The Role of **Foreign Direct Investment** in the **Croatian Economy**

STABILITY PACT FOR SOUTH EASTERN EUROPE

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The Role of Foreign Direct Investment in the Croatian Economy

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'Investment and Trade Liberalisation, Strengthening Development and Implementation of Investment and Trade Policy in the Western Balkans'

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Foreword

Government policy is one of the most important factors influencing the flow of foreign direct investment (FDI). Therefore, countries should ensure that market friendly investment-inducing policies are properly enacted. The objective of the Investment Compact, an initiative of the Stability Pact for South Eastern Europe and the Organisation for Economic Co-operation and Development (OECD), is to assist the countries of South East Europe (SEE) in improving the investment climate.

The OECD Investment Compact's project, 'Strengthening Development and Implementation of Investment and Trade Policy in the Western Balkans' (hereinafter referred to as SEEStat) was initiated to help governments improve their policies to encourage more and better FDI. This project was funded by the European Commission 2003 Community Assistance for Reconstruction, Development and Stabilisation (CARDS) Programme. The SEEStat Project has two objectives. The first is to coach countries on improving the quality of their investment statistics, especially by ensuring that they are in line with international standards (i.e. IMF/OECD standards on compiling FDI statistics). The second objective involves improving the ability of users of FDI statistics to evaluate the economic impact of FDI.

This study was commissioned to assist in meeting the second objective by providing SEE countries with a case study example of an evaluation of FDI's impact on the Croatian economy. It was prepared by the Vienna Institute for International Economic Studies (wiiw), under the supervision of Gábor Hunya. An earlier draft was presented on 30 October 2006 in Zagreb, Croatia, at the SEEStat workshop on 'Evaluating the Impact of Foreign Direct Investment in the Western Balkans – Case Studies and Practical Tools,' where it was well-received. This workshop was attended by government officials, international organisations and independent research organisations, as well as by the Delegation of the European Commission to the Republic of Croatia. It was organised by the Investment Compact, in collaboration with the Croatian Ministry of Economy, Labour and Entrepreneurship and the Croatian Trade and Investment Promotion Agency.

This study is one of a series of SEEStat publications. The other titles in the series are *The Metal Processing Industry in Bosnia and Herzegovina: A Statistical Assessment* and *How South East European Countries Measure FDI*. The series also includes a concept paper, *How to Assess the Impact of FDI on an Economy*.

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List of Abbreviations

BOP	Balance of payments
BPM	Balance of Payments manual
CNB	Croatian National Bank
COPC	Current operating performance concept
DE	Domestic enterprise
EU	European Union
FDI	Foreign direct investment
FIE	Foreign investment enterprise
FINA	Financial Agency
GDP	Gross domestic product
IMF	International Monetary Fund
INA	Industrija Nafte d.d.
ISIC	International Standard Industrial Classification
ITRS	International Transactions Recording System
M&A	Mergers and acquisitions
MOL	Magyar Olaj- és Gázipari Részvénytársaság (Hungarian Oil & Gas Company Plc.)
NACE	Nomenclature Générale des Activitiés Economiques dans l'Union Européenne (General Nomenclature for Economic Activities in the European Union)
NMS	New EU Member State
OECD	Organisation for Economic Co-operation and Development
SDDS	Special Data Dissemination Standard
SEEC	South East European country
SPE	Special purpose entity
wiiw	Wiener Institut für Internationale Wirtschaftsvergleiche (Vienna Institute for International Economic Studies)

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The report has benefited from comments and contributions by Antonio Fanelli (Deputy Head, Investment Compact) and Erin Hengel (Policy Analyst, Investment Compact). The final report was edited and prepared for publication by John Smith, Georgiana Pop and Erin Hengel.

Executive Summary

The purpose of this study is to assess the role of foreign direct investment (FDI) in Croatia. The main characteristics of FDI in that country are described, along with its impacts on employment, fiscal revenues and trade.

The study first looks at Croatia's balance of payments statistics, compiled by the Croatian National Bank. Croatia has attracted a relatively significant amount of FDI, especially when FDI per capita statistics are compared with those of its neighbours. Reinvested earnings as a percentage of FDI have also increased in the past few years. However, most FDI has been concentrated in the services sector, especially financial services and retail and wholesale trade, reflecting foreign investor interest in the domestic market. Moreover, while greenfield FDI was higher than acquisition-related FDI in 2003-05, only 10% of manufacturing FDI was greenfield.

The impact of FDI in Croatia on employment, fiscal revenues and trade is then explored, using a database of all of the country's legal entities (except banks and insurance companies) compiled by the Croatian National Financial Agency (FINA). The main findings are as follows:

Impact on employment. Conclusive evidence concerning the impact of FDI on employment does not exist. Employment generally fell at foreign acquired (privatised) companies in the first years after acquisition. Subsequently, it began to rise. This corroborates conventional wisdom, whereby companies undergo a restructuring phase following privatisation and shed labour; later, with the increased productivity and improved competitiveness brought about by restructuring, employment increases.

Impact on fiscal revenues. Tax incentives intended to attract greenfield FDI have had little impact on the state budget. This can probably be attributed to the generally small size of greenfield foreign investments. Croatia, which has a rather limited tax incentive scheme, provides no direct investment subsidies.

Impact on trade. Greenfield FDI has exacerbated the current account deficit, largely due to its concentration in the services sector and general absence from the more export-oriented manufacturing sector. However, the many privatisations in the manufacturing sector in the late 1990s served to mitigate the current account deficit. Privatisation-related FDI has had a much more limited upgrading effect on the foreign trade structure in Croatia than in other Central European transition countries. Overall, FDI has not improved access to foreign markets, although this has also limited the replacement of domestic sourcing by foreign suppliers.

1. Introduction

In the first part of this study (chapter 2) we describe the main characteristics of foreign direct investment (FDI)[1] in Croatia, based on data compiled for balance of payments purposes and on responses to the Croatian National Bank (CNB) FDI questionnaires. These questionnaires, completed by foreign affiliates, are one source of balance of payments data.

In chapter 3, the database on foreign investment enterprises (FIEs) is presented. This database (the 'FINA database') was created by linking enterprise data on all the country's legal entities (except banks and insurance companies), collected by the Croatian National Financial Agency (FINA), with data gathered from responses to the CNB FDI questionnaires. Thus various characteristics of foreign-owned companies could be analysed.

Finally, chapter 4 is devoted to evaluating the impact of FDIs on employment, fiscal revenues and foreign trade. This evaluation makes use of the FINA database. The analysis of foreign trade links foreign trade data, provided by Croatia's Central Bureau of Statistics, with the FINA database to obtain the foreign trade balance of greenfield and M&A (mainly privatised) FIEs.

Appendix 1 provides a detailed description of the FDI data compilation system and suggests some potential improvements.

The graphs and tables in Appendix 2 present data, mostly at the NACE 2-digit level.

1. According to the IMF Balance of Payments Manual, Revision 5, and the OECD Benchmark Definition of FDI, Third Edition, with which it is fully consistent, capital investment abroad is regarded as foreign direct investment if the purpose is to establish and maintain permanent equity relations with a foreign company, and at the same time to exercise a noticeable influence on the management of that company. The share of a foreign investor must make up at least 10% of the target company's equity capital and can be as much as 100%.

2. FDI inflow, dynamics and composition

2.1. Characteristics of FDI in Croatia, as shown by its balance of payments and international investment position

2.1.1. *Fluctuating FDI inflows*

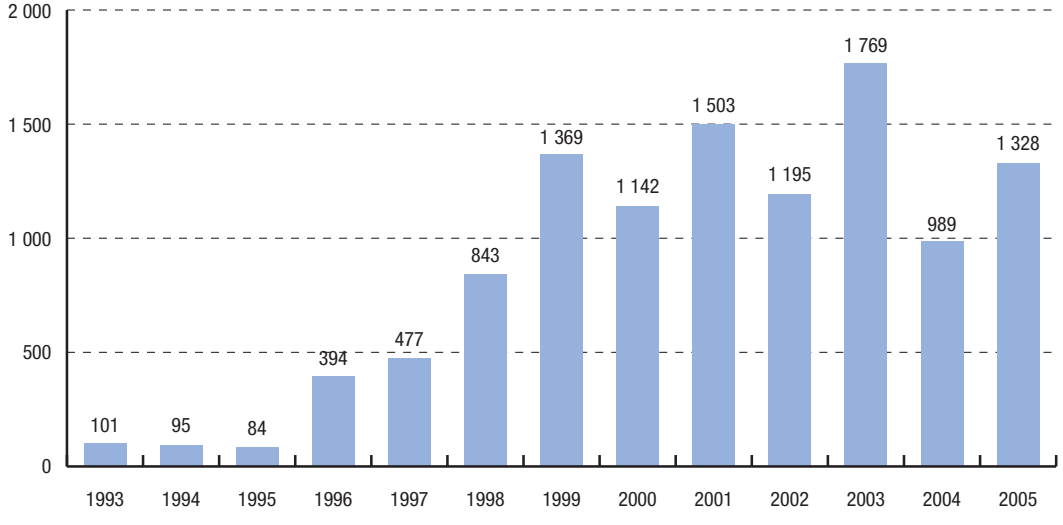
Compared to its Central European neighbours, Croatia was for some years not considered an attractive foreign investment location. This was mainly due to the conflict associated with the disintegration of the former Yugoslavia. During the first half of the 1990s Hungary and the Czech Republic, for example, were better able to attract FDI. Until 1998 Croatia received only small amounts of largely privatisation-related FDI inflows, although some of the most successful manufacturing companies were privatised to foreign investors in 1998.[2] As a result, investment in manufacturing accounted for more than 70% of total FDI in the period 1990-98.

Starting in 1999, annual FDI inflows reached about EUR 1 billion or more (Figure 1). Most of this FDI can be accounted for by privatisation in the financial services and telecommunications sectors. It also included greenfield investments in retail and wholesale trade. In the period 1999-2005, the share of manufacturing FDI dropped to just 20%. The lack of new manufacturing FDI is therefore the major shortcoming in Croatia. Transition countries could usually achieve more rapid structural change and export growth by relying on FDI to modernise their manufacturing sector (Hunya, 2004; Havlik, 2005).

2.1.2. *Size of inward FDI stock*

By the end of 2005, FDI stock in Croatia amounted to almost EUR 12 billion. Compared to new EU Member States (NMS) and other South East European countries (SEECs), Croatia has the sixth largest FDI stock and the fifth largest FDI per capita

Figure 1. **Foreign direct investment flows into Croatia (EUR million)**



Source: CNB.

2. These manufacturing enterprises can largely be characterised as having been profitable, with a decent market share in both domestic and international markets prior to privatisation.

2. FDI inflow, dynamics and composition

(EUR 2 756). Its FDI per capita is similar to that of Slovenia and about three times that of Romania or Bulgaria.[3] In terms of FDI stock per GDP, Croatia is ahead of the other SEECs and has been surpassed by only three of the NMS. In conclusion, FDI in Croatia is not small, which suggests that its privatisation policy and business environment is by and large favourable to FDI.

2.1.3. *FDI by country of origin*

When FDI stock is broken down by country of origin, it can be seen to come largely from a few countries with a lasting interest in South East Europe (Table 1). The principal investor is Austria, which has invested mainly in the banking sector. The second biggest investor is Germany, which has invested across many sectors but mainly trade and manufacturing. In 2005 these two countries together made up almost half of total FDI stocks.

2.1.4. *FDI inflow by form*

Over 60% of cumulated FDI inflows between 1993 and 2005 took the form of equity investment. When this ratio is examined on a year-by-year basis, it can be seen to have remained relatively stable except in 1999 and 2003-04 (Table 2).[4] In 1999 huge privatisation-related inflows resulted in equity investments representing almost 90% of total FDI. In 2003-04 a significant equity outflow pushed that percentage down to just over 30%.

Table 1. **FDI stock by country of origin, end-2005**

Country of origin	FDI stock, EUR million	% of total
Austria	3 541	29.8
Germany	2 115	17.8
Hungary	911	7.7
Netherlands	850	7.2
Italy	740	6.2
Luxembourg	618	5.2
Slovenia	579	4.9
United States	502	4.2
United Kingdom	449	3.8
Switzerland	360	3.0
Others	1215	10.2
Total	**11 880**	**100**

Source: CNB.

Table 2. **Foreign direct investment inflows to Croatia, by form (%)**

	1997	1998	1999	2000	2001	2002	2003	2004	2005
Equity investments	67.6	68.3	88.3	65.5	59.9	59.6	42.8	32.0	52.4
Reinvested earnings	7.5	7.6	3.3	7.6	12.5	13.5	33.3	29.5	42.8
Other capital[5]	24.9	24.1	8.5	26.8	27.6	26.9	23.9	38.8	4.8

Source: CNB.

3. Higher FDI per capita in Croatia, compared to that in Romania and Bulgaria, can be attributed to Croatia's more advanced stage of economic development. GDP per capita in 2004 was: Bulgaria, EUR 2 515; Romania, EUR 2 805; Croatia, EUR 6 397 (calculated at 2004 exchange rates). Source: wiiw database, www.wiiw.ac.at/balkan/data.html.

4. In the period 1993-96 only equity investments were reported.

5. 'Other capital' refers to debt transactions between affiliated companies, excluding banks and other financial intermediaries but including permanent debt instruments between such institutions.

The relative importance of equity investments has been challenged in the last three years by growth in reinvested earnings. FIEs are experiencing increasing profits, some of which are being reinvested in Croatian companies. FDI-related foreign sector incomes amounted to 6.3% of FDI stock in 2005, 68% of which was reinvested in Croatia (CNB, balance of payments statistics). Due to the increased role of reinvestment, FDI promotion should not only target new equity investment. It should also stimulate reinvestment of profits.

2.1.5. *Equity FDI by mode of entry*

The CNB FDI questionnaires allow equity FDI, in the form of greenfield investment,[6] to be distinguished from privatisation-related M&A investment or investment in the form of 'other acquisitions' (a category referring mostly to acquisitions of previously privatised companies). Responses to the questionnaires also provide information on the distribution of subsequent equity investment in FIEs established though these three entry modes.

Between 2000 and 2005 the share of privatisation-related FDI inflows was about 46%, and it was over 60% if other acquisitions are added in. This share was much lower in 2004 and 2005 than earlier, while the share of investments in newly established companies increased considerably (Table 3). Start-up capital invested in newly established FIEs represented only around 10% of total equity investments in 2005, but follow-up investments have increased in both share and amount since 2003. Trends in the last few years thus show that privatisation-related FDI, the driving force of FDI inflows in earlier years, is diminishing. In fact, there is little left to be privatised outside the utilities sector. If the level of inflows is to be maintained, more effort must be made to attract greenfield investors and to encourage reinvestment of earnings. Between 2003 and 2005 new investment in acquired FIEs was negative, as capital withdrawals were higher than investments. This is largely attributable to capital withdrawals from a specific company. When that transaction is excluded from the data, however, the amount of new investment in acquired companies remains small.

Table 3. **FDI equity investment, by mode of entry (%)**

	2000	2001	2002	2003	2004	2005
Newly established FIEs, start-up capital	5.9	6.9	11.6	3.7	8.6	10.5
Acquisition through privatisation	54.6	59.2	24.5	63.2	8.0	4.5
Other acquisitions	19.9	17.5	35.9	0.6	31.9	32.4
New investment in newly established FIEs	13.3	15.9	16.4	34.5	125.4	62.7
New investment in acquired FIEs	7.4	0.5	11.6	-1.9	-70.6	-14.4
Other	-1.1	1.0	0.0	-0.1	-3.3	4.3
Total equity FDI	100.0	100.0	100.0	100.0	100.0	100.0

Source: CNB.

When cumulated FDI equity and reinvestment inflows are broken down by economic activity, most FDI in acquired companies (including privatisations) can be seen to have gone into manufacturing, financial intermediation, and transport and telecommunications (Figure 2). Greenfield investments mostly went into retail and wholesale trade and financial intermediation; these two activities represented more than 65% of equity investment and reinvestment of earnings in newly established companies. Only about 10% of equity investments and reinvestment of earnings in newly established FIEs went into manufacturing.

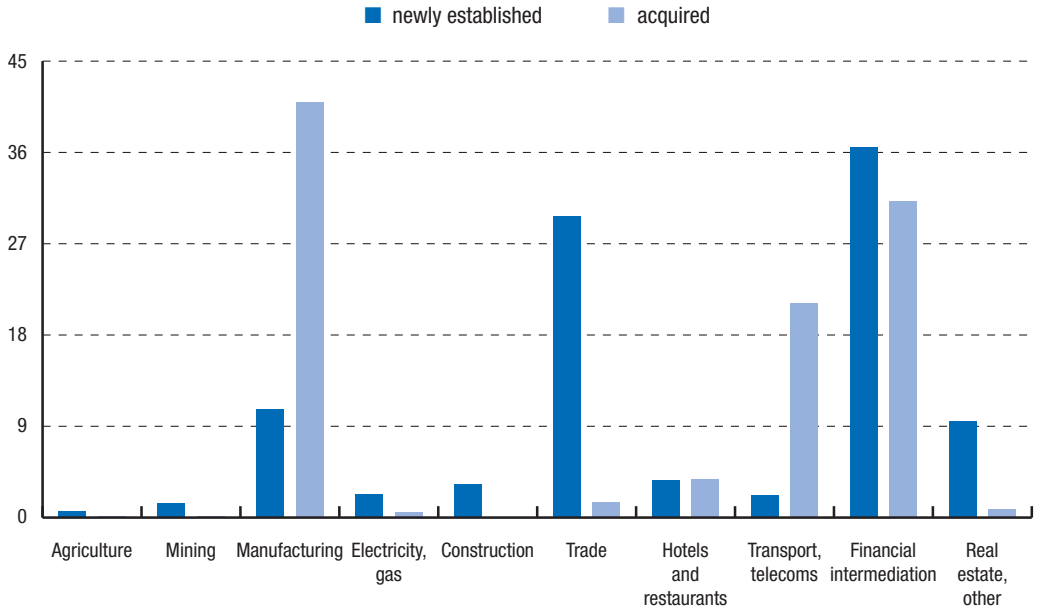
6. 'Greenfield investment' is defined here as equity investment in newly established companies.

2. FDI inflow, dynamics and composition

Although the share of greenfield investment in total FDI is still relatively small, it has been increasing in the past few years. In 2005 it reached EUR 780 million. However, it largely went into the services sector, with only a small share going into the export-oriented manufacturing sector. Nevertheless, the latter reached its highest ever level in 2005.

Greenfield investment in the services sector is concentrated in financial intermediation and trade, which together accounted for more than half of total greenfield equity investment and reinvested earnings between 1993 and 2005 (Table 4). In the manufacturing sector, greenfield investments were mainly in 'other non-metallic mineral products'

Figure 2. **Cumulated FDI equity and reinvestment inflows into new and old companies by economic activity, 2003-05 (%)**



Source: CNB.

Table 4. **Cumulated equity inflows and earnings reinvested into newly established FIEs, 1993-2005: most important economic activities (EUR million)**

NACE codes	Activities	EUR million
65, 66, 67	Financial intermediation	714.03
50, 51, 52	Retail and wholesale trade	689.37
11	Extraction of crude petroleum and natural gas	354.92
70, 71, 74	Other business and real estate activities	266.25
64	Post and telecommunications	159.37
45	Construction	85.20
55	Hotels and restaurants	72.85
26	Manufacture of other non-metallic mineral products	45.63
17	Manufacture of textiles	33.67
41	Collection, purification and distribution of water	32.83
	Other activities	322.18

Source: CNB.

(construction materials), followed by textiles. Unlike in the NMS, more modern industries, such as automotive components and telecommunications equipment, have not attracted large amounts of greenfield investment.

2.2. Impacts of the amount and structure of FDI, and related policy conclusions

While there is generally a correlation between the speed of economic growth and inflows of FDI, the direction of causality is not clear.[7] Direct inflows of capital may either i) stimulate economic growth and transformation, or ii) respond to opportunities arising from economic growth and transformation. Growth can be generated by FDI through additional investment and transfers of technology and know-how, as well as through better access to export markets. On the other hand, foreign investors react positively to economic growth and the adoption of market economy rules.

A rapid and successful transition to a market economy has usually not been possible without the knowledge and capital of foreign direct investors.[8] Inward FDI plays a role in strengthening the private sector and in the emergence of market economy behaviour. Industrial restructuring, including through privatisation, is stimulated when inflows of FDI accelerate. Output and employment fall following foreign takeovers, but companies may later become more efficient and competitive. There is no simple correlation between the amount of FDI and the rate of economic growth in transition countries. FDI usually peaks in years when there are large privatisation transactions. These transactions often take place in low-growth years, when governments are in need of budget revenues.[9] The real contribution to fixed capital formation is that part of FDI which is not invested in the acquisition of existing assets. About half of FDI in the NMS between 1990 and 1998 was in the form of privatisation-related acquisition. However, restructuring of former state-owned companies in the wake of privatisation contributed to new investments.

The data in section 2.1 demonstrate that FDI in Croatia is still mostly confined to retail and wholesale trade and financial intermediation. FDI has contributed to the modernisation and expansion of these activities, and investors have been able to earn reasonable profits, stimulating reinvestment of earnings (BA-CA, 2005; Kraft, 2006).

Further analysis of FDI within the banking sector is needed to determine whether or not it has improved services, and whether the kind of privatisation uniquely pursued in this sector can be recommended for other sectors as well. According to a banking survey conducted by Bank Austria-Creditanstalt (BA-CA, 2005), foreign banks controlled 91% of Croatia's banking assets in 2004. This was the third largest share among 13 Central and East European countries (CEECs) and significantly higher than in Hungary, Poland and Slovenia. As indicated by the ratio of banking assets to GDP, and of outstanding credits to GDP, Croatia has a higher rate of banking activity than any other CEEC. Credit expansion to households has been particularly high. This indicates the soundness of the Croatian banking system, which can be a major support to economic development. Thus financing investments should not be a problem for either companies or households. Lack of investment financing, a serious problem for transition economies in the early stages of development, does not occur in Croatia (Kraft,

7. Measuring the contribution of FDI to economic growth does not generally lead to robust results. A link between the two phenomena is proved, but the direction in which it works is not all that clear. See Lipsey (2000).

8. The only exception is Slovenia, whose economy was already integrated into the EU before transformation; furthermore, currency depreciation in that country compensated for potential loss of competitiveness up to 2004.

9. Mencinger (2003) provides a sceptical overview of FDI in transition countries, based on a negative correlation between FDI and economic growth. In our view it is inappropriate to correlate FDI inflows that helped transition countries to get out of the transformational recession with the negative economic growth rate suffered due to transition.

2006). Paradoxically, the success of the Croatian banking sector may hinder FDI in some sectors, as domestically owned companies do not need to rely on FDI for additional capital.

Our conclusion is only partially supported by more detailed information on the lending behaviour of banks. Croatian banks increasingly lend to households rather than to businesses. A recent study based on cross-country regressions (Kraft, 2006) concludes that 'Croatia's weaknesses in enterprise reform and privatisation are also to blame for the excessive bias of the banking system towards households.' A reform of enterprise support policies is needed to increase competitiveness and improve the trade performance of the manufacturing sector.

It is beyond the scope of this study to discuss the problems of enterprise reform in Croatia. They are only partially linked to lack of FDI, although increased restructuring could be expected if FDI flowed in on a more massive scale. As concluded elsewhere (Hunya, 2001), economic transformation in the most successful transition economies has been decisively supported by the foreign multinationals which invested in these countries. The Croatian and Slovenian economies could have profited more from FDI penetration, but have chosen to be more self-reliant in the manufacturing sector. They have preferred insider privatisation to foreign takeover, and market positioning of own-brand names to reliance on imported ones. Modernisation has taken place in existing companies instead of in newly established ones. This policy has resulted in slower implementation of structural changes and a slower increase in competitiveness compared to the NMS, which have relied more heavily on FDI. This negative outcome has been partially compensated in both Croatia and Slovenia by a more organic and balanced relationship between the domestic and foreign manufacturing sectors than exists in countries with overwhelming foreign dominance. It should be noted that the policies pursued by Croatia and Slovenia have resulted in very different outcomes: Slovenia was able to improve its export capacities and attain almost balanced foreign trade, while Croatia has become increasingly import-reliant.

Croatia has a competitiveness problem, as shown by its huge trade deficit (section 4.3). This, in turn, is the result of unsatisfactory modernisation and technological development. FDI could substantially support such modernisation. Therefore, government policies should aim to promote FDI and foreign penetration.

Has Croatia implemented a pro-modernisation, pro-FDI policy? Analysis suggests that such a policy is not in place, or that it is very weak. With respect to possible future improvements, we examined the *Strategic Development Framework of the Republic of Croatia for 2006-13* (Republic of Croatia, 2006). The Framework, a document of over 80 pages, only twice mentions FDI. In the first instance, the Framework suggests promoting greenfield investments. In the second instance (in the second to last paragraph of the document), it mentions that FDI inflow equivalent to 6% of GDP would help turn Croatia into an export-oriented economy. Had this target been established right at the beginning of the Framework, export-oriented, business-friendly and FDI-promoting policies might have appeared throughout. However, mention of FDI is conspicuously missing from the other chapters, including the one on 'privatisation and restructuring'. That chapter was written with the goal of promoting Croatian investment and Croatian ownership. The almost total lack of any reference to FDI in this document is consistent with the policy pursued in Croatia up to this point, except in the banking sector. It may be necessary to consider other means of restructuring and privatisation, e.g. takeover by a strategic investor. The results achieved in the banking sector support such an alternative.

3. Main features of foreign investment enterprises (FIEs) in Croatia

3.1. Data coverage and methodology

Data used for the FDI impact analysis (Chapter 4) have been taken from the Croatian National Financial Agency (FINA) database. FINA does not record ownership. Companies have been identified as FIEs based on the Croatian National Bank (CNB) FDI questionnaires. The FINA database contains balance sheets, profit and loss accounts, and other relevant business-related data for all legal entities in Croatia, with the exception of banks and insurance companies. Because it does not include these entities, its sectoral breakdown is not identical to that of CNB data concerning FDI.

For the purposes of analysis, the following data provided by FINA have been used (annual data for 1998-2004):

- Capital or net worth, including equity capital, reinvested earnings and reserves (total assets minus total liabilities);
- Average number of employees;
- Revenues from sales in both domestic and foreign (i.e. export) markets;
- Wage costs;
- Profits after tax.

Responses to the CNB FDI questionnaires have allowed foreign investment enterprises (FIEs) in the FINA database to be identified. FIEs are companies which are at least 10% foreign-owned. Companies which are more than 50% foreign-owned have also been identified as 'majority FIEs'.

This means of identifying FIEs is applicable to all foreign investors, with the exception of investment funds.[10] Companies which are at least 10% foreign-owned are included in the FIE group beginning in the year after such acquisition. The assumption is made that foreign investors will not significantly affect business operations during the acquisition year, especially if the acquisition occurred towards the end of that year.

The total number of registered companies in the FINA database remained relatively constant between 1998 and 2004 (Table 5). Between 1999 and 2001 the number of companies fell, reflecting liquidations.

Table 5. **Number of FIEs with 10% or >50% foreign ownership and total number of registered companies in the FINA database, 1998-2004**

	Companies with at least 10% foreign-owned equity	Companies with >50% foreign-owned equity	Total number of registered companies in FINA database
1998	412	325	62 134
1999	500	397	59 972
2000	571	466	58 773
2001	695	570	56 987
2002	835	674	63 561
2003	1 367	1 145	68 084
2004	1 651	1 397	68 981

Source: FINA database.

10. Ownership by an investment fund does not reflect the goal of many direct investors, which is participation in a company's business operations and management.

3. Main features of foreign investment enterprises (FIEs)

In Croatia a policy was adopted in the early 1990s whereby companies could be created with virtually no capital. Consequently, a number of companies which had little or no actual operations came into existence. This policy changed in 1996. Thereafter, at least HRK 20 000 (around EUR 2 500) in equity capital was required to set up a company.

The number of companies which were at least 10% or >50% foreign-owned increased each year between 1998 and 2004. The number of those which were at least 10% foreign-owned doubled between 1998 and 2002, and again two years later. The number which were more than 50% foreign-owned, as a percentage of those which were at least 10% foreign-owned, increased from 79% in 1998 to 85% in 2004. This percentage is similar to that in other countries, as foreign equity holders generally prefer to have a controlling interest. Minority shareholder status is usually accepted only when foreign investors want to establish themselves while current owners do not want to relinquish control. This was the case of the Hungarian investor MOL, which could only purchase one-quarter of the shares of the oil company INA.

3.2. FIEs' shares in the Croatian economy

In 2004 only 2.4% of registered companies in Croatia were at least 10% foreign-owned (i.e. were FIEs). Companies which were not classified as foreign-owned were domestically owned; the two categories together make up Croatian companies as a whole. As shown in Table 6, FIEs' shares of employment and total sales were much higher

Table 6. **Shares of FIEs in the Croatian economy, 1998-2004 (%)**

	1998	2000	2002	2004
Number of companies	0.7	1	1.3	2.4
Total assets	5	10.1	12.7	18
Employment	3	6	8.6	11.2
Wages	4.6	9.4	12.1	14.9
Total sales	5.9	11.7	16.1	21.4
Export sales	10.4	15	24.4	36.5
Profits after tax	100	86	32	30
Wages/employee	153	157	141	133
Sales/employee	196	195	187	192
Sales/assets	112	116	127	119
Exports/sales	176	128	152	171
Profits/sales	961	735	198	140

Source: FINA database; own calculations.

(11.2 and 21.4%, respectively) than their share of the number of companies. It is therefore reasonable to conclude that FIEs were significantly larger than Croatian companies as a whole.

Between 1998 and 2004, FIEs' shares increased with respect to the following indicators: total assets, employment, net wages, total sales and export sales. This is sign of increasing foreign penetration of the Croatian economy. However, FIEs' share of profits after tax decreased significantly. Restructuring of domestically owned companies has made them increasingly profitable. In 1998 companies in Croatia generally made no profit (more precisely, profits and

losses netted out). In 2004 they did make profits, but FIEs' profits/sales were still 40% above the average for companies as a whole.

Labour productivity (sales/employee) and capital productivity (sales/assets) were both considerably higher in FIEs than in companies as a whole. FIEs' productivity advantage remained relatively constant over the period 1998-2004, as domestically owned companies had not caught up with FDIs in terms of productivity.

FIEs are much more export-oriented than Croatian companies as a whole. Their share of exports/sales has been increasing: FIEs' export propensity was 28% higher than the average in 2000 and 71% higher in 2004. (In 1998, however, it was 76% higher. The reason for the decline between 1998 and 2000 was a shift from domestic to foreign ownership of less export-oriented companies.)

Although the labour productivity of FIEs remained relatively constant between 1998 and 2004, their wage premium (wages/employee) fell. Wages in companies as a whole are catching up with those of FIEs: in 2000 they were 57% higher in FIEs than in companies as a whole, but by 2004 that figure had fallen to 33%.[11]

The above differences between FIEs and companies as a whole reflect generally better performance by FIEs, but the picture can differ in regard to individual economic activities. FIEs' shares of sales are higher than the average for companies as a whole in financial intermediation and manufacturing, but not in retail and wholesale trade (Appendix 2, Figure A1). By contrast, the CNB FDI database shows FDI to have been higher in both trade and finance than in manufacturing (Table 4).[12] Despite large investments, FIEs still do not dominate retail and wholesale trade. Foreign penetration of manufacturing is highest in the coke and petroleum products sector.[13] It is also high in the electrical machinery and radio, television and communication equipment sectors, although total sales in those sectors are comparatively low. (See Figures A2-A4 for foreign penetration and its change over time in NACE 2-digit economic categories.)

3.3. Significance of foreign ownership in manufacturing – international comparison[14]

In Croatia, foreign penetration of manufacturing in 2002 (the last year for which comparative data are available) was very low compared to that in the Visegrad countries,[15] Slovenia, Romania and Bulgaria (Table 7).[16] Even in Romania and Bulgaria, FIEs' share of overall sales was near or above 50% – almost three times that in Croatia. Although FIEs' share of manufacturing sales in Croatia rose again by 2004, it was still only 33%, below other countries' 2002 data.

All the countries in Table 7 had a higher share of FIEs in manufacturing sales and exports than in manufacturing employment. This implies higher

11. It has been shown by Aitken, Harrison and Lipsey (1996) that even in countries at different stages of development (e.g. Mexico, the United States and Venezuela) wages paid by foreign enterprises are about 30% higher than those paid by domestic enterprises. There is also a more general explanation of why subsidiaries differ from full-fledged companies (Pfaffermayr and Bellak, 2000).

12. An explanation may be the very narrow definition of financial intermediation in the FINA database.

13. High foreign penetration of the coke and petroleum products sector is due to the Hungarian oil company MOL's minority ownership of the Croatian oil company INA.

14. This section partly relies on earlier research (Hunya, 2004). Although FIE data are not entirely comparable between countries (see methodological notes in Hunya, 2004), they provide a valid overall picture.

15. The Visegrad countries are the Czech Republic, Hungary, Poland and Slovakia.

16. Although Croatia ranks last in Table 7 in 2002, it most likely overtook Slovenia in 2004 with MOL's minority ownership of INA.

3. Main features of foreign investment enterprises (FIEs)

Table 7. **FIEs' shares of employment, sales and exports in manufacturing in selected CEE countries, 2002 (%)**

	Employment	Sales	Exports
Czech Rep.	34.1	53.3	69.3
Hungary	43.6	71.6	83
Poland	32.9	52	66.2
Slovakia	36.4	59.3	74.9
Slovenia	17.6	29.3	36.8
Bulgaria	27.8	49.3	57.3
Croatia	**10.9**	**17.5**	**26**
Romania	33	51.1	n/a

Source: wiiw database on FIEs.

labour productivity and higher export propensity in FIEs than in companies as a whole. Thus it may be concluded that foreign penetration of an industry can increase competitiveness by improving both labour productivity and access to foreign markets.

4. FDI impact analysis

4.1. Impact of FDI on employment

Based on information derived from the FINA database, we can investigate various characteristics of the performance of the FIE sector in Croatia according to particular economic activities.

4.1.1. *Croatian employment overview*

Total employment in Croatia rose by 4.2% between 1996 and 2004, reflecting employment growth in the services sector. During the same period, employment in manufacturing fell by 18.8%. There were 36 000 fewer workers in manufacturing in 2004 than in 1996. When we look at economic activities in the manufacturing sector (using NACE 2-digit codes to identify economic activities), only four out of 23 actually experienced increased employment between 1996 and 2004: fabricated metal products (28), office machinery and computers (30), other transport equipment (35) and recycling (37) (Appendix 2, Table A3). However, in the services sector employment increased for almost all activities. Employment in this sector grew by 20% between 1998 and 2004 and almost 90 000 new jobs were created. Nearly half of this increase was in retail and wholesale trade (NACE codes 50, 51, 52).

In 2002, FIEs' share of employment in manufacturing was roughly three times higher in Bulgaria and Romania than in Croatia, where it was 10.9% (Table 7). This figure increased to 18.5% in Croatia in 2004 (Table 8). When manufacturing is broken down into economic activities, those in which FIEs dominated employment correspond to NACE codes 23 and 32. With respect to codes 21, 26 and 31, FIEs' share of employment was around one-third or more, generally comparable with Bulgaria and Romania. In the rest of Croatian manufacturing, FIEs' share of employment was lower than the 2004 average of 18.5% (Table 8).

Table 8. **FIEs' share of employment in manufacturing: Bulgaria (2002), Croatia (2004) and Romania (2002) (%)**

NACE codes	Short description	Bulgaria, 2002	Croatia, 2004	Romania, 2002
15	Food products, beverages	19.8	11.4	27
16	Tobacco products	29.5	11.1	25
17	Textiles	34.9	16.5	40
18	Wearing apparel	34.9	10.1	38
19	Leather, associated products	38.3	16.8	45
20	Wood, associated products	23.2	9.0	28
21	Pulp and paper, paper products	47.1	36.2	35
22	Publishing, printing, recording	8.7	13.0	20
23	Coke, refined petroleum products	0	93.0	56
24	Chemicals, chemical products	26.1	13.6	20
25	Rubber, plastic products	24.9	17.9	59
26	Other non-metallic mineral products	30.1	32.5	27
27	Basic metals	36	9.2	54
28	Fabricated metal products	13.5	6.9	20

Source: wiiw database on FIEs.

Table 8. **FIEs' share of employment in manufacturing (Bulgaria, 2002; Croatia, 2004; Romania, 2002) (%)** *(cont.)*

NACE codes	Short description	Bulgaria, 2002	Croatia, 2004	Romania, 2002
29	Machinery, equipment	14.1	17.1	15
30	Office machinery, computers	26.7	9.1	31
31	Electrical machinery, apparatus	35	43.4	53
32	Radio, television, communication equipment and apparatus	50.1	71.8	54
33	Precision instruments, watches, clocks	14	0.8	18
34	Motor vehicles, trailers, semi-trailers	6	18.3	36
35	Other transport equipment	23	1.8	31
36	Other manufacturing	15.3	11.3	17
37	Recycling	0	13.3	24
D	*All manufacturing*	*27.3*	*18.5*	*33*

Note: NACE stands for Nomenclature Générale des Activitiés Economiques dans l'Union Européenne (General Nomenclature for Economic Activities in the European Union). The current (2002) version is based on and consistent with the United Nations' International Standard Industrial Classification (ISIC) of all economic activities.

Source: wiiw database on FIEs

4.1.2. *Employment dynamics*

Rapid restructuring in the transition economies has entailed both job creation and job destruction. Impacts on employment in particular industries and economic activities have varied in intensity. This is also true of the impacts on employment in FIEs and in the economy as a whole (Box 1).[17]

Box 1. **Direct and Indirect Effects of FDI on Employment in Transition Countries**

Direct effects

Job creation through greenfield investment. This has been the main hope of CEECs. Most FDI policies have targeted such investments in manufacturing. Greenfield jobs have been created in the services sector (e.g. banking and retail trade) as well as through efficiency-seeking, export-oriented FDI in manufacturing. In Croatia this effect has mostly been confined to the services sector.

Job destruction as a result of restructuring of privatised, formerly inefficient state-owned companies. While the need for such restructuring is obvious, one objective of policy-makers has been to reduce adverse impacts on employment. Delaying privatisation, or imposing employment requirements on new owners, only temporarily mitigates the loss of workplaces (and then only under favourable circumstances). In Croatia, negative employment effects have been mitigated by delays in transformation and by insider privatisation.

17. See Hunya and Geishecker (2005) for a full description of the job loss and creation usually associated with FDI, as well as specific effects of FDI on employment in Central and Eastern Europe.

Box 1. **Direct and Indirect Effects of FDI on Employment in Transition Countries** *(cont.)*

Indirect effects

Job destruction through cutting former domestic linkages following foreign takeover of a former state-owned enterprise. Domestic supplies may be replaced by imported ones, with negative spillovers. The comparatively small extent of foreign penetration in Croatia has helped to maintain domestic linkages. While this has positive employment effects, it slows industrial modernisation.

Job destruction in domestic small and medium-sized enterprises (SMEs) through the inability to compete with larger, technologically more advanced subsidiaries of transnational corporations. For instance, supermarket chains in transitional economies have driven small shops and their suppliers out of business. This may apply to Croatia to some extent. However, the main threat to Croatian SMEs is more likely to be direct imports, which can drive out less competitive domestic manufacturers.

Job creation in domestic companies through new linkages. An increasing share of the components assembled in manufacturing subsidiaries, or of products sold by retail chains that were initially of foreign origin, may later be sourced domestically. There may also be a tendency for local sourcing in FIEs to increase with time.

Source: Hunya and Geishecker (2005).

The complex process of employment creation and destruction following FDI inflows can lead to four types of employment change (Radosevic, Varblane and Mickiewicz, 2003):

- *Type I:* Employment falls in the economy as a whole *and* in FIEs. (This could happen in declining industries.)
- *Type II:* Total employment falls, but that in FIEs increases. Nevertheless, increased employment in FIEs does not compensate for job losses in domestic companies.
- *Type III:* Total employment increases, but that in FIEs falls. In this case the FIEs may have only small competitive advantages, or there could be important structural differences between the FIEs and other companies.
- *Type IV***:** Total employment *and* employment in FIEs increases. The industries in which this occurs are generally booming.

Employment dynamics in Croatian manufacturing changed substantially between the first and second periods examined (1996-2000 and 2000-04). (For a breakdown of economic activities and types of employment change during these periods, see Appendix 2, Table A4.) Type I dominated in Croatia between 1996 and 2000. Manufacturing industries, including FIEs, were shedding jobs (Table 9). This was a recession period in Croatia, with no parallel in CEE countries during those years. When employment categories in Croatia in 1996-2000 are compared with those in the Visegrad countries during a slightly earlier (overlapping) period, fewer economic activities fall into the Type II category (i.e. falling overall employment, accompanied by an employment increase in FIEs) in Croatia than in the Czech Republic, Poland or Slovakia. At that time, Hungary, Poland and Estonia already had significant numbers of industries in Type IV. In Croatia, only after 2000 was there a swing to the other extreme:

Table 9. **Types of employment change in manufacturing in the Visegrad countries, Estonia and Croatia**

	Hungary 1993-98	Czech Rep. 1993-98	Poland 1993-98	Slovakia 1993-96	Estonia 1995-98	Croatia 1996-2000	Croatia 2000-04
Type I	1	1	0	3	0	13	4
Type II	6	16	14	14	4	9	5
Type III	0	0	0	0	0	0	0
Type IV	15	4	8	1	11	1	14
Total	**22**	**21**	**22**	**17**	**15**	**23**	**23**

Note: For the four types of employment change, see accompanying text. Figures show the number of NACE 2-digit economic activities in which these changes occurred.

Source: Radosevic, Varblane and Mickiewicz (2003), using the wiiw database on FIEs and own calculation.

Type IV became dominant. During both time periods, employment in Croatian FIEs and in the economy as a whole increased or decreased more or less simultaneously, as shown by the dominance of first Type I and then Type IV.

In the Croatian services sector, employment dynamics did not change dramatically between the periods examined (Table 10). During both periods, the largest number of types of employment change were Type IV, i.e. both total employment and employment in FIEs increased. In 1996-2000 there was still some restructuring going on (there were more Type II employment changes in this period), but employment later increased in almost all branches of the services sector.

How are changes in employment related to FDI inflows? One way to address this question is to compare employment changes between 1996 and 2004 with FIEs' share in employment (Appendix 2, Table A3). The four manufacturing industries in which employment grew between 1996 and 2004 (NACE codes 28, 30, 35, 37[18]) are characterised by relatively low FIE shares (below 10% except in 37). Employment fell for all other activities – those with relatively high foreign penetration *and* those with a very small FIE share of employment.

In the services sector dynamic increases in employment have not always been accompanied by high FIE shares of employment. For example, between 1996 and 2004 there was high growth of

Table 10. **Types of employment change in the Croatian services sector, 1996-2000 and 2000-04**

	1996-2000	2000-04
Type I	2	1
Type II	8	3
Type III	0	1
Type IV	12	17
Total	22	22

Note: Based on Table A4. For types of employment change, see accompanying text. Figures show the number of NACE 2-digit economic activities in which these changes occurred.

Source: Own calculation, based on FINA database.

18. Fabricated metal products (28); Office machinery and computers (30); Other transport equipment (35); Recycling (37).

employment in Croatian companies in NACE economic activity divisions 50 (sale, maintenance and repair of motor vehicles), 62 (air transport) and 70 (real estate and business activities), but FIEs' share of employment in these companies was less than 10% in each category. In post and telecommunications (64) there was a high FIE share of employment (41%) but employment grew by only 2.7%. Generally speaking, the relationship between foreign penetration and employment dynamics is unclear.

4.1.3. *Employment in greenfield and in privatisation-related (M&A) FIEs*

Greenfield FDI generates employment, while privatisation-related restructuring usually sheds labour. To demonstrate that privatisation and other M&A-related FDI have had negative effects on employment, while greenfield investments have had positive effects, we will consider the employment dynamics of M&A and greenfield companies separately.

We selected 50 companies which became FIEs by foreign acquisition (M&A, almost all through privatisation) between 1993 and 1998. We then looked at employment levels in the six subsequent years. In the year of acquisition, total employment was around 18 000 (Table 11). In the fourth year after acquisition, however, this number fell to 15 000 (about a 15% decline). By year six, employment had begun to increase slightly in some industries (Figure 3). Not enough time has elapsed since these acquisitions for longer-term effects to be assessed.

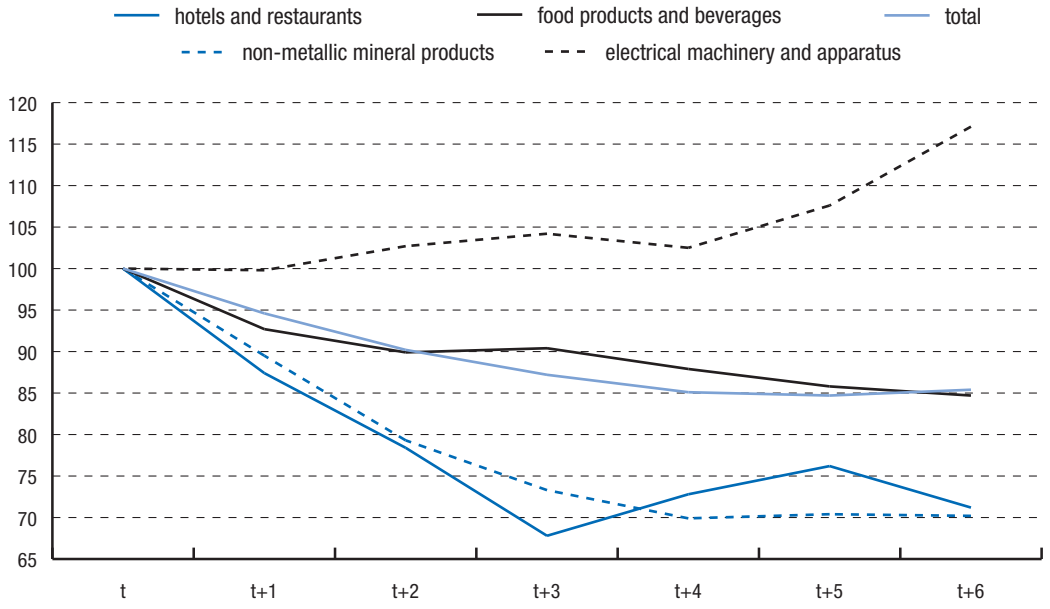
Table 11. **M&A FIEs taken over in the period 1993-98: number of companies and employees**

NACE codes	Short description	No. of companies	No. of employees in period t (takeover year)
01	Agriculture, hunting	1	63
15	Food products, beverages	6	2 614
18	Wearing apparel	1	210
20	Wood, associated products	2	259
21	Pulp and paper, paper products	2	1 752
22	Publishing, printing, recording	1	316
24	Chemicals, chemical products	4	529
25	Rubber, plastic products	2	121
26	Other non-metallic mineral products	13	5 674
27	Basic metals	2	138
28	Fabricated metal products	4	1 239
29	Machinery, equipment	2	509
31	Electrical machinery, apparatus	6	2 525
55	Hotels and restaurants	4	2 340
Total		**50**	**18 289**

Source: FINA database; CNB.

Individual industries' employment curves differ significantly (Figure 3). In food products and beverages (15) the fall in employment was relatively constant and there was no increase, even in year six. In non-metallic mineral products (26) employment fell sharply during the first four years after privatisation but stabilised later. In electrical machinery and apparatus (31) employment did not fall after foreign acquisition; it increased rapidly in years five and six. In hotels and restaurants (55)

Figure 3. **Employment dynamics for M&A FIEs, t (year of M&A) = 100**



Note: Sectors selected had the highest employment in period t. See Table 11.

Source: FINA database; own calculation.

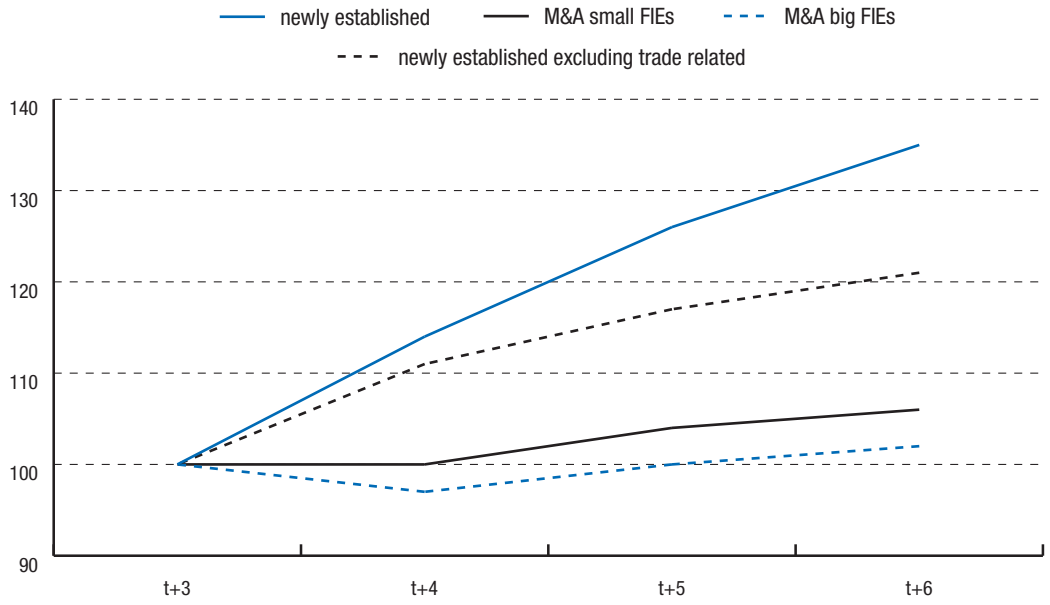
employment fell sharply during the first three years, recovered somewhat in years four and five, and fell back again in year six.

Another important question is whether employment develops differently in large and small companies following foreign acquisition (mostly privatisation). In fact, employment has increased more significantly in smaller companies (with fewer than 300 employees at the time of M&A) than in larger ones (Figure 4).

Almost by definition, greenfield FDI creates new jobs. According to the FINA database, newly established FIEs created a total of 36 302 new jobs between1996 and 2004, mostly in the services sector (26 550). However, the share of jobs created by newly established FIEs in total employment was just over 5% and rarely exceeded 10% in individual economic activities (Appendix 2, Table A5). In manufacturing, the share of greenfield FIEs in total employment was over 10% in only 4 out of 23 economic activities: textiles (17), leather and associated products (19), basic metals (27) and motor vehicles, trailers and semi-trailers (34). In the services sector, the largest number of jobs created by greenfield investment were in retail and wholesale trade and financial intermediation.

When employment levels at greenfield and acquired companies in the third through sixth years following their establishment are compared, it is clear that greenfield companies have experienced much higher employment growth (Figure 4). When greenfield companies in retail and wholesale trade are excluded, the change in employment levels is less steep, although it is steeper than in acquired companies. It is important to note that after the fourth year following companies' establishment, once restructuring had been completed (with the resulting improvement in productivity), employment increased at all acquired companies, including the larger ones.

Figure 4. **Employment change in newly established and M&A FIEs, 3-6 years following their establishment or acquisition (%)**



Source: FINA database; own calculation.

4.2. Impact of FDI on fiscal revenues

FIEs have a 40% higher profits/sales ratio than Croatian companies as a whole (Table 6). If the share of taxes paid by FIEs equalled their share of profits earned, an increase in foreign penetration could be expected to result in higher overall corporate tax revenues. However, if the share of taxes paid by FIEs were lower than their share of profits earned, they would be benefiting from corporate tax reduction measures (e.g. tax incentives) and their overall effect on total fiscal revenues would be more ambiguous.

The FINA database provides information on companies' before-tax profits and the amount of corporate income tax they have paid. This makes it possible to analyse FIEs' impact on fiscal revenues.[19] Theoretically, two competing effects are to be expected: FIEs' profits are greater than those of companies as a whole, thus increasing the amount of potential corporate tax revenues; FIEs take advantage of available tax incentives, reducing the amount of potential corporate tax revenues.

Using the FINA database, it is possible to evaluate (as a first approximation) the magnitude of fiscal losses resulting from the use of tax incentives by comparing newly established (greenfield) FIEs' share of total profits before tax with their share of total corporate tax revenues. The difference between these two shares is very small, suggesting that incentives have had little fiscal effect.[20] Since the introduction of the Investment Promotion Law[21] in 2000, the difference between the two has been in favour of profits in 2000, 2001 and 2004, and in favour of corporate tax revenues in 2002 and 2003 (Table 12).

19. According to a widely based inquiry among Croatian specialists, no research has been done on the fiscal effects of FDI in that country. This may indicate the relatively small significance of the problem.

20. Between 1996 and 1999 there were no tax incentives.

21. Official Gazette of the Republic of Croatia, No. 73/2000.

4. FDI impact analysis

Table 12. **Newly established FIEs' share of total corporate tax revenues and profits (%)**

	1996	1997	1998	1999	2000	2001	2002	2003	2004
Corporate tax revenues (%)	2.4	3.2	3.9	4.1	5.6	6.8	7.5	9.4	10.1
Profits before tax (%)	2.5	2.8	3.6	4.1	6.1	7.4	6.9	8.8	10.7

Source: FINA database.

Information from the FINA database is supported by other sources, pointing to the modest extent of investment incentives in Croatia. Under the Croatian Investment Promotion Law, tax and customs duty incentives are available to newly established companies (except those in the tourism sector) with no discrimination made between domestically owned companies and FIEs. Tax incentives depend on the amount of investment and the number of jobs created, while customs duty incentives are available for imported capital goods.

Between 2001 and 2005, according to the Ministry of Economy, 42 companies benefited from some type of tax or customs duty incentive, of which 29 were FIEs (Table 13). Approximately 8 companies (6 FIEs) per year qualify for tax or customs duty incentives, a relatively low figure. Newly established FIEs have been generally small, minimising the loss of fiscal revenues. Furthermore, Croatia has not made extensive use of tax incentives nor does it provide direct investment subsidies. While this policy may have discouraged greenfield FDI, it has limited the fiscal revenue losses experienced by other transition economies with more generous tax incentive schemes.

If Croatia is compared with Hungary, the only country for which comparative data are available, it has paid less in investment subsidies and has lost

Table 13. **Number of companies receiving tax or customs duty benefits, 2001-05**

		Tax benefits	Customs duty benefits
FIEs	29	28	11
Total	42	41	16

Source: Ministry of Economy.

less in tax revenues. Corporate tax revenue losses in Hungary have been enormous due to the generous grace periods offered to greenfield investors. In 1999, when tax incentives were still widely in place, FIEs in Hungary paid only 56% of statutory taxes while domestically owned companies paid 97% (Hunya, 2002). Although no data are available on the amount of corporate income tax paid by newly established FIEs in that country, it can be assumed that these companies paid an even smaller percentage of statutory taxes because of the structure of the Hungarian tax incentive scheme at the time. Hungary's total budgetary shortfall was HUF 85 billion (EUR 350 million), or 2.6% of the central government's budget revenues.

Although it can be argued that governments stimulate investment with corporate tax holidays and other incentives, the price paid is reduced fiscal revenues from lower corporate tax revenues. On the other hand, higher FDI inflows also result in a larger tax base. In 1999 FIEs in Hungary represented half of manufacturing output, but over 70% of profit. By virtue of this growth in profits, the budget deficit in

1999 was the same amount in nominal terms as it had been 1997 but accounted for only 3% of GDP (as opposed to 4%). FDI incentives in Hungary have helped with the rapid restructuring of manufacturing industry, increasing Hungary's international competitiveness, while such changes have taken place quite slowly in Croatia.

4.3. Impact of FDI on foreign trade

In this section we propose three different ways in which to analyse FDI's impact on foreign trade. First, we look at the overall relationship between FDI and foreign trade performance. Second, we analyse foreign trade data for FIEs, distinguishing between greenfield and M&A investments. Third, we look at FIEs' export performance in relation to structural change.

4.3.1. *FDI and foreign trade performance*

Croatia has attracted considerable FDI, but its foreign trade performance has remained weak. Vuksic (2005) analysed the reasons for this phenomenon in the period 1998-2002, when exports had by and large stagnated. He concluded that FDI had had a positive impact on Croatia's exports, but that this impact had been insufficient. Panel data for 21 NACE 2-digit manufacturing industries (1996-2002) show that FDI had significant positive effects on foreign trade performance, mainly through increasing productivity. Weak foreign trade performance was mainly associated with lack of modern technology in manufacturing, and thus with inadequate investment. Unit labour costs were also found to be too high, but this was not directly linked to the real exchange rate.[22] According to Vuksic, increasing productivity (and thus technological progress) is the key to improving foreign trade performance, as devaluation could have negative effects. Supporting increased productivity would require promotion of investment and FDI, policies which are still insufficient and inconsistent in Croatia.

Weak foreign trade performance has been confirmed by data for more recent years. In 2005 the value of goods exports was 24% of GDP and that of imports was 50%. Thus less than half of imports were covered by exports. For comparison, import coverage is even lower in Albania, Bosnia and Herzegovina, Montenegro and Serbia (Podkaminer, Gligorov, et al., 2006). Export performance is much stronger in the NMS. Import coverage is above 90% in Hungary and Slovenia, while the Czech Republic ran a trade surplus in 2005. Croatia's exports in 2005 were 32% higher than in 2002 in current euro terms; this growth was less than in Romania (52%), Bulgaria (56%) or Serbia (67%), but in line with export development in Slovenia and Hungary (Podkaminer, Gligorov, et al., 2006). This points to a lack of exportable products, as well as the lack of competitiveness of the Croatian manufacturing sector. The 25% current account deficit in goods is reduced by huge services sector surpluses (mainly tourism revenues) and other items, netting out to a current account deficit of 7.3% of GDP. This is a large deficit, bearing in mind that the ratio of public debt to GDP is 55% and that the ratio of total debt (88% foreign) to GDP is close to 100%. Expanding private sector credit in recent years has been a major stimulus to consumption, thereby increasing foreign debts and imports. The question is: why is more attention not given to an export-supportive economic policy? Vuksic quotes declarations of policy-makers on this subject, but reports little progress.

Looking at the relationship between FDI and exports in 2002-05 in a relatively simple way, a dynamic increase in FDI in the manufacturing sector failed to produce a satisfactory increase in exports. The manufacturing sector's FDI stock more than doubled during this period, from EUR 1.43 billion to 3.37 billion – at this rate of FDI increase, better than 32% export growth would have been expected!

Growth of imports has been stimulated by the expansion of consumer credit, which has created

22. For a different interpretation of the exchange rate problem and arguments supporting devaluation, see Vidovic and Gligorov (2006).

demand for consumer goods and helped wholesale and retail companies, both domestic and FIEs, to increase sales (mostly by relying on imports). At the same time, through the increasing activity of FIEs in trade, competition has increased, leading to lower prices, better quality and supply, and less shopping abroad. Therefore, it is not hunger for imports which should be blamed for a widening trade deficit, but lack of adequate domestic production and weak export-oriented FIEs.

The reasons that increased FDI stock has not produced greater export growth are partially statistical, but mainly structural. The growth of FDI stock is 20% ahead of cumulated inflows, due to standard international methodological differences between the two indicators. Structural characteristics of FDI explain even more of the low impact of FDI on exports: FDI entry modes, and the manufacturing industries targeted, demonstrate that FDI has not been the pro-export type. FDI in manufacturing is particularly significant in domestic market-oriented industries such as petroleum refining (23), non-metallic mineral products (26), and food and beverages (15). Domestic market-oriented industries' share of export sales is low (Table 17). Among those which are more export-oriented, with high export sales per sales, there has been some FDI in the manufacturing of electrical machinery (31), more in the chemical industry (24), but almost none in the production of transport equipment (34, 35) and office machinery (30), according to a ranking based on changes in stock between 2002 and 2005.

4.3.2. *Trade balance of greenfield and M&A FIEs*

To analyse the trade balance of FIEs by entry mode, we match customs statistics data managed by Croatia's Central Bureau of Statistics with the FINA database for identifying FIEs.[23] In the following analysis, the observed period is 1996-2004. Newly established (greenfield) companies are treated separately from FIEs established by takeover (M&A), mainly privatisation. Because of data confidentiality, shares (%) are used rather than figures.

Newly established FIEs' shares of total exports and imports are rather small, but they are growing over time. Their share in exports grew significantly, from a negligible 2% in 1996 to almost 12% in 2004. Their share in imports exceeded their share in exports over the whole period 1996-2004, growing from 5% to close to 17% (Table 14). Newly established FIEs were more import- than export-oriented, and were even more import-oriented than the economy as a whole (Croatia's total imports were more than twice its total exports). Looking at the development of the export and import shares of newly established FIEs over time, imports grew faster than exports until 1999 while exports were more dynamic in the last two years. In 2004 newly established FIEs were responsible for a USD 2 billion trade deficit, i.e. more than one-quarter of Croatia's total trade deficit.

The trade deficit of newly established FIEs was produced by companies in the services sector (USD 2.3 billion), above all retail and wholesale trade. The manufacturing sector was responsible for a trade surplus (USD 0.3 billion). This trade surplus of newly

Table 14. **Newly established FIEs' shares in total exports and imports (%)**

	1996	1997	1998	1999	2000	2001	2002	2003	2004
Exports	2.0	2.6	3.0	3.3	5.0	7.5	9.7	10.7	11.9
Imports	5.3	6.5	8.1	10.3	11.6	12.0	14.8	15.4	16.6

Source: Central Bureau of Statistics; FINA database; own calculation.

23. Customs statistics are different from the export sales statistics included in the FIE database.

established manufacturing FIEs is very modest and can hardly be expected to balance imports sucked into the country by other sectors.

In the case of FIEs established by M&A,[24] export and import development has followed the overall trend in Croatia, stagnating until 2000 and then gradually recovering. This pattern does not differ in manufacturing, as the majority of M&As have taken place in this sector. As a result, the shares of M&A FIEs in total exports and imports have not changed much over time: the share of exports was 15.7% in 1996 and 17.1% in 2004; that of imports was 10.0% in 1999 and 9.6% in 2004 (Table 15).

Table 15. **M&A FIEs' shares of total exports and imports, 1996-2004 (%)**

	1996	1997	1998	1999	2000	2001	2002	2003	2004
Exports	15.7	18.3	15.1	16.6	16.0	15.6	16.9	17.2	17.1
Imports	10.0	10.7	10.3	9.3	9.5	9.4	11.0	9.7	9.6

Source: : Central Bureau of Statistics; own calculation.

A group of 46 manufacturing M&A FIEs, which were taken over up until 1998, was selected. Their exports and imports were observed during a period of up to eight years after takeover, but not beyond 2004. Exports clearly exceeded imports for the whole period. There is no obvious trend of changes in import or export propensities following foreign takeover. This leads to the conclusion that, in Croatia, FDI through privatisation has had a more limited effect on the foreign trade pattern of acquired companies than it has in other Central European transition economies (Hunya, 2002).

4.3.3. *Export sales structure of FIEs*

Another way to investigate the performance of FIEs is to look at their share in export sales. The total amount of manufacturing companies' export sales in 2004 covered by the FINA database was EUR 4 590 million. Croatia's total exports, using customs figures, were EUR 6 600 billion. Thus we base our conclusions on a fairly large sample: 70% coverage.[25]

In 2004, according to the FINA database, FIEs provided 43.5% of manufacturing exports (Table 16). As FIEs accounted for only 33% of total manufacturing sales, the foreign sector made an over proportionate contribution to exports. There is also a difference between FIEs and domestically owned companies with respect to the main exporting industries. In Croatia these are the petroleum refining (23) and chemical industries (24), which together account for one-quarter of exports, followed by other transport equipment (35), mainly ship-building. Of these industries, only the petroleum refining industry was foreign-affiliated. It supplied 30% of FIE exports. Electrical machinery (31) and radio, television and communication equipment (32) represented somewhat more than 10% of total exports, but 20% of FIE exports. Finally, textiles, wearing apparel and leather (17, 18, 19) provided 12% of total exports but 17% of FIE exports. Total exports are spread broadly among product groups, while FIE exports are concentrated in a few export-oriented industries.

The export orientation of Croatian industry did not greatly change between 2000 and 2004, as the share of exports in sales increased only marginally

24. Enterprises taken over up until 1998, almost exclusively in the course of privatisation.

25. The FINA database records direct export sales by manufacturing companies, which is by definition less than the total export of goods from the country.

(from 28.6% to 30.5%) (Table 17). However, a redistribution of exports took place from the domestic sector to FIEs. The export propensity of the domestic sector declined from 30 to 24%, while that of the FIE sector increased from 34 to almost 38%. The decline of export orientation in the domestic sector and its increase in the foreign sector took place in some of the main export industries: textiles, wearing apparel, leather, electrical machinery and radio, television and communication equipment. As an exception, FIEs in the building materials sector (non-metallic mineral products, 26) turned more to the domestic market.

Among domestic-owned companies, only one export-oriented industry exports more than half its production: other transport equipment, mainly ship-building (35). In the FIE sector, 11 industries out of 23 produce goods predominantly for exports. These include the light industries textiles, wearing apparel, leather, wood and furniture, but also basic metals and many of the machinery industries.

Table 16. **Exports (total and FIEs) by economic activity, 2004 (HRK million and %)**

NACE codes	Exports Economic activities	Total HRK million	FIEs HRK million	FIEs/Total %	Distribution Total %	 FIEs %
E15	Food products, beverages	2 352	423	18.0	6.8	2.8
16	Tobacco products	810	8	1.0	2.4	0.1
17	Textiles	792	336	42.5	2.3	2.2
18	Wearing apparel	2 127	1 267	59.6	6.2	8.5
19	Leather, associated products	1 252	948	75.7	3.6	6.3
20	Wood, associated products	1 175	219	18.7	3.4	1.5
21	Pulp and paper, paper products	788	506	64.2	2.3	3.4
22	Publishing, printing, recording	271	95	34.9	0.8	0.6
23	Coke, refined petroleum products	4 596	4 539	98.8	13.4	30.3
24	Chemicals, chemical products	4 228	396	9.4	12.3	2.6
25	Rubber, plastic products	761	384	50.5	2.2	2.6
26	Other non-metallic mineral products	1 763	1 173	66.6	5.1	7.8
27	Basic metals	1 077	177	16.5	3.1	1.2
28	Fabricated metal products	1 478	220	14.9	4.3	1.5
29	Machinery, equipment	1 410	580	41.1	4.1	3.9
30	Office machinery, computers	33	1	3.5	0.1	0.0
31	Electrical machinery, apparatus	2 340	1 719	73.5	6.8	11.5
32	Radio, television, communication equipment and apparatus	1 357	1 264	93.1	3.9	8.4
33	Precision instruments, watches, clocks	42	0	0.0	0.1	0.0
34	Motor vehicles, trailers, semi-trailers	658	247	37.6	1.9	1.7
35	Other transport equipment	3 777	85	2.3	11.0	0.6
36	Other manufacturing	1 015	228	22.5	2.9	1.5
37	Recycling	317	160	50.6	0.9	1.1
D	*All manufacturing*	*34 420*	*14 977*	*43.5*	*100.0*	*100.0*

Source: Own calculation, based on FINA database.

Table 17. **Export propensity (export sales in sales) in domestic enterprises (DEs) and foreign investment enterprises (FIEs), 2000 and 2004 (%)**

NACE codes	Economic activities	2000 DEs	2000 FIEs	2004 DEs	2004 FIEs
15	Food products, beverages	9.3	4.3	9.3	11.3
16	Tobacco products	32.5	0.0	34.6	11.0
17	Textiles	42.6	69.2	36.6	82.6
18	Wearing apparel	49.0	72.3	38.1	96.2
19	Leather, associated products	47.2	31.7	39.2	98.3
20	Wood, associated products	37.9	78.9	35.0	78.4
21	Pulp and paper, paper products	17.8	45.8	21.6	48.8
22	Publishing, printing, recording	4.3	5.5	3.9	6.1
23	Coke, refined petroleum products	29.9	.	8.1	27.9
24	Chemicals, chemical products	52.5	31.8	45.6	33.3
25	Rubber, plastic products	16.3	16.0	17.5	43.4
26	Other non-metallic mineral products	18.2	44.3	14.2	33.0
27	Basic metals	45.7	67.6	40.3	77.9
28	Fabricated metal products	20.3	32.0	21.4	32.0
29	Machinery, equipment	27.5	68.6	24.1	68.7
30	Office machinery, computers	21.4	0.7	1.2	0.8
31	Electrical machinery, apparatus	39.7	43.7	23.9	47.2
32	Radio, television, communication equipment and apparatus	23.6	60.6	15.0	72.8
33	Precision instruments, watches, clocks	7.9	46.1	6.0	0.0
34	Motor vehicles, trailers, semi-trailers	36.7	80.8	41.0	70.0
35	Other transport equipment	75.3	82.3	55.4	55.2
36	Other manufacturing	33.4	80.0	28.0	69.4
37	Recycling	19.0	41.1	18.0	55.7
D	*All manufacturing*	*29.9*	*34.4*	*24.1*	*37.7*

Source: Own calculation, based on FINA database.

Looking at industrial specialisation in Croatia by technology levels (Table 18), we find little high-tech industry. The production and export of office machinery and computers (30), as well as of medical and other precision instruments (33), are under-represented in both the foreign and domestic sectors. These high-tech industries are almost completely domestic market-oriented. The only

Table 18. **Distribution of export sales by industries' technology levels: Croatia (2004), Slovenia (2001) and Bulgaria (2003) (%)**

	Croatia, 2004		Slovenia, 2001		Hungary, 2001		Bulgaria, 2003	
	Total	FIEs	Total	FIEs	Total	FIEs	Total	FIEs
High-tech	4.1	8.4	6.1	6.8	27.1	28.7	1.2	0.8
Medium high-tech	36.1	20.3	44.1	33.2	46.4	46.9	23.7	21.2
Medium low-tech	28.1	43.4	24.2	24.2	12.5	12.4	39.6	46.6
Low-tech	31.7	27.7	25.6	35.8	14.0	12.0	35.5	31.4

Source: Own calculation, based on FINA database.

high-tech industry in which Croatia is significant internationally is pharmaceuticals (part of NACE 24), in which Croatia has traditionally specialised. Croatia's medium high-tech industries (e.g. the automotive industry) are very weak.

Lack of most of the many medium high-tech and high-tech industries (which increasingly contribute to exports in other countries) hinders export growth. Croatia has a less modern industrial structure, in which technological progress is relatively slow. Although FDI penetration has increased over time, this has not resulted in the introduction of new industries and may not have stimulated enough technological upgrading in traditional industries.

Structural developments of exports in Croatia do not differ much from those in Slovenia or Bulgaria (Table 18). In these countries, too, FDI has not much changed the traditional production structure, although it has made penetrated industries more productive and more export-oriented. On the other hand, Hungary, the Czech Republic and Estonia, with their very high FDI inflows and greenfield manufacturing investments, have achieved rapid restructuring. In these countries there has been rapid upgrading of the production and export structure.[26]

We make further comparisons for three SEECs, Croatia, Slovenia and Bulgaria. Slovenia is a former Yugoslav republic with much higher per capita GDP than Croatia. Bulgaria is less developed, but more advanced in terms of EU accession. According to the latest available data (for 2001), the share of FIEs in Slovenian exports was 36.8%, less than Croatia's 43.5% in the same year. However, Bulgaria has a higher rate of foreign penetration than Croatia: 61.6% of exports were produced by FIEs in 2003, the year for which the latest data are available. One similarity between these countries is that they do not have large greenfield investments. Still, the export propensity of industry differs significantly between the three (Table 19). Croatia has the lowest share of exports in sales for both domestic enterprises (DEs) and FIEs. In Bulgaria the export propensity of DEs is slightly higher, and that of FIEs is much higher, than in Croatia. Slovenian industry on the whole (both DEs and FIEs) is much more export-oriented than Croatia's. As a common feature, in all three countries FIEs have a higher export propensity than do DEs. Foreign ownership favours exports, usually by improving access to foreign markets and providing a higher level of technology.

In regard to the export propensity of individual industries in the foreign sector, almost all of those in Slovenia export more than half of their production and can thus be regarded as export-oriented. The exceptions are food and beverages, tobacco products and wearing apparel. In Bulgaria the list of export-oriented industries in the foreign sector is shorter but very similar to that in Croatia. FIEs in both countries are mostly export-oriented, while DEs are domestic market-oriented even in the main export industries textiles, wearing apparel and leather, and in several machinery manufacturing industries. This comparison reveals that Croatia has more in common with the less developed country, Bulgaria, than with Slovenia.

4.3.4. *Conclusions concerning the impact of FDI on foreign trade in Croatia*

Relying on the analysis of FIEs' foreign trade performance, several conclusions can be drawn about the impact of FDI on exports:

- The foreign sector is more export-oriented than the domestic one. Its positive contribution to exports increases over time;
- FIEs are over-represented in the more export-oriented sectors;
- Under-represented industries in both the domestic and foreign sectors include high-tech industries and some medium high-tech ones (e.g. office machinery, precision medical instruments and automotive);
- There has been relatively low FDI penetration of Croatia's manufacturing sector. Thus FDI

26. For the impact of FDI in the NMS, see Damijan and Rojec (2004) and Hunya (2004).

Table 19. **Export propensity (export sales in sales) in Croatia, Slovenia and Bulgaria by economic activities (%)**

NACE codes	Economic activities	Croatia, 2004		Slovenia, 2001		Bulgaria, 2003	
		DEs	FIEs	DEs	FIEs	Des	FIEs
15	Food products, beverages	9.3	11.3	17.6	21.4	13.1	19.9
16	Tobacco products	34.6	11.0	.	35.2	7.7	16.8
17	Textiles	36.6	82.6	40.4	61.9	49.1	78.1
18	Wearing apparel	38.1	96.2	55.8	36.1	51.2	81.7
19	Leather, associated products	39.2	98.3	64.9	75.2	24.9	84.0
20	Wood, associated products	35.0	78.4	52.5	82.1	31.1	62.4
21	Pulp and paper, paper products	21.6	48.8	57.2	67.1	4.0	62.9
22	Publishing, printing, recording	3.9	6.1	10.1	51.4	2.0	1.6
23	Coke, refined petroleum products	8.1	27.9	71.7	.	.	.
24	Chemicals, chemical products	45.6	33.3	70.4	69.3	34.4	61.6
25	Rubber, plastic products	17.5	43.4	54.7	83.8	18.3	38.6
26	Other non-metallic mineral products	14.2	33.0	43.2	51.7	16.1	38.2
27	Basic metals	40.3	77.9	67.0	83.6	56.3	83.8
28	Fabricated metal products	21.4	32.0	52.2	72.1	12.2	50.9
29	Machinery, equipment	24.1	68.7	68.8	85.4	27.1	77.6
30	Office machinery, computers	1.2	0.8	8.4	89.8	.	.
31	Electrical machinery, apparatus	23.9	47.2	69.5	85.3	31.5	62.6
32	Radio, television, communication equipment and apparatus	15.0	72.8	50.9	71.9	20.5	15.6
33	Precision instruments, watches, clocks	6.0	0.0	61.8	92.3	13.9	14.8
34	Motor vehicles, trailers, semi-trailers	41.0	70.0	62.4	82.1	19.9	68.5
35	Other transport equipment	55.4	55.2	60.2	61.7	43.4	76.8
36	Other manufacturing	28.0	69.4	54.5	92.7	38.4	62.9
37	Recycling	18.0	55.7	29.4	.		
D	*All manufacturing*	*24.1*	*37.7*	*51.0*	*71.5*	*25.7*	*44.8*

Source: wiiw database on FIEs.

has not changed, but rather reinforced, the specialisation pattern of production and exports.

There may be several reasons for slow structural change and the lack of high-tech industries. Some of these are associated with FDI. Croatia seems to lack the development potential for such industries, which may be rooted in lack of skills, adequate education and R&D. While it appears that the skills exist to increase the technology level and exports in traditional industries (including light industries), such skills are not being developed in new companies.

If structural change, technological development and new skills are not created domestically, it may be possible to import them. As high-level technologies are usually kept within transnational corporations, the best way to attract these technologies is to interest companies in investing in Croatia. Structural upgrading is therefore linked to FDI or, more precisely, to new FDI in the high-tech and medium high-tech industries. A targeted promotion policy and support for domestic R&D and higher education would be appropriate policy tools to achieve this goal.

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Appendix 1

The Croatian FDI data compilation system

A1. Introduction

Data on direct investment in Croatia, and on outward FDI by Croatian companies, are compiled by the Statistics Department of the Croatian National Bank (CNB). The compilation system is primarily based on direct reporting by the entities involved in inward or outward direct investment. Data on FDI stock and flows are obtained through compulsory surveys especially designed for FDI data compilation. Up to 1997, FDI data were collected by several agencies (Ministry of Economy, Privatisation Fund, government agencies) but not for statistical purposes. Concerning the balance of payments (BOP), FDI items were compiled using International Transactions Recording System (ITRS) data and customs records. This approach had many flaws: it ignored equity investments in kind, debt/equity swaps, patents and reinvested earnings. Use of a limited code system also caused many errors in practice. In 1997 the CNB launched the first survey on foreign direct and portfolio investment, primarily for the purpose of BOP compilation. The survey was designed for quarterly reporting, based on IMF BPM-5 (1993) and the OECD Benchmark Definition of FDI (1996). Data on FDI flows in both directions – into Croatia and abroad – were collected. Transactions data, collected monthly, included all three FDI components: equity investment, reinvested earnings and other capital. In addition, together with the actual FDI survey, beginning in 1997, a one-time survey of historical data for 1993-96 was launched in 1997. It included only equity investment transactions (not reinvested earnings and other capital).

In subsequent years, the FDI compilation system has undergone many upgrades and methodology improvements. In 2001 the survey was expanded to cover FDI position data. In 2004 the fully consolidated system was applied, and in 2005 the FDI system also included unincorporated companies. Today's FDI statistics cover all FDI components for inward and outward FDI (for both stock and flows), including the applied fully consolidated system for unincorporated companies. To a very great extent, it is in line with all international standards and methodology requirements.

A2. Legal framework

As the agency responsible for the balance of payments and international investment position compilation, the CNB is authorised to obtain statistical data from the reporting entities. The legal basis for this is the Law on the Croatian National Bank and the Foreign Exchange Act.

Since the FDI compilation survey is compulsory, the CNB is entitled to request statements on FDI transactions and positions.

A3. Methodology

For incorporated enterprises, the basic criterion for defining a direct investment enterprise is 10% ownership of a Croatian entity by a non-resident investor, or by a resident investor in a non-resident entity abroad, regardless of whether the investor has an effective voice in management. The 10% ownership criterion is based on ownership by each individual investor or group of related investors, rather than being calculated through combining holdings in a specific enterprise by all investors from a specific country. No value threshold is used to identify direct investment enterprises.

Resident unincorporated enterprises (branches) owned by non-residents are always treated as resident direct investment enterprises, as they are completely owned. In fact, they are legally a part of their owner, and the owner is responsible for all their liabilities. The same treatment is applied in the case of residents' branches abroad.

Equity transactions

The data cover listed and unlisted voting stocks (shares), participating preference shares and non-cash acquisitions of equity. Both financial and non-financial institutions' equity transactions are included in the survey sample, including equity transactions between affiliated banks or other financial intermediaries. Provisions of capital equipment to unincorporated enterprises (branches) are also treated as equity capital.

Reinvested earnings

Data on reinvested earnings and undistributed branch profits cover both incorporated and unincorporated enterprises. They are recorded in the month when the decision on profit distribution is made. Net losses are recorded as negative reinvested earnings. Reinvested earnings are measured using the all-inclusive concept, rather than the current operating performance concept (COPC). In fact, while COPC is not fully applied, earnings are measured after deduction of provisions for depreciations and for income and corporation tax charged on those earnings, which is in accordance with COPC. However, contrary to COPC, earnings include realised or unrealised capital gains and losses; gains and losses arising from valuation changes such as inventory write-offs; write-offs of intangibles because of unusual events; write-offs of research and development expenditure; unrealised gains and losses from fixed assets; revaluation of investments and liabilities; exchange rate gains and losses; and gains and losses on plant and equipment due to closure of a business.

Cumulated reinvested earnings paid to owners are treated as capital withdrawal.

Other capital

Data include long-term and short-term loans, bonds and money market instruments, long-term trade credits and financial leases. Short-term trade credits are classified in the BOP under 'other investment'. The data also include non-participating preference shares, claims and liabilities for dividends, and other claims and liabilities between affiliated enterprises. They do not include debt transactions between affiliated banks or between other affiliated financial intermediaries, including deposits and all other claims and liabilities related to usual banking and financial intermediation activities. However, the data include 'permanent debt' (subordinated loan capital) between such institutions.

Regarding unincorporated enterprises, cross-border claims and liabilities between mother companies and their branches (unincorporated enterprises) – other than provisions of capital equipment – are treated as other capital. In other words, the net increase in funds received from a direct investor, apart from provisions of capital equipment, is treated as other capital. The net increase in funds is measured as the increase in the net worth of the enterprise, less increases due to revaluations and exchange rate movements.

Direct investment income

Data on dividends and distributed branch profits cover both incorporated and unincorporated enterprises. They are recorded gross, rather than net, of any withholding taxes, in the month they are declared payable rather than the month they are paid.

Data on debt cover both incorporated and unincorporated enterprises. They include interest on debt, included under 'other capital'.

A4. Compilation practices and data sources

Equity capital

The main source of data on direct investment equity capital is the quarterly survey. Data on flows

Appendix 1 - The Croatian FDI data compilation system

and stocks are obtained from selected resident entities with the highest FDI inward and outward stocks. A sample, selected annually, covers more than 97% of total equity stocks. The perpetual inventory method of deriving position data from transactions has never been used.

FDI equity inflows and outflows received or made by residents not included in the sample are recorded using a special form. Residents are obliged to report their equity investment to the CNB within 30 days of the transaction if one of the following conditions has been met: i) it is the initial equity investment; ii) the equity investment exceeds HRK 500 000 (around EUR 65 000). The purpose of the first criterion is to maintain a business register containing all resident entities with inward and outward FDI. The second criterion has been established to record equity investments made by residents not included in the sample, but at the same time excluding amounts which would produce a negligible effect for the total FDI statistics. Inward and outward stocks data for residents not included in the sample are collected annually through a special form designed for this purpose (annual report on foreign investment).

The business register is maintained and updated on an ongoing basis, using residents' reports on their flows and stocks. It is updated with information from an ITRS, the debt register, the financial press and the Central Depository Agency, but only for identification and cross-checking purposes. Those sources do not serve as data sources. The same business register is used to compile the inward direct investment transactions and position data, and the outward direct investment and position data.

Unincorporated enterprises' data are collected through a special form for cross-border transactions between mother companies and their branches. Stocks data are also collected. A special business register is maintained only for resident branches, and non-resident enterprises and resident enterprises with branches abroad.

Reinvested earnings

The main source of direct investment reinvested earnings is also the quarterly survey. The selected annual sample usually covers more than 98% of total reinvested earnings stocks. Although covered to a great extent by the quarterly sample, the reinvested earnings item is being further adjusted with annual reports on foreign investments or profit/loss accounts of the companies not included in the sample. After foreign ownership percentages and the profit distribution ratio from the sample have been applied, those amounts are included in the reinvested earnings item. There is no difference in treatment for unincorporated enterprises (branches). Their profit not remitted to the mother company is considered as reinvested earnings.

Other capital

Other capital flows and stocks are mostly compiled from the debt register, as most of the 'other capital' item consists of debt transactions between affiliated enterprises. The rest – non-participating preference shares, claims and liabilities for dividends, and other claims and liabilities between affiliated companies – is collected from the incorporated enterprise survey. Cross-border claims and liabilities between mother companies and their branches (unincorporated enterprise) are collected through the survey for branches.

Direct investment income

Equity-related income is collected through the quarterly survey. There is no difference in the compilation of reinvested earnings under FDI and the income item. Debt-related income is compiled from the debt register.

A5. Data collection method

Equity capital

Transactions are collected on a monthly basis. Individual transactions are aggregated by investor, investment month, type of investment (setting-up capital, additional equity capital, privatisation, other

acquisitions) and investment form (cash, tangible assets [provision of capital equipment], intangible assets [rights], debt-equity swap). Stocks are collected quarterly. Flows for cross-border claims and liabilities between mother companies and their branches (unincorporated enterprises) are collected on a monthly basis.

Reinvested earnings

Reinvested earnings are collected once a year, upon the decision on the annual profit distribution. If it is decided that the cumulated reinvested earnings are to be paid to the owners, the data are collected for the month in which the decision is made. Reinvested earnings stocks are collected quarterly.

Other capital

Flows data in the debt register are collected on an individual basis. Stocks are compiled quarterly. Flows for cross-border claims and liabilities between mother companies and their branches (unincorporated enterprises) are collected on a monthly basis.

Direct Investment Income

Data are collected on a monthly basis.

A6. Valuation of stocks and flows

Flows

Direct investment flows are valued at market value. If paid in cash, the actual amount is considered as the market value of the transaction. If investments are made in tangible or intangible assets and the market value is not available, assets' book value could be used instead. For debt-equity swaps, the market value is the actual value of debt converted into equity capital. For reinvested earnings, it is the part of the total consolidated profit/loss made by FIEs that is attributable to direct investors with respect to their share in ownership. The exchange rate used to convert inward flows to domestic currency is the midpoint exchange rate on the day of the transaction. The exchange rate used to convert monthly flows from domestic currency is the average midpoint for the actual month.

Stocks

Data on equity capital for listed enterprises are reported primarily at their market value. If the data reported by enterprises have not been reported at market prices, their book value from the initial period is used (2000), adjusted each quarter with the stock exchange index change. Data on equity capital for unlisted enterprises are reported at book value, that is, the values shown in the accounting records of the individual enterprises. However, those data include not only equity but also total capital value, including reserves and reinvested earnings. They are not adjusted using the stock exchange index. Data on other capital are recorded at book value. For unincorporated enterprises, stocks are valued as the net worth capital of an enterprise. This is measured as the book value of assets, excluding amounts due from the direct investor, less liabilities to third parties. The exchange rate used to convert stocks from foreign to domestic currency is the closing mid-point exchange rate on the day to which stock figures relate, i.e. the end-of-period exchange rate.

A7. Special issues

Fully consolidated system

The fully consolidated system (FCS) implies that direct investment statistics should cover all directly and indirectly owned enterprises. There are two principles for the application of the fully consolidated system:

- The 10% and 50% methodology (EU methodology);
- The 10% methodology (US methodology).

Croatia applies the EU methodology. Direct investment stocks should include directly as well as indirectly owned direct investment stocks. For that purpose enterprises should produce consolidated

Appendix 1 - The Croatian FDI data compilation system

accounts, taking into account their branches and subsidiaries. If they do not produce consolidated accounts, indirectly owned stocks should be identified separately and added to direct investment stocks. The FCS covers direct investment enterprises with at least 10% foreign ownership. It also covers enterprises in which FIEs hold at least 50%, plus enterprises in the next levels in which those from the previous level hold at least 50% ownership. Together, they form the group of companies as defined in FCS.

In Croatia the fully consolidated system is fully applied. In other words, direct investment earnings data include the relevant share of all indirectly owned investment enterprises. Furthermore, all cross-border debt transactions made directly between enterprises of the same group, as defined in the FCS, are included in other capital under the FDI. The same holds true for cross-border equity transactions made directly between enterprises of the same group as defined in the FCS – they are included in the equity capital under the FDI, regardless of the 10% rule. For stocks compilation purposes, enterprises are required to present their consolidated accounts.

In the specific case where a host country has a direct investment entity (DIE) which itself has a DIE in a third country, the host country should include both outward and inward earnings from direct investment. Similarly, the stock of direct investment of the host country should include the value of assets held in the third country which are indirectly attributable to the foreign direct investor.

Treatment of reverse investment

When the resident direct investment enterprise owns at least 10% of its non-resident direct investor, and has therefore established a direct investment relationship in its own right, equity transactions are recorded as 'Direct Investment Abroad, Equity Capital, Increase in Claims'. Loan transactions are recorded as 'Direct Investment Abroad, Other Capital, Claims'. When the resident direct investment enterprise owns less than 10% of its non-resident direct investor, equity transactions are recorded as 'Direct Investment in Croatia, Equity Capital, Increase in Claims on Direct Investors'. Loan transactions are recorded as 'Direct Investment in Croatia, Other Capital, Increase in Claims on Direct Investors'.

Treatment of quasi-corporations

Quasi-corporations arising from operations in Croatia by non-residents of i) construction enterprises and ii) mobile equipment such as ships, aircraft and drilling rigs, have not occurred to date.

Treatment of offshore enterprises

Activities of off-shore enterprises established in Croatia by non-residents are included in the direct investment data.

Treatment of Special Purpose Entities (SPEs)

Special Purpose Entities are treated in the same way as any other incorporated or unincorporated enterprise.

Treatment of land and buildings

Equity capital data include some purchases and sales of land and buildings in Croatia by non-resident enterprises, namely those made by a non-resident enterprise through an existing resident-affiliated enterprise. The equity capital data do not include direct purchases and sales of land and buildings in Croatia by non-resident enterprises, or purchases and sales of land and buildings in Croatia by non-resident individuals, as these transactions cannot be identified from the present data sources. However, it is expected that these transactions will be identifiable in the future. Land and buildings purchased in Croatia by non-residents on long-term leases are not included.

Reclassifications

When a portfolio investor acquires further shares and that purchase brings a direct investor status, only this additional purchase of shares should be treated as direct investment flow. The previous holdings of shares are never shown in the BOP as portfolio disinvestment and direct investment. Regarding the international investment position, previous share holdings are adjusted out

of portfolio investment and into direct investment under other adjustments, as the total figure is treated as the direct investment stock.

A8. Data dissemination

Balance of payments data, including FDI, are first released at the IMF site according to the SDDS[26] three months after the end of the reference period. Thereafter, the FDI data are disseminated on the CNB website,[27] including annual data broken down by components, country of origin and industrial breakdown data. The data are preliminary when first released. Quarterly data for the current year are revised each quarter to take account of revisions to the sample survey and are disseminated quarterly, together with the preliminary data for the last quarter. FDI stocks data are disseminated quarterly and separately for i) equity capital and reinvested earnings and ii) other capital.

For geographic classification, the immediate host/investing country principle is used rather than the principle of ultimate host/investing country. The immediate host/investing country principle seeks to identify only the country directly owning the domestic enterprises (for inward FDI) or the country of the directly owned direct investment enterprise (for outward FDI).

A9. Debtor/creditor principle?

Industry classification is available only for equity investment and reinvested earnings. The classification used is the 4-digit NACE (General Nomenclature for Economic Activities) codes, which broadly corresponds to the UN international Standard Industrial Classification (ISIC) codes. Data are classified on the basis of the industrial activity of the resident for both inward and outward FDI.

Classification as regards modes of investment for inward FDI is also possible – but only for equity capital and reinvested earnings. The data could be classified into the following groups:

a) Newly established companies, setting up equity capital;
b) Newly established companies, new investments into equity capital;
c) Privatisation-related acquisitions;
d) Other acquisitions;
e) New investments in acquired companies;
f) Reinvested earnings.

Groups c and d represent acquisitions, whereas the other groups may be classified as new investment consisting of greenfield investment (a and b), new investment in existing companies (e) and reinvested earnings.

A10. Conclusions

The Croatian FDI compilation system largely follows international standards. There are still a few exceptions, but the methodology should soon be changed to comply with these standards. Most differences are related to compilation of the reinvested earnings: these are still recorded in the month when the profit distribution decision is taken, rather than in the period when they are earned. In addition, the principle applied for their calculation is all-inclusive rather than using the internationally recommended current operating performance concept (COPC). Moreover, contrary to international standards, equity capital data do not include purchases or sales of land and buildings in Croatia made directly by non-resident enterprises, or purchases or sales of land and buildings in Croatia by non-resident individuals, as these transactions cannot be identified from present data sources. In the future, it is expected that it will be possible to identify these transactions.

27. Special Data Dissemination Standard, http://dsbb.imf.org/Applications/web/sddshome/

28. www.hnb.hr

Appendix 2

Tables and Graphs

Table A1. **EOECD classification of manufacturing industries, based on technology**

Activities	NACE Rev. 1
High-tech industries	
Aircraft and spacecraft	35.3
Pharmaceuticals	24.4
Office, accounting and computing machinery	30
Radio, television and communication equipment	32
Medical, precision and optical instruments	33
Medium high-tech industries	
Electrical machinery and apparatus	31
Motor vehicles, trailers and semi-trailers	34
Chemicals, excluding pharmaceuticals	24 (excl. 24.4)
Railroad equipment and transport equipment	35.2+35.4
Machinery and equipment	29
Medium low-tech industries	
Coke, refined petroleum products and nuclear fuel	23
Rubber and plastic products	25
Other non-metallic mineral products	26
Building and repairing of ships and boats	35.1
Basic metals	27
Fabricated metal products, except machinery and equipment	28
Low-tech industries	
Manufacturing and recycling	36+37
Wood, pulp, paper, paper products, printing and publishing	20+21+22
Food products, beverages and tobacco	15+16
Textiles, textile products, leather and footwear	17+18+19

Note: Using NACE Rev. 1 Descriptions of Economic Activities. As data are only available at the 2-digit level, the entire activity groups 24 and 35 have been included in the medium high-tech sector. See also Table 18.

Table A2. **Comparison of the FIE and the domestic sectors, FIE/DE (%)**

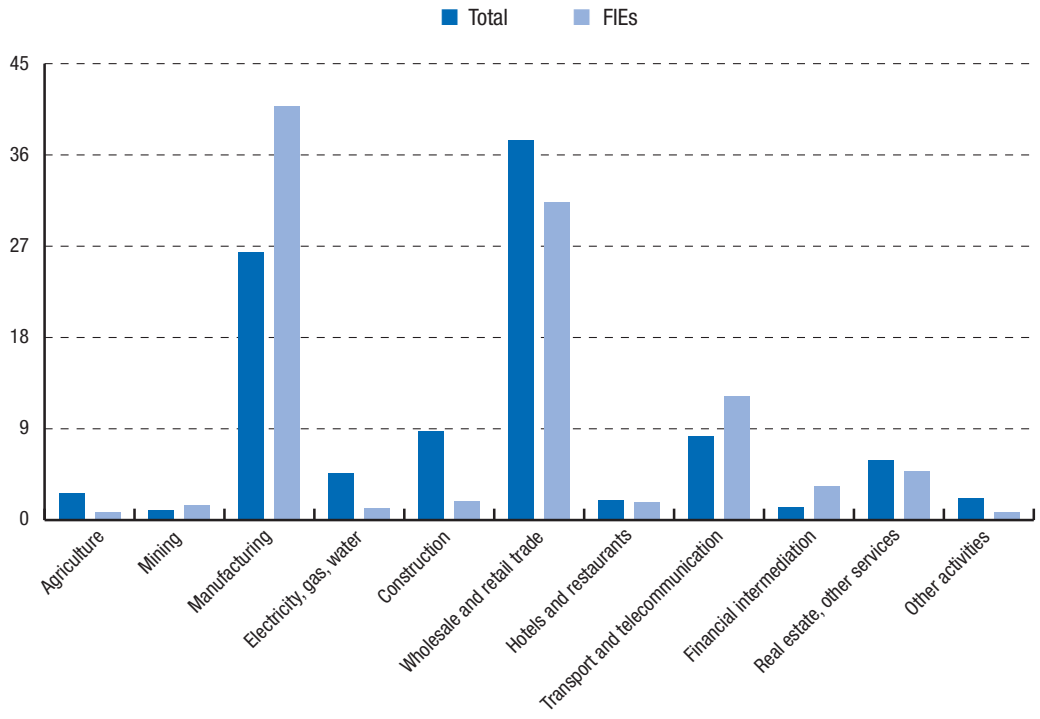
NACE codes	Industries	Nominal capital/ employee		Sales/ employee		Assets/ employee		Annual wages/ employee		Export sales/ employee	
		1998	2004	1998	2004	1998	2004	1998	2004	1998	2004
15	Food products, beverages	242	226	172	139	162	146	166	135	172	170
16	Tobacco	90	0	95	27	67	104	276	143	.	8
17	Textiles	170	157	170	166	139	143	127	92	.	374
18	Wearing apparel	92	189	139	519	93	144	109	115	241	1309
19	Leather, associated products	51	29	621	614	37	86	237	117	.	1542
20	Wood, associated products	139	98	128	104	108	89	109	118	305	234
21	Paper and paper, paper products	156	167	124	140	118	149	121	122	55	316
22	Publishing, printing, recording	63	154	128	228	109	147	113	148	6	359
23	Coke, refined petroleum products	.	147	.	.	.	.	.	114	.	607
24	Chemicals, chemical products	160	36	145	90	142	43	150	91	104	66
25	Rubber, plastic	85	128	372	188	157	180	138	145	456	467
26	Other non-metallic mineral products	230	297	132	178	221	223	138	148	254	413
27	Basic metals	94	56	238	101	103	69	116	152	34	195
28	Fabricated metal products	84	178	172	158	129	152	116	119	640	237
29	Machinery, equipment	19	103	182	119	66	82	193	139	485	340
30	Office machinery, computers	55	96	283	53	.	87	504	147	.	36
31	Electrical machinery, apparatus	57	60	168	183	64	72	130	147	246	361
32	Radio, television, communication equipment and apparatus	202	257	171	110	114	140	164	162	1259	533
33	Precision instruments, watches and clocks	17	12	32	124	39	41	83	119	.	.
34	Motor vehicles, trailers, semi-trailers	74	181	187	157	119	127	132	165	235	269
35	Other transport equipment	.	19	.	127	0	79	.	126	.	126
36	Other manufacturing	73	116	102	92	98	107	123	104	228	228
37	Recycling	39	297	315	215	206	196	120	119	983	664
D	*All manufacturing*	*155*	*177*	*176*	*216*	*128*	*150*	*146*	*141*	*240*	*338*

Source: Own calculation, based on FINA database.

Appendix 2 - Tables and Graphs

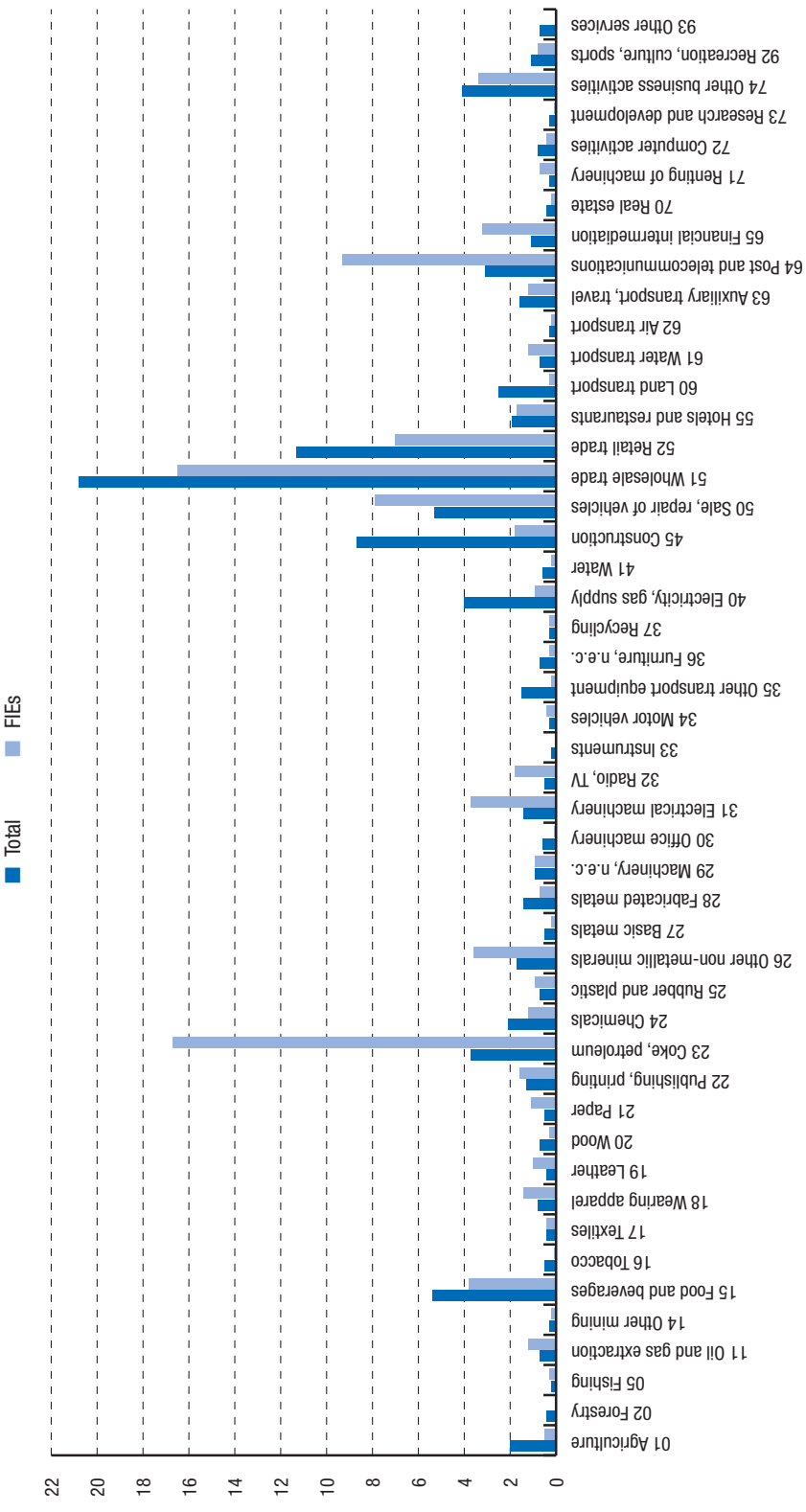
Figure A1. **Distribution of sales by main activities (%)**

Total economy and all FIEs = 100



Source: CNB.

Figure A2. **Share of sales by economic activities, 2004 (%)**
Total economy sales = 100 and FIEs total sales = 100



Appendix 2 - Tables and Graphs

Figure A3. **FIE sales by economic activities, 1998 and 2004 (%)**

Total FIE sales = 100

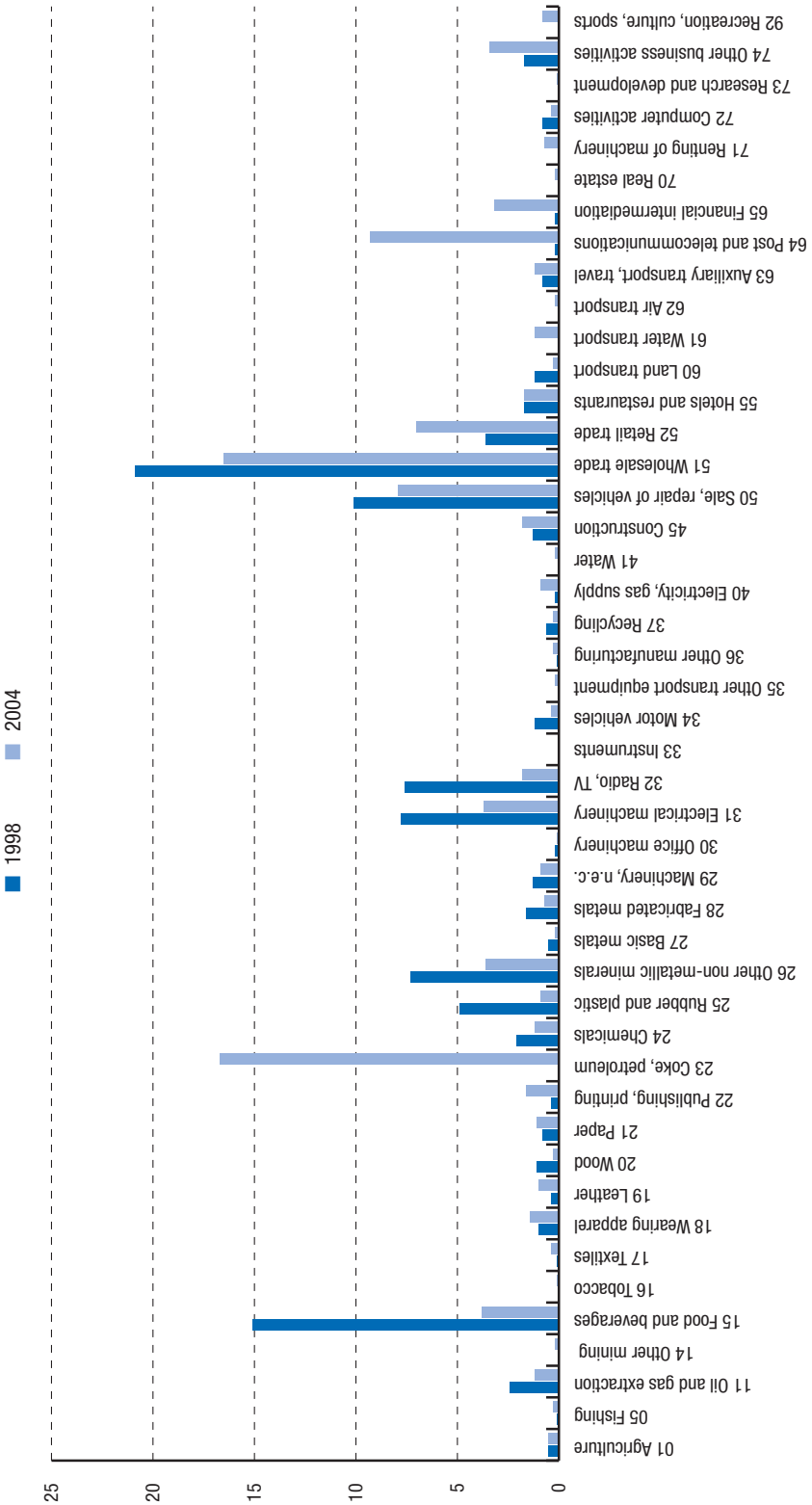


Figure A4. **FIEs' share of sales by economic activity, 1998 and 2004 (%)**

Total sales = 100

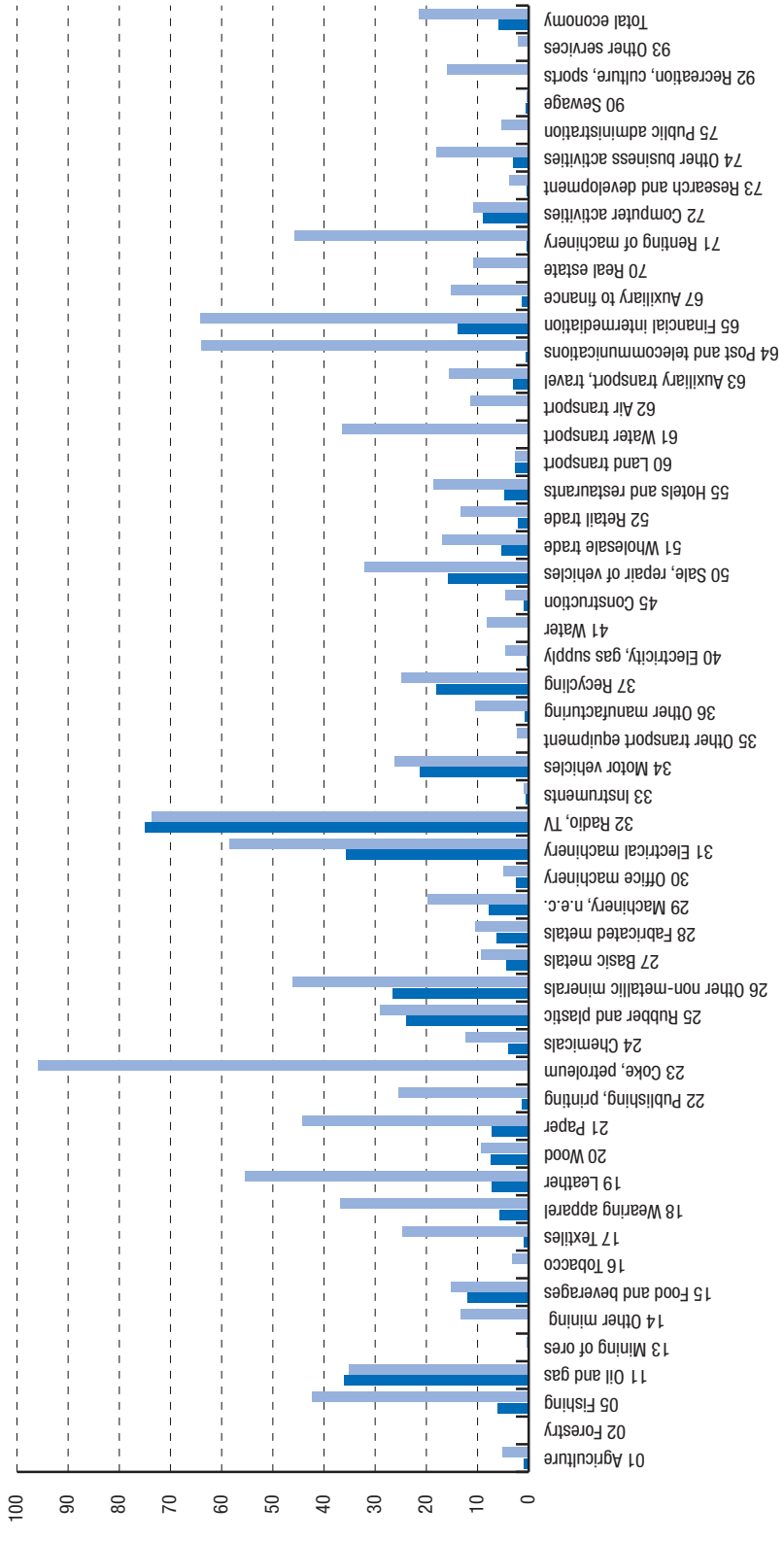


Table A3. **Employment change, 1996-2004 (%) and FIEs' share of employment in each economic activity, 2004 (%)**

NACE codes	Activities	Employment change, 1996-2004 (%)	FIE share of employment, 2004 (%)
15	Food products, beverages	-2.8	11.42
16	Tobacco products	-49.4	11.10
17	Textiles	-49.2	16.47
18	Wearing apparel	-27.6	10.11
19	Leather, associated products	-59.6	16.80
20	Wood, associated products	-4.9	8.96
21	Pulp and paper, paper products	-18.9	36.16
22	Publishing, printing, recording	-5.4	13.02
23	Coke, refined petroleum products	-35.4	92.93
24	Chemicals, chemical products	-40.2	13.62
25	Rubber, plastic products	-20.8	17.90
26	Other non-metallic mineral products	-5.5	32.52
27	Basic metals	-36.2	9.19
28	Fabricated metal products	7.0	6.87
29	Machinery, equipment	-21.7	17.06
30	Office machinery, computers	13.4	9.14
31	Electrical machinery, apparatus	-18.3	43.42
32	Radio, television, communication equipment and apparatus	-5.9	71.84
33	Precision instruments, watches, clocks	-12.0	0.76
34	Motor vehicles, trailers, semi-trailers	-0.9	18.32
35	Other transport equipment	16.2	1.79
36	Other manufacturing	-19.8	11.31
37	Recycling	16.8	13.34
40	Electricity, gas, steam and hot water supply	1.4	1.26
41	Collection, purification and distribution of water	20.9	0.35
45	Construction	20.8	1.08
50	Sale, maintenance and repair of motor vehicles	66.2	8.01
51	Wholesale trade, except of motor vehicles	43.4	9.81
52	Retail trade, except of motor vehicles	12.4	10.07
55	Hotels and restaurants	-1.2	13.94
60	Land transport, transport via pipelines	-17.8	2.11
61	Water transport	-25.1	8.66
62	Air transport	83.2	6.57
63	Supporting and auxiliary transport activities	4.8	10.60
64	Post and telecommunications	2.7	41.33
65	Financial intermediation	2.5	5.94
66	Insurance and pension funding	25.4	0
67	Activities auxiliary to financial intermediation	87.5	6.65
70	Real estate, business activities	136.0	3.53
71	Renting of machinery and equipment	150.0	21.91
72	Computer and related activities	66.2	5.49
73	Research and development	4.1	2.86
74	Other business activities	51.1	6.49
75	Public administration and defence	928.2	2.24
80	Education	82.4	0.03
85	Health and social work	120.7	0
90	Sewage and refuse disposal, sanitation	26.0	0.19
91	Activities of membership organisations	142.5	0
92	Recreational, cultural and sporting activities	93.3	12.35
93	Other service activities	25.7	0.66

Source: Own calculation, based on FINA database.

Table A4. **Change in number of employees and type of change (total economy and FIEs), 1996-2000 and 2000-04**

NACE codes	1996-2000 Total	1996-2000 FIEs	1996-2000 Type	2000-04 Total	2000-04 FIEs	2000-04 Type
01-14	-1 903	39	II	697	82	IV
15	-3 338	521	II	547	378	IV
16	-916	-76	I	-225	26	II
17	-5 107	102	II	-1 767	1 219	II
18	-3 403	80	II	-3 979	1 263	II
19	-8 732	-276	I	-2 191	429	II
20	-111	310	II	438	186	IV
21	-1 315	-598	I	175	83	IV
22	-2 068	159	II	1 003	468	IV
23	-3 441	-3 446	I	-2 499	-3 467	I
24	-4 713	-356	I	-2 519	-184	I
25	-524	317	II	-1 545	3	II
26	-2 337	-1 307	I	1 247	228	IV
27	-4 789	-69	I	1 195	273	IV
28	-3 036	88	II	2 913	175	IV
29	-3 107	-242	I	882	697	IV
30	2 139	2 216	IV	-736	-2 313	I
21	-2 551	-574	I	49	125	IV
32	-1 342	-1 430	I	1 116	1 240	IV
23	-440	-81	I	157	11	IV
34	-1 016	-12	I	943	153	IV
25	-71	-55	I	1 605	17	IV
36	-2 183	463	II	-627	-107	I
27	-170	18	II	307	77	IV
40	1 079	13	IV	-858	27	II
41	1 249	2	IV	218	33	IV
45	-3 422	591	II	18 481	-281	III
50	1 397	488	IV	4 038	480	IV
51	18 732	2 103	IV	13 852	4 820	IV
52	-2 375	1 420	II	13 638	5 009	IV
55	-4 527	965	II	3 559	536	IV
60	-4 797	21	II	-2 179	71	II
61	-712	-96	I	-114	-59	I
62	227	4	IV	235	81	IV
63	-948	-281	I	1 654	617	IV
64	3 030	1 888	IV	-2 618	-1 745	I
65	-807	59	II	1 373	305	IV
66	-4 995	2	II	6 259	1	IV
67	486	38	IV	243	55	IV
70	765	23	IV	-809	96	II
71	273	47	IV	642	247	IV
72	822	107	IV	1 376	60	IV
73	-144	60	II	895	21	IV
74	5 509	780	IV	10 854	2 013	IV
75	-21	3	II	324	9	IV
80-95	5 367	352	IV	7 864	1 204	IV
Total	**-38 286**	**4 380**	**II**	**76 014**	**14 377**	**IV**

Note: For types of employment change, see section 4.1.2

Source: Own calculation, based on FINA database.

Table A5. **Number of jobs created by newly established FIEs, 1996-2004, and share of total employment, 2004 (%)**

NACE codes	Activities	Number of new employees, 1996-2004	Share of total employment in these activities, 2004 (%)
01-14	Agriculture, fishing, mining, extraction	2 592	11.0
15	Food products, beverages	- 70	1.6
16	Tobacco products	- 1	-
17	Textiles	979	13.8
18	Wearing apparel	605	4.4
19	Leather, associated products	870	13.4
20	Wood, associated products	316	5.3
21	Pulp and paper, paper products	64	2.6
22	Publishing, printing, recording	504	5.6
23	Coke, refined petroleum products	20	0.2
24	Chemicals, chemical products	88	0.8
25	Rubber, plastic products	402	9.0
26	Non-metallic mineral products	406	5.6
27	Basic metals	36	12.2
28	Fabricated metal products	409	3.4
29	Machinery, equipment	833	7.3
30	Office machinery, computers	34	2.3
31	Electrical machinery, apparatus	991	9.0
32	Radio, television, communication equipment and apparatus	41	2.9
33	Precision instruments, watches, clocks	-28	0.5
34	Motor vehicles, trailers, semi-trailers	138	18.2
35	Other transport equipment	93	0.5
36	Other manufacturing	406	4.3
37	Recycling	24	5.4
40	Electricity, gas, steam and hot water supply	4	0.0
41	Collection, purification and distribution of water	6	0.1
45	Construction	1 007	2.1
50	Sale, maintenance and repair of motor vehicles	992	7.8
51	Wholesale trade and commission trade	7 159	9.2
52	Retail trade, except of motor vehicles and motorcycles	6 825	12.0
55	Hotels and restaurants	707	2.9
60	Land transport, transport via pipelines	16	0.3
61	Water transport	4	0.1
62	Air transport	82	6.7
63	Supporting and auxiliary transport activities	760	6.3
64	Post and telecommunications	1 169	5.6
65	Financial intermediation	2 944	16.9
66	Insurance and pension funding	2 031	32.4
67	Activities auxiliary to financial intermediation	48	3.5
70	Real estate, business activities	80	2.4
71	Renting of machinery and equipment	91	10.2
72	Computer and related activities	175	3.6
73	Research and development	81	2.9
74	Other business activities	1 471	3.5
75	Public administration and defence	9	2.2
80	Education	1	0.0
85	Health and social work	12	0.2
90	Sewage and refuse disposal, sanitation	852	12.8
91	Activities of membership organisations	24	13.6
	Total	**36 302**	**5.8**

Source: FINA database.

List of Contacts

Investment Compact for South East Europe

Country Economic Teams

Albania

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