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The Vienna Institute
for International
Economic Studies

Forschungsberichte

wiiw Research Reports | 304

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Croatia's Delayed Transition: Competitiveness and Economic Policy Challenges

March 2004

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Contents

Tables and Figures

Executive summary

This report gives an overview of the overall trends in output and employment in Croatia, and of the country's fiscal and external sectors. It concentrates in more detail on the country's manufacturing sector and its competitiveness in comparison with the developments in other Central and East European (CEE) as well as South and South East European (SEE) economies. Finally some economic policy issues specific to Croatia are discussed.

The Croatian economy, hit hard by output declines in the 1990s, has not yet recovered to its pre-transitional levels. In contrast to the largely successful stabilization of prices and the exchange rate, Croatia's external position has deteriorated considerably over recent years. The current account reports persistently high deficits, caused first of all by huge imbalances in commodity trade. Even worse results could only be prevented by the high surpluses in services trade, accounting for 14% of GDP in 2002, the most outstanding value among the CEE countries. Apart from being an important source of foreign exchange earnings, the services sector has also a high proportion in the total FDI stock, primarily in the transport and telecom segment. Gross foreign indebtedness reached a record level in 2003, equalling more than 80% of the country's GDP.

In the year 2002 manufacturing output reached only slightly more than 60% of its 1990 level; the single positive exception was the paper and printing industry. Branches that developed far above average but still below the pre-transition level were transport equipment and other non-metallic mineral products, whereas output of the leather and of the electronic and optical equipment industries had contracted to 20% and 27% respectively of the 1990 level. In comparison with the EU and the CEE countries, the output structure of Croatian manufacturing is more similar to the less advanced southern EU countries and also to Bulgaria and Romania.

Factors of competitiveness, such as wages, productivity and unit labour costs, are considerably less favourable than in other CEE countries. Manufacturing unit labour costs are the second-highest (after Slovenia) in the whole region, ranging between 55% and 61% of the Austrian level. In branches such as leather and leather products and transport equipment, unit labour costs are even much higher than in Austria, creating clear cost problems for these industries.

On the EU market Croatian manufacturing has continuously been losing export shares, from 0.42% in 1995 to 0.29% in 2002. As Croatia's trade deficit with the EU was growing, the deterioration was observable in most manufacturing branches, pointing to a widespread weakening of the country's international competitiveness. Industries that did enjoy a comparative advantage were labour-intensive branches including wood and the

textiles and leather industries, while more sophisticated branches showed a comparative disadvantage.

The final section discusses the exchange-rate and fiscal policies and comes to the conclusion that, if increasing risks to macroeconomic stability are to be avoided, a move towards a more flexible exchange rate may still be advisable in order to enhance industrial competitiveness and to allow for a more supportive monetary policy. Further fiscal adjustments would be needed to promote investment and thus increase employment.

Keywords: *Croatia, manufacturing, foreign trade, FDI, foreign debt, fiscal deficits, economic policy*

JEL classification: *F14, F21, F34, L60, O57, P52*

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Croatia's delayed transition: competitiveness and economic policy challenges

Introduction

In contrast to other transition countries, Croatia started its integration process with the European Union and the World Trade Organization only at the beginning of 2000, after the governmental and presidential change in the country. In October 2001 Croatia and the EU signed a Stabilization and Association Agreement (SAA) similar to the Europe Agreements concluded earlier between the EU and the ten Central and Eastern European countries. Accordingly, Croatia started harmonizing its legal and economic framework with that of the EU, intensifying cooperation with its neighbours and cooperating with the EU on a number of issues. An Interim Agreement, providing near-total free access to the EU market, took effect in March 2002. The SAA has still to be ratified by some of the EU member states: so far the UK and the Netherlands have declined to do so as long as Croatia was not willing fully to collaborate with the International Criminal Tribunal for former Yugoslavia. The latter will be one of the major political criteria for closer cooperation with the EU to be fulfilled in the near future. Other such criteria are the return of refugees, the judiciary reform as well as human and minority rights.

Croatia submitted its application for EU membership in February 2003, aspiring to enter the Union together with Bulgaria and Romania, who intend to accede in 2007. This appears to be an over-ambitious target, taking into account the formal procedure in the pre-accession period (Croatia is not yet considered an official candidate); the negotiations on the *acquis communautaire* and the final closing of all chapters with the EU will be a time-consuming process.

This report[1] presents a summary overview of the main economic developments over recent years and investigates Croatia's performance relative to the EU acceding countries, in particular as concerns the external sector (comprising commodity and services trade), FDI and foreign indebtedness. The second section analyses the competitiveness of the Croatia manufacturing industry, which has suffered from severe output and employment losses since the beginning of the transition. Finally, the dilemmas of economic policy related to the exchange rate and fiscal policy measures are discussed.

* The authors are grateful to Mario Holzner, wiiw, for his contributions to an earlier version of the paper, and to Doris Hanzl-Weiß, wiiw, for her background study for Chapter 2.

1 The present report draws on a number of studies related to economic (policy) issues in Croatia, prepared in the framework of a consultancy contract between the Office of the President of the Republic of Croatia and the Vienna Institute for International Economic Studies over the past two years.

1 Economic background

Recent developments

From a purely economic point of view, Croatia – together with Slovenia – enjoyed much better starting conditions than other reforming countries and/or other successors of the former SFR Yugoslavia at the beginning of transition. Croatia had at least some of the makings of a market economy and the country, then as a part of former Yugoslavia, had well-developed trade links with the European Community based on a trade and cooperation agreement concluded already in 1980. After the split, trade was shifted from the former Yugoslav market to foreign markets. Sales to other Yugoslav republics decreased from an estimated USD 3.1 billion in 1987 to USD 1.4 billion in 2002, while at the same time exports to the rest of the world increased from USD 2.4 billion to USD 3.5 billion.

Over the first years of transition, Croatia experienced the most severe output decline among the Central and East European (CEE) countries. This was caused, among other things, by the war, the disruption of transport links and the loss of the Yugoslav market. Following the introduction of a stabilization programme in late 1993, GDP grew at impressive rates up until 1997, mainly driven by domestic demand in general and by reconstruction-related investment activities in particular. But growth lost momentum in the subsequent year and turned negative by 1999 (Table 1). From 2000, GDP registered again continuous and increasing growth rates, backed by strong household consumption and investment activities. The 2003 GDP growth reached about 4.3%, somewhat less than the year before. Still, GDP has not so far caught up with pre-transition levels: in 2003 it reached only 91% of what it had been in 1989. (From a comparative perspective, Bulgaria was the only country where output recovered even more slowly over that period.) Data for industrial production show an even worse performance than for GDP and remained, by 2003, one third below the pre-transition level. (In Hungary, in contrast, industrial production in 2002 was 54% higher than in 1989.)

While the recovery in the real sector was not strong enough to restore pre-transition levels of output (as was the case in most other CEE countries), hyperinflation was stopped after Croatia introduced its stabilization programme in October 1993. In the following years prices remained subdued, before a slight acceleration in 1998 due to the introduction of VAT. Thereafter they were falling steadily, to 1.8% in 2003 .

Like other successor states of former Yugoslavia, Croatia has a high public expenditure to GDP ratio (see also Gligorov et al., 2003). Public sector spending expanded throughout the past decade and peaked in 1999, when expenditures were around 57% of GDP

Table 1

Croatia: Selected economic indicators

	1997	1998	1999	2000	2001	2002	2003 [1]	2004 forecast	2005
Population, th pers., mid-year [2]	4573	4501	4554	4437	4437	4443	.	.	.
Gross domestic product, HRK mn, nom.	123811	137604	141579	152519	165640	176429	186800	196600	206500
annual change in % (real)	6.8	2.5	-0.9	2.9	4.4	5.2	4.3	3.2	3.5
GDP/capita (EUR at exchange rate)	3891	4284	4102	4502	4998	5361	5570	.	.
GDP/capita (EUR at PPP - wiiw)	7130	7570	7510	8050	8700	9210	.	.	.
Gross industrial production [3]									
annual change in % (real)	6.8	3.7	-1.4	1.7	6.0	5.4	4.1	3.5	3
Gross agricultural production									
annual change in % (real)	4.0	10.2	-3.5	-10.0	8.4	7.4	.	.	.
Goods transport, public, mn t-kms [4]	203428	170107	146302	143839	142265	139313	141414	.	.
annual change in %	-4.6	-16.4	-14.0	-1.7	-1.0	-2.1	1.5	.	.
Gross fixed capital form., HRK mn, nom.	29935.6	32065.6	33025.0	33280.9	36984.2	43674.0	.	.	.
annual change in % (real)	26.4	2.5	-3.9	-3.8	7.1	10.1	17.5	10	7
Construction industry, hours worked [3]									
annual change in % (real)	16.7	0.7	-7.7	-9.1	3.6	12.8	22.8 I-XI	.	.
Dwellings completed, units	12516	12557	12175	12187	18088	19549	.	.	.
annual change in %	-0.9	0.3	-3.0	0.1	48.4	8.1	.	.	.
Employment total, th pers., average [5]	1310.9	1384.8	1364.5	1341.0	1348.3	1359.0	1359.8	.	.
annual change in % [5]	-1.4	0.4	-1.5	-1.7	0.5	0.8	0.1	.	.
Employees in industry, th pers., average	319.7	308.9	299.5	291.9	287.2	281.0	273.5	.	.
annual change in %	-6.4	-3.4	-3.0	-2.5	-1.6	-2.2	-2.6	.	.
Reg. unemployed, th pers, end of period	287.1	302.7	341.7	378.5	395.1	366.2	318.7	.	.
Reg. unemployment rate in %, end of period	17.6	18.1	20.4	22.3	23.1	21.3	19.1	18.5	18
LFS - unemployed persons, average	175.0	199.0	234.0	298.0	277.0	266.0	253.0 I-VI	.	.
LFS - unemployment rate in %, average	9.9	11.4	13.6	16.1	15.9	14.8	14.0	14	13.5
Average gross monthly wages, HRK	3668	4131	4551	4869	5061	5366	5608 I-XI	.	.
annual change in % (real, net)	12.3	6.0	10.1	3.4	1.6	3.1	3.9 I-XI	.	.
Retail trade turnover, HRK mn	34736.1	.	.	.	.	.	.	.	.
annual change in % (real)	14.9	0.1	-3.5	10.0	9.5	12.5	3.7	.	.
Retail prices, % p.a. [6]	3.6	5.7	4.2	6.2	4.9	1.7	1.8	2	1.5
Producer prices in industry, % p.a.	2.3	-1.2	2.6	9.7	3.6	-0.4	1.9	.	.
Central government budget, HRK mn [7]									
Revenues	33846	43809	46356	44636	53504	69869	61273 I-X	.	.
Expenditures	35006	42552	48879	50744	57813	73370	65770 I-X	.	.
Deficit (-) / surplus (+)	-1160	1257	-2523	-6108	-4309	-3501	-4497 I-X	.	.
Deficit (-) / surplus (+), % GDP	-0.9	0.9	-1.8	-4.0	-2.6	-2.0	.	.	.
Money supply, HRK mn, end of period									
M1, Money	13731	13531	13859	18030	23704	30870	33889	.	.
Broad money	50742	57340	56659	73061	106071	116142	128893	.	.
Discount rate % p.a., end of period	5.9	5.9	7.9	5.9	5.9	4.5	4.5	.	.
Current account, EUR mn	-2224.0	-1295.0	-1312.0	-498.0	-810.0	-2025.0	-1500	-1300	-1200
Current account in % of GDP	-12.5	-6.7	-7.0	-2.5	-3.7	-8.5	-6.1	-5.1	-4.5
Gross reserves of NB excl. gold, EUR mn	2303.7	2400.2	3012.6	3783.2	5333.6	5651.3	6554.1	.	.
Gross external debt, EUR mn	6760.7	8254.3	9937.2	11865.2	12830.6	14797.5	18923.0	.	.
Exports total, fob, EUR mn [8]	3665.8	4046.2	4027.3	4818.0	5210.4	5187.3	5448.8	5700	5900
annual growth rate in %	1.8	10.4	-0.5	18.9	8.1	-0.4	5.0	4	4
Imports total, cif, EUR mn [8]	8059.7	7476.9	7324.1	8588.5	10232.4	11324.8	12538.0	13100	13900
annual growth rate in %	29.6	-7.2	-2.0	16.8	19.1	10.7	10.7	6	6
Average exchange rate HRK/USD	6.16	6.36	7.11	8.28	8.34	7.86	6.70	.	.
Average exchange rate HRK/EUR (ECU)	6.96	7.14	7.58	7.63	7.47	7.41	7.56	7.7	7.8
Purchasing power parity HRK/USD, wiiw	3.46	3.71	3.80	3.90	3.96	3.96	3.97	.	.
Purchasing power parity HRK/EUR, wiiw	3.80	4.04	4.14	4.27	4.34	4.29	4.26	.	.

Notes: 1) Preliminary. - 2) From 2000 according to census March 2001. - 3) Enterprises with more than 20 employees. - 4) From 2001 new methodology. - 5) Including persons employed at the Ministry of Defence and Ministry of Internal Affairs. - 6) From 2002 consumer prices, % p.a. - 7) Methodological changes in June 2001 and January 2002 with respect to the stepwise inclusion of extrabudgetary funds. - 8) From 2000 new method of statistical processing. Converted from the national currency to EUR at the official exchange rate.

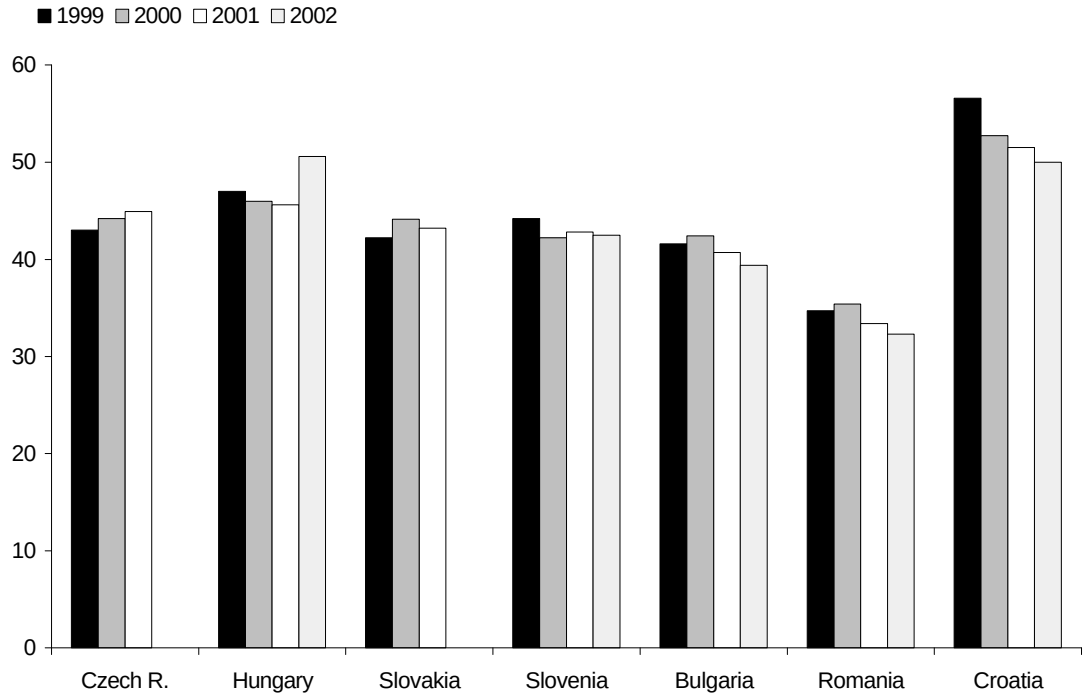
Source: wiiw Database incorporating national statistics; wiiw forecasts.

(Figure 1). In contrast to trends in most CEE countries, which succeeded in reducing their budgetary expenditures or keeping them fairly constant over the transition period, Croatia has developed one of the largest public sectors in the region. The country's expenditure structure differs quite substantially from that of other transition countries as a large share of expenditures was/is earmarked for war-related and post-war spending such as expenditures for reconstruction, transfers to war veterans, disabled soldiers, refugees and other war victims. In addition, Croatia spends higher shares on wages and salaries of public sector employees and on military purposes than do other countries in Central and Eastern Europe. Significant resources are also earmarked for subsidies and grants and capital expenditures. Despite some improvements from 2000 onwards, Croatia remains an outlier in its key components structure and public expenditure ratios (World Bank, 2003). Measured as a percentage of GDP, the consolidated general government deficit fell from 8.2% in 1999 to 4.8% in 2002 (final results for 2003 are not yet available). Up to now the actual size of the deficits has been concealed by privatization revenues, but once these dry up the government will face a serious debt (service) burden.

Figure 1

General government expenditures in selected CEECs

in per cent of GDP



Source: wiiw Database incorporating national statistics.

Employment, having declined from the end of the 1980s, resumed growth in 2001. Job increases have first of all a seasonal character, with most of the additional employment

recorded in tourism, construction and trade. The dramatic job losses over the past decade and high youth unemployment are among the main factors for the declining employment and activity rates; in Croatia, only slightly more than half of the total working-age population are actually employed, while e.g. in the Czech Republic and Slovenia this proportion accounts for nearly two thirds. The low activity rate seems also to be associated with the 'discouraged-worker' effect, meaning that jobless persons are no longer seeking new employment opportunities as earlier attempts have proved futile (Rutkowski, 2003).

Unemployment is one of the most pressing problems in Croatia. After peaking in 2001, when the jobless rate stood at 23%, unemployment started to decline – partly as a result of the relatively favourable economic performance but also for statistical reasons (such as changing eligibility criteria). Despite decreasing numbers of unemployed, the registered jobless rate remained high: it was at 19% in December 2003, one of the highest rates among the more advanced transition countries. Labour Force Survey data reveal a significantly lower but still marked rate of unemployment: 14.1% in the first half of 2003. By that measure Croatia ranks somewhere in between the high-unemployment transition countries, i.e. Poland and Slovakia (close to 19.5% each), and the low-unemployment countries such as Hungary and Slovenia (6-7%). Looking at the structure of unemployment, as in most other CEE countries the share of long-term unemployed in Croatia has been increasing over the past decade and accounts for 54% of total unemployed; the proportion of those out of work for more than two years is close to 40%.

As in other CEECs and in the European Union, unemployment is highly concentrated geographically. The registered unemployment rate ranges from 14% in Zagreb and the county of Istria to around 40% in the counties of Vukovar–Srijem and Šibenik-Knin. In contrast to other transition countries, where the spatial pattern of unemployment mainly reflects the inherited industrial structures, in Croatia it is strongly correlated with the recent war.

External sector

In contrast to the largely successful stabilization of prices and the exchange rate, Croatia's foreign position deteriorated considerably over the 1990s. The current account deficit reached a record level of 12.5% relative to GDP in 1997. In the following years it could be gradually reduced, to 2.4% in 2000, but thereafter it increased again, to 8.5% in 2002. Thanks to record earnings from tourism, the value for 2003 is probably somewhat below that level.

Trade in goods

Croatia's current account deficits are primarily caused by soaring imbalances in commodity trade. The trade deficit to GDP ratio increased from 6.1% in 1993 to more than 25% in 1997; it declined somewhat until 1999, but jumped again to 23.5% in 2002 – the highest ratio among the CEE countries (Table 2). A comparison with the most advanced CEE countries makes the poor trade performance even more obvious: in 2002 total exports of Hungary – measured in current USD – were more than four times higher than in 1993, those of Poland 2.4 times and those of the Czech Republic and Slovakia 2.7 times higher than in 1993 (Figure 2). Croatian exports, in contrast, increased by just slightly more than one quarter over that period, revealing the worst performance in the whole region. The weakness of Croatia's export sector also becomes evident when comparing the ratio of exports of goods and services to GDP with the advanced CEE countries, in particular the small ones. In 2002, that ratio was 47% in Croatia, while Slovakia reported a share of over 70% and Hungary and the Czech Republic of around 65% (Table 3). This trend is also confirmed by a comparison of goods (and services) exports per capita across smaller CEE countries: in 2002, Croatia – despite high earnings from tourism – trailed far behind all other countries, with the only exception of Bulgaria (Figure 3). Against the background of Croatia's good performance in 1993, that result is even more alarming.

Table 2

Trade balance (net) in selected CEECs

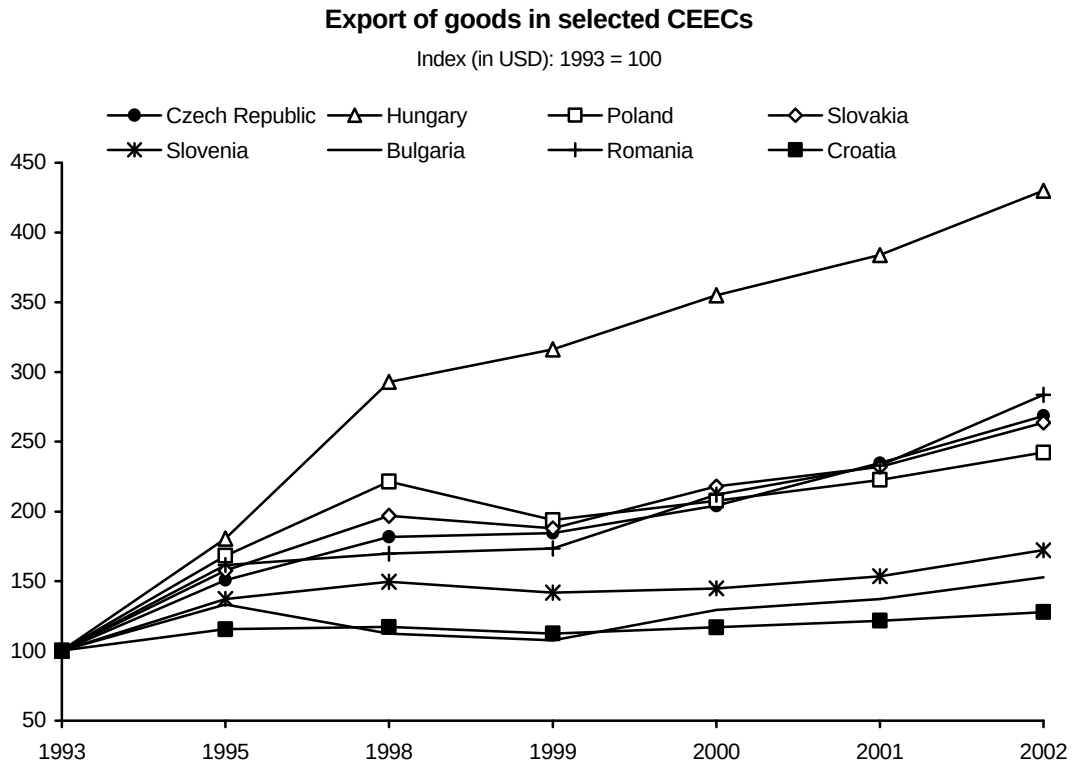
in per cent of GDP

	1990	1993	1995	1998	1999	2000	2001	2002
Czech Republic	-0.7	-1.5	-7.1	-4.6	-3.5	-6.1	-5.4	-3.3
Hungary	1.0	-8.4	-3.3	-4.0	-4.5	-6.2	-4.3	-3.2
Poland	3.8	-2.9	-1.5	-8.7	-9.3	-8.4	-6.4	-5.5
Slovakia	.	-7.8	-1.2	-10.7	-5.4	-4.6	-10.4	-9.0
Slovenia	-3.5	-1.2	-5.1	-4.0	-6.2	-6.0	-3.2	-1.1
Bulgaria	-1.3	-8.2	0.3	-3.0	-8.4	-9.3	-11.6	-10.2
Romania	-9.0	-4.3	-4.4	-6.3	-3.5	-4.6	-7.4	-5.7
Croatia	**-6.1**	**-6.5**	**-17.2**	**-18.8**	**-16.6**	**-17.4**	**-21.0**	**-23.5**

Source: wiiw Database incorporating national statistics.

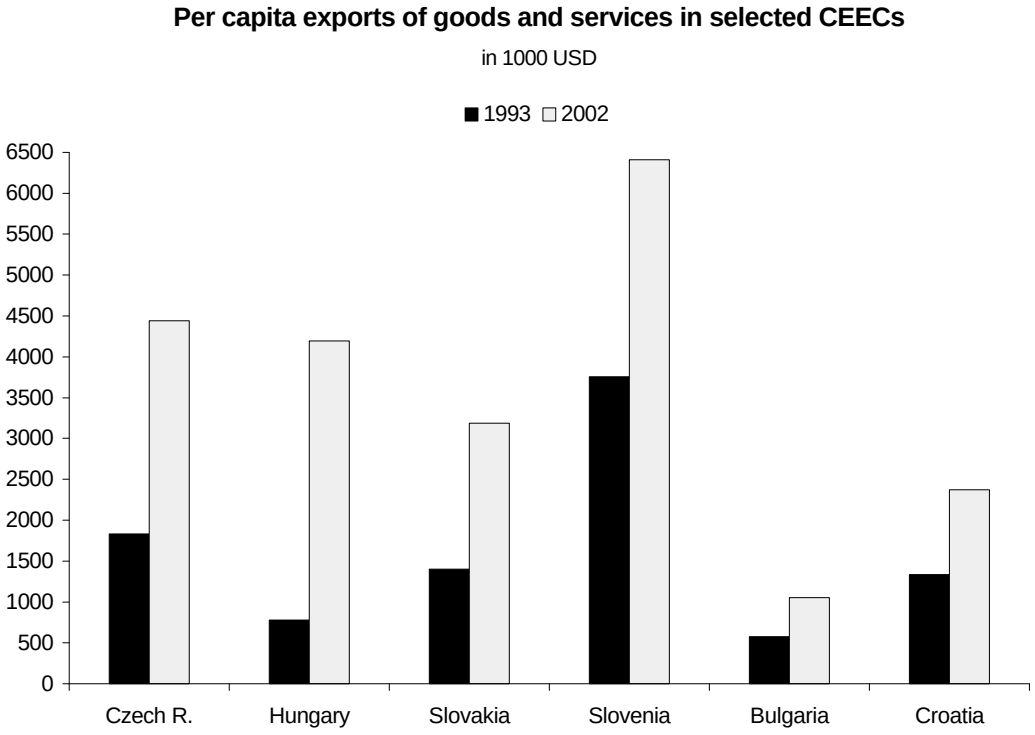
Considering the already high export level – USD 5.5 billion (sum of actual exports plus deliveries to the other Yugoslav republics) – Croatia had achieved by the end of the 1980s, the export performance in the 1990s at annual levels of about USD 4.4 billion was disappointing, even taking into account the impact of the war. The main reason behind this unfavourable development seems to be the structure of Croatia' s manufacturing industry, where products with a high import content and a low share of value added dominate – a pattern that has not changed over the past twenty years. The weakness of the Croatian

Figure 2



Source: wiiw Database incorporating national statistics.

Figure 3



Note: Hungary 1993, commodities only.

Source: wiiw Database incorporating national statistics.

export sector is also reflected in the low intra-industry integration with the European Union, which is substantially below that of other CEE countries (more than half of Croatia's exports to the EU are exports subsequent to inward processing). There is also a relatively strong bias of Croatian exports towards labour-intensive industries, while the resource-based industry is under-represented. Altogether Croatia's foreign trade patterns are more similar to those of other South East European countries than to those of the advanced CEE countries, thus conducting a lower share of trade with the EU.[2]

Table 3

Exports of goods and services

in per cent of GDP

	1990	1993	1995	1998	1999	2000	2001	2002
Czech Republic[1)2)]	17.3	54.2	54.2	58.8	60.6	69.8	70.8	65.1
Hungary[2)]	.	.	44.4	62.5	65.0	74.7	74.4	64.7
Poland[2)]	20.7	18.0	20.5	21.3	19.1	20.2	18.7	19.5
Slovakia	.	62.3	57.9	59.8	60.9	71.8	74.0	72.4
Slovenia[3)4)]	33.5	59.0	55.4	56.8	52.3	56.4	57.8	58.3
Romania	16.7	21.6	26.5	22.8	27.7	32.8	33.4	35.5
Bulgaria[2)]	5.6	45.3	51.4	47.0	44.8	55.6	55.4	53.2
Croatia[3)]	**22.8**	**56.8**	**37.1**	**39.5**	**40.8**	**47.0**	**49.3**	**47.0**

Notes: 1) In 1990 excluding Slovakia. - 2) In 1990 (and 1993 for Hungary) convertible currencies. - 3) In 1990 excluding former Yugoslav republics. - 4) From 1992 including trade for processing.

Source: wiiw Database incorporating national statistics.

Trade in services

In contrast to commodity trade, where Croatia has been reporting huge and growing deficits during the past decade, the country's services trade had yielded continuous and increasing surpluses, by far the highest among the transition countries both in absolute terms and as a percentage of GDP (Table 4). Growing net earnings from services and transfers helped to partly offset the huge trade deficits. In 2002 services exports exceeded imports by USD 3.1 billion, reaching an all-time record level. At the same time the deficit in commodity trade increased to USD 5.3 billion. Fluctuations in the services trade balance are mainly due to the developments in tourism, which constitutes the major component in this sector. In 2002 tourism made up over two thirds of total services exports. Starting from 1996, net earnings from tourism grew quite substantially up until 1998, but fell in 1999 as a consequence of the Kosovo conflict; thereafter they resumed growth (Table 5).

[2] In 2002 Croatia exported 53% of the total to the EU, whereas 56% of imports came from that region. In comparison, 59% of Slovenia's exports went to, and 68% of imports came from, the EU. Similar values were reported for the Czech Republic.

Table 4

Services balance (net) in selected CEECs

in per cent of GDP

	1990	1993	1995	1998	1999	2000	2001	2002
Czech Republic	0.4	2.9	3.5	3.4	2.2	2.7	2.7	1.0
Hungary	1.5	0.6	3.2	2.5	1.8	2.4	2.8	0.9
Poland	-0.3	0.4	0.1	-0.3	-1.1	-1.1	-0.5	-0.5
Slovakia	.	2.8	3.4	0.7	1.1	2.2	2.3	1.9
Slovenia	6.6	3.0	3.1	2.6	1.8	2.4	2.6	2.5
Bulgaria	0.3	-0.5	0.5	2.9	2.4	4.0	4.0	3.8
Romania	-0.5	-0.4	-0.9	-1.4	-1.1	-0.7	-0.3	0.0
Croatia	**6.4**	**10.4**	**5.6**	**9.6**	**8.2**	**12.3**	**15.0**	**13.9**

Source: wiiw Database incorporating national statistics.

Table 5

Travel services balance (net) in selected CEECs

in per cent of GDP

	1990	1993	1995	1998	1999	2000	2001	2002
Czech Republic	0.0	2.9	2.4	3.5	3.0	3.3	3.0	2.0
Hungary	1.0	1.1	3.2	4.6	4.2	4.4	4.5	2.4
Poland	-0.2	-0.1	-0.2	-0.1	-0.1	-0.1	0.0	0.0
Slovakia	.	1.5	1.6	0.1	0.6	0.7	1.7	1.2
Slovenia	.	3.4	2.7	2.7	2.1	2.4	2.4	2.1
Bulgaria	0.1	0.5	2.2	3.5	3.1	4.3	4.6	4.6
Romania	0.0	0.0	-0.3	-0.5	-0.4	-0.2	-0.2	-0.1
Croatia	**5.3**	**8.6**	**4.9**	**9.9**	**8.8**	**11.9**	**14.0**	**13.5**

Source: wiiw Database incorporating national statistics.

Conversely, net earnings from transport contracted continuously from 1996 onwards and their share in GDP fell from 2.9% in 1993 to 0.6% in 2002 (Table 6). Trade in transport services has been suffering from the redirection of international transport (both railway and road transport) to neighbouring countries during and in the aftermath of war and has not recovered yet. On top of that transport on the Hungary–Rijeka corridor was substantially reduced. Altogether the Croatian Railways perform less than one third of their pre-war operating activities and the quality of the existing network is far from sufficient (Traffic Development Strategy, 2001).

Other services trade, comprising among others communication, construction, and financial and insurance services, reported a rapid expansion in both directions. With the exception of 2001, this item recorded continuous deficits in the whole period under observation (Table 7).

Table 6

Transport services balance (net) in selected CEECs

in per cent of GDP

	1990	1993	1995	1998	1999	2000	2001	2002
Czech Republic	0.7	1.4	1.3	1.2	1.4	1.3	1.2	1.2
Hungary	-0.5	-0.3	-0.2	-0.1	-0.3	-0.4	-0.3	-0.5
Poland	-0.1	0.7	0.5	0.3	0.1	0.1	0.2	0.2
Slovakia	.	2.0	2.2	2.1	2.4	2.8	2.5	2.4
Slovenia	.	0.4	0.4	0.7	0.7	0.7	0.9	1.1
Bulgaria	0.1	-0.7	-1.1	-0.6	-1.0	-0.8	-0.8	-0.7
Romania	-0.6	-0.2	-0.4	-0.2	0.0	0.0	0.2	0.3
Croatia	**1.2**	**2.9**	**1.7**	**1.1**	**0.4**	**1.0**	**0.9**	**0.6**

Source: wiiw Database incorporating national statistics.

Table 7

Other services balance (net) in selected CEECs

in per cent of GDP

	1990	1993	1995	1998	1999	2000	2001	2002
Czech Republic	-0.3	-1.5	-0.1	-1.3	-2.2	-1.9	-1.6	-2.2
Hungary	1.0	-0.3	0.1	-2.0	-2.1	-1.6	-1.3	-0.9
Poland	0.0	-0.2	-0.2	-0.5	-1.1	-1.2	-0.7	-0.8
Slovakia	.	-0.6	-0.4	-1.4	-1.9	-1.3	-1.8	-1.6
Slovenia	.	-0.9	0.0	-0.8	-1.0	-0.7	-0.8	-0.7
Bulgaria	0.1	-0.3	-0.7	0.0	0.3	0.6	0.1	-0.1
Romania	0.2	-0.3	-0.2	-0.8	-0.7	-0.5	-0.3	-0.1
Croatia	**-0.1**	**-1.0**	**-1.0**	**-1.3**	**-1.0**	**-0.5**	**0.2**	**-0.2**

Source: wiiw Database incorporating national statistics.

Foreign direct investment

Compared to other South East European countries (SEECs), Croatia could attract quite a large share of foreign direct investment (Table 8). The 2002 inward FDI stock of USD 6.7 billion accounts for about 30% of all FDI invested in the SEEC-7[3] of around USD 23 billion. Only Romania, with its USD 8.8 billion inward stock, collected more FDI. Compared to the CEEC-5[4], Croatia did better than Slovenia, but achieved much less than e.g. Hungary and the Czech Republic; by 2002 the accumulated FDI stock in each of these latter three countries was at much higher levels than in the whole SEEC-7 region. Preliminary data for 2003 indicate a substantial inflow of FDI in Croatia, worth USD 1.8 billion.

[3] SEEC-7: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Macedonia, Romania and Serbia and Montenegro.

[4] CEEC-5: Czech Republic, Hungary, Poland, Slovakia, Slovenia.

Table 8

Inward FDI stock

based on international investment position (IIP), USD million

	1994	1995	1996	1997	1998	1999	2000	2001	2002
Albania	131	201	291	339	384	425	568	775	910
Bosnia and Herzegovina	.	.	.	.	67	243	389	515	798
Bulgaria	247	337	446	951	1597	2403	2257	2758	3200
Croatia	**238**	**359**	**874**	**1443**	**1903**	**2578**	**3560**	**4706**	**6711**
Macedonia	24	34	45	61	178	210	386	829	907
Romania	402	821	1097	2352	4418	5469	6480	7638	8813
Serbia and Montenegro	.	.	.	740	853	965	1015	1180	1655
SEEC-7 [1)]	**1042**	**1752**	**2753**	**5885**	**9399**	**12293**	**14655**	**18401**	**22994**
Czech Republic	4547	7350	8572	9234	14375	17552	21644	27092	38450
Hungary	7095	12959	15175	16338	18824	19623	20154	23397	30935
Poland	3789	7843	11463	14587	22479	26075	34227	41247	47900
Slovak Republic	897	1297	2046	2083	2890	3188	4746	5582	8530
Slovenia	1326	1763	1998	2207	2777	2682	2893	2605	4081
CEEC-5 [1)]	**17654**	**31212**	**39254**	**44449**	**61346**	**69121**	**83664**	**99923**	**129896**

Note: 1) Sum of available data.

Source: National Banks of the respective countries according to international investment position (IIP). Cumulated USD inflows for Bulgaria until 1997, Croatia until 1997, Macedonia, Bosnia and Herzegovina, Serbia and Montenegro.

Table 9

Inward FDI stock per capita

USD

	1994	1995	1996	1997	1998	1999	2000	2001	2002
Albania	41	62	89	102	114	126	167	250	291
Bosnia and Herzegovina	.	.	.	.	18	65	104	137	213
Bulgaria	29	40	53	115	194	293	277	349	408
Croatia	**51**	**77**	**195**	**316**	**423**	**566**	**802**	**1061**	**1510**
Macedonia	12	17	22	30	89	104	190	406	442
Romania	18	36	49	104	196	244	289	340	393
Serbia and Montenegro	.	.	.	70	80	115	122	142	199
SEEC-7 [1)]	**23**	**34**	**53**	**109**	**170**	**231**	**299**	**380**	**468**
Czech Republic	440	712	832	897	1397	1708	2108	2654	3768
Hungary	686	1256	1473	1589	1836	1920	1976	2299	3050
Poland	98	203	297	377	581	675	886	1068	1253
Slovak Republic	167	242	380	387	536	591	879	1038	1586
Slovenia	666	886	1006	1112	1404	1349	1454	1306	2046
CEEC-5 [1)]	**265**	**469**	**589**	**667**	**921**	**1039**	**1258**	**1505**	**1970**

Note: 1) Estimate over available data.

Source: Own calculations based on Table 8 and wiiw Annual Database.

As for inward FDI stock per capita, Croatia by far exceeded all countries in the SEEC-7 region (Table 9). Compared with the CEEC-5,, Croatia reached a higher per capita FDI stock than Poland and a similar magnitude as Slovakia. However, in 2002 the respective values for the Czech Republic, Hungary and Slovenia were significantly higher than that obtained by Croatia.

Comparing the inward FDI stock as a percentage of GDP by individual transition countries in 2002, Croatia – with a ratio of about 30% – ranked fourth after the Czech Republic, Hungary and Slovenia (Table 10), but surpassed the average of the SEEC-7 quite significantly.

Table 10

Inward FDI stock as a percentage of GDP

	1994	1995	1996	1997	1998	1999	2000	2001	2002
Albania	6.6	8.3	10.9	14.8	12.6	11.6	15.1	18.6	19.5
Bosnia and Herzegovina	.	.	.	.	1.6	5.2	8.6	10.7	15.2
Bulgaria	2.5	2.6	4.5	9.1	12.5	18.6	17.9	20.3	20.6
Croatia	**1.6**	**1.9**	**4.4**	**7.2**	**8.8**	**13.0**	**19.3**	**24.1**	**29.9**
Macedonia	0.7	0.8	1.0	1.6	5.0	5.7	10.8	24.1	24.6
Romania	1.3	2.3	3.1	6.7	10.6	15.4	17.6	19.0	19.3
Serbia and Montenegro	.	.	.	4.5	5.5	9.6	11.7	10.2	10.6
SEEC-7 [1)]	**1.6**	**2.1**	**3.3**	**6.5**	**9.1**	**13.5**	**17.8**	**20.3**	**21.2**
Czech Republic	11.1	14.1	14.9	17.4	25.2	31.9	42.1	47.4	55.3
Hungary	17.1	29.0	33.6	35.7	40.0	40.9	43.2	45.1	47.0
Poland	4.1	6.2	8.0	10.1	14.2	16.8	21.7	22.5	25.4
Slovak Republic	5.9	6.8	10.0	9.9	13.1	15.8	24.1	27.3	36.0
Slovenia	9.2	9.4	10.6	12.1	14.2	13.4	15.3	13.3	18.6
CEEC-5 [1)]	**8.6**	**11.9**	**13.7**	**15.8**	**20.2**	**23.2**	**28.4**	**30.1**	**35.1**

Note: 1) Estimate over available data.

Source: Own calculations based on Table 8 and wiiw Annual Database.

The leading investors are Austria and Germany, each accounting for 22.6% of the total inward FDI stock (Table 11). Only Slovenia attracted more Austrian FDI as a percentage of the total. With respect to FDI from the USA, Croatia has the highest share compared to the other countries. On the other hand, the Netherlands – being among the major investors e.g. in the Czech Republic (30% of total FDI stock) or in Romania (18%) – represent only a minor share in Croatia (4.2%). Altogether, almost three quarters of Croatia's total inward FDI stock are stemming from EU countries, i.e. a similar proportion as in Slovenia. In countries such as the Czech Republic, Poland or Slovakia, even more than 80% of the FDI stock is originating from this region.

Table 11

Inward FDI stock by major investing country

as of December 2002, shares in per cent

	Czech Republic 2001	**Hungary** 2001	**Poland**	**Slovakia**	**Slovenia**	**Bulgaria** [1)]	**Romania**	**Croatia** [2)]
Austria	10.0	11.1	3.6	15.0	29.9	9.5	6.2	22.9
Cyprus	0.9	0.7	0.6	2.3	0.2	7.2	4.8	.
Denmark	0.5	0.4	2.9	0.4	1.3	0.1	0.1	0.6
France	6.6	5.5	13.9	7.3	9.8	2.6	7.3	1.2
Germany	24.2	34.0	18.1	26.1	10.9	13.0	9.9	22.6
Italy	0.6	2.0	4.2	8.9	7.5	12.2	6.1	5.2
Japan	0.8	1.7	0.1	0.2	0.3	0.6	0.5	.
Netherlands	29.2	15.2	24.8	16.2	5.4	3.1	17.6	4.2
Russia	0.1	0.2	2.9	0.0	-0.1	3.6	.	0.1
Sweden	0.8	1.3	3.6	0.3	0.3	0.9	1.2	1.3
Switzerland	3.9	1.4	1.7	0.9	11.2	3.6	2.8	1.1
United Kingdom	6.1	1.3	3.2	6.7	2.2	5.8	3.0	10.3
USA	6.4	9.0	10.1	3.9	1.9	8.7	7.9	15.2
Other countries	9.9	15.9	10.3	11.7	18.9	29.1	32.5	15.2
EU	84.5	76.1	82.5	83.0	74.5	59.8	60.3	74.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total, USD mn	**27092**	**22203**	**47900**	**7580**	**4081**	**4454**	**8939**	**7555**

Notes: 1) Inward FDI stock 1999 as of Bulgarian National Bank increased by the cumulated annual USD inflow. - 2) Cumulated USD inflows from 1993. - 3) Cumulated USD inflows from 1990. - 4) Of which Hungary: 38.0%, Greece: 24.8 %.

Source: National Banks of the respective countries, Hungarian Central Statistical Office, National Trade Register Office of Romania, State Statistical Office of Macedonia.

Apart from its important function in the current account balance, the services sector plays a major role in foreign direct investment inflows in Croatia. FDI is highly concentrated in the services sector, which accounted for about 61% of the total FDI stock in 2002 – the highest proportion of FDI in the services sector compared to other CEECs (Table 12).

By the end of 2002, Croatian FDI in the transport and telecom sector exhibited more than double and threefold the portion of other countries (26.2%). Financial intermediation, with a share of 23%, exceeded that of all other countries except Slovakia, while the share of trade (5.7%) was far below other countries. The share of foreign investment in the hotel and restaurant segment was the highest among all countries under consideration. However,

Table 12

Inward FDI stock by major economic activities

as of December 2002, shares in per cent

NACE Code		Czech Republic 2001	Hungary 2001	Poland	Slovakia	Slovenia	Bulgaria [1]	Romania [2]	Croatia [4]
A,B	Agriculture, forestry, fishing	0.2	1.1	0.4	0.2	0.03	0.3	0.8	0.3
C	Mining and quarrying	1.7	0.3	0.3	0.5	-0.01	1.2	.	3.0
D	Manufacturing	37.6	46.1	35.8	37.1	43.3	36.7	53.7 [3]	33.0
E	Electricity, gas, water supply	6.1	5.4	2.6	12.7	1.0	0.9	.	1.2
F	Construction	1.5	1.4	2.6	0.6	0.08	2.8	2.7	1.1
G	Trade, repair of motor vehicles, etc.	15.1	10.6	17.1	10.7	14.5	15.0	16.1	5.7
H	Hotels and restaurants	0.7	1.2	0.6	0.5	0.4	1.8	2.1	4.2
I	Transport, storage, communications	10.4	11.8	10.4	10.0	4.4	13.5	8.5	26.3
J	Financial intermediation	14.8	10.6	21.3	24.2	18.8	19.4	.	22.9
K	Real estate, renting & business act.	11.4	10.6	7.5	2.9	15.2	4.1	.	1.8
L	Public administration, defence, social security	.	.	.	.	.	.	.	0.2
M	Education	0.0	0.0	.	.	0.01	0.3	.	0.0
N	Health and social work	0.2	0.1	.	0.03	0.06	0.0	.	.
O	Other community, social & personal activities	0.4	0.8	.	0.4	0.5	0.9	.	0.2
	Other not classified activities	.	.	1.4	0.01	1.7	2.9	16.1	0.0
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Total, USD million	27092	22203	41247	7580	4081	4454	8939	5256

Notes: 1) Inward FDI stock 1999 as of Bulgarian National Bank increased by the cumulated annual USD inflow. - 2) Adjusted to NACE. - 3) Industry total (C+D+E). - 4) Cumulated USD inflows of equity capital.

Source: National Banks of the respective countries, Hungarian Central Statistical Office, National Trade Register Office of Romania.

with respect to the mentioned high potential in tourism, FDI in the Croatian hotels and restaurants sector is quite low.[5] In contrast to the high share of services sector FDI, investment activities of foreigners in the Croatian manufacturing sector – one third of the total FDI stock – are the lowest among the CEECs and some of the SEECs.

In contrast to other transition countries, FDI was linked primarily to privatization activities (two thirds of total), such as the sale of Croatian Telecom, banks or the pharmaceutical company Pliva, the takeover of breweries, cement industry and other construction material industries. Greenfield investment has so far been negligible (only 16% of the total FDI stock), thus foreign direct investment has only a minor impact on the export of goods. While in Hungary, the Czech Republic and Poland foreign investment enterprises account for 89%, 60% and 60% respectively of exports, the share for Croatia is only 16% (Hunya, 2002 and World Bank, 2003). The major export-oriented manufacturing branches attracting FDI are pharmaceuticals (Pliva), other non-metallic products (i.e. cement industry), food and beverages (e.g. Coca Cola), rubber and plastics and electrical and optical equipment (e.g. Siemens).

Foreign debt

Croatia's foreign debt increased from USD 2.6 billion in 1993 to USD 23.6 billion by December 2003, which is by USD 8.2 billion more than at the end of 2002. The debt to GDP ratio increased to over 80%. According to the central bank, about one third of this increase is attributed to currency adjustments (71% of the debt is denominated in euro). Looking at the sectoral structure, the debt increase stems mostly from commercial banks borrowing from parent banks abroad, accounting for 28% of total debt. The major portion of debt is owed by the state – some 38% of the total; however, that share is declining. Enterprises, including leasing departments of banks, account for about one quarter of total foreign debt. Croatia will face major problems in debt servicing from 2004 onwards when principal and interest repayments will rise significantly, to almost USD 4 billion per year. The bulk of the USD 3.7 billion debt service – due in 2004 – will have to be borne by enterprises, about one third by the state and only a minor share by banks; the latter is projected to increase in the coming two years.

An important factor in assessing the medium-term development of the foreign debt is the current account. Clearly, if reserves are not used to service the debt, the current account deficit translates into an increase in foreign financial exposure, which can be financed from

[5] A recent World Bank study (2003) came to the conclusion that possible reasons for the low share of FDI in tourism were: (a) still excess capacity relative to pre-independence levels, (b) complex ownership structure of existing firms – no major share holder, (c) large arrears require big discounts to investors, and (d) unsolved land ownership and spatial planning hinders 'greenfield' operations.

new debt, investments or grants. Putting aside grants, the current account deficit adds to foreign financial obligations one to one.

What deficits in the current account can be expected in the medium term? The average for the past eight years (since 1995) is about 6.7% of GDP. Average real growth as well as the average inflation rate were 4.1% during the same period. The average depreciation of the kuna in dollar terms was about 6.2%, some 2 percentage points more than the rate of inflation. The current account deficit tended to increase when GDP growth accelerated, and it did not tend to decrease along with a deceleration of GDP growth. Indeed, the only two years of somewhat lower current account deficits were 2000 and 2001 when the economy started to recover from the 1998 slowdown and the 1999 recession. The main reason was the recovery of services exports, i.e., of tourism. In the other years, the current account deficit was on average well above 7% of GDP.

Thus, a change in GDP growth does not seem to be directly related to a change in the development of the current account deficit. If this is true, the sources of the persistence of the deficit have to be seen in two other factors: the weak goods export performance, and the high level of consumption, in particular that of public expenditures.

The first factor, i.e. weak exports, is the consequence of the lack of competitiveness of industrial production. Recent trends would have to be analysed in more detail to see whether the trend is changing. That would be essential to assess the medium-term prospect of the foreign debt. The second factor is important to the extent that the government is borrowing in foreign currency rather than in kuna.

Croatia's foreign debt is not an immediate problem although it does tend to grow and is probably not stable: its share in GDP and the share of total foreign debt service in exports of goods and services tend to grow. In the medium run, this may become a constraint on further economic growth. The key to a turnaround in this respect is an increase in the export of goods – i.e. an increase in competitiveness of the Croatian industry.

2 Croatian manufacturing industry: trends in output and structure **

Development trends in the Croatian manufacturing industry [6]

Similar to other transition countries, a process of de-industrialization could be observed in the Croatian economy from the beginning of the 1990s (Table 13). The share of manufacturing in GDP was falling continuously, from 26% in 1990 to 18% in 2001 (latest available data). This massive loss abated somewhat from 2000 onwards, when the level of manufacturing stabilized at 17-18% of GDP. Nevertheless, the contribution of manufacturing to GDP fell from over a quarter to less than one fifth over the past decade.

Table 13

Croatia: Indicators of industrial development, 1990 to 2002[1)]

in per cent of total

	1990	1993	1995	1996	1997	1998	1999	2000	2001	2002
Value added in % of GDP										
Industry total	.	.	22.8	21.6	21.9	21.1	20.7	20.7	20.7	19.8
Manufacturing [2)]	26.1	25.9	19.5	18.2	18.4	17.9	17.3	17.6	18.0	.
Index (1989=100)										
Gross domestic product	92.9	59.5	67.3	71.3	76.2	78.1	77.4	79.6	82.6	86.9
Gross industrial production	88.7	50.9	49.7	51.3	54.7	56.8	56.0	56.9	60.3	63.6
Manufacturing production	87.6	47.8	46.6	47.1	49.0	50.6	49.1	50.5	53.8	56.5
Real change in % against preceding year										
Gross domestic product	-7.1	-8.0	6.8	5.9	6.8	2.5	-0.9	2.9	3.8	5.2
Gross industrial production	-11.3	-5.9	0.3	3.1	6.8	3.7	-1.4	1.7	6.0	5.4
Manufacturing production	-12.4	-7.1	-0.2	1.2	4.0	3.2	-2.9	2.9	6.4	5.2
Labour productivity in industry										
change in % against preceding year	-7.2	0.3	6.6	11.3	11.9	8.7	3.9	4.3	9.6	9.6
Employed in % of total employment										
Manufacturing [3)]	.	.	.	20.7	21.5	20.9	21.8	20.0	20.8	20.4

Notes: 1) Industry data cover enterprises with more than 20 employees. - 2) Data for 1990-1993 according to the former UCEA classification (United Classification of Economic Activities) 'Manufacturing and mining', for 2001 wiiw estimates. - 3) Labour Force Survey data.

Source: wiiw Database incorporating national statistics.

Labour productivity in industry has been increasing since 1992 at an average annual rate of approximately 6%. However, this is due to large employment cuts rather than to higher

** This chapter is based on a previous study done by Doris Hanzl-Weiß, wiiw.

6 In the following, the term 'industry' comprises 'mining and quarrying', 'manufacturing' and 'electricity, gas and water supply'.

production. In 1990, employees in manufacturing had accounted for more than 37% of total employees. Today, manufacturing absorbs about 23% of total employees, and the declining trend has not yet come to a halt.

The strong contraction of manufacturing output becomes even more obvious when comparing production levels. While GDP in 2002 attained 87% of the 1989 level and gross industrial production some 64%, manufacturing production reached just 57% of the 1989 level. By the mid-1990s the level of manufacturing production had even more than halved. Since 1996, manufacturing production has been on the rise again. Latest available data indicate that both gross industrial production and manufacturing grew by 5.2% each in the first nine months of 2003.

The Croatian manufacturing industry in comparison with other CEE countries

Put in a comparative perspective, Croatian manufacturing value added as a percentage of GDP performs quite poorly (Table 14). In 2000, the latest year for which data are available for all CEECs and most SEECs, Croatia featured the second lowest share of manufacturing value added in GDP (18.4%) after Bulgaria.

Table 14

Manufacturing value added

in per cent of GDP

	1990	**1993**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**
Czech Republic	24.6	23.2	24.3	25.9	26.2	25.0	24.3	25.0	25.2	24.7
Hungary	.	19.4	19.9	19.7	21.1	21.2	20.5	21.7	20.0	.
Poland	.	25.2	20.6	19.5	19.5	18.8	18.4	18.1	15.7	15.2
Slovak Republic	.	19.7	25.1	23.5	20.9	20.7	21.7	20.7	21.3	20.5
Slovenia	29.9	25.9	24.6	24.1	24.3	24.1	23.6	23.6	23.6	23.3
Bulgaria	.	.	.	20.4	16.6	17.1	15.1	15.7	15.5	15.1
Romania	36.7	26.6	26.5	28.8	25.7	23.0	19.0	22.0	.	.
Croatia [1)]	**26.1**	**25.9**	**19.5**	**18.2**	**18.4**	**17.9**	**17.3**	**17.6**	18.0	**.**
Macedonia [2)]	31.5	25.1	19.6	19.5	18.9	18.1	17.6	17.3	16.9	15.7
Serbia & Montenegro	.	.	.	.	21.0	20.3	20.2	20.8	.	.

Notes: 1) Data for 1990-1993 according to the former UCEA classification 'Manufacturing and mining', for 2001 wiiw estimates. - 2) Data for 1990-1996 according to the former UCEA classification.

Source: wiiw Database incorporating national statistics.

The evolution of the low importance of manufacturing in the overall economy of Croatia is quite similar to developments in Poland, while other CEECs managed to keep their shares of manufacturing in GDP above 20%. Hungary has even increased its share for some

years, and the Czech Republic and Slovenia are the top performers with manufacturing value added accounting for about one quarter of GDP.

Comparing the growth of Croatian industrial production with other CEE countries as well as South Eastern Europe, the Croatian position turns out to be the best among the less advanced group of countries, but the worst among the economically more advanced group (Table 15).

Table 15

Gross industrial production

real change in per cent against preceding year

	1995	1996	1997	1998	1999	2000	2001	2002 [1]	Index 1989=100 2002
Czech Republic	8.7	2.0	4.5	1.6	-3.1	5.4	6.5	4.8	91.1
Hungary	4.6	3.4	11.1	12.5	10.4	18.1	3.6	2.7	144.6
Poland [2]	9.7	8.3	11.5	3.5	3.6	6.7	0.6	1.4	132.2
Slovak Republic	8.3	2.5	2.7	5.0	-2.7	8.6	6.9	6.5	101.8
Slovenia	2.0	1.0	1.0	3.7	-0.5	6.2	2.9	2.4	84.6
CEEC-5 [3]	8.2	5.1	8.5	4.6	2.3	8.4	3.2	2.9	118.6
Bulgaria	4.5	5.1	-5.4	-7.9	-8.0	8.2	1.6	0.6	52.6
Romania	9.4	6.3	-7.2	-13.8	-2.4	7.1	8.4	3.1	55.5
Croatia [4]	**0.3**	**3.1**	**6.8**	**3.7**	**-1.4**	**1.7**	**6.0**	**5.4**	**63.6**
Macedonia [5]	-10.7	3.2	1.6	4.5	-2.6	3.6	-3.0	-5.3	43.6
Serbia & Montenegro [5]	3.8	7.6	9.5	3.6	-23.1	11.1	0.0	2.0	39.4

Notes: 1) Preliminary. - 2) Sales. - 3) wiiw estimate. - 4) Enterprises with more than 20 employees. - 5) Excluding small enterprises.

Source: wiiw Database incorporating national statistics.

This holds certainly true if one compares the 2002 level of industrial production with the year 1989. Croatia's 64% are surpassing the level of Bulgaria (53%), Romania (56%), Macedonia (44%) and Serbia and Montenegro (39%). However, a comparison with the 119% of the 1989 level for the CEEC-5 changes the picture dramatically.

The average growth rates of the past seven years show a similar picture. Croatia's 3.1% are far behind the 5.4% of the CEEC-5. Only Slovenia's gross industrial production grew somewhat less (2.3%) than Croatia's in the period from 1995 to 2002. Nevertheless, the Slovenian level compared with 1989 is much higher (85%) than the Croatian one. Looking again at other SEECs, the Croatian record looks quite well, as in some of those countries (Bulgaria and Macedonia) industrial production even declined on average over this period.

It is worth noting that in 2001 and 2002 Croatian industrial production grew faster than the CEEC-5 average.

Data on labour productivity in industry across CEECs and SEECs reveal a more complex and mixed picture (Table 16). Looking at the level of labour productivity in industry relative to the year 1989, Croatia surpassed the SEECs' average and even some of the CEEC-5 (the Czech and Slovak Republics) with 157% of the 1989 level. This reflects the sharp employment cuts occurring in Croatian industry. In 2002 labour productivity growth (9.6%) was one of the highest among the CEECs and other SEECs.

Table 16

Labour productivity in industry

change in per cent against preceding year

	1995	1996	1997	1998	1999	2000	2001	2002 [1]	Index 1989=100 2002
Czech Republic [2]	10.6	8.6	9.2	3.7	1.7	9.5	5.0	6.4	146.6
Hungary [3]	10.2	9.4	13.7	11.9	10.5	17.7	4.8	5.3	245.1
Poland [4]	6.3	9.1	11.2	4.7	11.8	13.6	5.4	4.5	207.0
Slovak Republic	4.0	2.5	4.8	9.1	0.2	12.1	5.9	6.3	138.8
Slovenia	6.3	9.2	4.4	5.4	3.1	8.4	3.5	5.6	165.6
Bulgaria [5]	7.4	7.0	-2.8	-3.8	2.2	18.1	2.1	2.0	127.4
Romania [6]	13.7	7.5	-1.8	-7.4	11.3	13.8	6.9	13.7	126.9
Croatia [6]	6.6	11.3	11.9	8.7	3.9	4.3	9.6	9.6	156.8
Macedonia [7]	1.2	29.8	8.3	14.8	6.4	6.4	0.0	1.3	111.2
Serbia & Montenegro [7]	8.3	9.6	12.3	6.3	-19.1	16.4	3.1	10.2	66.1

Notes: 1) Preliminary. - 2) Enterprises with 100 and more employees, from 1997 with 20 and more. From 2001 calculated with sales. - 3) From 1995 with more than 10, from 1999 more than 5 employees. - 4) For 2002 enterprises with more than 9 employees. - 5) Up to 1996 public sector only. - 6) Enterprises with more than 20 employees (for Romania from 1999). - 7) Excluding small enterprises.

Source: wiiw Database incorporating national statistics.

Available data (though inconsistent in concept and measurement) indicate a dramatic fall in manufacturing employment starting from the end of the 1980s which has not yet come to a halt. Altogether more than half of manufacturing jobs were lost over that period. Based on Labour Force Survey (LFS) and so-called administrative data, manufacturing accounted for about 21% of total employment in 2002, which is similar to Bulgaria and Romania, but much lower than in the more advanced transition countries – except Poland (Table 17).

Table 17

Manufacturing employment

in per cent of total

	1990	1993	1995	1996	1997	1998	1999	2000	2001	2002
Czech Republic [1]	.	29.6	28.6	28.3	27.7	27.6	27.5	27.1	27.7	27.7
Hungary [1]	.	24.5	23.1	23.3	23.7	24.7	24.4	24.2	24.8	24.8
Poland	.	20.8	21.1	20.6	20.2	19.7	18.9	18.2	17.7	17.2
Slovak Republic [1]	.	.	26.8	27.0	25.7	26.1	25.7	25.7	26.1	27.0
Slovenia	40.3	36.6	34.4	32.9	31.4	30.8	29.9	29.4	28.2	27.8
Bulgaria	.	.	.	23.8	23.8	22.9	21.1	20.7	20.5	20.5
Romania	34.3	25.9	24.2	24.5	23.0	22.3	20.6	19.6	20.0	.
Croatia [1]	**.**	**.**	**.**	**20.7**	**21.5**	**20.9**	**21.8**	**20.0**	**20.8**	**20.4**
Croatia [2][3]	**37.2**	**34.7**	**34.0**	**30.3**	**28.6**	**25.6**	**24.9**	**24.3**	**23.8**	**23.3**
Macedonia [2][4]	40.6	39.8	38.3	37.6	36.8	36.6	37.9	34.6	34.1	32.4
Serbia & Montenegro [2][5]	.	.	38.0	37.7	37.4	35.5	35.5	34.9	34.4	32.8

Notes: 1) Based on Labour Force Survey data. - 2) Employees in per cent of total employees. - 3) Data for 1990-1995 according to the former UCEA classification 'Manufacturing and mining'. - 4) Up to 1999 data for industry total, from 2000 manufacturing only. - 5) Excluding private sector, from 1998 including small enterprises.

Source: wiiw Database incorporating national statistics.

The structure of the Croatian manufacturing sector

In 2000 (latest data available), the Croatian manufacturing industry turned out a production volume (at current prices) of EUR 10.5 billion and employed a workforce of 256 thousand persons. Production concentrates strongly on food & beverages (DA), coke & refined petroleum products (DF) and chemicals (DG), which together account for about 50% of manufacturing output. Employees are slightly less concentrated – the three largest branches together account for 43% of manufacturing employment. The major employers are food & beverages (DA), textiles & textile products (DB) and basic metals & fabricated metal products (DJ). Other relatively important branches, both in terms of production and employees, are transport equipment (DM), paper & printing (DE), electrical & optical equipment (DL) and other non-metallic mineral products (DI) (see Table 18).

As an aggregate measure for the similarity/dissimilarity of industrial structures between two countries, a so-called 'structural deviation indicator' (S) can be used (for definition see Table 19). By this measure, the industrial production structure of Croatia converged slightly to the average EU structure between 1995 and 2000 (latest available output data) but differences are still relatively large. As shown in Table 19, S_{EU-15} declined from 6.01 in 1995 to 5.4 in 2000. A separate comparison with a group of more advanced EU countries

Table 18

Croatia: Overview of production and employment, 2000

		Production		Employees [1)]	
		EUR mn	in % of manuf. prod.	ths. pers.	in % of manuf.
NACE					
D	**Manufacturing total**	**10447.4**	**100.0**	**256.3**	**100.0**
DA	Food products; beverages and tobacco	2342.0	22.4	45.0	17.5
DB	Textiles and textile products	487.6	4.7	40.5	15.8
DC	Leather and leather products	102.9	1	10.2	4.0
DD	Wood and wood products	303.7	2.9	13.1	5.1
DE	Pulp, paper & paper products; publishing & printing	777.9	7.4	17.2	6.7
DF	Coke, refined petroleum products & nuclear fuel	1696.8	16.2	4.5	1.7
DG	Chemicals, chemical products and man-made fibres	1176.4	11.3	15.8	6.2
DH	Rubber and plastic products	300.9	2.9	7.1	2.8
DI	Other non-metallic mineral products	550.8	5.3	14.2	5.5
DJ	Basic metals and fabricated metal products	700.2	6.7	24.3	9.5
DK	Machinery and equipment n.e.c.	290.6	2.8	12.5	4.9
DL	Electrical and optical equipment	732.7	7	19.2	7.5
DM	Transport equipment	637.5	6.1	19.4	7.6
DN	Manufacturing n.e.c.	347.7	3.3	13.4	5.2

Notes: 1) Persons in paid employment.

Source: wiiw Industrial Database incorporating national statistics.

Table 19

Structural deviation of Croatian manufacturing production

	1995	2000
$S_{EU\text{-}15}$	**6.01**	**5.40**
$S_{EU\text{-}North}$	7.01	6.27
$S_{EU\text{-}South}$	4.50	4.08
$S_{CEEC\text{-}5}$	.	*5.42*
$S_{CEEC\text{-}2}$	.	*4.31*

Structural deviations are calculated from 2-digit NACE rev. 1 data for industrial production (at current prices) and employment. For a definition see the following formula:

$$S = \sqrt{\sum_k (sh_k^{t_2} - sh_k^{t_1})^2 \cdot (sh_k^{t_1} / 100)}$$

k = individual industry

sh_k = share of industry k in total output (in %)

t_i = country index, where i = 1,2; 1 denoting the EU.

EU-North: France, Germany, UK. EU-South: Greece, Portugal, Spain.
CEEC-5: Czech Republic, Hungary, Poland, Slovak Republic, Slovenia. CEEC-2: Bulgaria, Romania.

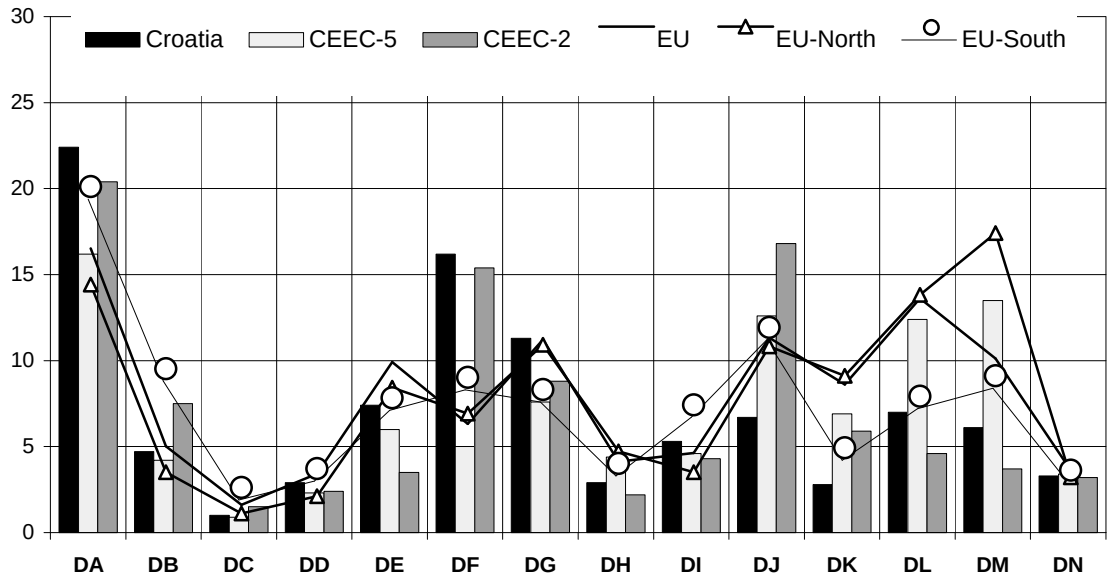
Source: wiiw Industrial Database, Eurostat.

('EU-North') and a group of economically less advanced EU members ('EU-South') further reveals that in the year 2000 the Croatian industrial structure is more similar to the industrial structure of EU-South than that of EU-North ($S_{EU\text{-}South} < S_{EU\text{-}North}$). In addition, it is also more similar to Bulgaria and Romania, than to the more advanced CEE countries, the latter of which have already reached a close structural similarity vis-à-vis the EU in general.[7]

A more detailed comparison at the level of individual industries shows 'structural surpluses' of Croatia compared to Western as well as to Eastern European countries above all in refined petroleum products (DF) – due to the internationally important port in Rijeka/Omišalj and the beginning of the Adria pipeline there – and to a certain extent in food & beverages (DA). Major 'structural deficits' exist in basic metals & fabricated metal products (DJ), machinery & equipment (DK), electrical & optical equipment (DL) and transport equipment (DM) (see Figure 4). This might be explained by the absence of automotive production and its important supporting industries such as automotive parts or electrical equipment.

Figure 4

Manufacturing production structure in comparison to the EU, 2001



Notes: All data at current prices; Croatia: 2000; CEEC-5: Czech Republic, Hungary, Poland, Slovak Republic, Slovenia; CEEC-2: Bulgaria, Romania; EU-North: France, Germany, UK; EU-South: Greece, Portugal, Spain; EU-data for 2000; unweighted averages.

Source: wiiw Industrial Database, Eurostat.

[7] See Havlik et al. (2001).

Growth profile across branches

Between 1990 and 1995, manufacturing output declined by 12% annually due to severe disruptions caused by the war (1991 and 1994/95), the loss of traditional Yugoslav as well as former Soviet Union markets and the transformational recession hitting the country. Production of all manufacturing branches declined along with the larger economy. However, while the output fall was less severe in, e.g., refined petroleum products (DF) or food & beverages (DA), it was close to 20% per year in basic metals & fabricated metal products (DJ), leather & leather products (DC) and in machinery & equipment (DK) and electrical and optical equipment (Table 20).

Table 20

Croatia: Growth patterns across manufacturing branches

Production growth (at constant prices 1999)

		Average annual changes in %		Relative to total manufacturing[1)] in percentage points		Index 2002
		1991-1995	1996-2002	1991-1995	1996-2001	1990 =100
NACE						
D	**Manufacturing total**	**-12.0**	**1.6**	**.**	**.**	**61.0**
DA	Food products; beverages and tobacco	-7.4	0.8	4.6	-0.8	71.8
DB	Textiles and textile products	-10.6	-3.4	1.4	-5.0	44.9
DC	Leather and leather products	-19.9	-7.0	-7.9	-8.6	19.8
DD	Wood and wood products	-10.4	2.0	1.6	0.4	66.2
DE	Pulp, paper & paper products; publishing & printing	-9.7	10.9	2.4	9.3	123.8
DF	Coke, refined petroleum products & nuclear fuel	-5.7	-2.0	6.3	-3.6	64.7
DG	Chemicals, chemical products and man-made fibres	-8.0	0.0	4.0	-1.6	66.0
DH	Rubber and plastic products	-14.9	2.9	-2.9	1.3	54.6
DI	Other non-metallic mineral products	-9.2	6.1	2.8	4.5	93.3
DJ	Basic metals and fabricated metal products	-18.9	4.8	-6.9	3.3	48.7
DK	Machinery and equipment n.e.c.	-21.2	6.3	-9.2	4.7	46.4
DL	Electrical and optical equipment	-21.7	-1.1	-9.7	-2.6	27.3
DM	Transport equipment	-17.0	11.6	-5.0	10.0	84.8
DN	Manufacturing n.e.c.	-13.3	4.8	-1.3	3.3	68.0

Note: 1) Sector growth minus total manufacturing growth.

Source: wiiw Industrial Database.

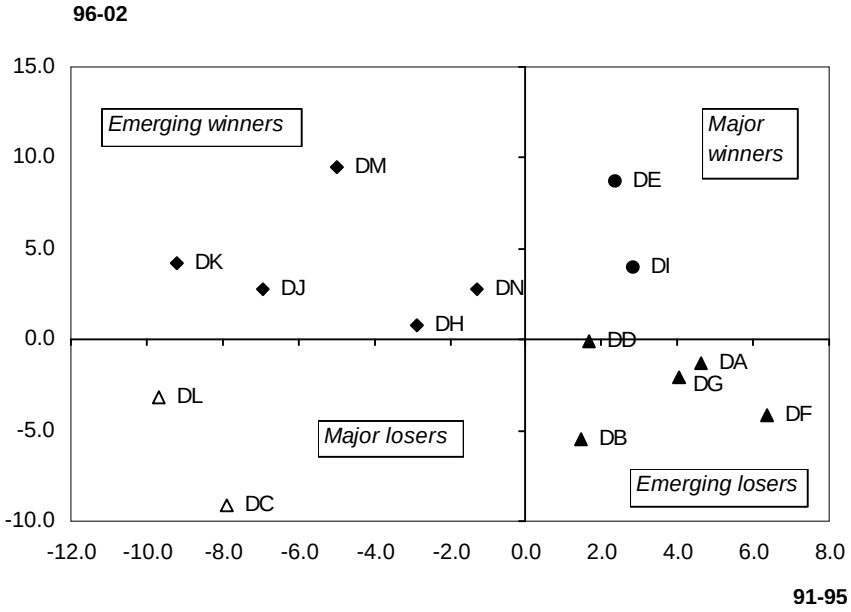
From 1996 onwards growth returned to the country and manufacturing output started to increase by an average 1.6% per year between 1996 and 2002. However, 'active restructuring' of the economy, involving thoughtful business projects, modernization investments, progress in ownership transformation and in financial reform, seems to have been delayed in Croatia due to inefficient privatization (mostly management and employee buy-outs, leaving the companies with a lack of fresh capital). Major growth leaders of this period were the transport equipment sector (DM) – focusing on shipbuilding – and paper &

printing (DE), while output continued to decline in several other segments of manufacturing such as in food & beverages (DA), chemicals (DG), textiles & textile products (DB), refined petroleum products (DF)[8] and especially in leather & leather products (DC). Throughout the Central and Eastern European countries, textiles and leather products experienced a steady decline as a result of the opening-up of the economy and the following strong competition from famous international brands on the one hand and cheap Asian imports on the other. Although outward processing with the countries of the European Union became prominent, it could only delay the decline.

Figure 5

Croatia: Winner and loser branches of manufacturing

Average annual changes in per cent relative to total manufacturing,
in percentage points, 1991-1995 and 1996-2002



Source: wiiw Industrial Database.

A new pattern of industrial specialization substantially different from the first years of transition began to emerge as a combination of 'old' and 'new' specialization: this can be clearly seen when comparing winner and loser branches[9] of individual industries in the two periods, 1991 to 1995 and 1996 to 2001 (Figure 5).

– The *paper & printing* industry (DE) as well as *other non-metallic mineral products* (DI) were the two major winning branches of manufacturing: they performed better than total manufacturing in both periods, i.e. in 1991-1995 and 1996-2002 (Figure 5, upper right-hand corner). For the other non-metallic mineral products sector this is possibly due to

[8] Due to the slow restructuring and privatization of the largest Croatian company INA, as well as the loss of export markets.

[9] 'Losers' of transition are here defined as industries that performed worse than total manufacturing in terms of production growth, 'winners' are those that performed better – see Urban (1999), p. 22.

the increased demand in the construction industry after the war and the inflow of foreign direct investment, especially in the cement industry.

– The *transport equipment sector* emerged as the growth leader in manufacturing between 1996 and 2002. The main sub-branch of this sector is 'shipbuilding', which is however troubled by high losses. In addition, *machinery & equipment* (DK), *basic metals & fabricated metals products* (DJ), *rubber & plastic products* (DH), and *manufacturing n.e.c.* (DN) performed better between 1996 and 2002 relative to the manufacturing average than in the first period and became 'emerging winners', largely supported by growing exports (Figure 5, upper left-hand corner).
– Sectors which did better in the first period but fell behind average growth in the second period are *food & beverages* (DA), *chemicals* (DG)*, textiles & textile products* (DB) as well as *refined petroleum products* (DF) (Figure 5, lower right-hand corner).
– Major loser branches were *leather & leather products* (DC), *electrical & optical equipment* (DL) and *rubber & plastics* (DH). They performed worse than the total manufacturing average in both periods, possibly due to low productivity and consequently high unit labour costs making these branches uncompetitive internationally (Table 20 and Figure 5, lower left-hand corner).

However, looking at the production index, the initial drop in output was followed by a long period of stagnation in almost all branches of Croatian manufacturing. Total manufacturing reached only 61% of the 1990 level in 2002 (Table 20). Out of the sub-branches only paper & printing (DE) surpassed the 1990 level. Other more successful branches were other non-metallic mineral products (DI), reaching 93% of the pre-transition level, and transport equipment (DM) with 85%. In contrast, leather & leather products (DC) experienced a continuous fall in production and stood at 20% of the 1990 production in 2002.

Patterns of international competitiveness across branches

Wages, productivity and unit labour costs (ULCs) together are major indicators of international competitiveness. Differential changes of production and employment in individual industries translate into different gains/losses in labour productivity, which is defined as output divided by the number of employees. Labour productivity together with wage costs determines unit labour costs. ULCs represent the wage costs per unit produced and are an important indicator of cost competitiveness in manufacturing.

Compared to the CEEC-7, these indicators of competitiveness are considerably less favourable in Croatia. In terms of wages and ULCs, Croatia's indicators are relatively higher than those in the other CEECs and only slightly below those in Slovenia (i.e. wages are higher than those in the CEECs and only somewhat lower than those in Slovenia, which are the highest amongst the CEECs). Productivity levels are, however, below those

in other CEECs and only somewhat higher than those in Bulgaria and Romania, which represent the tail-end amongst the CEECs.

Between 1998 and 2002, nominal wages (at current EUR exchange rates) in manufacturing increased by 5.6% annually, real wages (nominal wages deflated by the consumer price index) by 2.6% (Table 21). The wage level in 2002, expressed as average monthly gross wages in manufacturing converted at exchanges rates, amounted to EUR 650, and hence reached about 24% of the Austrian level. But monthly wages converted at purchasing power parities (PPPs), reflecting the living standard of workers more adequately, were about EUR 1130. Similar as in other CEECs, wage differentials exist within manufacturing: while wages are highest in chemicals (DG), electrical & optical equipment (DL) and coke & refined petroleum products (DF), reaching between 136% and 145% of the average manufacturing level, they are particularly low in leather & leather products (DC), textiles & textile products (DB) as well as in wood & wood products (DD). However, these labour-intensive branches are typical low-wages branches in other countries as well.

Between 1998 and 2002, productivity increased by 6% per year in total manufacturing. Above-average productivity growth occurred in those branches where both output and productivity developed faster than average, the so-called 'winner' branches: machinery & equipment (DK), other non-metallic mineral products (DI), paper & printing (DE), transport equipment (DM), and rubber & plastic products (DH). The 'loser' industries, on the other hand, all showed relative productivity losses (Table 22).

Productivity levels ranged between close to 45% and 40% of the Austrian level in 2002, depending on the choice of conversion rates at which national output is calculated.[10] However, labour productivity typically differs from branch to branch (Table 23). At the high end, productivity in refined petroleum products (DF) exceeds the average manufacturing productivity level almost six times, paper & printing (DE) about two times. At the lower end, labour-intensive industries such as leather & leather products (DB) and textiles & textile products (DB) are found with productivity levels between 21% and 31% of the manufacturing average.

Unit labour costs (ULCs) depend both on changes in wages and in productivity. Competitiveness improves when ULCs decline, i.e. if wages (measured in foreign currency) are growing less than labour productivity. From 1998 to 2000 ULCs of total manufacturing were falling; they increased temporarily in 2001 and fell again thereafter.

[10] The first (higher) measure results from national productivity figures converted into a common currency unit with purchasing power parities for the whole GDP (PPP99). The second measure uses as conversion factor PPP for gross fixed capital formation in 1999 (PPPCAP99).

Table 21

Croatia: Monthly gross wages and labour productivity in the Croatian manufacturing industry, 2002

A.	**Monthly gross wages**	
	Manufacturing total (in EUR at exchange rate)	647.2
	Average growth rate (EUR based) 1998-2002	6.0
	Manufacturing total (in EUR at PPP)	1126.1
	Average growth rate 1998-2002 (real, CPI)	2.6
	Manufacturing total (2002) = 100	
DA	Food products; beverages and tobacco	114.1
DB	Textiles and textile products	59.9
DC	Leather and leather products	52.0
DD	Wood and wood products	63.6
DE	Pulp, paper & paper products; publishing & printing	123.8
DF	Coke, refined petroleum products & nuclear fuel	136.1
DG	Chemicals, chemical products and man-made fibres	145.4
DH	Rubber and plastic products	81.6
DI	Other non-metallic mineral products	105.5
DJ	Basic metals and fabricated metal products	83.7
DK	Machinery and equipment n.e.c.	94.6
DL	Electrical and optical equipment	141.7
DM	Transport equipment	119.0
DN	Manufacturing n.e.c.	72.3
B.	**Labour productivity**	
	Manufacturing total, productivity in EUR (at PPP99 for GDP) [1)]	80883.3
	Austria 2001 = 100	44.5
	Manufacturing total, productivity in EUR (at PPPCAP99) [1)]	69168.6
	Austria 2001 = 100	39.7
	Manufacturing total (2002) = 100	
DA	Food products; beverages and tobacco	129.9
DB	Textiles and textile products	30.9
DC	Leather and leather products	21.4
DD	Wood and wood products	58.0
DE	Pulp, paper & paper products; publishing & printing	130.6
DF	Coke, refined petroleum products & nuclear fuel	592.1
DG	Chemicals, chemical products and man-made fibres	186.6
DH	Rubber and plastic products	99.5
DI	Other non-metallic mineral products	105.0
DJ	Basic metals and fabricated metal products	72.8
DK	Machinery and equipment n.e.c.	94.9
DL	Electrical and optical equipment	86.7
DM	Transport equipment	92.0
DN	Manufacturing n.e.c.	62.5

Notes: 1) PPP99 for GDP as compared to PPP99 for gross fixed capital formation. See also footnote 10.

Sources: wiiw estimates based on national statistics, OECD, Eurostat and UNIDO.

Table 22

Croatia: Productivity gains and losses in manufacturing, 1998 to 2002

Average annual change in per cent and relative gains in percentage points

		Productivity change	Relative gain/loss [1]
D	**Manufacturing total**	6.0	.
DA	Food products; beverages and tobacco	3.6	-2.4
DB	Textiles and textile products	2.6	-3.4
DC	Leather and leather products	1.3	-4.7
DD	Wood and wood products	1.2	-4.8
DE	Pulp, paper & paper products; publishing & printing	10.6	4.6
DF	Coke, refined petroleum products & nuclear fuel	4.1	-1.8
DG	Chemicals, chemical products and man-made fibres	6.2	0.2
DH	Rubber and plastic products	7.8	1.9
DI	Other non-metallic mineral products	11.0	5.0
DJ	Basic metals and fabricated metal products	6.4	0.4
DK	Machinery and equipment n.e.c.	13.0	7.0
DL	Electrical and optical equipment	1.3	-4.7
DM	Transport equipment	7.8	1.8
DN	Manufacturing n.e.c.	5.0	-1.0

Table 23

Croatia: Unit labour costs in manufacturing compared to Austria, 2002

Austria 2001 = 100

		ULCs at PPP99 [1]	ULCs at PPPCAP99 [2]
D	**Manufacturing total**	54.6	61.1
DA	Food products; beverages and tobacco	57.4	64.3
DB	Textiles and textile products	80.3	89.9
DC	Leather and leather products	161.9	181.2
DD	Wood and wood products	65.7	73.6
DE	Pulp, paper & paper products; publishing & printing	50.6	56.6
DF	Coke, refined petroleum products & nuclear fuel	69.7	78.1
DG	Chemicals, chemical products and man-made fibres	54.1	60.5
DH	Rubber and plastic products	37.1	41.5
DI	Other non-metallic mineral products	41.2	46.2
DJ	Basic metals and fabricated metal products	52.7	59.0
DK	Machinery and equipment n.e.c.	45.6	51.0
DL	Electrical and optical equipment	81.2	90.9
DM	Transport equipment	98.2	110.0
DN	Manufacturing n.e.c.	49.7	55.7

Notes: 1) PPP99 for GDP. - 2) PPP99 for gross fixed capital formation.

Sources: wiiw estimates based on national statistics.

The average annual growth rate for the period 1998-2002 was hence only 0.1%. ULCs fell in those branches where productivity growth was strong, including the winner branches (DI, DE, DK, DJ), but also in labour-intensive branches where wages were falling (DC, DB).

Manufacturing unit labour costs ranged between 55% and 61% of the Austrian level in 2002, according to the two different measures of productivity given above (Table 23). As the latter measure of productivity is probably the more suitable one, we may assume that the higher ULCs are closer to reality. Using the higher boundary estimate for ULCs, the cost advantage of Croatian manufacturing vis-à-vis Western Europe (here represented by Austria) could be maintained. However, in branches such as leather & leather products (DB) and transport equipment (DM) ULCs are much higher than in Austria, and in textiles & textile products (DB) and electrical & optical equipment (DL) ULCs are adjusting to the Austrian level. Apart from low labour productivity, this might result from the level of the exchange rate of the Croatian kuna.

Croatian trade performance with the EU-15[11]

Trade with the EU is analysed in detail as the European Union is the major trading partner of Croatia – if to a lesser extent than in the other CEECs due to Croatia's still existing special links in the Balkans. In 2002, the share of exports directed to the EU was about 53% of total Croatian exports, the share of imports reached about 56%.[12] However, it has to be kept in mind that there are a few branches such as transport equipment (DM), refined petroleum products (DF) and food & beverages (DA) where EU trade plays a relatively small role. On the other hand, export *and* import shares to the EU are extremely high (above 80%) in the textiles & textile products (DB) and the leather & leather products sectors (DC), due to the importance of outward processing trade[13] with the EU countries in these two branches.

Croatian manufacturing exports to the EU increased only moderately between 1995 and 2002, and Croatian market shares on the EU market (excluding intra-EU trade) declined significantly, from 0.42% to 0.29%. Croatia's imports from the EU expanded by 84% as compared to a 24% increase in exports between 1995 and 2002. Thus Croatia's trade deficit in manufacturing trade grew and reached about EUR 3.8 billion in 2002 (Table 24).

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11 Data for this chapter originate from the Eurostat Comext Database.

12 By 2002, about 75% of total Hungarian exports went to the EU-15, for Poland and the Czech Republic the levels were about 68%, for Romania and Slovenia 59%, for the Slovak Republic 61%, and for Bulgaria about 56%. On the import side, Slovenian imports from the EU-15 accounted for roughly 70%, while Poland, the Czech Republic and Romania had an EU-15 import share of about 60%, Hungary of 56% and Slovakia and Bulgaria of 50%.

13 Outward processing (OP) is a form of international cooperation on a contractual basis between independent firms from different countries. The contractor exports mainly semi-processed goods (e.g. fabric, cuttings or semi-finished garments in the textiles & textile products sector) to the subcontractor, who refines, assembles or finishes the product which is then re-imported to the contractor's country. Trade for this purpose is called outward processing trade (OPT).

Croatia has persistent and large (but fluctuating) trade deficits in transport equipment (DM), machinery & equipment (DK) and electrical & optical equipment (DL) and also in chemicals (DG). Together these four branches showed a combined deficit of EUR 2.7 billion, accounting for 72% of the total manufacturing deficit. Only two branches held a persistent trade surplus: wood & wood products (DD) and textiles & textile products (DB).

Table 24

EU-15 manufacturing trade with Croatia, 1995 to 2002

In EUR million, without intra-EU trade

	1995	1998	1999	2000	2001	2002	2002/1995 growth in %
Croatian manufacturing exports to the EU-15 (= EU-15 manufacturing imports from Croatia)	1813.4	1733.9	1812.9	2083.2	2309.7	2247.3	23.9
Croatian manufacturing imports from the EU-15 (= EU-15 manufacturing exports to Croatia)	3288.7	4075.1	3741.5	4245.3	5034.4	6061.8	84.3
Croatian trade balance with the EU-15	**-1475.3**	**-2341.1**	**-1928.6**	**-2162.1**	**-2724.7**	**-3814.5**	
Croatian market shares in EU-15 manufacturing imports (without intra-EU trade)	0.42	0.30	0.29	0.26	0.29	0.29	

Source: Eurostat, wiiw calculations.

Trade specialization, branch balances and RCA in trade with the EU

Croatia's export specialization declined slightly between 1995 and 2002 as measured by the concentration ratio, i.e. the share of the three largest NACE 2-digit branches in total manufacturing industry exports to the EU (CR3). Export concentration fell in fact from 52% in 1995 to 46% in 2002. Today, exports are still heavily dominated by textiles & textile products (DB), accounting for 24% of total manufacturing exports (mainly covered through sub-contracting work, occupying 80-95% of production capacities)[14] and electrical & optical equipment (DL) with an exports share of 13%. Basic metals & fabricated metal products (DJ), leather & leather products (DC), wood & wood products (DD), machinery & equipment (DK) and chemicals (DG) held shares ranging from 7% to 9% in 2002 (Figure 6).

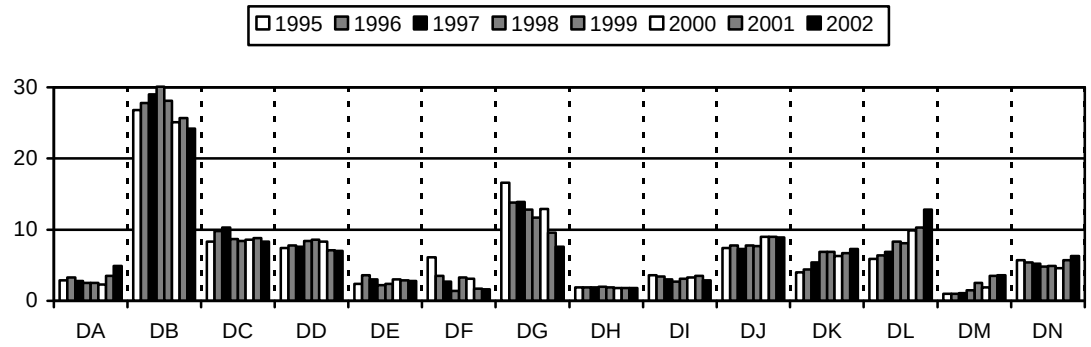
Import concentration was less pronounced but growing steadily over the period 1995 to 2002. The share of the three largest import branches increased from 40% to 46%. In 2002 the biggest import shares were reported for transport equipment (DM) with 18%, for electrical & optical equipment (DL) and machinery & equipment (DK) with about 14% each as well as for chemicals (DG) with 11% (Figure 6).

[14] Croatian Chamber of Economy (2000), Manufacture of Textiles and Apparel, April.

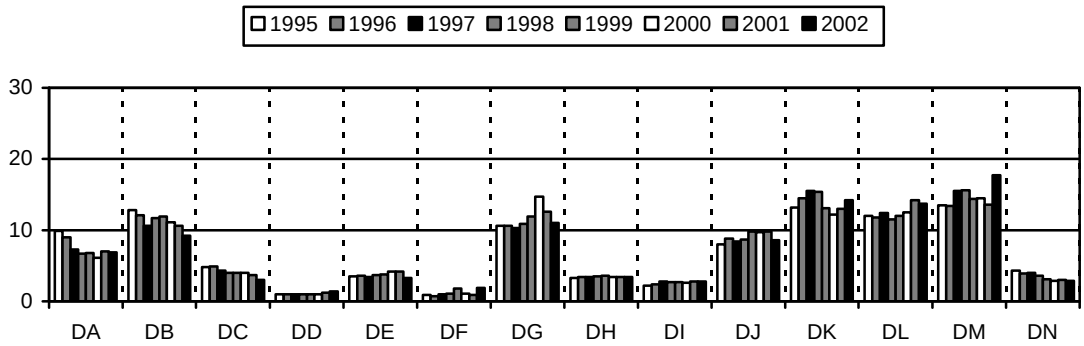
Figure 6

Croatia

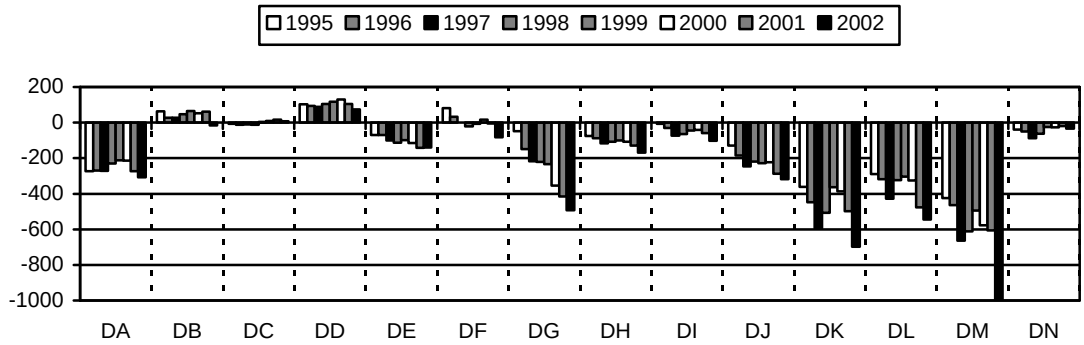
Share in manufacturing exports to the EU-15, in per cent



Share in manufacturing imports from the EU-15, in per cent



Sectoral trade balances with the EU-15, EUR million

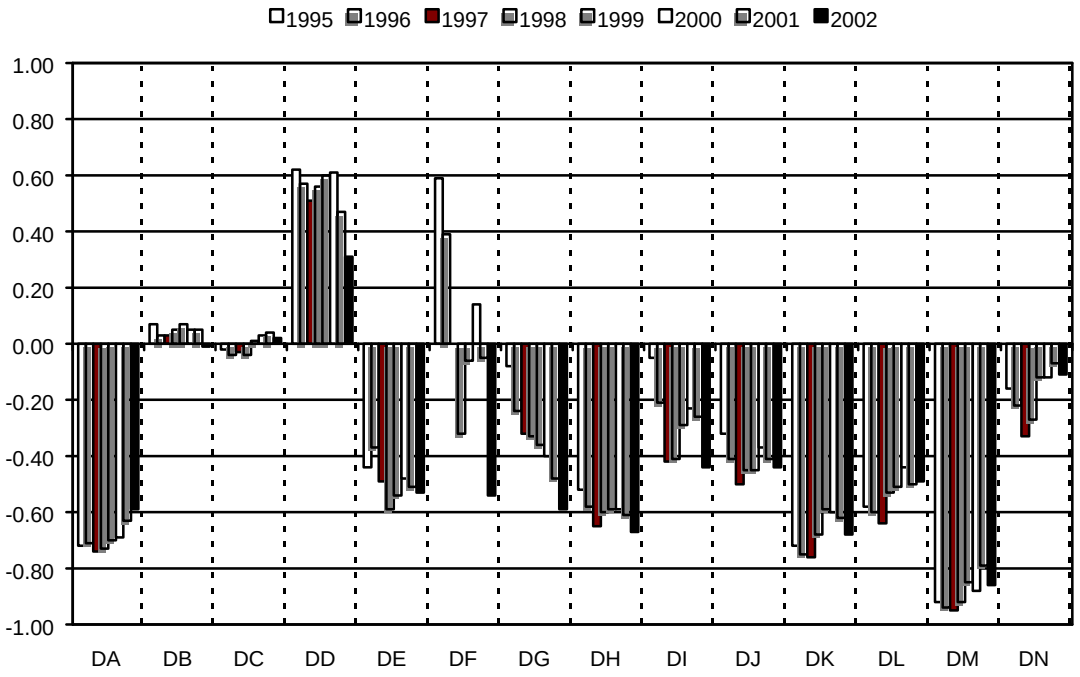


Source: Eurostat, wiiw calculations.

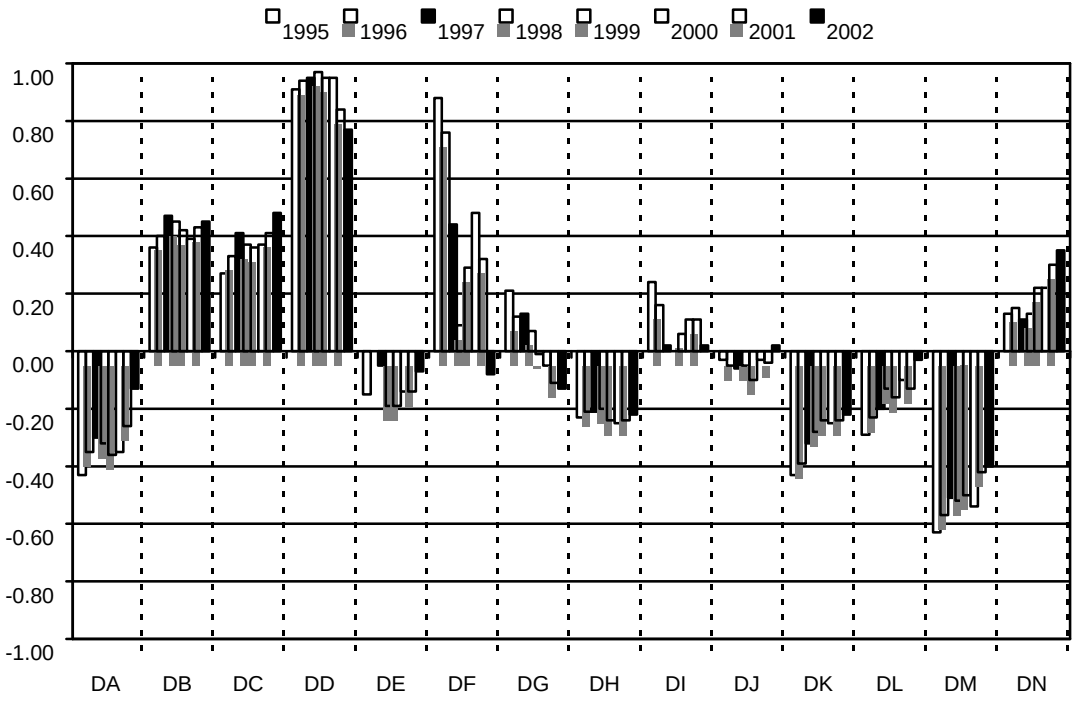
Figure 7

Croatia

Revealed comparative advantage in trade with the EU-15[1)]



Relative revealed comparative advantage in trade with the EU-15[2)]



Notes: 1) Measured as RCA = (exports - imports) / (exports + imports).- 2) Relative RCA = RCA (sector) - RCA (total manufacturing).

Source: Eurostat, wiiw calculations.

A more concise picture of trade specialization and also competitiveness is provided by the indicator of revealed comparative advantage. Revealed comparative advantage values (RCAs)[15] reflect the sign of trade balances: it was negative and deteriorating for total manufacturing and also deteriorating for most branches. A visible improvement can be detected for electrical & optical equipment only (DL, Figure 7).

When comparing individual branches with total manufacturing, relative RCA values[16] reflect patterns of comparative advantage and disadvantage in Croatia: notably, a persistent comparative advantage (positive relative RCAs) is observed for labour-intensive branches such as wood & wood products (DD), textiles & textile products (DB) and leather & leather products (DC). On the other hand, more sophisticated industries such as transport equipment (DM), machinery & equipment (DK) and electrical & optical equipment (DL) show a comparative disadvantage (negative relative RCAs) – although the respective values have been improving over recent years (Figure 7).

Factor content and trade specialization

Using an industry classification that combines factor content and industrial organization features (Peneder, 2001 and Appendix Table A1), the detailed data on EU trade with Croatia and the CEECs (at NACE 3-digit level) permit to analyse and compare the structure and evolution of exports to the EU (see Figure 6 and the list of industries in Appendix Table A1). In 2002, Croatia's export structure was dominated by labour-intensive industries (36%), followed by mainstream (21%), capital-intensive (17%) and marketing-driven industries (15%) and finally by technology-driven industries (12%).

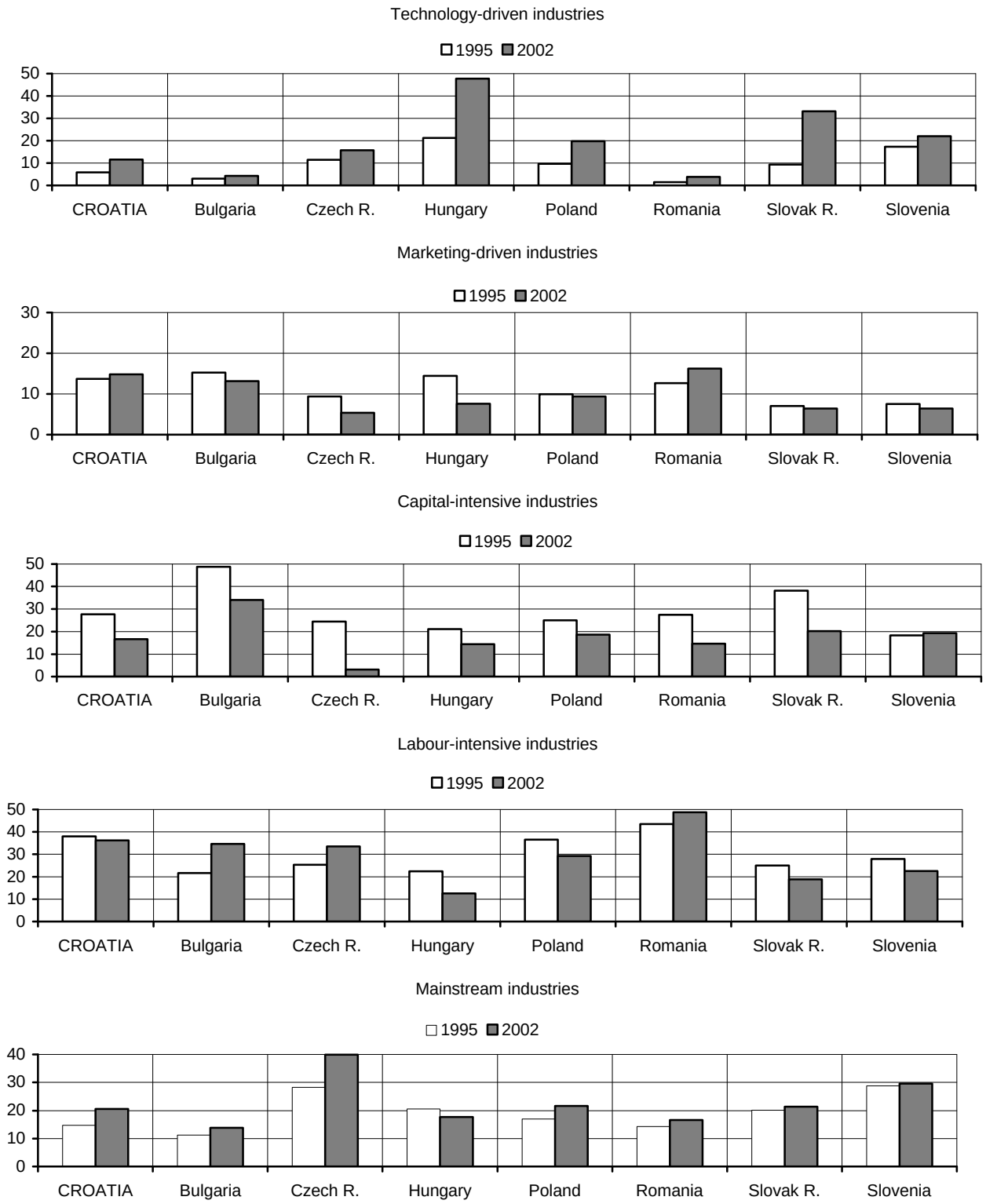
Between 1995 and 2002 the Croatian export structure developed relatively unfavourably: the share of technology-driven industries grew less dynamically in Croatia than in other CEECs. For comparison, in 2002 this export segment accounted for 48% of all Hungarian manufacturing industry exports to the EU; the respective value for Slovakia was 33%, whereas the Croatian export share in technology-driven industries stood at about 12%. This is due to the relative lack of foreign direct investment in Croatia, while technology-driven exports are highly fostered by FDI in the other CEECs. Similar as in most other CEECs, the declining export share of capital-intensive industries went along with an increasing importance of mainstream industries in the period observed. The latter is due to a relatively strong increase in exports of knitted & crocheted articles and other special purpose machinery (Figure 8).

[15] Measured as RCA = (exports – imports) / (exports + imports).

[16] Measured as relative RCA = RCA (sector) – RCA (total manufacturing).

Figure 8

Shares in Croatian and CEECs' exports to the EU by factor inputs



Source: Own calculations based on Eurostat Comext Database.

Looking at the labour-intensive industries at a more detailed level, exports were dominated by 'other wearing apparel and accessories' in the year 2002 (15.9% of total manufacturing exports), followed by 'sawmilling, planing and impregnation of wood' (4.8%), 'furniture' (5.8%) and 'electrical equipment n.e.c.' (1.5%). 'Ships and boats' also belong to this category and held a share of 1.5% in 2002. Between 1995 and 2002 export shares of labour-intensive industries were somewhat declining, caused by a significant drop of 'other wearing apparel and accessories' exports (from 21.3% in 1995 to 15.9% in 2000; in fact it was the least performing industry in total manufacturing exports – in contrast to Bulgaria and Romania where it was the major winner). The strong export specialization in the textiles & textile products sector – due to the large trade volume entailed by outward processing trade – has been slightly declining since 1999, possibly connected to the relatively high unit labour costs in the country. Overall, active restructuring still has to occur in Croatian manufacturing to pave the way for future export specialization

Market share analysis: best and least performing industries in EU markets

Croatia's manufacturing exports to the EU-15 increased by 2.8% annually between 1995 and 2002 and reached a market share of 0.29% on the European market in the latter year (Table 25). Measured by a 'competitive market share analysis',[17] however, total manufacturing exports experienced a competitive loss during that period. At a more detailed 3-digit level, the least performing industries are basic chemicals, wearing apparel and refined petroleum. The best performing industries, on the other hand, such as electronic valves and tubes, knitted articles and 'other food products' could not make up for the loss in the least performing branches and generally have not been backed by foreign direct investment.

In contrast, manufacturing exports of the CEECs (including the Baltic countries) expanded by nearly 16% per year during the same period (almost five times as fast as Croatia's) and recorded a huge competitive gain (Table 26).[18] The main drivers of CEE exports to the EU are motor vehicles (including parts), TV, radio and recording apparatus, office machinery and furniture. These exports are fostered by substantial FDI inflows from leading world multinational companies such as Volkswagen, Ford/Opel, Siemens, Nokia, Sony, Matsushita and General Electric who have located their export production plants in the CEE region.

[17] See Havlik et al. (2001).

[18] For comparison, EU market shares in the CEECs were as follows: Bulgaria 0.37%, Czech Republic 2.58%, Estonia 0.36%, Hungary 2.63%, Latvia 0.20%, Lithuania 0.26%, Poland 2.72%, Romania 0.93%, Slovak Republic 0.85% and Slovenia 0.76%.

Table 25

Croatia: Best and least performing industries in exports to the EU-15, 1995 to 2002

Ranked by competitive gain,[1)] 1995-2002, EUR million

NACE rev. 1 (3-digit)		Exports 2002 EUR mn	Average annual change in %	Market share in the EU-15 2002 in %	Competitive gain,1995-02 EUR mn
	30 best performing industries				
32.1	Electronic valves and tubes, other electronic comp.	126.7	86.0	0.44	124.4
17.7	Knitted and crocheted articles	113.1	18.6	1.44	60.4
15.8	Other food products	59.6	26.7	1.08	44.2
27.4	Basic precious and non-ferrous metals	100.8	9.8	0.29	36.2
29.5	Other special purpose machinery	61.5	18.6	0.43	35.4
35.1	Ships and boats	33.5	61.1	0.42	31.4
19.1	Tanning and dressing of leather	34.6	32.4	1.18	28.2
31.6	Electrical equipment n. e. c.	32.6	25.6	0.26	22.2
29.1	Machinery for production, use of mech. power	42.9	12.5	0.23	14.9
34.3	Parts and accessories for motor vehicles	26.7	16.0	0.16	11.8
30	Office machinery and computers	10.7	53.5	0.02	9.9
26.5	Cement, lime and plaster	29.5	8.7	4.16	7.8
29.2	Other general purpose machinery	21.4	12.7	0.16	7.5
32.3	TV, radio and recording apparatus	9.3	32.1	0.04	7.2
21.1	Pulp, paper and paperboard	38.4	3.8	0.39	6.8
27.3	Other first processing of iron and steel	0.3	-38.3	0.02	5.4
27.2	Tubes	20.3	8.8	1.02	5.3
20.2	Panels and boards of wood	25.6	5.6	1.11	5.3
36.1	Furniture	130.0	7.9	1.10	5.0
15.1	Meat products	28.6	5.1	0.51	4.3
29.7	Domestic appliances n. e. c.	21.5	10.0	0.32	3.8
35.5	Other transport equipment n. e. c.	4.4	41.9	3.36	3.8
28.3	Steam generators	5.0	18.7	3.11	3.3
34.2	Bodies for motor vehicles, trailers	4.4	30.5	0.46	3.3
15.2	Fish and fish products	7.7	12.4	0.14	3.0
32.2	TV, and radio transmitters, apparatus for line telephony	4.0	28.4	0.02	2.9
33.2	Instruments for measuring, checking, testing, navigating	20.5	7.4	0.14	2.4
35.3	Aircraft and spacecraft	2.8	25.1	0.01	1.9
22.1	Publishing	11.0	5.9	0.41	1.9
18.3	Dressing and dyeing of fur; articles of fur	4.1	14.0	1.03	1.8
	10 least performing industries				
20.5	Other products of wood; articles of cork, etc.	8.1	-4.6	0.39	-8.1
28.7	Other fabricated metal products	33.1	1.5	0.35	-9.9
31.2	Electricity distribution and control apparatus	24.2	-2.6	0.31	-17.3
26.1	Glass and glass products	14.9	-5.9	0.40	-18.6
36.5	Games and toys	3.4	-21.0	0.04	-23.6
24.4	Pharmaceuticals	55.4	1.5	0.19	-28.3
19.3	Footwear	149.8	0.7	1.42	-63.8
23.2	Refined petroleum and nuclear fuel	34.9	-15.1	0.17	-139.0
18.2	Other wearing apparel and accessories	356.8	-1.1	0.82	-187.7
24.1	Basic chemicals	107.3	-10.8	0.31	-206.0
D	**Manufacturing industry**	**2247.3**	**3.1**	**0.29**	**-291.9**
Total	**Exports**	**2358.5**	**3.4**	**0.25**	**.**

Notes: 1) Competitive gain is here defined as a gain in the market share weighted by the value of exports of a particular industry in the base year.

Source: Eurostat Comext Database, own calculations.

Table 26

CEEC-10[1)]: Best and least performing industries in exports to the EU-15, 1995 to 2002

Ranked by competitive gain,[2)] 1995 to 2002, EUR million

NACE rev. 1 (3-digit)		Exports 2002 EUR mn	Average annual change in %	Market share in the EU-15 2002 in %	Competitive gain,1995-02 EUR mn
	30 best performing industries				
34.1	Motor vehicles	13584.0	27.9	6.98	9665.5
34.3	Parts and accessories for motor vehicles	5963.2	34.1	7.86	4752.5
32.3	TV, radio and recording apparatus	4310.2	37.2	9.77	3571.5
30	Office machinery and computers	3701.9	44.9	2.87	3301.6
36.1	Furniture	5675.5	16.1	21.59	2411.9
32.2	TV, and radio transmitters, apparatus for line telephony	2496.7	70.5	5.71	2398.6
31.6	Electrical equipment n. e. c.	3290.5	25.6	13.87	2239.3
18.2	Other wearing apparel and accessories	8391.5	8.8	12.47	1834.2
29.1	Machinery for production, use of mech. power	2803.5	21.7	5.75	1749.9
29.2	Other general purpose machinery	2044.2	23.3	4.81	1338.8
25.1	Rubber products	2110.8	21.8	9.88	1335.0
31.2	Electricity distribution and control apparatus	1932.4	24.1	9.73	1324.9
29.5	Other special purpose machinery	2170.0	18.2	5.32	1226.8
25.2	Plastic products	1791.1	20.4	4.30	1083.5
31.1	Electric motors, generators and transformers	2024.5	17.6	11.02	1056.1
28.7	Other fabricated metal products	2493.6	13.1	9.42	972.3
19.3	Footwear	2470.6	13.1	11.40	899.4
23.2	Refined petroleum and nuclear fuel	2295.2	14.4	4.84	882.6
32.1	Electronic valves and tubes, other electronic comp.	1312.6	20.7	2.27	834.0
29.7	Domestic appliances n. e. c.	1745.8	17.1	8.43	820.0
27.3	Other first processing of iron and steel	267.6	-9.5	4.52	629.5
31.3	Isolated wire and cable	1117.6	19.2	14.75	625.0
33.2	Instruments for measuring, checking, testing, navigating	960.3	22.5	3.18	623.1
21.1	Pulp, paper and paperboard	1326.1	9.8	3.16	587.8
28.6	Cutlery, tools and general hardware	919.5	20.1	5.32	553.8
20.1	Sawmilling, planing and impregnation of wood	1554.0	9.4	15.51	522.3
27.4	Basic precious and non-ferrous metals	3437.8	5.4	5.36	507.2
17.7	Knitted and crocheted articles	1202.7	14.7	8.91	497.4
28.1	Structural metal products	1277.7	13.6	19.65	469.3
29.4	Machine-tools	883.3	13.0	4.77	435.8
	10 least performing industries				
26.4	Bricks, tiles and construction products	24.8	-3.5	6.65	0.8
26.3	Ceramic tiles and flags	78.8	4.0	2.79	-0.6
24.2	Pesticides, other agro-chemical products	26.6	0.6	0.55	-4.1
15.4	Vegetable and animal oils and fats	75.2	2.7	0.56	-6.5
33.5	Watches and clocks	19.4	-1.4	0.39	-7.1
15.9	Beverages	282.0	6.8	1.45	-11.6
26.7	Cutting, shaping, finishing of stone	44.9	3.4	2.89	-15.3
23.1	Coke oven products	414.0	4.0	25.71	-31.6
26.5	Cement, lime and plaster	143.0	-13.0	8.08	-358.9
27.1	Basic iron and steel, ferro-alloys (ECSC)	2694.7	2.3	5.84	-523.6
D	**Manufacturing industry**	**113681.6**	**15.7**	**5.44**	**56622.8**
Total	**Exports**	**117826.6**	**15.2**	**12.4**	**.**

Notes: 1) CEEC-10: Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic and Slovenia. - 2) Competitive gain is here defined as a gain in the market share weighted by the value of exports of a particular industry in the base year.

Source: Eurostat Comext Database, own calculations.

3 Dilemmas of economic policy

A comparison with the other advanced transition economies shows that Croatia is different, both in economic policies pursued and in the results achieved. Though a complex evaluation of the strategy of transition is not attempted here, some key dilemmas may be commented on from a comparative point of view.[19]

Exchange rate

The first and certainly the most enduringly contentious issue is that of the exchange rate policy. Croatia's price stability has been based on the stability of its exchange rate. Though the kuna was not firmly fixed, it did not fluctuate all that much in the past ten years or so. For years, Croatia has enjoyed quite a low inflation, certainly in comparison with most other transition economies. However, the stable exchange rate was not enough for price stability; rather high interest rates, nominal and real, were also necessary for quite some time. This stability of the exchange rate and of prices prevails largely to this day.

Yet the prolonged price stability did not induce the economy to adopt the kuna as its preferred currency. In fact, currency substitution is quite high and shows little sign of diminishing, at least until quite recently. The German mark, initially, and now the euro is used to price goods, to transact and to save. In that sense, it cannot be argued that the pursued monetary policy has brought effective credibility to the Croatian National Bank. Credibility of the central bank and thus confidence in the domestic currency is the main supposed gain of monetary stability.[20] There is little doubt that this has not worked in Croatia.

In addition, a stable currency should be conducive to a stable banking system and should provide incentives for investment, especially foreign. Again, these are contentious claims, in theory. However, Croatia went through one of the worst banking crises in comparable transition economies. The crisis, especially at its peak in 1998, took place against the background of exchange rate and price stability. Also, as already pointed out, foreign investment and investment in general did not perform nearly as well as it could have been expected.

Finally, it is often argued that a stable nominal exchange rate is accompanied by higher variability of the real exchange rate and also of the growth rates. There are a number of

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19 For more on similarities and dissimilarities see Gligorov, Holzner and Landesmann (2003).

20 This claim is contentious in international economics basically because there is no good theory of credibility, i.e., of how it is acquired and sustained. Clearly, it is somewhat paradoxical to argue that the credibility of the monetary policy of a central bank increases if it gives up the conduct of monetary policy, in part or altogether.

ways to argue for this, though, again, there are a number of ways to argue against it too. In the case of Croatia, however, the variability in the growth rate is certainly higher than in the more advanced transition economies. Thus, the stable exchange rate was not able to deliver sustainable growth, at least not up to quite recently.

Together with the unstable growth of production, there were predictable changes in the structure of production and of the labour market. Clearly, industry has not recovered yet and unemployment has increased. Also, exports of goods have remained depressed. This is what could have been expected; though the precise theoretical reasons on which these expectations are based are still disputed in the profession.

There is a debate whether this exchange rate policy should be abandoned. A number of arguments have been advanced in support of the persisting exchange rate stability, though the problems that have been mentioned above have by now been generally acknowledged. Let us go through some of these arguments.

It is first argued that the game is already lost and is not worth playing anymore anyway; the game being that of inducing the citizens and the businesses in Croatia to hold more kunas than euros. This, if true, would mean that the central bank cannot really pursue an independent monetary policy and would strongly suggest early euroization. The argument is not altogether convincing, though it is of course true that gaining credibility would be an uphill battle for the kuna. But it cannot be the case that the decision to hold kunas rather than euros is the same irrespective of the expectations of the developments of the exchange rate and of the interest rate, i.e., irrespective of the monetary policy that is being conducted. It is sometimes argued that the euroization (or previously markization) of the Croatian economy has a long history and that makes it even more difficult than it would otherwise be to induce people to hold kunas. However, Slovenia shares much of the same monetary history and still the level of currency substitution there is much lower than that in Croatia. That would indicate that monetary policy matters even in cases in which the local currency has lost much of its credibility (or has never been able to acquire it).

If indeed a *de facto* euroization is unavoidable, the consequences should be assessed. There are two cases to consider. One is a system with two parallel currencies and the other is that of *de jure* euroization (unilateral or agreed).

The first alternative, the parallel use of two currencies, has important consequences that are not always realized in full. This is similar to the case of incomplete indexation. For instance, in Croatia, wages are not explicitly indexed to euros. This being the case, monetary policy could in principle be used to keep the real wages down, at least when calculated in euros – for instance through nominal exchange rate depreciation. This should not present any problems to the indexed sectors, because they are calculating in euro

anyway and because they can hedge against the devaluation risk. The additional advantage would be that the debtors would have a more realistic assessment of their debts, expressed in kunas. For instance, that should induce the government to be more careful with the acquisition of foreign debts.

The second alternative is quite different. Outright euroization presents certain problems in cases in which the conditions for the existence of the optimal currency areas do not exist. As has been argued in a recent paper by Wyplosz and Halpern (2001), a transition country that adopts the euro early on, may not be able to satisfy the convergence criteria for EU membership, e.g., they may continue to have a higher inflation than is initially required for full EMU integration. The source of the problem is of course the adjustment of the real exchange rate that cannot be achieved through nominal exchange rate variation. Obviously, there are other ways to deal with the problem, but those may be more difficult to implement and may be more costly.

The key to the choice between the various exchange rate regimes is the behaviour of wages. It is often argued that wages are implicitly indexed in euros in Croatia. However, they have been rising steadily in kunas and, given the stable exchange rate, in euros too. Had they been indexed to the euro, they would have stayed the same, or perhaps increased very modestly to reflect the slight depreciation of the kuna. This is not really the case. Thus, it is not only the case that the stability of the exchange rate has not resulted in a stability of wages, but the latter have not even been fully indexed to euros. The same is true of pensions. Therefore, there is still a substantial role that monetary policy could play in Croatia.

The development of wages is significant for the competitiveness of the Croatian economy. It has also been argued that the poor performance of the Croatian economy is not a consequence of the misaligned exchange rate but of the lack of restructuring. In addition, it has been argued that a stable exchange rate will contribute to restructuring. From the experience of Croatia, it can be argued that this has not really happened. It is arguable whether it has indeed been a deterrent, but that is not necessarily relevant for this argument.

It has also been maintained that exports are not really sensitive to the exchange rate. This is not a very intuitive argument. More importantly, the experience of the Croatian exporting sector seems to indicate that this is not the case. For one thing, exports have been rather flat throughout the period of exchange rate stability. For another, when there have been increases or decreases in export performance, those seem to have been connected with the appropriate changes in the exchange rate. Clearly other factors have influenced these developments, but it does not look as if exports have been completely insensitive to the changes in the exchange rate.

There are two final arguments to consider: one on the monetary policy *per se* and the other on the pass-through from exchange rate changes to inflation.

A stable exchange rate may require a rather passive monetary policy, i.e., the changes in the interest rates reflect the need to keep the exchange rate stable. In theory, a credibly stabilized exchange rate should lead to lower interest rates or, rather, to an appropriate alignment of domestic interest rates with those prevalent internationally. This, however, has not been the experience of Croatia. Interest rates have been constantly higher and have obviously reflected the devaluation risks. Whichever way this is interpreted, it does not lend support to the passive monetary policy that has been followed.

A stable exchange rate is supported not only as a disinflationary instrument, which it certainly has been in the case of Croatia, but also as an anti-inflationary instrument, which is a more controversial issue. It is often argued that exchange rate changes are translated quite quickly into general price changes, i.e., into inflation. Recently this type of pass-through has not really been observed in a number of countries that have devalued. There is no telling what would be the case in Croatia, but that would depend on all the other policy measures that would be taken together with the possible change in monetary policy. [21]

The discussion on exchange rates and on monetary policy will continue to be important because of the growing foreign debt and because of the dilemma about the appropriate monetary policy in view of the expected EU and EMU integration of Croatia. The alternatives are either to move to inflation targeting or to target an early adoption of the euro. The monetary history favours the latter strategy while it is perhaps realistic to explore the former possibility too.

Fiscal policy

The major problem that the Croatian government has faced throughout the past decade and also after the elections in 2000 has been in the area of public finance. The general government budget has been in substantial deficit, which, at those levels, is not sustainable even though some fiscal adjustment has been achieved. There are three aspects of fiscal reform that have to be considered: (i) that of the level and structure of expenditures, (ii) that of the sources of revenues, and (iii) that of the business cycle.

[21] On this see the study by Billmeier and Bonato (2002) which argues that pass-through from exchange rate depreciation to prices is about one third.

As a general matter, the level and structure of public expenditures have a lot to do with the issues of equity, while the sources of revenue (the tax system) are quite fundamentally related to the issues of efficiency. Ideally, expenditures and revenues should be balanced via a system of taxation that functions pretty much as a price system. Obviously, this is not really possible because of the presence of public goods, so every fiscal system only approximates the efficient one. Also, the level of expenditures is indeterminate and in reality reflects the preferences of the public in which the issue of justice and equity play a significant role.

As a consequence, a reform of the fiscal system has to proceed along two tracks. At the first, the level of public expenditures has to be determined. At the second, the tax system has to be devised. These two decisions should be taken for a somewhat longer period, for instance over the course of the business cycle. At shorter periods of time the budget may go into deficit or into surplus as the case may be.

Fiscal reforms have significant effects on production. The idea that is to be found in the Laffer-curve – to the effect that lowering the tax rate, from high levels, can lead to an increase in tax revenues through the positive effect on production – makes sense only in the medium run or even in the long run; it does not really apply to the short run. It also does not paint the whole picture, because the effects even in the medium run will depend significantly on the development of the fiscal surplus. If lower taxes are coupled with lower expenditures, the fiscal reform may have the desired positive effect on the growth of GDP. However, if they are not, then the increase in GDP, if it happens, may be accompanied by a growing deficit which will eventually have to be paid for, and that may then have negative consequences for growth.

A clear example is the social security reform and, more specifically, the privatization of the pension system. If the whole pension system, or a part of it, is privatized, the government has to borrow money to pay for its outstanding obligations. It may be true that the eventual pension received from the private insurance will be bigger, but the cost for the financing of government obligations will rise precisely because the rate of contribution will be lowered. Thus, reforms in obligations, i.e., in public expenditures, have to precede or at least accompany the tax reforms.

Clearly, in Croatia, as is generally recognized, the level of public expenditures is high, around 50% of GDP, and is certainly higher than either in the comparable transition economies or in comparison with economies on a similar level of development. Also, it has been difficult to forge a consensus about the redistribution of rights to public money, though the need to do so has been generally recognized. The restructuring of public obligations is a political matter and cannot be discussed outside of the electoral process because the restructuring of the public finances has clear implications for the distribution of votes.

The tax system has been a source of disagreement in Croatia. There are two competing goals that a tax system has to fulfil. On the one hand, it should bring in the necessary public revenues as efficiently as possible. On the other hand, it should support the efficient allocation of resources. Given the rather high level of public revenues in Croatia, the existing tax system has not failed in its task to bring in money to the budget. Obviously, because of the significant level of tax-evading activities and because of the persistent fiscal deficit, it can also be argued that it has had deficiencies.

However, the main problem consists in supporting the efficiency of allocation of resources. With private investment being quite low and unemployment remaining rather high, there is no doubt that taxes have not been levied with the proper business incentives in view. In the period after 2000, there have been some attempts to correct this, but with the need to keep public revenues flowing in, not very much has been done.

Finally, the performance of the budget over the business cycle should be taken into consideration. It is easier to reform the fiscal sector when the economy is growing than when it is in decline. Though this statement is contentious, it does make sense at least at some level of debate on economic policy. In Croatia, some fiscal restructuring has been done after the new government came into power in 2000. Public investments have increased while spending on wages and salaries has been more kept in check than before. This policy has contributed to higher growth rates that have been recorded in the past two years. Still, Croatia spends more than other transition economies on wages and salaries and on subsidies and transfers. Thus, all the main fiscal problems are still there, only they may be more manageable because of the improved growth environment. There is still the need to decrease the level of public expenditures, decrease the tax burden and lower the fiscal deficit.

Conclusions

It seems reasonably clear that the policy mix that Croatia pursued throughout its transition was perhaps not the best one available. The exchange rate was not supportive of exports and growth and the fiscal policy was geared more towards efficiency in the collection of public revenues rather than to an efficient allocation of resources. In the past years, monetary policy was more relaxed and some fiscal adjustment has been realized. However, the exchange rate policy has not been altered and fiscal deficits have remained high and in need of further adjustment. As a consequence, higher growth in the past two years has been accompanied by growing current account deficits and soaring foreign debt.

The costs of these economic policies may have been already borne so that the switch to an alternative policy mix may not bring so clear-cut benefits as it might have done two or three years ago. Still, if increasing risks to macroeconomic stability are to be avoided, a

move towards a more flexible exchange rate in order to sustain a more competitive industry and a more supportive monetary policy could still be advisable. Also, further fiscal adjustment is clearly necessary with a view to further support for investments and thus a rise in employment.

APPENDIX: Table A1

WIFO Taxonomy

	NACE rev. 1	*Taxonomy* Factor inputs
Meat products	151	4
Fish and fish products	152	4
Fruits and vegetables	153	4
Vegetable and animal oils and fats	154	4
Dairy products; ice cream	155	4
Grain mill products and starches	156	4
Prepared animal feeds	157	4
Other food products	158	4
Beverages	159	4
Tobacco products	160	4
Textile fibres	171	3
Textile weaving	172	2
Made-up textile articles	174	2
Other textiles	175	1
Knitted and crocheted fabrics	176	1
Knitted and crocheted articles	177	1
Leather clothes	181	2
Other wearing apparel and accessories	182	2
Dressing and dyeing of fur; articles of fur	183	2
Tanning and dressing of leather	191	4
Luggage, handbags, saddlery and harness	192	4
Footwear	193	4
Sawmilling, planing and impregnation of wood	201	2
Panels and boards of wood	202	2
Builders' carpentry and joinery	203	2
Wooden containers	204	2
Other products of wood; articles of cork, etc.	205	2
Pulp, paper and paperboard	211	3
Articles of paper and paperboard	212	1
Publishing	221	4
Printing	222	4
Coke oven products	231	
Refined petroleum and nuclear fuel	232	3
Nuclear fuel	233	
Basic chemicals	241	3
Pesticides, other agro-chemical products	242	5
Paints, coatings, printing ink	243	1
Pharmaceuticals	244	5
Detergents, cleaning and polishing, perfumes	245	4
Other chemical products	246	5
Man-made fibres	247	3
Rubber products	251	1
Plastic products	252	1
Glass and glass products	261	1
Ceramic goods	262	2
Ceramic tiles and flags	263	3
Bricks, tiles and construction products	264	2
Cement, lime and plaster	265	3
Articles of concret, plaster and cement	266	1
Cutting, shaping, finishing of stone	267	2
Other non-metallic mineral products	268	1

(continued)

WIFO Taxonomy (continued)

	NACE rev. 1	*Taxonomy* Factor inputs
Basic iron and steel, ferro-alloys (ECSC)	271	3
Tubes	272	1
Other first processing of iron and steel	273	3
Basic precious and non-ferrous metals	274	3
Structural metal products	281	2
Tanks, reservoirs, central heating radiators and boilers	282	4
Steam generators	283	2
Cutlery, tools and general hardware	286	4
Other fabricated metal products	287	1
Machinery for production, use of mech. power	291	1
Other general purpose machinery	292	1
Agricultural and forestry machinery	293	1
Machine-tools	294	2
Other special purpose machinery	295	1
Weapons and ammunition	296	1
Domestic appliances n. e. c.	297	1
Office machinery and computers	300	5
Electric motors, generators and transformers	311	1
Electricity distribution and control apparatus	312	5
Isolated wire and cable	313	1
Accumulators, primary cells and primary batteries	314	1
Lighting equipment and electric lamps	315	1
Electrical equipment n. e. c.	316	2
Electronic valves and tubes, other electronic comp.	321	5
TV, and radio transmitters, apparatus for line telephony	322	5
TV, radio and recording apparatus	323	5
Medical equipment	331	5
Instruments for measuring, checking, testing, navigating	332	5
Optical instruments and photographic equipment	334	5
Watches and clocks	335	4
Motor vehicles	341	5
Bodies for motor vehicles, trailers	342	2
Parts and accessories for motor vehicles	343	3
Ships and boats	351	2
Railway locomotives and rolling stock	352	2
Aircraft and spacecraft	353	5
Motorcycles and bicycles	354	1
Other transport equipment n. e. c.	355	1
Furniture	361	2
Jewellery and related articles	362	2
Musical instruments	363	4
Sports goods	364	4
Games and toys	365	4
Miscellaneous manufacturing n. e. c.	366	4

Industry clusters: **Taxonomy Factor inputs :**

1. Mainstream
2. Labour-intensive industries
3. Capital-intensive industries
4. Marketing-driven industries
5. Technology-driven industries

Source: M. Peneder (2001), *Entrepreneurial Competition and Industrial Location*, Edward Elgar, Cheltenham, UK.

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