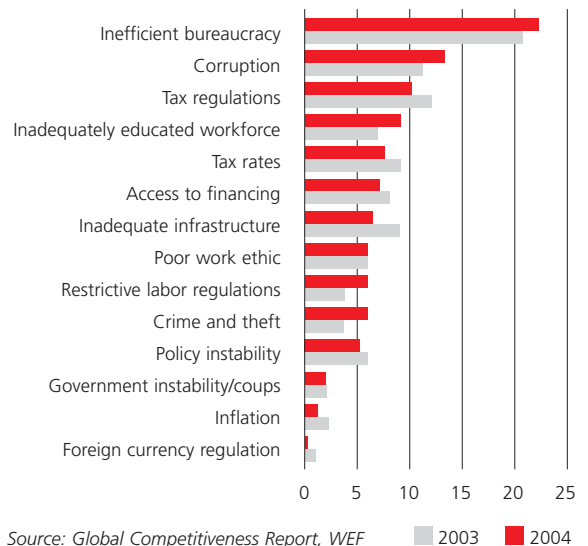
Source: Eurostat COMEXT

The Exchange Rate of the Kuna (2001=100)



Source: Croatian National Bank

The Most Problematic Factors for Doing Business in Croatia



Source: Global Competitiveness Report, WEF

2003 2004

## 1. RESULTS OF COMPETITIVENESS

The key measure of the success of a country's economy is growth in gross domestic product (GDP), employment and the living standards of its citizens. In the long-term, these three categories are closely related to competitiveness. However, in the short-term, economic growth is possible with decreasing competitiveness. This can happen when growth is the result of favorable external and internal factors, for example government investment in infrastructure, a favorable tourist season, or exchange rate changes that stimulate exports. In the years from 2002 to 2004, Croatia achieved satisfactory growth, but at the same time our relative competitiveness fell. This is not a paradox, and it highlights the problem of the sustainability of economic growth if the competitiveness of the country is not maintained or even improved.

- **Satisfactory but slowing economic growth in Croatia has been based on public investment and domestic consumption.**

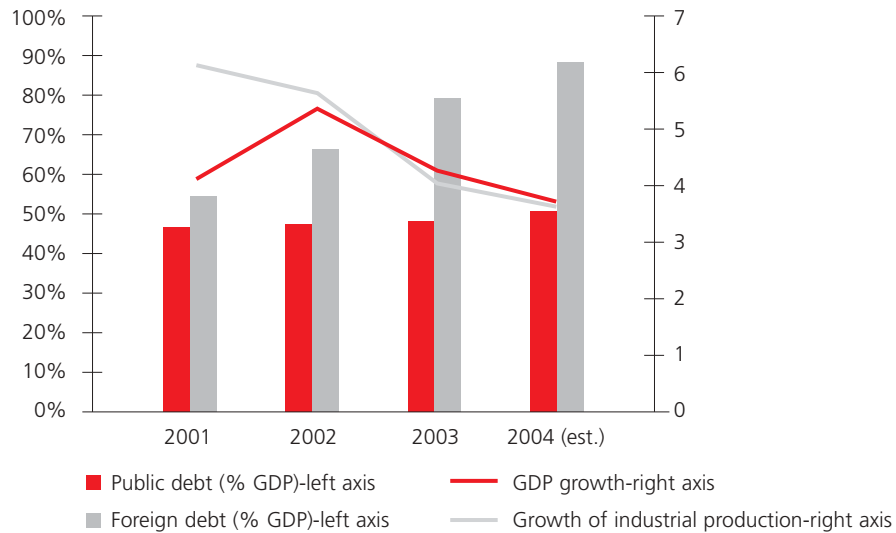
In the last three years, Croatia has achieved a relatively high rate of GDP growth compared to the EU 15 countries. However, the average growth rate of 4.4% in the period from 2001 to 2004 is roughly equal to the average of the new member states of Central Europe and the accession countries (Table 1). Since 2002, the growth rates of GDP and of industrial production have fallen, while public and foreign debts have grown (Figure 1). The relatively satisfactory growth of Croatian GDP occurred in conditions of very high unemployment relative to the other countries studied (13.8%). Higher levels of unemployment have been registered only in Slovakia and Serbia. The fact that total employment has grown by 3.4% since 2002 is encouraging, and in this respect, Croatia is near the top of the list.

**Table 1. Annual Growth Rates of Real GDP, Level of Economic Development and Unemployment**

|                       | Real GDP growth |            |            |            | GDP per capita<br>(EU 25=100,<br>2004 estimated) | Survey rate of<br>unemployment<br>(Third quarter 2004) |
|-----------------------|-----------------|------------|------------|------------|--|--|
|                       | 2002            | 2003       | 2004       | Average    |  |  |
| EU 25                 | 1,1             | 0,9        | 2,4        | 1,5        | 100,0  |  |
| EU 15                 | 1,0             | 0,8        | 2,3        | 1,4        | 108,9  | 7.9  |
| Romania               | 5,0             | 4,9        | 8,3        | 6,1        | 31,4   | 8.0  |
| Bulgaria              | 4,9             | 4,5        | 5,6        | 5,0        | 30,8   | 11.1   |
| Ireland               | 6,1             | 3,7        | 5,4        | 5,1        | 134,4  | 4.9  |
| Slovakia              | 4,6             | 4,5        | 5,5        | 4,9        | 54,0   | 17.6   |
| <b>Croatia</b>        | <b>5,2</b>      | <b>4,3</b> | <b>3,8</b> | <b>4,4</b> | <b>46,1</b>                                      | (I.-VI. 2004) <b>13.8</b>                              |
| Serbia and Montenegro | 4,0             | 3,0        | 4,5        | 3,8        | -  | (2003) 15.2  |
| Hungary               | 3,5             | 3,0        | 4,0        | 3,5        | 61,7   | 6.1  |
| Slovenia              | 3,3             | 2,5        | 4,6        | 3,5        | 78,5   | 6.1  |
| Austria               | 1,2             | 0,8        | 2,0        | 1,3        | 121,4  | 4.8  |
| Italy                 | 0,4             | 0,3        | 1,2        | 0,6        | 105,0  | 7.5  |
| Portugal              | 0,4             | -1,1       | 1,0        | 0,1        | 73,4   | 7.2  |

Source: Eurostat, Long-Term Indicators, IMF Country Report 5/13, 2005-06-02  
<http://www.imf.org/external/pubs/ft/scr/2005/cr40512.pdf>, Statistics in focus, Population and Social conditions, 3/2005,  
 Eurostat, EC 2005, National Bank of Serbia, WIW Countries in Transition

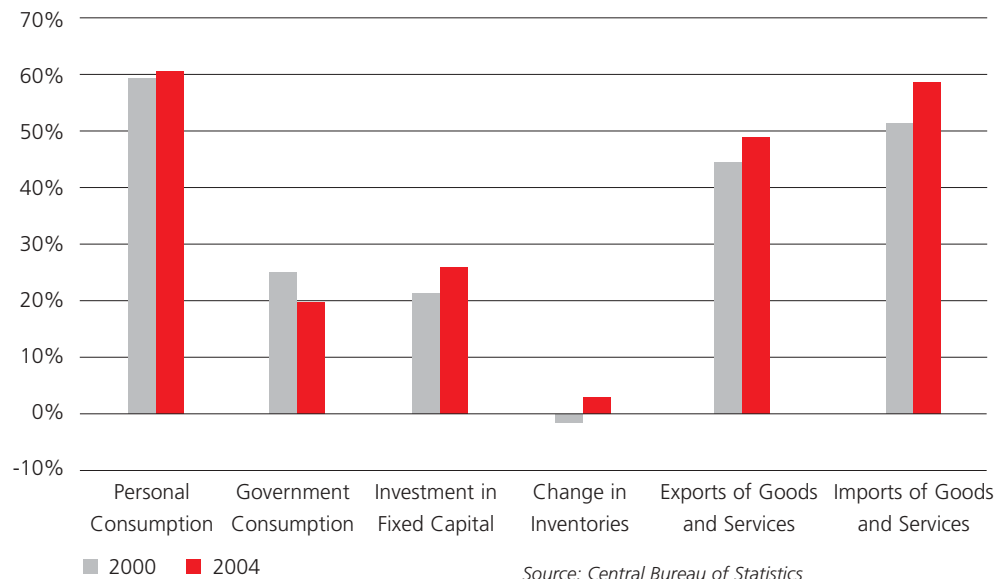
**Figure 1. GDP Growth and Industrial Production, Public and Foreign Debt**



Sources: Croatian National Bank, Central Bureau of Statistics, authors' estimates

In the period since 2003, growth has occurred thanks to personal and government consumption, which have been financed by borrowing and privatization revenues. In 2003, GDP growth was mainly based on increased investment, and in 2004 on an improved balance of payments (figure 2). A substantial 40% increase in investment occurred mainly due to large government investments in highway and railway infrastructure. The contributions of tourism and shipbuilding, which is directly or indirectly highly subsidized, are also important in exports.

**Figure 2. Shares of Categories of Consumption in Croatian GDP (%)**



Source: Central Bureau of Statistics

### KEY FINDINGS

- *Until now, growth has been largely based on public investment and domestic consumption, and not on increased productivity, private investments and exports. For this reason, it is not sustainable in the long-term.*

## 2. COMPETITIVENESS

The main goal of the Global Competitiveness Report of the World Economic Forum is to evaluate the economic competitiveness of a large number of countries.<sup>2</sup> Traditionally, the Report is based on two complementary indices of competitiveness. The first, the Growth Competitiveness Index, assesses countries' potential for sustained economic growth. This index comprises three key aspects of growth: the macroeconomic environment, the quality of public institutions and technological capability. The second, the Business Competitiveness Index, focuses on the micro level, since welfare is fundamentally created at the enterprise level. This index assesses a) how sophisticated are the enterprises that do business in a country; and b) the quality of the microeconomic business environment.

It is essential to mention that, in most countries, the findings for the two indices - the Growth Competitiveness Index and the Business Competitiveness Index - largely coincide.

### ■ Fall in Croatia's Relative Competitive Position

Croatia's fall from 53rd position in the competitiveness rankings (2003) to 61st place (2004) is a sign of the country's deterioration relative to comparison countries (Figure 3). Hungary and Italy experienced similar falls in 2004, and Serbia and Montenegro experienced an even larger fall. At the same time, the relative improvement of Romania and Bulgaria is especially striking.

The Business Competitiveness of Croatia fell especially sharply, from 52nd place in 2002-3 to 72nd place among the 104 countries ranked (Figure 4). Some of our neighbors also fell since 2003 - Italy, Serbia and Montenegro, and Hungary. By contrast, Bulgaria and Slovakia advanced. Romania, which advanced by as much as 20 places, is especially noteworthy.

Figure 3. Growth Competitiveness Index

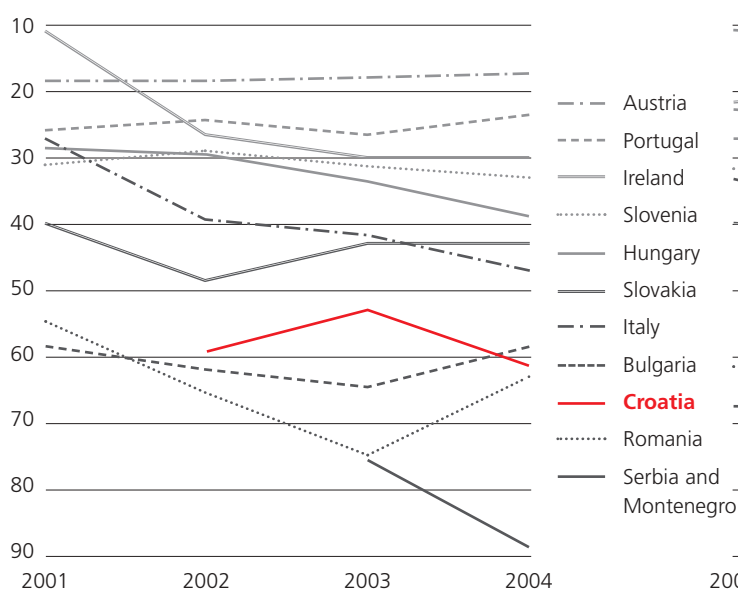
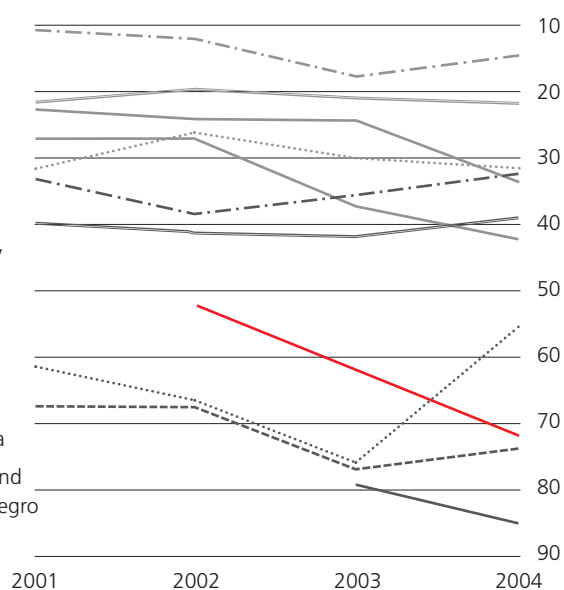


Figure 4. Business Competitiveness Index



Source: Global Competitiveness Report, WEF

<sup>2</sup> See [www.weforum.org](http://www.weforum.org)

■ **Bulgaria and Romania - two key countries from the 2002 Report - are catching up to us**

In the last two years, Romania and Bulgaria have made especially large gains in Business Competitiveness and Growth Competitiveness. These countries have almost caught up to or actually overtaken Croatia, even though they were far behind not long ago. This comparison shows clearly that substantial changes are possible from year to year. However, it is essential to see the trends.

**Table 2. Component Indices of Competitiveness and Changes in Croatia's Rank**

|  | Rank       |            |
|--|------------|------------|
|  | 2003       | 2004       |
| <b>Growth Competitiveness Index</b>            | <b>53.</b> | <b>61.</b> |
| ■ Technology Index                             | 41.        | 46.        |
| Innovation                                     | 48.        | 49.        |
| ICT  | 39.        | 42.        |
| Technology transfer                            | 43.        | 48.        |
| ■ Macroeconomic Environment Index              | 55.        | 59.        |
| Macroeconomic stability                        | 51.        | 60.        |
| Government waste                               | 59.        | 80.        |
| Country credit rating                          | 49.        | 51.        |
| ■ Public Institutions Index                    | 67.        | 76.        |
| Contracts and Law                              | 81.        | 89.        |
| Corruption                                     | 54.        | 61.        |
| <b>Business Competitiveness Index</b>          | <b>62.</b> | <b>72.</b> |
| ■ Company operations and strategy              | 65.        | 72.        |
| ■ Quality of the national business environment | 58.        | 70.        |

Source: Global Competitiveness Report, WEF

"quality" of companies. This combination of macro and micro sources of poor competitiveness suggest that Croatia's overall competitiveness cannot be improved by isolated sectoral measures alone. Instead, measures encompassing the government and the business community are needed.

■ **The extremely low 79th place in global competitiveness is an expression of the tension between poor quality institutions and inefficient markets and developed infrastructure and training.**

The Global Competitiveness Report of the World Economic Forum introduced a third index of competitiveness in 2004. This index will replace the Growth Competitiveness Index and the Business Competitiveness Index. The Global Competitiveness Index is based on the understanding of competitiveness as a set of institutions, policies and factors that determine the productivity of a country. The index combines a) the macro and micro aspects of competitiveness, which have turned out to be very closely related to each other; and b) dynamic and static aspects of competitiveness, weighing 12 factors (institutions, physical infrastructure, macrostability, security, human capital, efficiency of markets for

Croatia's rank in the Growth Competitiveness Index in 2004 was better than its rank on the Business Competitiveness Index. This suggests that our macrofactors of competitiveness are somewhat more favorable than the microfactors. However, among the macrofactors, that is, the Growth Competitiveness Index, Croatia fares badly in the Public Institutions index, at 76th place. Croatia performs especially weakly in the quality of the judicial system (89th place out of 104) and the productivity of public expenditure (80th place). In the Business Competitiveness Index, Croatia is ranked equally badly in both subindexes-the sophistication of enterprises and the quality of company operations and strategy (72nd place). However, in the Business Competitiveness area, company sophistication, already ranked poorly, deteriorated the most (Table 2).

This shows that the reasons for our weak competitiveness lie above all in the weak quality of public institutions, and in weaknesses in the

<sup>3</sup> For more information see: [www.weforum.org](http://www.weforum.org)



goods, labor and finance, preparedness to adopt new technology, openness and market size, sophistication of enterprises and innovation). Croatia's position is much weaker according to the Global Competitiveness Index than according to the Growth Competitiveness and Business Competitiveness Indices (Table 3). Croatia's level of development puts it in the group of countries with 3000-9000 USD per capita. Members of this group based their competitiveness mainly on improved efficiency, and less on available resources such as raw materials or cheap labor, or on innovation. Along with Croatia, the Czech Republic, Hungary, Poland and Slovakia are members of this group. Croatia is ranked last on this index among this group, only 79th out of 104 countries. The only comparable country faring worse than Croatia on this indicator is Serbia and Montenegro (96).

**Table 3. Rankings of Selected Countries According to the Global Competitiveness Index and GDP Per Capita**

|                       | BDP per capita<br>(USD) | Rank (out of 104 countries) |                       |                         |  |
|-----------------------|-------------------------|-----------------------------|-----------------------|-------------------------|--|
|                       |                         | Total                       | Basic<br>Requirements | Efficiency<br>Enhancers | Innovation Factors<br>and Sophistication |
| Austria               | 26810                   | 18                          | 12                    | 21                      | 16                                       |
| Ireland               | 27010                   | 27                          | 27                    | 23                      | 21                                       |
| Slovenia              | 11920                   | 35                          | 32                    | 32                      | 32                                       |
| Portugal              | 11800                   | 40                          | 28                    | 31                      | 41                                       |
| Slovakia              | 4940                    | 41                          | 45                    | 35                      | 44                                       |
| Hungary               | 6350                    | 46                          | 47                    | 44                      | 48                                       |
| Italy                 | 21570                   | 56                          | 54                    | 46                      | 30                                       |
| Romania               | 2260                    | 57                          | 61                    | 60                      | 65                                       |
| Bulgaria              | 2130                    | 70                          | 70                    | 68                      | 81                                       |
| <b>Croatia</b>        | <b>5370</b>             | <b>79</b>                   | <b>72</b>             | <b>75</b>               | <b>72</b>                                |
| Serbia and Montenegro | 1910                    | 96                          | 98                    | 86                      | 84                                       |

Sources: *Global Competitiveness Report 2004-2005*, WEF and *World Development Indicators*, current prices, Atlas method (data from 2003)

Why is Croatia's rank on the new index so troublingly poor? It seems that the basic problem is the great tension between substantially better infrastructure and human "capacity" for development and very weak "institutions" crucial for improving competitiveness (Table 4). Perhaps after the substantial institutional changes undertaken during the process of transition this sounds strange. But the data say that Croatia lags far behind other countries in Central and Eastern Europe regarding the efficiency of the labor market (90th place), goods markets (86th place) and financial markets (87th place). Also, it ranks very low on the quality of basic institutions (85th place), which includes ownership rights, corruption, government efficiency, transparency, responsibility, honesty and social responsibility of the business sector. The majority of these factors express the quality of the public and business sectors more than the quality of formal legal arrangements.

The greatest factor behind Croatia's weak performance is the low efficiency of markets for labor, goods and finance. This is a result of such elements as high subsidization of uncompetitive sectors, monopoly behavior, poor availability of credit to the business sector etc. These findings suggest that the sources of our weak competitiveness are the result of "invisible", or institutional factors such as political will and the poor quality of institutions, and not the lack of material inputs. These factors substantially slow down or obstruct the competitive process, and hinder the prospects for improving Croatia's competitiveness.

**Table 4. Croatia Rankings on the Global Competitiveness Index**

|                     | Basic Requirements (40%)   | Efficiency Enhancers (50%)     | Innovation and Sophistication Factors (10%) |
|---------------------|----------------------------|--------------------------------|---|
| <b>Capacities</b>   | Infrastructure 65          | Advanced human capital 57      | Innovation 61                               |
|                     | Basic human capital 83     | Technological readiness 55     | Company sophistication 61                   |
|                     |                            | Openness / market size 63      |   |
| <b>Institutions</b> | Institutions 85            | Financial market efficiency 87 |   |
|                     | Personal security 67       | Good market efficiency 86      |   |
|                     | Macroeconomic stability 72 | Labor market efficiency 90     |   |

Izvor: Global Competitiveness Report 2004-2005, WEF

■ **The stagnation of competitiveness is confirmed by other international statistical surveys.**

The indicators of economic freedom produced by the Heritage Foundation<sup>4</sup>, which compare countries on the basis of 50 indicators to measure the degree of free enterprise, also put Croatia in a low position relative to comparison countries. They also indicate slow removal of barriers to entrepreneurial activity. Although Croatia has made some advances, it remains below all of the comparison countries on the Economic Freedom Index except for Romania and Serbia and Montenegro.

The World Bank's ranking of business environment, which is based on "hard" indicators, places Croatia in the group of slow-reforming countries.<sup>5</sup> Croatia's score on 7 indicators of business environment show that, along with Slovenia and Romania, it is at the bottom of the selected group of countries. According to this analysis, the average time required to register ownership, and the degree of legal protection in resolving debtor-creditor relations are the weakest elements of our business climate.

**KEY FINDINGS**

- *The relative competitive position of Croatia has deteriorated. Romania and Bulgaria have caught up to us.*
- *The main reasons for the deterioration are mainly "invisible" factors such as*
  - a) *lack of political will for change*
  - b) *institutional requirements for improved competitiveness (ownership rights, honesty and corruption, government efficiency, transparency, responsibility, honesty and social responsibility of the business sector*
  - c) *financial market, goods and labor market efficiency, (high subsidies, monopolistic behavior and the like)*

<sup>4</sup> For details, see [www.heritage.org](http://www.heritage.org)

<sup>5</sup> For details see "Doing Business in 2005", World Bank

## 3. INTERMEDIATES OF COMPETITIVENESS

### 3.1 Productivity

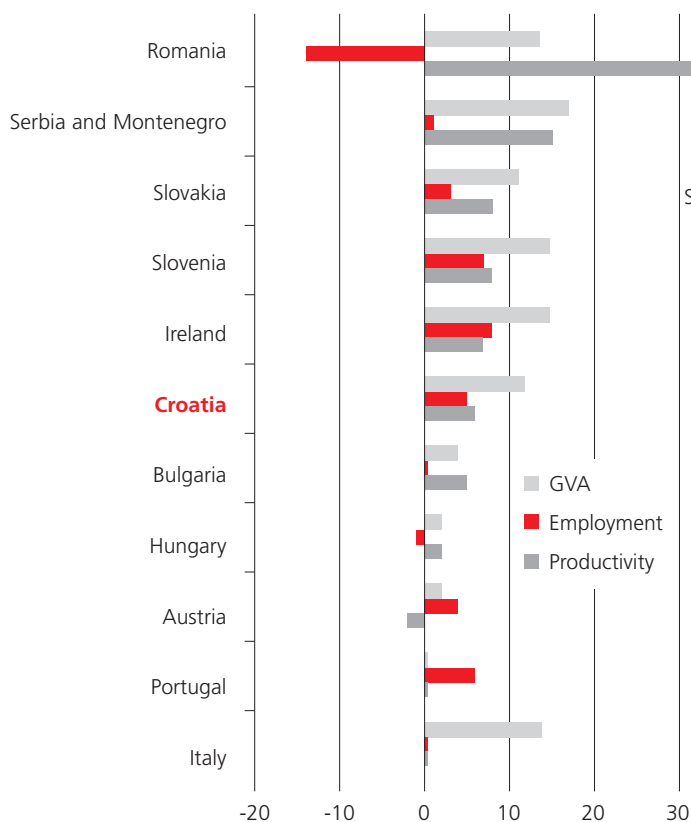
- **Growth in total productivity is equal to growth in the rest of Central and Eastern Europe, but growth in industrial productivity is lower.**

Productivity is the best indicator of competitiveness. In 2003, Croatia had gross value added<sup>6</sup> of 15,000 Euros or 18,000 Euros of GDP per employee. This was 38% of the EU 25 average.

During 2001-2004, productivity rose by a total of 12%, the same as in the comparison countries (Figure 5). Even though productivity rose slower in this period than in the previous period due to strong employment growth, the increase in employment is a favorable indicator.

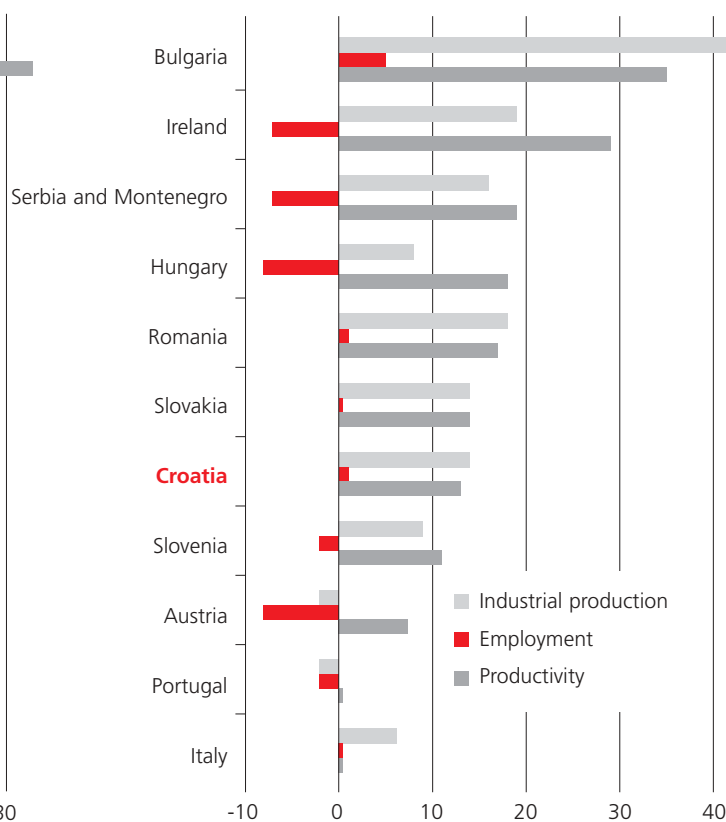
In industry, the growth of productivity was achieved with unchanged employment. Real cumulative growth in industrial production during 2001-2004 was almost 14%. Coupled with a 1% growth in employment, industrial productivity rose by almost the same amount (Figure 6).

**Figure 5. Growth in Real GVA, Employment and Productivity (2004/2001)**



Sources: Eurostat, IMF, national statistical offices

**Figure 6. Real Growth in Industrial Production, Employment and Labor Productivity in Industry (2004/2001)**



Izvori: EUROSTAT, MME, nacionalni statistički uredi

<sup>6</sup> Value added is the increased value of production, calculated as the difference between the gross value of products and intermediate products (value of products and services used in production).

Thus, the growth in industrial productivity was somewhat greater than the growth in productivity in the economy as a whole. This growth of industrial productivity was almost equal to the average of the comparison countries (10,3%), but was lower than the growth of productivity in Central and Eastern European countries. However, while the average decrease in employment in the comparison group of countries was 3.1%, in Croatia the same increase in productivity in industry was achieved with a slight increase in employment. This is a very encouraging result. The official projections of economic growth for the 2004-2007 period envision productivity growth with continued employment growth.

#### KEY FINDINGS

- *The fact that an average level of productivity growth was achieved while maintaining or slightly increasing employment is encouraging.*

### 3.2 Costs and Prices

- ***Because of high labor costs, Croatia is uncompetitive relative to the other countries of Central and Eastern Europe. The problem of high unit labor costs relative to the labor of productivity has not been ameliorated.***

Total monthly labor costs in Croatia were 935 Euros in 2004. This is 18.3% more than in 2001 (Table 5). It is substantially more than the cost of labor in Hungary and Slovakia, and is similar to the level of labor costs in Portugal.

High nominal labor costs are not a problem for the competitiveness of a country if they are accompanied by high productivity. High productivity creates high value added, which covers higher labor costs relative to competitors.

**Table 5. Total and Unit Labor Costs**

|                       | Total monthly labor costs (EUR) |            |            |            | Unit labor costs (EU15=100) |              |              |              |
|-----------------------|---------------------------------|------------|------------|------------|-----------------------------|--------------|--------------|--------------|
|                       | 2001                            | 2002       | 2003       | 2004       | 2001                        | 2002         | 2003         | 2004         |
| EU 15                 | 2598                            | 2647       | 2681       | 2767       | 100,0                       | 100,0        | 100,0        | 100,0        |
| Hungary               | 416                             | 488        | 500        | 551        | 55,6                        | 55,5         | 55,2         | 55,7         |
| Ireland               | 2218                            | 2351       | 2395       | 2519       | 67,3                        | 65,9         | 64,9         | 65,3         |
| Bulgaria              | 162                             | 174        | 187        | 204        | 63,4                        | 63,5         | 66,0         | 68,6         |
| Portugal              | 823                             | 867        | 894        | 918        | 68,8                        | 70,1         | 70,5         | 71,0         |
| Romania               | 223                             | 236        | 243        | 276        | 85,5                        | 77,0         | 72,6         | 71,7         |
| Slovenia              | 1146                            | 1207       | 1257       | 1298       | 88,8                        | 85,4         | 78,8         | 76,0         |
| Slovakia              | 394                             | 437        | 478        | 536        | 73,9                        | 76,1         | 81,5         | 87,8         |
| Austria               | 2374                            | 2423       | 2479       | 2527       | 90,2                        | 90,6         | 90,5         | 89,9         |
| Italy                 | 2332                            | 2374       | 2453       | 2516       | 90,7                        | 92,0         | 93,1         | 94,3         |
| <b>Croatia</b>        | <b>790</b>                      | <b>848</b> | <b>871</b> | <b>935</b> | <b>105,4</b>                | <b>108,9</b> | <b>106,6</b> | <b>111,1</b> |
| Serbia and Montenegro | 185                             | 273        | 308        | 330        | 90,1                        | 107,4        | 107,4        | -            |

Note: Total labor costs are calculated by adding contributions paid by employers to gross wages.

Sources: Central Bureau of Statistics, national statistical offices

Unit labor costs represent the relationship between nominal wages and the level of productivity. They show whether wages are higher or lower in relation to a given level of productivity. The first Report on Competitiveness in 2002 warned about high unit labor costs in Croatia. These costs have, according to the data presented here, increased even more in the intervening period.

Unit labor costs in Croatia were very high between 2001 and 2004, between 5 and 11% greater than the EU 15 average. Unit labor costs are particularly high relative to our direct competitors for foreign investment and exports on EU markets (Table 5). In the new EU member states, labor costs have increased, so that the difference decreased to some extent in the most recent period. This is also true for Bulgaria, while in Romania unit labor costs significantly decreased.

Because of low productivity and high nominal wages, which are partly the result of the exchange rate of the kuna, our labor is relatively more expensive than in the EU 15. How can the competitiveness of labor be increased? A short term solution, with uncertain and risky consequences, would be gradually to undervalue the exchange rate of the kuna. However, since the total cumulative effect of such steps could be macroeconomic instability and weakening growth, and since there is no social consensus for such measures, this does not seem to be a good solution. A long term solution would be further productivity growth. This requires improving the quality of institutions and technologically improving export products.

#### KEY FINDINGS

- *Cost competitiveness of labor is still weak*
- *Because of low levels of productivity and high nominal wages, our labor is still relatively more expensive than the EU 15 average.*
- *The problem of high wages relative to the level of productivity has not been ameliorated.*

### 3.3 Exports

#### ■ *Croatia's Share in EU Markets is Recovering Slowly*

For small countries such as Croatia, exports are the main mechanism for improving competitiveness and are a main indicator of the results of competitiveness. In the 1990's, our export competitiveness decreased significantly. Croatia was the only one of the comparison countries that decreased its share of EU markets, from 0.34% in 1994 to 0.27% in 2003. From 1999 on, the share increased, which is encouraging. In the 2000-2004 period, Croatia achieved a rate of growth of exports equal to the average of the comparison countries (Table 6). Exports of goods grew by 33%, which is less than the increase in exports by new EU members, and significantly less than the increase in exports by Bulgaria and Romania. Still, having in view that our exports stagnated during the 1990's, this increase is a fairly good sign. At the same time, exports of goods and services increased by 53%, which was exceeded only by Romania and Slovakia. In the same period, Croatia's merchandise imports grew by a substantial 57%. The fact that merchandise imports grew twice as fast as imports substantially increased the trade deficit, which once again approached the level of 30% of GDP.

Croatia has a high level of income from services exports relative to GDP, especially in the area of travel and tourism. This item grew especially fast in 2003. However, the increase in services exports of 76% in 2003, or, more generally, strong exports of services via tourism cannot offset the deficit arising from weak merchandise exports. This confirms that reliance only on tourism cannot resolve the problems of our balance of payments in the long run, and even less the problem of the competitiveness of the whole economy.

**Table 6. Indices of Exports and Imports (in EUR) 2004/2000**

|                | Izvoz roba<br>i usluga | Izvoz<br>roba | Izvoz<br>usluga | Uvoz roba<br>i usluga | Uvoz<br>roba | Uvoz<br>usluga |
|----------------|------------------------|---------------|-----------------|-----------------------|--------------|----------------|
| EU 25          | 113                    | 113           | 115             | 110                   | 110          | 112            |
| EU 15          | 111                    | 110           | 115             | 109                   | 108          | 111            |
| Romania        | 164                    | 167           | 152             | 177                   | 182          | 141            |
| Slovakia       | 164                    | 173           | 119             | 164                   | 168          | 135            |
| <b>Croatia</b> | <b>153</b>             | <b>133</b>    | <b>176</b>      | <b>156</b>            | <b>157</b>   | <b>148</b>     |
| Bulgaria       | 149                    | 152           | 141             | 160                   | 164          | 144            |
| Hungary        | 139                    | 142           | 125             | 140                   | 137          | 161            |
| Slovenia       | 134                    | 134           | 137             | 128                   | 126          | 136            |
| Austria        | 126                    | 127           | 121             | 117                   | 116          | 121            |
| Ireland        | 117                    | 100           | 181             | 109                   | 90           | 142            |
| Portugal       | 114                    | 111           | 127             | 105                   | 106          | 98             |
| Italy          | 109                    | 109           | 109             | 110                   | 110          | 107            |

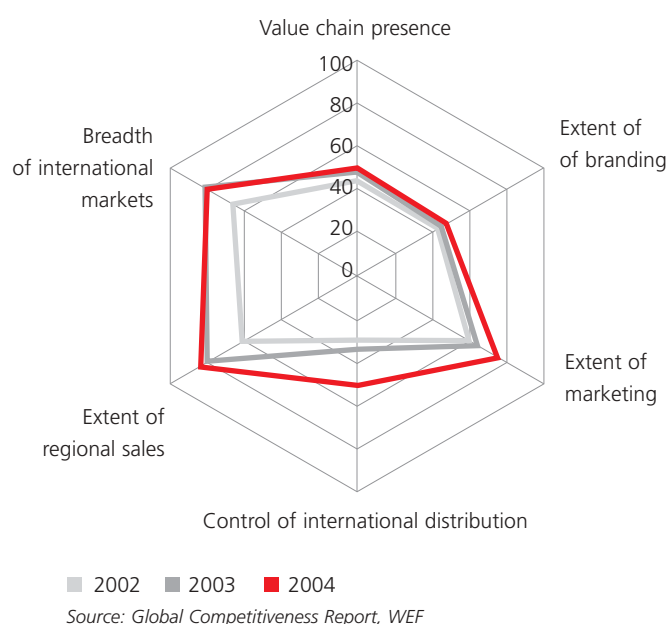
Sources: Eurostat, CBS

#### ■ *Despite the appreciation of the kuna exchange rate, positive developments were seen in 2004 in exports, as well as deterioration of some elements of the export offer, especially marketing*

In the short run, exchange rate changes can affect exports. The exchange rate of the kuna was exceptionally stable vis-a-vis the euro between 2000 and 2004. However, the fall

in the value of the U.S. dollar since 2002, which has an approximately 30% share in the current account, resulted in a 10 percent appreciation of the nominal and real effective exchange rate relative to the previous period. Because of this, exporters who earn income in dollars lost about 25% of the kuna equivalent of their foreign exchange revenue. Despite the appreciation of the kuna against the dollar, the turnaround in exports is encouraging. Expressed in euros, exports rose by 18.5% against the much lower growth of imports (6.2%) in 2004. Between 2001 and 2004, exports of products with high knowledge and technology content grew considerably (about 50%). For example, machines and electro-industrial exports grew rapidly. Because of high labor costs, the share of labor intensive products (for example clothing and shoes) fell from 14% in 2001 to 10% in 2004. It seems that high labor costs are forcing Croatia to change the structure of exports toward a greater share of more complex products.

**Figure 7. Quality of the Export Offer**



Certainly, these improvements in the rate of export growth and in the structure of exports are encouraging. However, it is still not clear whether this is the beginning of a new trend or just a short-term change. Data from the survey of entrepreneurs in Croatia show that some elements of the export offer have deteriorated both relatively and absolutely. The indicators of the quality of exports deteriorated in relative terms. Croatia is ranked lower according to these elements than during previous years (Figure 7).<sup>7</sup> The worst rank is for the development of marketing and independent marketing efforts. There was a significant decline in the assessment of possibilities for exports to neighboring countries, and in the assessments of the breadth of export markets. Low sophistication of export products is still a major hindrance.

These data suggest that the longstanding slow growth of merchandise exports relative to other countries, despite stronger export growth in 2004, is a complicated micro and macroeconomic problem for Croatia. It is a problem that has not been resolved. The close connection between the exchange rate and the financial system limits (but does not fully prevent) using the exchange rate as a means to stimulate exports. However, there are major macroeconomic and political risks to using the exchange rate as an instrument of export policy. Thus, to maintain export competitiveness, what is needed is significantly faster growth of productivity than labor costs and/or improvement in the quality and price of export products.

#### KEY FINDINGS

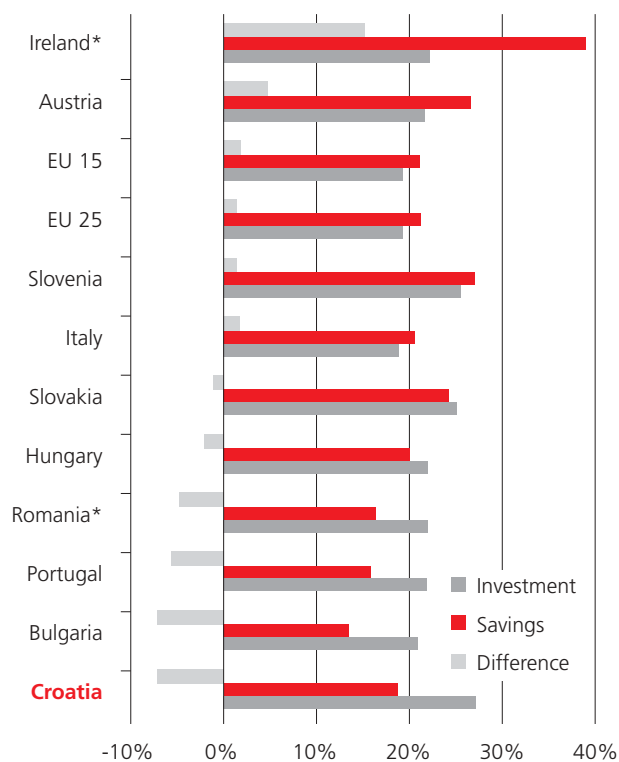
- *The favorable growth of exports and their restructuring seen in 2003 and 2004 should be maintained and promoted.*

<sup>7</sup> Instructions for reading the "radar" graph: the closer a point is to the center, the higher the position (the score is better).

### 3.4 Investment

- *There is a great gap between domestic savings and investment, and the structure of investment is an expression of the sources of growth with low levels of productivity*

**Figure 8.** Investment and Savings, 2004,(% GDP)



Sources: EUROSTAT, CBS

\*Data for Ireland and Romania are for 2003.

The basic problem is not the level of investment in Croatia, but its sustainability due the low level of domestic savings. Although the level of investment is greater than in comparison countries, there is a large gap of 7.8% of GDP between investment and savings. This will limit further investment if GDP growth does not increase and the effectiveness of investment does not improve (Figure 8).

In the last few years, a great deal of investment has come from government investment in infrastructure projects intended to lay the foundation for economic activity by the private sector. However, investment by private enterprises, especially in the manufacturing industry, has been inadequate. The largest share of investment relates to construction (26.5%). The trend for the share of manufacturing industry to grow, noted in the preceding Report, has not been maintained (Table 7).

**Table 7.** Sectoral Structure of Investment-by Use (%)

|   | 2000         | 2001         | 2002         | 2003         | Average      |
|---|--------------|--------------|--------------|--------------|--------------|
| Agriculture and fishing                   | 3,7          | 3,5          | 2,7          | 2,1          | 3,0          |
| Supply of energy and water and mining     | 12,4         | 9,7          | 10           | 10           | 10,5         |
| Manufacturing industry                    | 14,7         | 16,7         | 15,3         | 13,4         | 15,0         |
| Construction and real estate sales        | 27,9         | 23,1         | 25,5         | 29,3         | 26,5         |
| Trade                                     | 9,4          | 13,6         | 13,5         | 13,4         | 12,5         |
| Hotels and restaurants                    | 2,4          | 2,6          | 4,9          | 4,7          | 3,7          |
| Transport, warehousing and communications | 14,3         | 12,3         | 9,8          | 9,9          | 11,6         |
| Other                                     | 15,3         | 18,6         | 18,2         | 17,2         | 17,3         |
| <b>Total</b>                              | <b>100,0</b> | <b>100,0</b> | <b>100,0</b> | <b>100,0</b> | <b>100,0</b> |

Sources: EUROSTAT, CBS

#### KEY FINDINGS

- *The structure and level of investment reflects the very low level of domestic savings, as well as the sources of growth with low levels of productivity domestic services and low tech sectors.*



## 4. FACTORS OF COMPETITIVENESS

### 4.1 Business environment

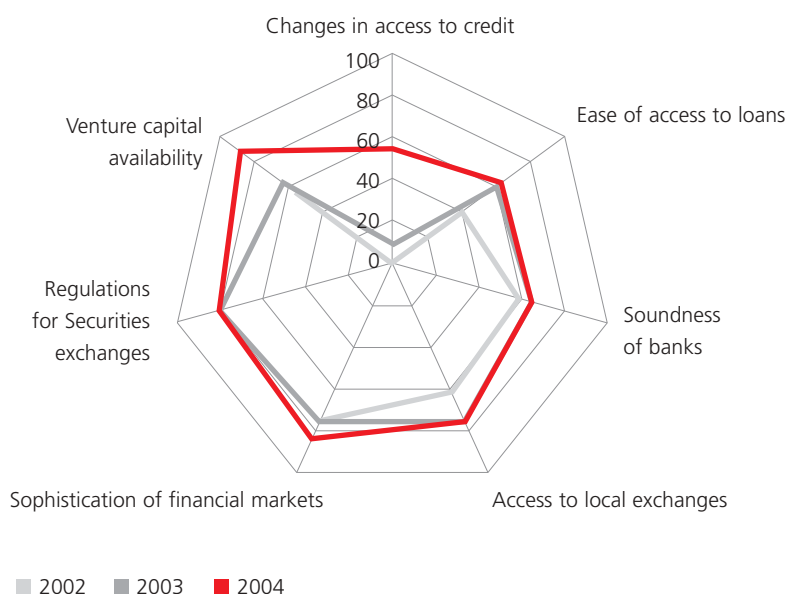
- *By income, Croatia is at the threshold of highly-indebted countries, while by exports, it is in the group of medium-indebted countries.*

The foreign debt reached 30.2 billion USD or 80.5% of estimated GDP at the end of 2004. This put Croatia in the group of highly indebted countries. According to the other criterion for measuring debt, Croatia's ratio of debt to exports of goods and services amounted to 160% at the end of 2003, which puts Croatia in the group of medium indebted countries.

Between 2001-2004, the structure of the foreign debt by borrowing sector changed. The share of government decreased from 45% to 35%, and the share of banks increased from 20% to 32%. This bank borrowing abroad was primarily aimed at financing growing demand of households for imported products, and was accompanied by slow growth of lending to enterprises. The measures taken by the Croatian National Bank to slow down credit expansion did not have a big effect.

The greatest fall in the Global Competitiveness Report survey came in the availability of risk (venture) capital - Croatia fell from 55th place in 2002 to 91st place in 2004 (Figure 9). This indicates a large unmet demand for financing projects that cannot be covered by bank guarantees. Surveys from the Global Competitiveness Report show a worsening of all elements that affect investment. In 2004, there was no significant improvement in the availability of credit, an area where Croatia had been extremely highly rated two years before.

**Figure 9.** Conditions and Sources of Financing and Gaining Access to New Technology for Croatian Firms



Source: Global Competitiveness Report, WEF

■ **The share of government consumption in GDP in Croatia is larger than in comparable countries in Central and Eastern Europe**

In comparison to other countries in Central and Eastern Europe, Croatia still has a high level of government consumption to GDP - 51% (Table 8). This is partially a consequence of the war and structural problems in the public sector, as well as a continued lack of decisiveness in beginning a systematic fiscal restructuring.

**Table 8. Share of Government Consumption in GDP, %**

|                       | 2000        | 2001        | 2002        | 2003        | 2004        |
|-----------------------|-------------|-------------|-------------|-------------|-------------|
| Romania               | 34,8        | 33,4        | 32,7        | 33,6        | -           |
| Ireland               | 31,9        | 33,5        | 33,8        | 34,3        | -           |
| Bulgaria              | 39,7        | 38,6        | 37,2        | 37,0        | -           |
| Slovenia              | 42,2        | 42,6        | 42,6        | 41,8        | 47,8        |
| Serbia and Montenegro | 37,6        | 40,2        | 47,3        | 45,1        | -           |
| Portugal              | 45,2        | 46,3        | 45,9        | 47,7        | 48,4        |
| Slovakia              | 45,4        | 47,7        | 48,4        | 47,9        | -           |
| Hungary               | 47,1        | 51,9        | 54,2        | 48,9        | -           |
| Italy                 | 46,9        | 48,7        | 48,0        | 49,0        | 48,5        |
| Austria               | 52,3        | 51,5        | 51,2        | 51,2        | 50,7        |
| <b>Croatia</b>        | <b>54,0</b> | <b>52,8</b> | <b>50,6</b> | <b>51,7</b> | <b>51,4</b> |

Sources: Transition Report, EBRD, 2004, Croatian Ministry of Finance, for EU countries in 2004 Eurostat long-term indicators

The deficit of general government, which was 6.5% of GDP in 2000, decreased to 4.9% of GDP in 2004 (Table 9). However, greater cuts on the expenditure side were not achieved due to highway construction projects and the maintenance of the majority of social transfers. As a result, in 2003 the fiscal criteria of the IMF agreement were not fulfilled, and fiscal consolidation was slowed substantially. The total government debt rose by 9.2 billion kuna.

**Table 9. Share of General Government Deficit in GDP, %**

|                       | 2000        | 2001        | 2002        | 2003        | 2004        |
|-----------------------|-------------|-------------|-------------|-------------|-------------|
| EU 25                 | 0,8         | -1,2        | -2,3        | -2,9        | -2,6        |
| EU 15                 | 1,0         | -1,1        | -2,2        | -2,8        | -2,6        |
| Italy                 | 5,8         | 3,9         | 3,5         | 2,9         | -3,0        |
| Austria               | 2,1         | 3,8         | 3,1         | 2,0         | -1,3        |
| Ireland               | 6,4         | 2,4         | 1,1         | 1,4         | 1,3         |
| Portugal              | 0,4         | -1,2        | 0,3         | 0,1         | -2,9        |
| Bulgaria              | -1,0        | -0,9        | -0,6        | 0,0         | -           |
| Slovenia              | -1,3        | -1,1        | -3,2        | -1,4        | -1,9        |
| Romania               | -3,7        | -3,5        | -2,7        | -2,4        | -           |
| Serbia and Montenegro | -0,9        | -1,3        | -4,5        | -2,5        | -           |
| Slovakia              | -10,4       | -7,3        | -7,2        | -3,6        | -3,3        |
| Hungary               | -3,4        | -4,7        | -9,3        | -5,6        | -4,5        |
| <b>Croatia</b>        | <b>-6,5</b> | <b>-6,8</b> | <b>-5,0</b> | <b>-6,3</b> | <b>-4,9</b> |

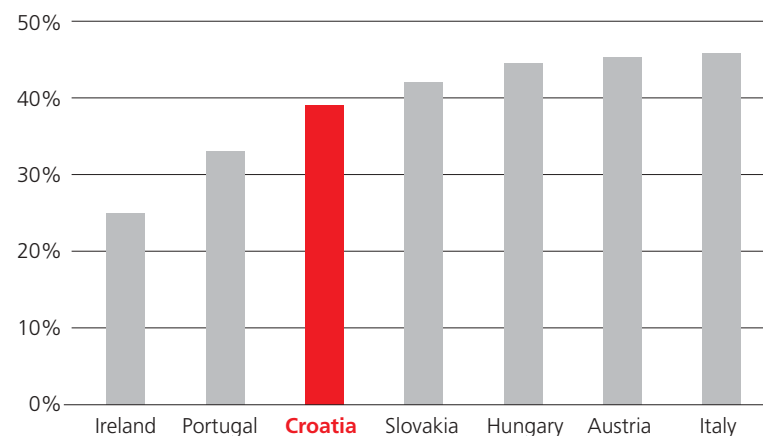
Sources: EBRD Transition Report, 2004, Ministry of Finance of the Republic of Croatia

Note: The deficit for Croatia in 2002, 2003 and 2004 is on an accrual basis founded on the agreement to use GFS 2001, and thus is not directly comparable to the figures for earlier years.

- **Although taxes and contributions in total labor costs have decreased relative to comparison countries in Central and Eastern Europe, a systematic fiscal adjustment has not been undertaken.**

The average tax and contribution burden of labor costs in Croatia was 39% in 2004, which is within the range of comparison countries (Figure 10). The relatively low share of taxes and contributions in labor costs compared to Central and Eastern Europe was a result of a sustained policy of decreasing the average burden on labor, which has gradually decreased their share by more than ten percentage points. Therefore, it can be presumed that tax policy no longer creates higher labor costs in the country.

**Figure 10.** Share of Taxes and Contributions in Total Labor Cost (percent of wages, 2003)



Sources: OECD, Ministry of Finance

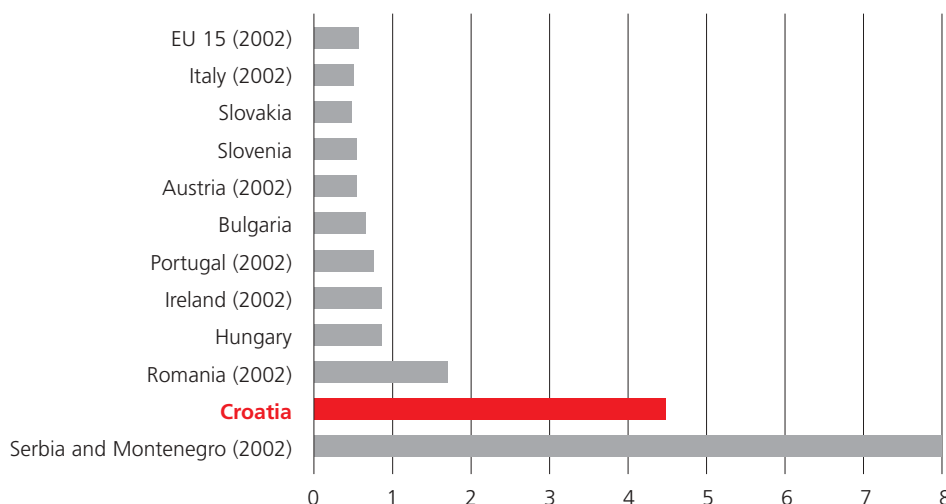
According to survey data, the level of the tax burden is not an especially acute problem for entrepreneurs. This is a favorable result that is confirmed relative to comparable countries in Central and Eastern Europe, but not relative to Portugal and Ireland.

- **Wasteful public expenditures - one of the keys to the problem of competitiveness**

In the survey for the Global Competitiveness Report, business people ranked the productivity of public expenditures at 2.6 on a scale of 1 to 7. This ranked the country at 80th place among 104 countries, and contributed to the worsening of Croatia's overall position on the competitiveness rankings. It is also indicative that Croatia has fallen on this index; it was in 59th place in the previous ranking. The reason for this outcome can be seen in the high share of government subsidies, which create inequalities in market competition, and in the generally low quality of public services that citizens and enterprises get from the government.

It is also troubling that the share of government subsidies in GDP in Croatia is more than six times greater than the EU 15 average (Figure 11).

**Figure 11. State Aids, 2003 (% GDP)**

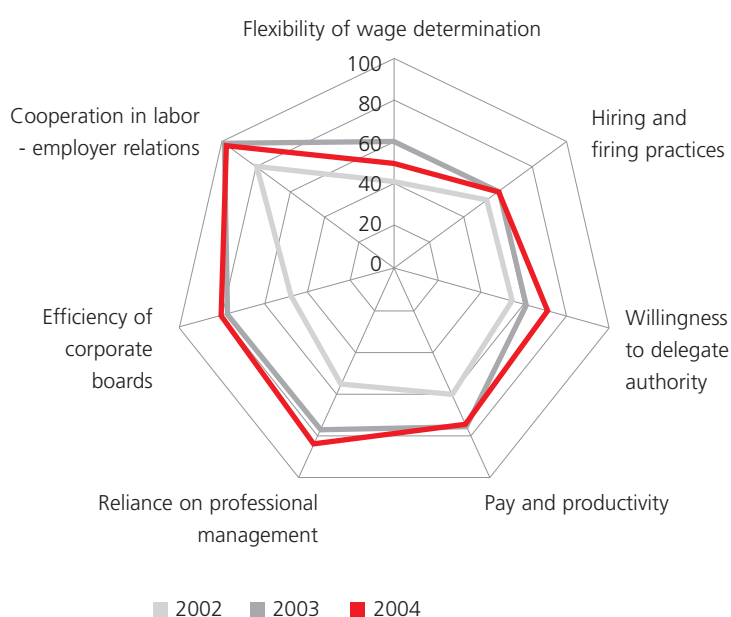


Sources: Eurostat, Ministry of Finance of the Republic of Croatia, "Advisory Report on the Development of State Aid and Subsidy Controls in Serbia Montenegro in the Context of the EU Stabilization and Association Process and WTO Accession SCEPP 2003 (estimate).

- **Croatian managers give relatively favorable ratings to the flexibility of employment and wage determination, but relations between workers and employers and the efficiency of management are rated very poor.**

The survey shows that, according to flexibility in employment and firing, and in wage flexibility, Croatia ranked a little bit better than its overall position in competitiveness in 2004 - 56th and 62nd place respectively (Figure 12). Entrepreneurs' assessment of the flexibility of employment did not change relative to 2003, and wage flexibility actually improved. This is an encouraging sign, because it improves the competitive process.

**Figure 12. Assessments of Employee - Management Relations and the Quality of Management**



Source: Global Competitiveness Report 2004-2005, WEF

Assessments of the quality of management, which, just like employee-employer relations is a crucial determinant of the success of the whole management process, are also very weak. Croatia is ranked 96 out of 104 countries on this indicator. The initially relatively favorable assessments of enterprise management and the professionalism of management noticeably deteriorated in the last three years.

### ■ **Worrisome quality of the judicial system**

All of the elements of the judicial system and the quality of public administration received very poor grades. Croatia received rankings below 80th place with a tendency to deterioration in the 2002-2004 period. This is especially true for the burden of government regulation, legal protection of finance and property, independence of the judiciary, biases in government decisions and inadequate transparency of government policy. However, Croatian entrepreneurs invest very little time in bureaucratic "disputation". That is, the daily time spent discussing matters with public servants is very low. Also, the assessment of the unofficial economy is near the average for countries of Central and Eastern Europe, and the tax system is relatively simple (Figure 13).

**Figure 13. Assessment of Quality of Government, Public Administration and the Judicial System**

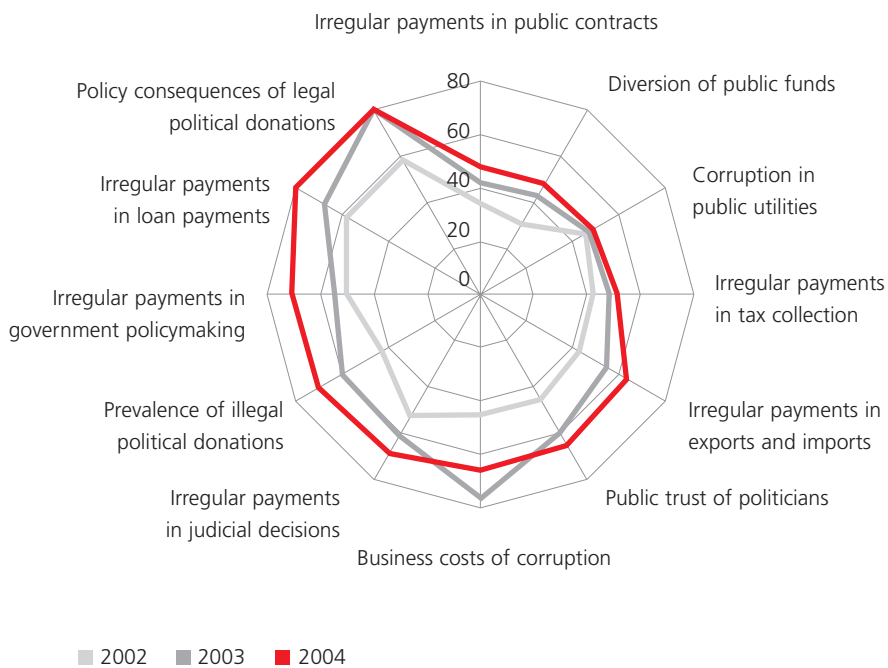


Source: *Global Competitiveness Report, WEF*

### ■ **Worsening of the already high level of corruption**

Croatian managers assess that corruption is clearly a hindrance to economic progress and honest business in Croatia. It adversely affects the investment climate and demonstrates the ineffectiveness of public authority. Of the 14 most problematic factors that affect doing business in Croatia, corruption is in second place, immediately after inefficient bureaucracy. The survey of the Global Competitiveness Report shows that the main mechanisms that generate corruption in Croatia are in the sphere of political donations by companies, loans, and in influence over decisions by the government and the courts.

**Figure 14. Assessments of Corruption and Its Mechanisms**



Source: Global Competitiveness Report, WEF

Croatia’s position on Transparency International’s index of corruption also worsened between 2003 and 2004.<sup>8</sup> Croatia ranks very low. Among the comparison countries, only Romania and Serbia and Montenegro rank lower.

**KEY FINDINGS**

- *Changes in the business environment are too slow and partial.*
- *Corruption is especially worrisome, along with the ineffectiveness of the legal system and government administration, and the unproductiveness of public expenditures.*
- *The quality of the business environment is a bottleneck for the advancement of entrepreneurship in the country.*

<sup>8</sup>For details, see [www.transparency.org](http://www.transparency.org)

## 4.2 Economic and Technological Infrastructure

According to the majority of ICT (information and communications technology) indicators, the relative position of Croatia did not change between 2001 and 2003. The exception is mobile telephony, whose position worsened. Most of the comparison countries, including Croatia, showed a slowing rate of growth of or even a decrease in the number of main telephone lines.

Table 10 shows that Croatia had relatively large expenditures on ICT relative to the comparison countries. This suggests that this sector is creating relatively high shares of value added, which is undoubtedly positive. However, although Croatia has a relatively developed basic telephone network, it is relatively undeveloped in the use of internet, in new types of telecommunications and IT services, while it has relatively high prices for telecommunications services. This contradiction points to the "extensive" character of the sector. That is, it points to a low level of service and low levels of activity relative to the high share of this sector in GDP.

**Table 10. Share of ICT Expenditures in GDP, 2004 (% GDP)**

|                | Expenditures on information technology | Expenditures of telecommunications technology | Total expenditures on ICT |
|----------------|--|---|---------------------------|
| EU 25          | 2,9                                    | 2,6   | 5,5                       |
| EU 15          | 2,9                                    | 3,2   | 6,1                       |
| Bulgaria       | 1,8                                    | 8,4   | 10,2                      |
| Romania        | 1,8                                    | 6,6   | 8,4                       |
| Hungary        | 2,8                                    | 5,5   | 8,3                       |
| <b>Croatia</b> | <b>2,0</b>                             | <b>5,3</b>                                    | <b>7,3</b>                |
| Portugal       | 2,0                                    | 4,6   | 6,6                       |
| Slovenia       | 2,2                                    | 4,4   | 6,6                       |
| Slovakia       | 2,4                                    | 3,7   | 6,1                       |
| Italy          | 1,8                                    | 3,2   | 5,0                       |
| Austria        | 2,9                                    | 3,2   | 6,1                       |
| Ireland        | 1,6                                    | 2,7   | 4,3                       |

Sources: EUROSTAT, IDC Adriatic 2005

Note: Data for Croatia are not completely methodologically harmonized with data for other countries.

- **ICT capacities have not been converted into advantages. Croatia is ahead of the countries of Central Europe in the development of basic telephony, but lags behind in indicators of "networking", that is, use of the internet**

Table 11 shows that we lag behind the comparison countries in a very uneven way. While in basic telephony we are actually above average, we lag behind the most in the number of internet hosts (only 29% of the average). Measured by number of internet hosts, Croatia is at the level of Bulgaria, and only ahead of Romania and Serbia and Montenegro. This speaks of a very low level of internet use in enterprises and other organizations. It also implies a low level of internet transparency of society and the economy and a very low level of networking. The level of this indicator is especially unsatisfactory, because Italy, the country just ahead of Croatia, has almost twice as many internet hosts per 10,000 population.

The quality of telecommunications networks and the reliability of postal infrastructure are worsening. Comparative assessments of telecommunications infrastructure using “hard” data provide similar assessments to those in the Global Competitiveness Report. In 2002, Croatia ranked in a solid 30th place in the quality of telecommunications networks and the reliability of postal infrastructure, while in 2004 it fell to 50th place in postal services and 51st in the quality of telecommunications infrastructure. The dissatisfaction of users with the quality and reliability of these services suggests that the development of these sectors is lagging behind the objective needs of the economy despite relatively high expenditures for products and services related to ICT.

**Table 11. Indicators of the Development of Telecommunications 2003**

|                                    | Per 100 population |               | Per 10,000 population |                |
|------------------------------------|--------------------|---------------|-----------------------|----------------|
|                                    | Fixed lines        | Mobile phones | PC's                  | Internet hosts |
| Austria                            | 39,2               | 87,9          | 37,4                  | 713            |
| Ireland                            | 49,3               | 85,8          | 42,1                  | 399            |
| Hungary                            | 35,6               | 78,3          | 10,8                  | 358            |
| Portugal                           | 40,3               | 89,9          | 13,4                  | 218            |
| Slovenia                           | 40,8               | 94,4          | 32,6                  | 215            |
| Slovakia                           | 24,1               | 68,4          | 23,6                  | 212            |
| Italy                              | 45,9               | 96,4          | 23,1                  | 114            |
| Bulgaria                           | 36,4               | 45            | 5,2                   | 67             |
| Romania                            | 21,9               | 32,3          | 9,7                   | 22             |
| Serbia and Montenegro              | 24,3               | 33,8          | 2,7                   | 18             |
| Average of comparison countries    | 35,8               | 71,2          | 20,1                  | 234            |
| <b>Croatia</b>                     | <b>37,4</b>        | <b>56,7</b>   | <b>17,4</b>           | <b>68</b>      |
| <b>Croatia relative to average</b> | <b>105%</b>        | <b>80%</b>    | <b>87%</b>            | <b>29%</b>     |

Sources: World Bank, ITU, Eurostat

■ **The price of telecommunications services is too high because of weak competition, and competition between internet providers is one of the weakest elements in this area**

A comparison of the prices of telecommunications services with Slovenia shows that prices in Croatia are somewhat higher, especially in the fixed network. A chosen “basket” of telecommunications services is 19% more expensive in Croatia than in Slovenia. It can be expected that this difference will be decreased by the entry of new operators during 2005. This is especially true for fixed telephony. If a substantial decrease in the prices of these services or a significant increase in the range of services available does not occur, it will be necessary to inquire closely about the causes of high prices.

The lack of competition between internet providers is assessed as the worst aspect of ICT competitiveness, and the trend is worsening. According to this indicator, Croatia has fallen from 70th place on the world rankings in 2002 to 84th place in 2004.

In research by the United Nations about the preparedness of countries to provide information and services to households and enterprises via internet (e-government),<sup>9</sup> Croatia received very low marks. It came in 48th place, which was worse than all other comparison countries except Serbia and Montenegro. This represents a substantial fall in rank compared to the previous year: Croatia fell 9 places, while Slovakia, Hungary and Romania advanced and overtook Croatia.

<sup>9</sup>For details see <http://www.unpan.org/egovernment4.asp>



- ***The price of diesel fuel, electrical energy and natural gas are at the average of comparison countries, while the state of infrastructure has improved due to significantly improved highway infrastructure.***

The price of diesel fuel, electrical energy and natural gas have a powerful influence on the profitability and competitiveness of particular sectors and on the living standards of the population. Comparison of prices for the period from 2002 to 2004 shows that prices of diesel fuel and natural gas do not harm the competitiveness of our enterprises. The price of electrical energy is in fact an advantage for domestic enterprises in Croatia relative to comparison countries.

The data from the Report show very poor assessments of the quality of ports, air transport and railroads, but with an improving assessment of the total quality of infrastructure in 2004. The last two years were marked by the successful completion of the Zagreb-Split highway. This is a significant technical and economic success for the country. It surely will contribute to entrepreneurship by making transport easier, and will especially help tourism and trade. Its effects are seen in the improvement of Croatia's rank in the total quality of infrastructure in the Global Competitiveness Report survey by 10 places (2004).

- ***Improved air quality, but very poor waste disposal and expected increases in CO2 pollution that will bring new costs***

Air quality has improved in the last ten years, but there are still problems. The majority of indicators since 1990 have shown that emissions of the main air pollutants have decreased from 15 to 50%. The Economic Memorandum of the World Bank mentions the level of CO2 as the most difficult problem that Croatia must resolve. This problem could require the levying of new taxes and/or the use of the flexibility mechanisms of the Kyoto Accords. If alternative measures are not taken to decrease the sources of pollution, this increased tax burden on the economy will produce additional indirect costs.

In Croatia, the legal framework for waste management is adequate, but the laws are not enforced. The state of infrastructure for the collection, processing and storage of waste is particularly bad. Very few sites meet international standards, and there is no organized system for disposing of dangerous waste. The determination of waste disposal sites and of procedures for waste disposal are outstanding problems. Most waste is simply dumped in a collection site, the least desirable of all possibilities. The share of waste that is burned or recycled should be increased, but this will require greater expenditures for these activities.

- ***According to the assessments of entrepreneurs, ecological regulations in Croatia are unclear, unstable and arbitrary. Therefore, implementation of ecological standards in companies is below the level of Central Europe.***

Environmental protection is an administrative and business problem that demands a coordinated approach. While in 2002 entrepreneur assessments of ecology were very positive, the results of the survey for the past two years suggest a substantial change in the views of entrepreneurs on this question. This seems to imply greater awareness of the importance of ecology. The greatest decline came in their assessments of whether ecological standards are imposed by government or worked out in cooperation with the business sector. Based on this criterion, Croatia was in 21st place in 2002. By 2004, it had fallen to a very low 98th place out of 104 countries. Ecological standards, thus, are mainly considered to be imposed by government and are not a subject of cooperation at the moment.

In Croatia, only 53 enterprises had ISO 14000 certificates in 2003. Although the number of certified enterprises has tripled in Croatia since 2001, we still remain in a group with Bulgaria, Romania and Serbia and Montenegro. Slovenia is still far and away in first place in the group of comparison countries, ahead of even Ireland, Italy and Austria.

#### KEY FINDINGS

- *Slow changes in the liberalization of telecommunications services have slowed down the internet-ization of business (the expansion of new business models based on the internet).*
- *The supply of energy, physical infrastructure and environmental protection are not being adequately considered as important factors for improving Croatia's competitiveness.*

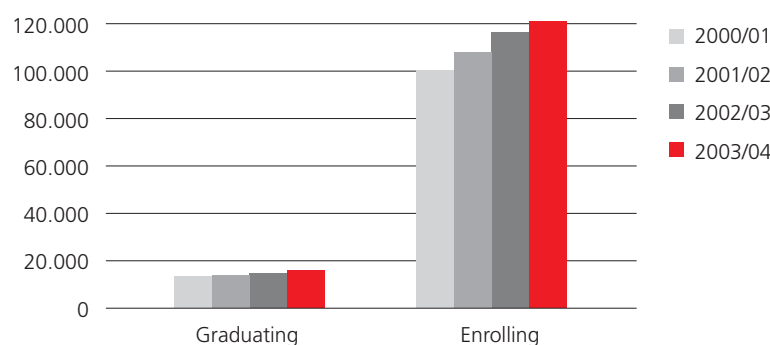
### 4.3 Education and Training

The educational structure of the labor force in Croatia is not significantly different from the structures in other comparison countries. Our investment does not differ from other countries at our level of income. However, this does not mean that Croatia is doing well and that long-term improvement of our competitive advantages and productivity growth is assured.

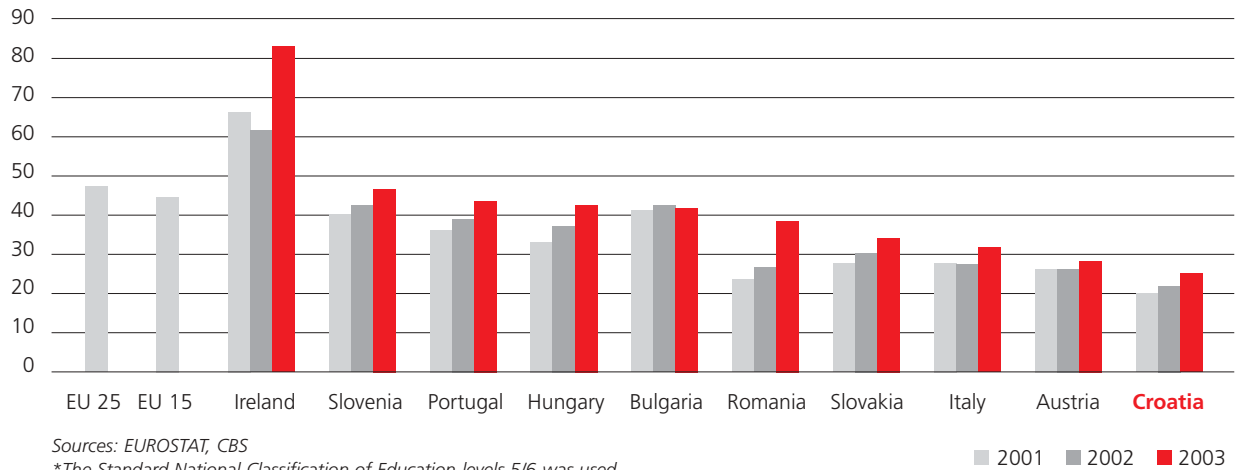
- ***Despite growing numbers of students, Croatia is at the bottom of comparison countries in the number of students receiving a university degree.***

The dynamic growth in the number of students in the last three years has reached more than 120,000 (Figure 15). In the last two years, the number of students who have received a university degree has also grown. However, the existence of such a large gap between the total number of students and those graduating suggests problems in the effectiveness of the education system. If our data are compared to developments in other European countries, the situation seems even less favorable. In the period 1998-2001, the countries of the EU 15 and the new member states recorded a steady increase in the number of student who completed tertiary education. The new member states Hungary, Slovakia and Slovenia recorded especially high growth rates (Figure 16).

**Figure 15. Students in Higher Education Institutions in Croatia**



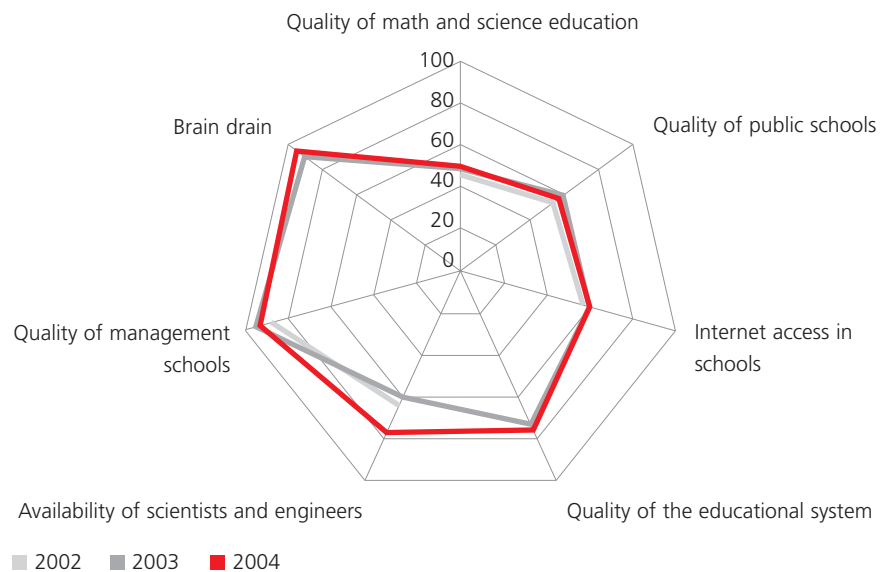
Sources: OECD, Ministry of Finance of the Republic of Croatia

**Figure 16.** Students Graduating at Higher Education Institutions per 1000 Population Aged 20-29\*

### ■ Education Shows Weaknesses on Both Sides - Supply and Demand

The smallest segment of unemployed in Croatia consists of people who have finished technical schools or colleges. Less than 7% of the unemployed are people who have finished technical schools or colleges. In addition, the registered demand for highly educated workers is almost twice as high as the number of unemployed in this category. Clearly, in many sectors there is an glaring shortage of highly educated workers. This underlines the need to create a systematic enrollment policy in higher education to meet the needs of employers.

In the survey for the Global Competitiveness Report, the largest change is in assessments of the availability of scientists and engineers, in which Croatia fell by twenty places. This indicates shortages of these experts on the labor markets. Entrepreneurs are quite satisfied with the quality of education in mathematics and physics and the quality of public schools, with only a slight deterioration over the last two years. The quality of education for managers continues to get poor assessments and there is a great problem with "brain drain", meaning the emigration of young experts to other countries (Figure 17).

**Figure 17.** Assessment of the Quality of Education

Very low participation rates of the labor force in life-long learning - Croatia is four times lower than the EU 25 average.

**Table 12. Involvement of Adults in Life-long Education\***

|                | 2002       | 2003       |
|----------------|------------|------------|
| EU 25          | 8,0        | 9,0        |
| EU 15          | 8,0        | 9,7        |
| Slovenia       | 9,1        | 15,1       |
| Ireland        | 7,7        | 9,7        |
| Austria        | 7,5        | 7,9        |
| Hungary        | 3,2        | 6,0        |
| Slovakia       | 9,0        | 4,8        |
| Italy          | 4,6        | 4,7        |
| Portugal       | 2,9        | 3,7        |
| <b>Croatia</b> | <b>1,5</b> | <b>2,1</b> |
| Bulgaria       | 1,3        | 1,4        |
| Romania        | 1,1        | 1,3        |

\*Ages 25 to 64

Sources: EU, Labor force survey, 2004, Aralica and Bašić (2004).

Participation in life-long learning programs eases changes in employment, and thus eases the functioning of the labor market and the restructuring of the economy. Table 12 shows that the involvement of adults in life-long learning is less than in all EU members and is almost four times less than the average of the EU 25. Of the comparison countries, only Bulgaria and Romania are behind us. At the same time, since 2002-2003, participation in life-long learning increased in all the comparison countries. This very troubling situation is confirmed by the survey of the Global Competitiveness Report, in which assessments of employee training led to Croatia falling from 67th place in 2002 to a very poor 88th place in 2004.

#### KEY FINDINGS

- *Education is still not a factor for improving competitiveness.*
- *The current state of life-long learning does not help improve competitiveness and does not stimulate growth based on a well-trained labor force.*

## 4.4 Entrepreneurship and the Growth of Enterprises

### ■ *Very Weak Entrepreneurship in Founding New Enterprises*

The majority of economies in Central and Eastern Europe have high rates of new enterprise formation. The introduction of an open, market economy during the 1990's created many business opportunities on the domestic market and/or for exports.

Comparing data on the formation of new firms in Croatia shows that the process of "creative destruction" has become seriously stuck. There is no single reason. Data on the effectiveness of three basic markets key to the functioning of this process - the labor market, financial markets and goods markets - show that all of them are ineffective.

International comparison of entrepreneurial activity, undertaken by the GEM Project, is based on the index of Total Entrepreneurial Activity (TEA).<sup>10</sup> Croatia's TEA index for 2002 was 3.6. This means that only 3.6% of people between 18 and 64 planned to start their own business or had a business less than 42 months old. Croatia was 32nd out of 37 countries participating in GEM in 2002. The average TEA index for all countries participating in the survey was 6.9. The relative position of Croatia deteriorated in 2003, when it came in 41st out of a total of 41 countries participating.

### ■ *A low rate of active enterprises. The rate of formation of new enterprises has not exceeded 2% per year.*

The average rate of new enterprise formation in Croatia from 2000 to 2003 was only 1.5%, much lower than the rates in comparison countries, except for Slovenia. This amounted to a relative decline in comparison to the period 1997-2001, when the rate was an also low 2.2%. The share of active enterprises in the total number of registered enterprises was also quite low, similar to levels in other Central and East European countries, except for Slovenia (Table 13).

**Table 13. Average Rates of Enterprise Formation**

|                | Rate of formation of enterprises, % (2001) | Share of active enterprises in total, % (1997-2000) |
|----------------|--|---|
| <b>Croatia</b> | <b>1,5*</b>                                | <b>39,5*</b>  |
| Slovakia       | 26,4                                       | 44,0  |
| Hungary        | 6,1  | 32,0  |
| Slovenia       | -2,2*                                      | 67,0  |
| Bulgaria       | -  | 41,0  |
| Romania        | 6,6  | 40,0  |

\* 2000.-2003.

Sources: Croatian Statistical Yearbook 1999-2003, CBS and FINA; for other countries, "SME's in Europe - Candidate Countries" European Communities 2003, page 16 and Radošević, Slavo and Tomasz Mickiewicz (2003), *Innovation Capabilities in Seven Candidate Countries: An Assessment*, Volume 2.8, Enterprise Directorate General EC, p. 36

<sup>10</sup> TEA (Total Entrepreneurial Activity) combines the number of people who attempt to start their own business and the number who are owners/managers in active enterprises not more than 42 months old. Thus the TEA index is the number of entrepreneurially active people in these two categories per 100 surveyed population aged 18 to 64.

The survey of the Global Competitiveness Report shows that, according to assessments of the ease of starting up a company, Croatia has fallen 26 places - from a very good 33rd place in 2002 to 59th place in 2004. Company registration in Croatia takes four to six weeks on average. Registration costs are about 660 USD (including costs of notaries and publication in the official gazette).

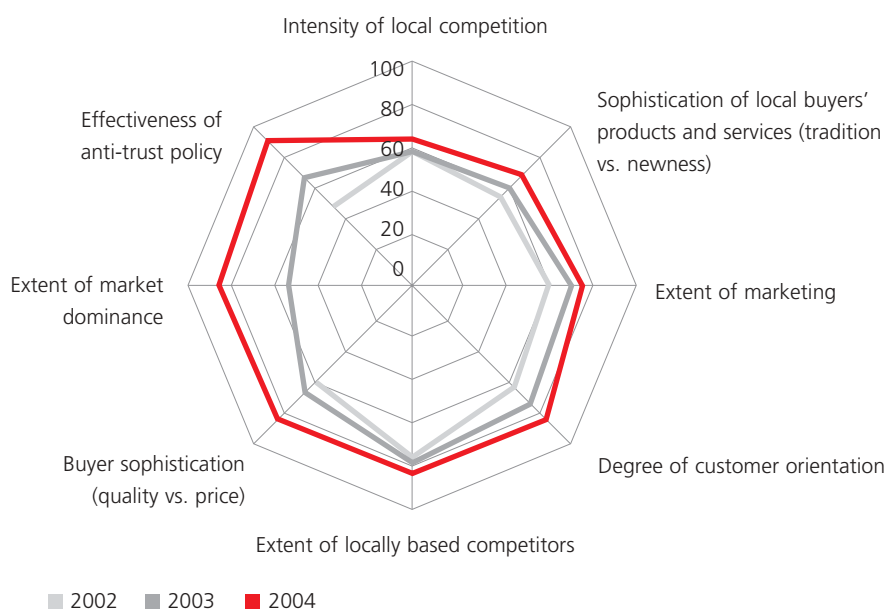
#### 4.4.1. Enterprise Growth

Along with start up, the growth of existing enterprises is an important aspect of entrepreneurship. The existence of many newly-formed companies that do not grow and do not invest bespeaks a crisis of "coerced" entrepreneurship, not market opportunities. The growth of an enterprise depends on the internal relations and capabilities of its managers, and on the development and quality of relations with customers and suppliers.

■ **The closed circle of "internal entrepreneurship" - undemanding customers and monopolized markets, weak local suppliers**

A competitive market structure and demanding customers constitute an important stimulus for "internal entrepreneurship", or the development of entrepreneurial behavior among managers. When markets are monopolized and customers have low purchasing power, a closed circle is created in which enterprises are not forced to innovate via new products or new services. The Global Competitiveness Report survey shows that Croatia's situation in 2004 had elements of this "closed circle", accompanied by a very high degree of monopolization of markets (92) and ineffective competition policy (93).

Figure 18. Assessments of Competition and Customers



Source: Global Competitiveness Report, WEF

Competition is mainly local (89), and because of low purchasing power, it is mainly oriented to prices (89). While domestic customers are somewhat more sensitive to product novelty (72), the overall conditions in which enterprises are operating create very weak customer orientation (88). In the period since the last Report, Croatia has moved backwards in almost all aspects of market structure and customer sophistication. This trend is very unfavorable and must be ended by stimulating increased competition on goods and services markets.

The second important element of stimulating "internal entrepreneurship" in enterprises is the relationship with suppliers (vertical chains). The Global Competitiveness Report survey shows that Croatian entrepreneurs give roughly equally good assessments of the availability of local supply of inputs and machines (52nd and 57th place). However, the assessment of the quality of local suppliers is still low.

Since the last Report, entrepreneurs assess that the development of domestic clusters has become worse.

#### 4.4.2. Foreign Direct Investment

According to the relative amount of foreign direct investment since 1999, Croatia is among the most successful countries in Central Europe. This is due mainly because to large investments in the banking and telecommunications sectors, which have a high share in GDP, but which are not export oriented and which have only limited multiplier effects in the domestic economy.

As a share of 2003 GDP, Croatia received a greater value of foreign direct investment than all other comparison countries except for Ireland in the years between 2001 and 2003 (Table 14). Such direct foreign investment per capita places Croatia among the most successful transition countries (Figure 19).

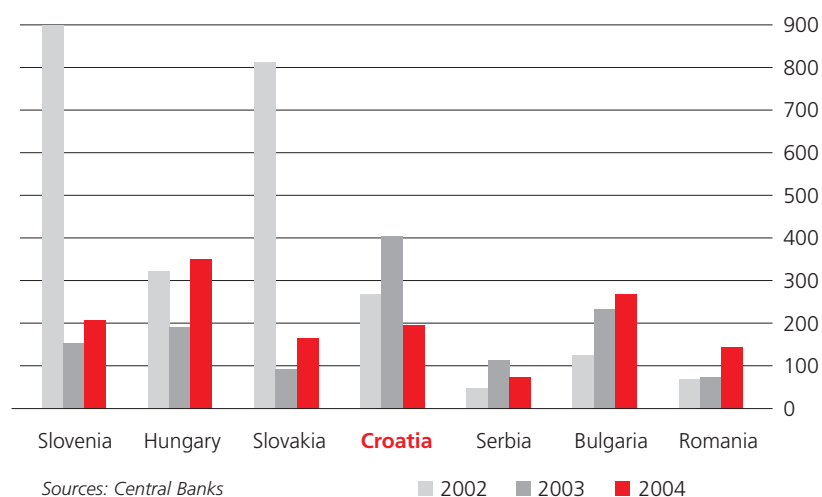
One specific feature of Croatia, which only two other Central European countries (Hungary and Slovenia) share, is relatively large outward investment. From 2001 to 2003,

**Table 14.** Foreign Direct Investment from 2001 to 2003 (% of 2003 GDP)

|                | In the country | Abroad     | Difference  |
|----------------|----------------|------------|-------------|
| Ireland        | 44,0           | 10,9       | 33,1        |
| <b>Croatia</b> | <b>16,5</b>    | <b>2,8</b> | <b>13,8</b> |
| Slovakia       | 16,4           | 0,2        | 16,3        |
| Bulgaria       | 15,8           | 0,3        | 15,5        |
| Hungary        | 11,2           | 2,7        | 8,5         |
| Slovenia       | 9,7            | 2,1        | 7,6         |
| Romania        | 6,9            | 0,1        | 6,8         |
| Portugal       | 5,7            | 7,5        | -1,7        |
| Austria        | 5,5            | 6,3        | -0,8        |
| Italy          | 3,2            | 3,3        | -0,1        |

Sources: IMF-IFS, October 2004, Croatian National Bank Bulletin No. 97, World Investment Report 2004

**Figure 19.** Foreign Direct Investment Per Capita (euro)



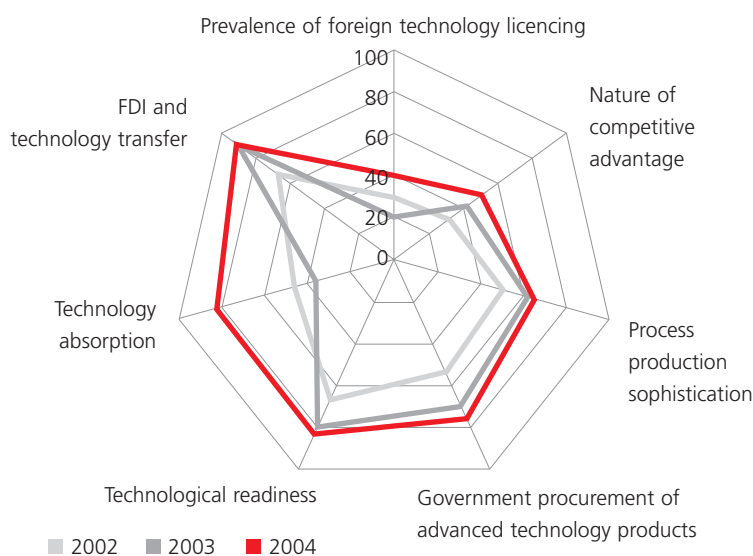
Croatian enterprises invested 780,1 million USD abroad in direct investments. This was 16.7% of the value of inward investment. Although the average competitiveness of Croatian enterprises is low, it is encouraging that a few leading enterprises are able to compete via direct investment abroad.

■ **Weak Attractiveness of Export-Oriented Foreign Direct Investment is One of the Key Development Problems**

In terms of its attractiveness for foreign investment, Croatia finds itself stuck between high unit labor cost and undeveloped service and education infrastructure to attract export oriented investment based on a higher share of engineering or services. Croatia's image has been inadequately formed. Investors remain focused on countries that have gone much further in making efforts to attract them (the Czech Republic, Slovakia), or on countries with low labor costs (Romania). Neither strong attraction efforts nor low labor costs have been significant factors in attracting investment in Croatia.

■ **Very Large Fall in Assessed Abilities to Absorb Imported Technology**

**Figure 20. Elements of Competitive Advantage, Conditions and Mechanisms for Adopting Technology**



Izvor: Global Competitiveness Report, WEF

Data from the Report show that Croatia is very poorly ranked in foreign investment as a source of new technology since these investments have mainly been concentrated in services (Figure 20). The most favorable assessment is of the ability to absorb new technology via licenses. This confirms that our enterprises mainly demand standard technology that can be obtained on the market and that does not require complicated financial mechanisms or conditions. The results of the survey show worsening assessments of the sophistication of the production process, of natural competitive advantages and especially of the ability of enterprises to absorb new technology.

**KEY FINDINGS**

- *The very low rate of formation of new enterprises indicates that market opportunities are few and that many institutional barriers and risks to the formation and growth of enterprises still are present.*
- *After a relatively long period of market and other institutional reforms, the market and internal working conditions inadequately stimulate individual and internal entrepreneurship in enterprises.*
- *The relatively high share of foreign direct investment is still oriented to the domestic market only.*



## 4.5 Quality, Innovation, Research and Development

The improvement of quality standards, the introduction of innovation and the creation of research and development activities are very important mechanisms of entrepreneurship. Quality standards is a very important problem facing domestic producers, especially regarding exports. Innovation or the introduction of products and processes that are new to the enterprise (although they do not have to be new to the market or the world), are a very good indicator of the internal entrepreneurial dynamics of an enterprise. Research and development activities are common in very innovative enterprises, which often have organized cooperation with educational and research organizations. These three groups of indicators emphasize the degree to which domestic enterprises are able to secure more lasting sources of competitive advantage that go far beyond static advantages in costs, flexibility or knowledge of the local market.

- **Based on its use of quality standards, Croatia is substantially behind the new EU members.**

Measured by the number of enterprises with ISO 9000 standards, Croatia is in a group with Romania, Bulgaria and Serbia and Montenegro, and is far behind the countries of Central Europe. Table 15 shows the number of ISO 9000 standards per million population in comparison countries in 2003. Although the data for the last several years, including 2003, are unreliable due to the introduction of the new ISO 9001:2000 standard, they still show a great lag among Croatian enterprises in introducing quality systems.

**Table 15.** Number of ISO 9000 Certificates per Million Population

|                       | December 2003 |                        |
|-----------------------|---------------|------------------------|
|                       | Total         | Of which ISO 9001:2000 |
| Italy                 | 1.106         | 1.106                  |
| Hungary               | 792           | 775                    |
| Ireland               | 422           | 290                    |
| Austria               | 396           | 347                    |
| Portugal              | 384           | 325                    |
| Slovenia              | 233           | 233                    |
| Slovakia              | 228           | 213                    |
| <b>Croatia</b>        | <b>184</b>    | <b>184</b>             |
| Bulgaria              | 153           | 112                    |
| Romania               | 143           | 92                     |
| Serbia and Montenegro | 21            | 10                     |

The table is based on data from The ISO Survey - [www.iso.org](http://www.iso.org) and <http://www.cia.gov/cia/publications/factbook>. Source for Croatia: EIZ (2004)

- **Although stagnating, total investment in R&D is still at the relatively high level of 1.1% of GDP. However, the employment of researchers in the business sector is very low.**

Gross domestic expenditures for research and development (R&D) have stagnated at a level just above 1% of GDP (Table 16). Although the level of these expenditures in Croatia is below the EU 15 average (1.98% in 2002), it is nonetheless above the average for the 10 new members of the EU.

**Table 16.** Gross Domestic Expenditures for Research and Development

|              | 2000  | 2001  | 2002  | 2003  |
|--------------|-------|-------|-------|-------|
| Udio u BDP-u | 1,23% | 1,07% | 1,12% | 1,14% |

Source: "Research and Development" 2000-2003, Central Bureau for Statistics

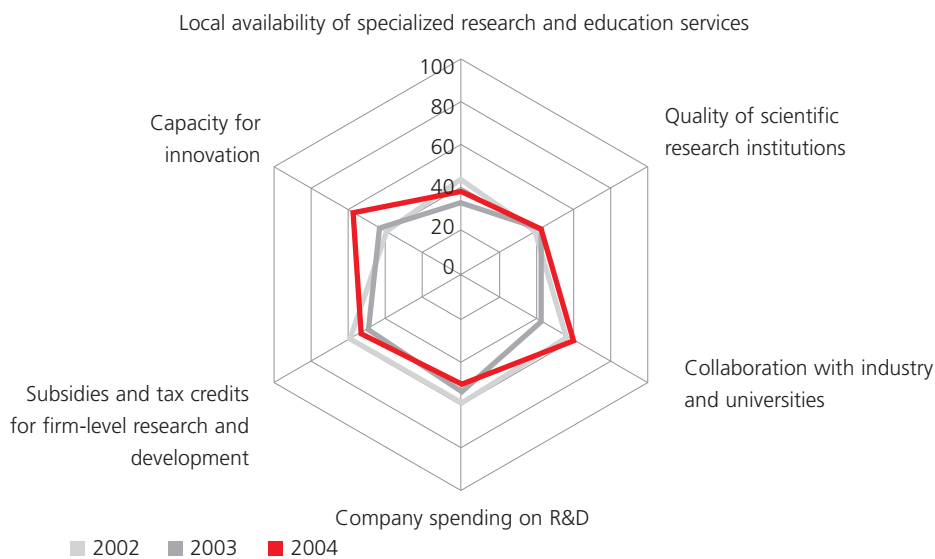
The share of the business sector in R&D employment in Croatia is very low - only 19%. Only Bulgaria, of all the comparison countries, has a lower share. The EU 15 average is 56%. However, the large share of the government sector and higher education in research and development employment does not mean that there are too many employees in these areas. According to shares in the labor force, in comparison to the EU 15, Croatia has a "normal" amount of employment in the government sector and higher education, but exceptionally low employment in the business sector (0.14%). The latter is five times less than the share in the labor force in the EU 15 (0.67%).

■ **Favorable Assessments of the Public R&D Sector But Weakening of Own Innovative Capacities**

The Global Competitiveness Report survey shows that domestic enterprises are losing the ability to produce their own innovations and that they are turning more and more to licenses. In this respect, Croatia has fallen from 41st (2002) to 60th place (2004). At the same time, domestic enterprises have lost their ability to absorb imported technology, which partially explains their turning to licenses (Figure 21).

Entrepreneurs give relatively favorable assessments to the supply of research services and the quality of domestic research institutions, as well as to cooperation with universities. However, with business R&D stagnating, with the innovative capacities of enterprises weakening and with enterprises turning to licenses, the public sector cannot compensate for this negative trend.

**Figure 21. Assessment of the Public R&D Sector, Own R&D and Innovative Capacities**



Source: Global Competitiveness Report, WEF

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■ *A limited number of enterprises that are active in advancing quality, and a trend to decrease the share of the business sector in R&D, shows that Croatian enterprises have not assured themselves long-term sources of growth.*

## CONCLUSIONS

Economic growth in Croatia was achieved in the period between 2002 and 2004 largely by activities with limited futures: construction-investment in highways financed by foreign borrowing and growth in trade-domestic consumption. However, such growth did not result in a strengthening of the economy's competitiveness, which de facto decreased relative to other comparison countries. These countries advanced faster and carried out systematic reform packages. Because of this, the logical conclusion of this year's report is: Too little and too slow - if we wait to stay in the same place, we have to run - and if we want to move forward, we have to run faster than others.

In other words, the content and tempo of change in Croatia has not been adequate for a dynamic world in which we want to advance and become competitive.

### ***What did the countries of Central and Eastern Europe do, and what allowed them to increase their relative competitiveness?***

The answer lies in effective, successful and mutually reinforcing efforts of three groups of factors:

- *The level and tempo of institutional structural changes*
- *The content and focus of reform programs*
- *Positive changes created by expectations of European Union accession*

Relative to the countries of Central Europe - Slovakia, Hungary and the Czech Republic, Croatia lags behind in institutional structural changes related to transition and arising from the accession process. Lowering the costs of government consumption via successful reform of pension and health systems, increasing the efficiency of the public administration, decreasing subsidies, removing administrative barriers to investment and decreasing the total tax burden all had a positive effect of the competitiveness of the economy

in these countries. Another factor, which had a powerful and positive effect on their growth and on the improvement of their competitiveness, was the change in expectations because of the process of EU accession, which also attracted foreign investors.

Relative to Romania and Bulgaria, who are very important reference countries for us today, Croatia does not lag behind too much in institutional changes related to transition. However, the intensity and content of changes related to EU accession is much stronger in these countries. Also, the certainty about the date of accession (2007) in these countries imparts a significant positive effect on business expectations and increases the countries' attractiveness to foreign investors. This factor, along with better cost competitiveness and simplification of the tax system (for example, Romania has introduced a single tax rate), has led to a relative improvement in competition in these countries.

When all three groups of factors are applied to Croatia, it turns out that the absolute and relative weakening of competitiveness in the last two years is partially the result of:

- *Weakening of the intensity of structural reforms*
- *Long-term competitive problems of Croatia - high unit labor costs, high government consumption, low effectiveness of public administration and administrative and other limitations to implementation of investment*

#### ***How can Croatia turn around the negative trend in competitiveness?***

The hesitation about strategy, the rapid growth of indebtedness and the fragmentary reforms that have been enacted until now, cannot ensure rapid accession to the EU. Nor can they provide a level of gross domestic product substantially above that achieved in 1989. If Croatia were a member of the EU today, we would be the country with the lowest GDP per capita. Is this what we want?

The answer is clear: Instead of the option of gradual changes and postponement, Croatia needs an option of vigorous action based on pragmatism, a realistic assessment of our problems and active attention to the areas that can contribute to improving competitiveness. The "55 Recommendations for Increasing Croatia's Competitiveness", which the National Competitiveness Council formulated at the beginning of 2004, is a necessary framework whose set of priorities and measures should be introduced into daily life as soon as possible.

It is encouraging that the Government has begun to implement some of these recommendations. Unfortunately, not all of them are being implemented, and some of the seven priority areas are not being covered. Qualitatively important moves to operationalize the recommendations and mobilize interested parties have been seen in only two key areas for improving competition - speeding up the process of modernization of education and the beginnings of reform of the judicial system. Working out and implementing measures in the other priority areas is lagging or lacking altogether.

The beginnings of the reform of the judicial system and education show that change is possible and that change can be implemented - if there is the will to do so.

**1. The tempo of structural institutional changes related to the transition process - privatization, liberalization and enterprise restructuring - must be increased substantially.**

**2. The tempo of changes related to the EU accession process, which strengthen the competitive ability of the Croatian economy, must be increased**

- The reform of the judicial system and the modernization of public administration must be accelerated to reach EU standards, limit corruption and remove the factors that act as a brake on the process of competition and restructuring.
- Macroeconomic stability and a decrease in debt should be assured through more rapid fiscal consolidation, along with the implementation of strong anti-monopoly regulations.
- Government consumption and the overall tax burden should be decreased.
- Export orientation should be stimulated through foreign direct investment.
- Administrative barriers to investment should be removed.
- The system of government subsidies should be transformed to create programs that will advance quality, innovativeness and training.
- Increase labor productivity through improved quality and management, education, innovation, and the introduction of new products and processes.

**3. Scenarios for EU accession and platforms for accession negotiations should be elaborated as soon as possible.**

Experience shows that the main weakness of reforms in Croatia is their slowness and the inconsistency of implementation. In addition, the public has been poorly informed about reform. This leads to lack of comprehension of the goals of reform, and resistance to and postponement of change, even though change is in the interest of the large majority of the population.

In order to reverse the trend of lagging behind relative to others, Croatia must create a much stronger social consensus about the direction and content of changes. This also means that the a development strategy should finally be created with development priorities, clear goals within these priorities, a work plan for implementation of these goals and quality implementation including clear designation of responsibility for implementation. All of this requires a greater degree of political will and leadership with the initiative and dedication from all the key interested parties.

The National Competitiveness Council considers it an obligation and a responsibility to emphasize that the passage of time and the automatic course of events are not and cannot be a self-regulating framework for positive change in our country. The position of Croatia on the international list of competitiveness, as well as the trends in the last three years, **clearly show the need for a rapid and comprehensive change of course, and the achievement of national strategic goals:**

- **Achieving sustainable GDP growth**
- **Decreasing unemployment**
- **Increasing the quality of life**
- **Increasing social participation**

**These goals require changes in attitude and in behavior.**

### **Participants in this report**

The research on which this report was based was carried out by a group of researchers and external experts of the Institute for International Relations in Zagreb

Anamarija Boromisa, PhD  
Jurica Božić  
Nevenka Čučković, PhD  
Krešimir Dragic, Msc  
Davor Galinec, Msc  
Krešimir Jurlin, PhD  
Sunčica Oberman-Peterka, Msc  
Vedran Šošić  
Sanja Tišma, PhD

and the research team of the Center for Research and Development in Education of the Institute for Social Research

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### **Executive Editors**

Mira Lenardić, PhD  
Slavo Radošević, PhD  
Krešimir Jurlin, PhD

### **Reviewing**

Roland Berger Strategy Consultants

### **Translation**

Evan Kraft

### **Copy Editor**

Michael Gable

### **Graphic Design**

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