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Impact of Foreign Direct Investment on the Restructuring and Growth in Manufacturing

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Abstract

Nation-wide firm-level data are used for the regression and cross-sectional statistical analysis of foreign direct investment in manufacturing on 2digit and 3digit industries. Dynamics of foreign investment enterprises (FIEs) are computed for the period 1993-1996. The performance of FIEs is compared with the domestic enterprises. Related policy issues are discussed.

Although the share of foreign investment enterprises on the total manufacturing output doubled during the period 1993-96, with 23 % remains relatively low in comparison with Hungary where the respective share on output reached 61 % as by 1996. Foreign penetration via equity ownership is low in the industries with excess capacities and need for extensive restructuring such as steel industry or large machinery, chemicals, coke and refinery. Allocation pattern of FIEs differs from domestic enterprises. Foreign investment is more specialised and concentrated than domestic enterprises.

In all indicators and on average foreign firms outperform domestic enterprises. Foreign enterprises have on average twice as high productivity and by third higher export per sales ratio, invest five times more per employee than domestic enterprises and are more profitable. Although foreign investors tend to flow to firms of initial above average productivity and profitability they have been identified as important micro-foundation of the restructuring and growth in manufacturing. In addition foreign enterprises created 92 % of the total gross profit in manufacturing in 1996.

The criterion for investors' decisions is complex and incentives are one of the components. *Ceteris paribus*, incentives for foreign direct investors can drive an investor's decision if investment attractiveness given by macroeconomic and political stability is reaching certain parameters. Despite our analysis has shown that foreign direct investment is an important factor fortifying the restructuring and growth of the transitional economy, in attracting foreign investors, we would recommend to remove the disincentives that deter foreign investors rather than create special incentives for foreign investors

Key words: investment, foreign direct investment, foreign investment enterprises, manufacturing, investment incentives

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1. Introduction

More than 40 years of the communist rule left manufacturing industries in Central and East European Countries (CEECs) with an obsolete technology and need for modernization investment. Productivity comparison done during first years of transition revealed the gap between the Czech Republic manufacturing industries performance relative to developed market economies (see Hitchens, et al., 1995). The gap in the productivity can be closed only with massive investment into the new technology and human capital. In addition, central planning distorted the structure of the manufacturing that diverted significantly from the one, which would evolve under the free market and open economy. One of the possible sources which is expected to assist the economic restructuring and growth of the economies in CEECs and speed-up the process of transformation of the whole industries are foreign direct investment (FDI).

However, the involvement of foreign capital into the developing or transitional economy is not without controversy. Traditional trade theory analyses FDI as the import of capital, the modern theory of industrial organization assumes that foreign investment enterprises possess a monopoly position thanks to the ownership of a certain asset (technology, managerial skills, access to the credit) which allows for a monopoly behaviour (see Caves, 1996; Dunning, 1993). Therefore foreign firms might have different characteristics from the domestic firms and FDI are expected to have additional effects than the mere import of capital.

Although it is generally accepted in the economic literature that FDI promote economic development by helping to improve productivity growth and exports in the multinationalists' host countries, the actual effects of FDI might be positive as well as negative (compare Blomstrom, Kokko, 1997). In transitional economies negative effects are potentially more probable as the domestic firms are often weak and managerially as well as technologically backward. In addition protection mechanisms are not as sophisticated as is the case of developed countries.

On one hand there exist arguments in favour of benefits of foreign direct investment on the economy. As McDougal stated, the benefits from FDI "come through higher tax revenue from foreign profits ... through economies of scale and external economies generally, especially where (domestic) firms acquire know-how or are forced by foreign competition to adopt more efficient methods" (McDougal, 1960, p.34). A set of empirical studies shows that influx of foreign direct investment contributes to better technological endowments of enterprises, integrates the domestic economy with the world markets, provide R&D and help to establish the world quality standards. Thanks to spillovers associated with foreign investment firm presence in an industry, FDI can contribute to the modernization of the whole

industries (see for instance Blomstrom, Kokko, 1997 for an overview). Further thanks to their export activity, foreign enterprises contribute to the trade balance positively. For such a small open economy as is the case of the Czech Republic, integration of the domestic economy with the world markets is vital for survival in competition.

On the other hand there exist also arguments against foreign investors' entry to domestic markets. The criticism is presented mainly in the media showing the particular cases but it can be traced also in the professional literature (see Dunning, 1993). There are cases when an investor/enterprise can harm the welfare and in the long-term build a barrier to the growth of the economy. There exist attempts to allocate productions and manufacturing of environmentally damaging products in the less developed countries, using second hand technology and machinery that are prohibited in developed countries. Soft environmental norms or insufficient consumer protection and their loose enforcement in less developed economies can allow foreign investors to produce with lower cost than in the developed world. Another example of undesirable investor's activity is the effort to acquire monopoly position via market protection. As many markets in the centrally planned economies have been heavily monopolised, there exist a threat of maintenance or strengthening of the monopoly positions of new private owners. For an investor it is more attractive to buy a monopoly - a major share on the market - than to buy an enterprise in very competitive environment. Abusing of market power can bring welfare losses.

In case of high taxes, firms may try to manipulate profits by transfer pricing or within firm's accounting. As for the relation of foreign direct investment and foreign trade, foreign firms might be also intensive importers of technology (during first years of operation), or of the parts which are assembled and sold on domestic market and thus contributing negatively to the trade balance. Besides economic arguments ideological, emotional, moral, political or cultural reasons for curbing foreign penetration can be heard which however are left out in this paper.

There are different foreign investment enterprises (FIEs) as they are different domestic enterprises (DEs) with different consequences for the industry and economy in which they operate. Similar to domestic enterprises, there exist foreign investors who invest large amounts into the new technologies and train labour, create new jobs and pay taxes to the state budget having positive impact on the growth. There are also examples of foreign acquisitions and investment, which are not successful, did not invest into the technology and did not acquire new markets or failed.

The amount and kind of FDI in each country is influenced by the macro and micro economic policies, by existing institutional framework, legislation and their enforcement. In case of transitional economies, privatization programme and

privatization decisions are directly related to the amount and structure of foreign investment. For the purpose of formulation of the economic policy towards foreign investment, it is useful to prove position, dynamics and performance of foreign enterprises in their sum. However in depth statistical analysis of the cumulative impact of foreign investors on the Czech manufacturing industries is still relatively scarce (see Kubišta, 1995; Benáček, Zemplerová, 1997).

It would be dangerous to draw policy implication based on the particular cases. There are both successful stories as well as less successful cases as described in the literature (see Sereghyová, 1995, Charap, Zemplerová, 1993). Sample surveys which are often being used for the evaluation of the foreign direct investors do not provide full information (see Djankov, Hoekman, 1998; Pomery, 1997), however, can serve a good supplement of the general statistics providing information which is missing in the official statistical records. In order to formulate reasonable economic policy, it is useful to analyse the incentive structure of foreign investment. Often there exist imperfection in markets for goods or factors created by the governments regulation and interference, which separates markets (see Kindleberger, 1969). Therefore it is important to analyse the government incentives for adoption certain policies, too.

It is the aim of this paper is to analyse the role of foreign enterprises in restructuring of manufacturing industries in the Czech Republic. In the first part of this study a statistical analysis is carried out, the second part is devoted to the policy towards FDI. Manufacturing as a whole and by 2 digit and 3digit NACE industries are analysed, time series illustrating the development of FDI are presented for the period 1993-1996. The performance of foreign investment firms is tested on the basis of comparison with the domestic enterprises. In the second part of this study FDI incentives and disincentives, the general approach of the government towards FDI is described and discussed.

2. Statistical Analysis

Individual data on enterprises from the balance sheets and financial statements of enterprises recorded by the Czech Statistical Office are used for our analysis. This data are most complex source of information on foreign investors as for the enterprise representation and time series. Main variables used for our analysis are ownership of enterprises, number of enterprises, employment, output, profit, own capital, fixed capital, assets, salaries, value added, investment.¹⁾ In order to generate comparable information on FIEs structure, position and dynamics in the

¹⁾ From these basic indicators labor productivity, profitability (defined in terms of the difference between labour costs and value added) or other average indicators respectively are computed.

manufacturing for the period 1993-1996, data sets for particular years had to be adapted. Complex information had been gathered only for enterprises with 100 and more employees.

In our analysis we take advantage of the possibility to identify the ownership of firms and thus to divide all firms into two large groups: foreign and domestic. Czech Statistical Office distinguishes following ownership forms: private, cooperative, state, foreign (100 %), international (any 1-99 % of foreign ownership), mixed (state and private), others (communal, political organizations and associations or not-identified.²⁾ In our previous research we analyzed separately fully and partially foreign owned firms (see Benáček, Zemplerová, 1996), however, there were no major differences in the performance and allocation patterns. Therefore in our recent analysis we merged both groups of foreign firms (fully and partially owned) into one group "foreign investment enterprises" (in tables marked with abbreviation FIEs) and we use this definition throughout the analysis. The rest of enterprises are aggregated into second group "domestic enterprise" (DEs).

2.1 Development 1993-1996

The following part of the analysis is devoted to developments during the period 1993-1996 and includes 1715 enterprises of which 89 FIEs in 1993, 2032 enterprises of which 133 FIEs in 1994, 2288 enterprises of which 216 FIEs in 1995 and 2263 manufacturing enterprises of which 284 have been fully or partially owned by foreigners in 1996. While the total number of manufacturing enterprises with 100 and more employees has decreased between 1995-1996, number of foreign enterprise continued to grow.

During the analysed period, between 1993-1996, total manufacturing employment (in both domestic as well foreign enterprises) declined by 10 %, Deepest decline of employment experienced coke and petroleum (65 %), leather products (34 %), machinery and equipment (23 %) and wooden products (22 %). On the other hand employment increased in rubber and plastics, chemicals, printing, publishing and electrical machinery (10-16 %). Except for chemicals , the industries in which employment increased during the period 1993-96, are the ones in which foreign enterprises have a strong position. (see Table 1).

²⁾ See regulation of the Czech Statistical Office, No. 8, April 1993.

Table 1

Shares of Foreign Enterprises on Selected Indicators by Manufacturing Industries (1996)

	Output	Labour force	Investment outlays	Value added	Own Capital
FOODPRODUCTS AND TOBACCO	24.70	17.32	35.25	30.87	29.65
TEXTILES	9.23	8.78	14.48	9.37	4.91
WEARING APPAREL, DRESSING	5.46	5.90	4.53	5.28	3.82
TANNING AND DRESSING OF LEATHER	3.90	3.07	2.58	4.39	1.23
WOOD	11.46	8.70	11.95	14.18	6.10
PAPER AND PAPER PRODUCTS	16.88	11.14	9.43	18.61	9.94
PUBLISHING, PRINTING	29.04	19.13	24.72	24.64	21.57
COKE AND PETROLEUM	0.00	0.00	0.00	0.00	0.00
CHEMICALS	11.30	8.64	16.26	19.72	14.55
RUBBER AND PLASTIC	43.79	31.06	54.48	44.41	41.64
OTHER NON-METALLIC MINERALS	45.64	23.08	55.57	43.56	54.08
BASIC METALS	3.10	1.62	2.97	3.37	1.99
FABRICATED METALS	26.48	11.85	27.27	17.39	19.43
MACHINERY AND EQUIPMENT	8.06	6.23	12.02	7.74	5.89
OFFICE MACHINERY	9.25	19.71	22.68	16.90	1.52
ELECTRICAL MACHINERY AND APP.	32.02	24.20	47.75	26.30	27.48
RADIO, TV SETS	35.87	20.18	64.68	38.54	20.83
MEDICAL,PRECISION,OPTICAL INSTR.	21.61	18.08	50.72	18.04	12.03
MOTOR VEHICLES, TRAILERS	66.93	39.89	80.23	55.78	64.27
OTHER TRANSPORT EQUIPMENT	1.89	2.31	0.95	1.61	0.13
OTHER MANUFACT, (FURNITURE ETC.)	26.50	8.84	15.21	12.25	5.14
RECYCLING	36.83	25.37	25.49	38.35	29.41
TOTAL MANUFACTURING	22.61	13.11	33.51	21.67	21.46

Source: Enterprise data from the Czech Statistical Office, own computations, enterprises with 100 and more employees.

Between 1993-96 output grew by 34 % (current prices). Fast growth has been

recorded in radio, TV sets (100 %), office machinery (87 %), medical, precision and optical instruments (86 %) and chemicals (84 %). These were as a rule industries in which foreign companies have been growing dynamically if measured by own capital per company or output per company.

Deepest decline in real terms experienced tanning and dressing from leather (nominal decline 22 %), wooden products (nominal growth 7 %) coke and petroleum (nominal growth 16 %), wearing apparel (nominal growth 16 %), machinery and equipment (nominal growth 16 %) and textiles (nominal growth 19 %). Declining industries are mainly labour-based industries and industries in which foreign investment enterprises play negligible role.

Table 2

Shares of FIEs on the Selected Indicators, Total Manufacturing

	1993	1994	1995	1996
OWN CAPITAL	X	12.6	16.7	21.5
OUTPUT	11.5	12.5	16.8	22.6
EMPLOYEMENT	5.9	7.1	9.6	13.1
EXPORT ¹⁾	14.9	15.9	x	x
VALUE ADDED	8.6	9.2	16.1	21.7
INVESTMENT	25.3	26.9	27.5	33.5
PROFITS	4.6	0.2	26.9	92.5

Source: Balance sheets of individual enterprises, data from Czech Statistical Office 1993-1996, enterprises with 100 and more employees, own computations.

¹⁾ 1994 was last year of recording this indicator by enterprises.

Between 1993-96 position of foreign investment enterprises strengthened in total manufacturing measured by all indicators. Share in own capital (equity) doubled reaching more than one fifth by 1996. The share in total output increased to 23 % and in employment 13 %. The share of foreign enterprises on total profit before tax was 92 %. However the most important is the share on the investment outlays was reached one third of the total investment outlays in manufacturing as by 1996.

The picture works with 3-digit desegregation of manufacturing industries and shows the relation between the output growth and investment outlays growths between 1993-1996. The picture illustrates that the growing industries were as a rule the industries with the growth of investment outlays. We have tested using the

regressions on the firm level (manufacturing enterprises, 2063 observations, data 1995) the relation between investment outlays and firm's ownership. We used the method Ordinary Least Squares for estimation. Results of regression analysis which are summarised in the Table bellow show significant relation between investment activity and foreign ownership of the enterprises, what allows for a conclusion that foreign investments enterprises contribute to the manufacturing growth and restructuring on the firm level significantly.

Manufacturing, 3-digit NACE Industries

obrázek

$$I = \alpha + \beta_1 Mkt\ sh. + \beta_2 \pi_{sub} + \beta_3 CR4 + \beta_4 \pi_{firm} + \beta_5 Dummy$$

	Estimated coefficient	t-statistics	P-value
α	0.073	4.56	**[.000]
β_1	-0.043	-0.77	[.448]
β_2	0.048	0.83	[.409]
β_3	0.015	0.43	[.672]
β_4	-9.023	-1.39	[.162]
β_5	0.129	4.42	**[.162]
R^2	0.027		

Where I is defined as share of investment outlays of the firm divided by the output, β_1 is market share of the firm within the 3-digit industry, β_2 profitability of sub-industry, β_3 four firm concentration ratio, β_4 profitability of the firm and β_5 is the

dummy for ownership.

Intensive investment activity allows for increase of the productivity. Table 3 shows the dynamics of the productivity based on the value added during the period 1993-96. As for the whole manufacturing, the productivity grew faster in the foreign investment enterprises than in the domestic enterprises. However there exist differences by industries. *Value added per employee* increased most in other transport equipment, publishing and printing and furniture and machinery in case of foreign enterprises. In case of domestic firms, value added per employee increased most in office machinery, radio, and TV sets and paper products.

Table 3

Dynamics of the Value Added per Employee 1993-1996
(1993=100 %), **Comparison of Foreign and Domestic**
Enterprises (in %)

	FIEs	DEs
FOODPRODUCTS AND TOBACCO	151.8	101.4
TEXTILES	200.9	140.8
WEARING APPAREL, DRESSING	110.0	117.7
TANNING, DRESSING OF LEATHER	233.7	152.8
WOOD	119.8	147.0
PAPER AND PAPER PRODUCTS	178.8	196.1
PUBLISHING, PRINTING	295.1	114.3
COKE AND PETROLEUM	..	139.0
CHEMICALS	165.2	129.6
RUBBER AND PLASTIC	96.1	91.5
OTHER NON-METALLIC MINERALS	218.1	137.5
BASIC METALS	191.8	120.4
FABRICATED METALS	183.4	135.7
MACHINERY AND EQUIPMENT	242.3	136.7
OFFICE MACHINERY	..	203.7
ELECTRICAL MACHINERY & APP.	154.9	120
RADIO, TV SETS	46.0	191.1
MEDICAL,PREC.,OPTICAL INSTR.	144.3	170.9

MOTOR VEHICLES, TRAILERS	234.1	151.9
OTHER TRANSPORT EQUIPMENT	353.7	174.9
OTHER MANUF. (FURNITURE ETC.)	279.1	165.1
RECYCLING	..	73.1
TOTAL MANUFACTURING	160.6	132.3

Source: Balance sheets of individual enterprises, data from Czech Statistical Office 1993-1996, enterprises with 100 and more employees, own computations.

2.2 Structure

As indicated by Table 4, foreign enterprises have different allocation pattern than domestic enterprises, hence foreign investment enterprises contribute to the restructuring of manufacturing on the industry level. Although there is no clear pattern in foreign allocation as for labour, capital of R&D intensive industries, foreign investment is negligent in the industries with excess capacities and need for extensive restructuring such as steel industry or large machinery , chemicals, coke and refinery.

Table 4
Domestic (DEs) and Foreign Enterprises (FIEs): Investment, Assets and Sales Patterns Across Manufacturing Industries (1996)

	Investment outlays		Own capital		Employment		Output	
	DEs	FIEs	Des	FIEs	DEs	FIEs	DEs	FIEs
FOODPRODUCTS AND TOBACCO	14.93	16.13	11.66	17.98	13.95	10.04	16.76	18.82
TEXTILES	5.02	1.69	5.24	0.99	4.88	7.65	4.82	1.68
WEARING APPAREL, DRESSING	0.81	0.08	0.96	0.14	1.25	3.02	1.00	0.20
TANNING AND DRESSING OF LEATHER	0.62	0.03	1.01	0.05	0.59	2.82	1.58	0.22
WOOD	1.21	0.33	1.44	0.34	1.31	2.07	1.68	0.74
PAPER AND PAPER PRODUCTS	7.30	1.51	3.49	1.41	1.84	2.21	3.31	2.30
PUBLISHING, PRINTING	2.27	1.48	2.11	2.13	2.27	1.45	1.60	2.24
COKE AND PETROLEUM	2.00	0.00	3.65	0.00	-	0.58	6.31	0.00
CHEMICALS	13.97	5.38	14.27	8.89	3.20	5.09	9.95	4.34
RUBBER AND PLASTIC	2.05	4.88	1.86	4.86	7.38	2.47	2.21	5.90

OTHER NON-METALIC MINERALS	6.86	17.02	5.23	22.54	10.72	5.39	3.82	10.97
BASIC METALS	15.92	0.97	16.99	1.26	1.3	11.92	14.80	1.62
FABRICATED METALS	4.46	3.32	4.69	4.14	6.73	7.56	5.47	6.75
MACHINERY AND EQUIPMENT	8.26	2.24	11.21	2.57	7.23	16.42	11.16	3.35
OFFICE MACHINERY	0.06	0.03	0.10	0.01	0.37	0.23	0.12	0.04
ELECTRICAL MACHINERY AND APP.	3.11	5.63	2.75	3.82	10.02	4.74	3.90	6.29
RADIO, TV SETS	0.42	1.52	0.52	0.50	2.50	1.49	0.76	1.46
MEDICAL,PRECISION,OPTICAL INSTR.	0.80	1.64	1.09	0.54	2.64	1.81	0.96	0.91
MOTOR VEHICLES, TRAILERS	4.36	35.10	4.07	26.79	17.3	3.93	4.02	27.84
OTHER TRANSPORT EQUIPMENT	3.02	0.06	4.73	0.02	0.61	3.88	2.67	0.18
OTHER MANUFACT. (FURNITURE ETC.)	2.34	0.83	2.61	0.52	3.16	4.91	2.64	3.25
RECYCLING	0.20	0.14	0.33	0.51	0.74	0.33	0.46	0.92
TOTAL MANUFACTURING	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	0	0	0	0	0	0	0	0

Source: Enterprise data from the Czech Statistical Office, own computations, enterprises with 100 and more employees.

Foreign enterprise manufacturing sector is more specialised and concentrated than domestic manufacturing sector. Three manufacturing industries produce 57 % of the total output of foreign enterprises in manufacturing (28 % are produced in motor vehicles, 19 % in food products and 11 % in non-metallic products). In each of these industries there are multinational companies operating. This situation will be reproduced or even strengthened in the future as we can see from the structure of the investment outlays by manufacturing industries. Domestic enterprises are in general more dispersed across industries and less specialization exist than in case of foreign enterprise.

2.3 Position

As by 1996, foreign enterprises' position in the Czech manufacturing was still relatively weak. With about 23 % share on the output, foreign penetration is still fairly behind the Hungary in which the respective shares exceed 61 %. Small countries have as a rule large share of ownership of manufacturing assets. In Austria

the share is 51 %, in Canada 49 %. For larger countries the respective share is usually smaller: in case of Great Britain it is 25.5 %, for France 26.9 %, and Germany the mere 13.7 %.³⁾

There exist big differences in foreign penetration according to the industries. On one hand there are manufacturing industries in which the position of foreign enterprises is already relatively strong as is the case of motor vehicles or non-metallic minerals where foreign companies own about a half of equity. On the other hand there are industries in which foreign penetration via ownership is zero or negligible. Domestic enterprises have monopoly position in coke and petroleum.. Low penetration can be found not only in traditional industries such as textiles, footwear or machinery but also in basic metals and chemicals. Restructuring in these industries is apparently more difficult. In addition these are not growing industries in the world context (see Table 1.)

Table 5

Share of Foreign Investment Enterprises in Output in 1996 (in %)

2 – digit NACE sectors	Czech Republic	Hungary	Poland
MANUFACTURING	22.6	61.4	30.4
FOOD	24.7	98.7	27.7
COKE AND PETROLEUM	0.00	60.0	0.6
ELECTRICAL MACHINERY AND APP.	32.0	82.7	32.7
RADIO, TV SETS	35.9	79.0	64.5
MOTOR VEHICLES, TRAILERS	66.9	84.8	82.3
OTHER TRANSPORT EQUIPMENT	1.9	71.8	15.0

Source: Data from Czech, Polish and Hungarian Statistical Offices, Czech data: own computations Hungarian data see Hunya, 1998, Polish data see Marcewski, 1998.

The three industries (machinery, chemicals and basic metals industry) represented about 44 % of domestically owned equity as by 1996. In these industries foreign penetration is very low. Low foreign penetration in is surprising especially if compared to the Hungarian and Polish data. In Hungary these industries are among the most penetrated sectors. There exist several explanations: first enterprises need a profound restructuring in these industries, second in some cases the government

³⁾ All estimations quoted according to the Table 20 in the paper presented by G. Hunya at the workshop in Vienna, May 29-30, 1998.

preferred to sell assets to domestic managers for higher price than to sell it cheap to foreign multinational firm and finally some good enterprises have been closed for foreigner owners.

2.4 Performance

Table 6 summarises the comparison between domestic and foreign enterprises for total manufacturing. In all indicators and on average foreign firms outperforms domestic enterprises. Foreign enterprises have on average twice as high productivity and by third higher export per sales ratio. Foreign enterprises invest five times more per employee than domestic enterprises and are more profitable. They are also better endowed per capital and pay higher salary on average.

Foreign enterprises if measured by sales are twice as big in average than domestic enterprises. Average size of domestic manufacturing enterprises if measured by number of employees was similar - 427 employee per domestic enterprises and 450 in case of foreign enterprises as by 1996.

Table 6

Comparison of Performance of Foreign and Domestic Enterprises, Manufacturing (1996, in %)

	Foreign/Domestic Enterprise
Relative productivity	173
Exports per sales (1994)	132
Investment outlays per employee	544
Profitability	4192
Average salary	121
Endowment by capital	152

Source: Balance sheets of individual enterprises, data from Czech Statistical Office 1996, enterprises with 100 and more employees, own computations.

The above indicators and comparisons vary significantly with the industry (see Table 7). In wearing apparel, office machinery and other transport equipment, foreign enterprises record in average lower productivity than domestic enterprises. However,

in these industries foreign penetration is low as confirmed by previous analysis. Higher productivity in case of foreign investment enterprises has been found in the case of following set of industries: furniture, fabricated metals and non-metallic minerals (cement, building materials).

Table 7

Performance Comparison, Selected Indicators, Manufacturing (1996)

	Relative productivity 1)	Relative value added	Relative endowment of labour	Relative export per sales ²⁾
	FIEs/DEs	FIEs/Des	FIEs/DE	Index FIEs/DEs
FOODPRODUCTS AND TOBACCO	143	178	149	183
TEXTILES	105	107	78	203
WEARING APPAREL, DRESSING	93	89	50	112
TANNING AND DRESSING OF LEATHER	127	143	48	108
WOOD	132	163	65	272
PAPER AND PAPER PRODUCTS	151	167	63	139
PUBLISHING, PRINTING	152	129	124	106
COKE AND PETROLEUM	x	X	X	X
CHEMICALS	131	228	210	189
RUBBER AND PLASTIC	141	143	195	230
OTHER NON-METALLIC MINERALS	198	189	344	240
BASIC METALS	191	208	117	194
FABRICATED METALS	224	147	181	132
MACHINERY AND EQUIPMENT	129	124	95	130
OFFICE MACHINERY	47	86	9	x
ELECTRICAL MACHINERY AND APP.	132	109	122	226
RADIO, TV SETS	178	191	83	151
MEDICAL,PRECISION,OPTICAL INSTR.	120	100	136	246
MOTOR VEHICLES, TRAILERS	168	140	195	240
OTHER TRANSPORT EQUIPMENT	82	70	146	150
OTHER MANUFACT,	300	139	111	273

(FURNITURE ETC.)				
RECYCLING	145	151	84	x
TOTAL MANUFACTURING	194	165	152	132

Source: Enterprise data from the Czech Statistical Office, own computations, enterprises with 100 and more employees.

1) Relative productivity = output / number of employees.

2) 1994.

Set of industries, which recorded significantly higher high investment per assets are as follows: office machinery, radio & TV sets, medical, precision and optical instruments followed by motor vehicle and textile. Foreign enterprises invest a significant share of the total investment in manufacturing, what is especially truth in case of some selected industries.. Thus 80 % of total investment in car industry comes from foreign enterprises, 65 % in radio and TV sets. More than half in non-metallic minerals and rubber and plastics as well as in medical, precision and optical instruments manufacturing and almost half in electrical machinery. This will be most probably in the future growing industries.

Although foreign investors tend to flow to firms of initial above average productivity, profitability and better endowed firms, foreign enterprises seem to improve the productivity after the acquisition by massive investment into the technology, training the employees and improvement of production organization. Foreign enterprises pay as rule higher salaries and thus are able to attract more skilled labour, which in turn contribute to the higher productivity.

There are factors which probably contribute in major share to the higher productivity and which cannot be captured by our statistical analysis such as managerial skills, which allow for effective investment decisions. Investment activity is the most important indicator and it shows clearly that foreign enterprises are restructuring more intensively than domestic enterprises. It is truth that foreign enterprises have as a rule better access to the credit and are able to finance investment from internal resources. Domestic enterprises as a rule have privatization credits, which do not allow them to undertake strategic investment into the technology.

In our previous research the higher profitability of foreign enterprises has not been proved (see Zemplerová, Benáček, 1996). The reason might be the fact that enterprises did not record profits due to the past investment. In 1996 foreign enterprises produced 92 % of the total profit before tax in manufacturing.

3. Policies and Climate

Our analysis has shown that FDI is an important factor fortifying the restructuring of the transitional economy. We found that in general foreign enterprises contribute to the improvement of productivity and economic growth. In 1996 foreign enterprises created almost the whole profit in manufacturing. Investment activity of foreign enterprises is very high and thus the positive effects on restructuring in manufacturing will continue to exist in the future. The question arises what implication for FDI policy should be drawn, what is the message of the above findings for the policymakers?

On one hand, mainly for economic reasons, governments can consider *domestic investors* to be inferior compared to the foreign investors, and therefore provide special investment incentives only for foreign investors. On the other hand, governments can have certain reservations with *foreign investors* (usually for political reasons), and therefore build certain administrative barriers to foreign penetration into the domestic markets.

On one hand the government temptation for using FDI incentives is stronger in less stable and less developed economies for a variety of reasons. In case of former centrally planned economies more often quoted reasons include the lack of domestic capital and managerial knowledge. Structural changes, modernization and extension of service and infrastructure sectors need capital and know how, which are more easily available for foreign investors. On the other hand the budgetary constraints are tougher in transitional countries. Also there are negative and long term experience with state intervention, subsidies and discretionary treatment of investors in the former centrally planned economies.

What kind of investment incentives and disincentives exist? Should there exist special incentives and in fact subsidies to attract foreign investors? Or should the government try to counterbalance the "disadvantage" of domestic producers, i.e. to subsidise domestic investors? Let us debate these questions in the following part of the study.

In each country there exist certain *generic* environment and conditions for business activity and investment (macroeconomic and political stability, availability and price of resources, skills of labour, level of liberalization, law enforcement, criminality etc.). In their decisions, investors are further influenced by *special* incentives for investors (tax holidays, subsidies to job creation etc.). Such incentives can be provided automatically, i.e. for everyone who qualifies under certain criterion or on a case-by-case basis, just for selected investors without any a priori given rules or

criteria. Special incentives for investors can be controlled by the state or local government and can be applied to the whole economy or only certain sectors or regions. At the same time there might exist *disincentives* for foreign investors such as restrictions concerning the foreign investor's ownership, special approvals needed restrictions on certain sectors for foreigners, public procurement discrimination or exclusion from the privatization.

4. Investment Incentives and Disincentives

Investment incentives are understood as administrative measures applied by governmental bodies on all levels, over which the governments have direct control. Investment incentives can be divided into "financial" and "non-financial". **Financial incentives** are tax holidays, corporate tax and VAT relief or diminishing, accelerated depreciation, customs duties exemptions and deductions of the re-invested profit from the taxable base or loss carry over. Financial incentives are further subsidies for employment, R&D grants, loans, guarantees or subsidies to credits, subsidy to infrastructure and other rebates and subsidies, which are allocated in a concrete enterprise. **Non-financial incentives** are such measures which limit competition and decrease uncertainty and risk for the business operation through the provision of monopoly or preferential treatment (market access protection, exclusive licensing, exemption in access to foreign exchange and the like). Weak enforcement of anti-trust law is in fact also non-financial incentive for investors. Both financial and non-financial incentives are finally beneficial for the investor. In the case of financial incentives, costs are subsidised directly and the subsidy is quantifiable — non-financial incentives allow for extra (monopoly) profit is difficult to quantify, however can be estimated.

Another criterion for a classification of the incentives depends on the way of its implementation is important, i.e. *how and to whom*. Incentives provided to investors can be granted to all investors **automatically** without any limitations, or **selectively** to some investors (foreign or domestic, small or large, in certain sector or region).

Any selective approach requires the agency to decide whether and which investors qualify for FDI incentives. The official argument for selection in providing incentives is that the government would like a priori to exclude the "bad" and attract only the "good" FDI. The "good" investor is officially considered to be the one who will invest into the new technology, training of labour and restructure fast (possibly without the creation of further unemployment), make profits and not transfer them abroad, increase productivity and export the major share of output.

Apart from the costs of regulation of incentives, any such discretion and need for selection gives power to the bureaucracy and provides opportunity for corruption.

The more conditions have to be fulfilled by the investor, the less the transparency and greater the possibility of manipulation. In addition, selective approaches also delay the decisions, and in reality, repeal investors while demonstrating who decides what in the country: is it the market or the bureaucrat? One may attract one investor by special incentive but at the same time loose several other potential investors.

During the first years of the transition process, all governments including the former Czechoslovak, provided tax holidays to foreign investors. Despite that, relatively modest amounts of FDI have been attracted to the transitional countries. The reason for it is most probably the fact that insufficiencies in the generic environment cannot be overpowered by special FDI incentives. It is not the tax holiday but rather the whole taxation system what plays an important role in the investors' decision-making process. It is well known fact that Hungary attracted most of the foreign direct investment among transitional countries. As Table 8 shows, the corporate tax in Hungary is sufficiently low and so is in Ireland. This might be more important element in the foreign investors' decision that the tax holidays.

Table 8

Corporate Tax Rates by Selected Countries (1996, in %)

	Corporate tax
Czech Republic	39
Hungary	18
Austria	34
Ireland	10

Further tax deductible expenditures may be important or even more important that the tax rate itself. In addition value-added tax is considered in the calculation preceding the investment decisions. Value added tax differences might influence trade patterns that effect the export performance of the enterprises and, consequently, the economy, more than the tariff policy.

Governments of transitional countries have, as a rule, a positive attitude towards foreign investment. Attracting foreign capital is considered to be a success, a signal of development. It is expected that existing foreign capital will lead to further influx of foreign capital. However, fears of excessive expansion of foreign capital exist, and thus government can impose restrictions and limitations on foreign investment, which then work as disincentives.

There might be hidden or open discrimination against foreign investors as for instance in the procurement, privatization tenders and like. Domestic managers can lobby better and have contacts to the policy makers and parliament. The results are laws granting special allowances for domestic investors, i.e. a disincentive. An ownership right to real estate property and land is often crucial for foreign investors. The ownership of land is even more restricted: in most countries *ownership relations to land and other agricultural property*, according to which, land cannot be transferred to the ownership of foreign exchange expatriates.

Most of the constitutions of the transitional countries prohibits the ownership of land or real estate by a foreign person. Liberalisation in the area of property rights is a sensitive question for political reasons rather than for economic ones. Probably the most liberal approach towards land and real estate property is in Hungary. In most countries recently, if legal entity is established, the ownership of real estate property is possible.

5. Conclusion

Both macro- as well as micro-economic policies as well as special investment incentives influence investors' decisions. What decide are calculation of present costs and the estimation of future revenues. Lower labour costs in a host country, if compared to the country of the foreign investor, are still considered to be main attraction for investors from abroad in the case of the Central European Countries. In fact, the total production cost and the estimated risk are major factors governing the investor's decision. An investor invests abroad if expects a higher rate of profit than in their home country, and if new markets are easily accessible. Infrastructure, services, telecommunications should work otherwise, costs increase. If however the calculation is same for several countries, the special incentives can influence the investor's decision.

Hungary, Czech Republic and Poland are three countries which often compete for foreign investment intending to establish a hub for export to other parts of Eastern Europe. Therefore investment decision depend on the trade policy in the host country. In addition Czech Republic has to compete with Western countries which are often using more FDI incentives than the countries in transition. Often, the regional package of FDI incentives can be decisive. Local authorities may extend assistance and support to foreign investors in the form of providing the entire necessary infrastructure, e.g. power liners, gas, water supplies, and telecommunications to the border of the building site. In addition, local government-controlled grants may be available to help firms in the recruiting and re-training of skilled labour.

During the transition Hungary and Poland continued to provide numerous FDI incentives relying not only on tax holidays but also on indirect support, which takes the form of infrastructure subsidies but also on the financial support from various funds, industrial parks, and financial and other support from local authorities negotiated on a case by case basis. For large investors, allowances in the form of protection of the market and custom relief are provided (compare Hunya, Sass, 1996). In the Czech Republic, the conservative government which came to power in the middle of 1992 abolished most FDI incentives and has since tended to treat all investors equally, without any exceptions.

The question can be asked as to whether the Czech Republic attracted less FDI than Hungary or recently also Poland because of the government's reluctance to provide allowances — selectively or automatically. The answer is probably not. There are several other explanations, of which, the character of privatization is one of the most important.

Czech government was not forced by its balance of payment situation (as was the case in Hungary) to attract foreign investors during the period realization of the privatization programme. On the contrary, the Czech Republic has been wary of large volumes of foreign investment over the last few years. Since 1993, portfolio investment and credits by foreign banks started to accelerate in the Czech Republic (see Benáček, Zemplerová, 1996). Because of the threat of high inflation, which could follow after the high influx of foreign exchange into the economy and thus increase the money supply, the government was negatively motivated towards any FDI incentive policy.

Voucher privatization has been the major method of privatization in the Czech Republic — a method excluding foreign investors from the outset. In case of the Czech Republic, negative experiences with some existing foreign investment, together with the lack of serious foreign investors' interest, were the reasons why the government, in the approval process in some cases of privatization projects, preferred the so-called "Domestic way of Privatization". A supportive argument for this approach was "A Family Silver" argument, which mainly arises from a social-political background rather than an economic one.

Hungary started to develop banking system and capital markets earlier and in a more transparent way than the Czech Republic. Big banks have been privatized to the strategic foreign investors. In the case of the Czech Republic, privatization of the large bank has been delayed. In addition Hungary has very low tax burden. Not only the legislation relating to foreign ownership is more liberal but also less bureaucratic obstacles exist during the establishment of a new foreign firm.

Legal systems are, in the economies in transition, not fully built yet, and laws regulating economic activities are changing rather often. Frequent changes of laws also apply to FDI policy. Legislation is not only incomplete and inconsistent, but also

not transparent. Governments should avoid drastic swings in policy towards FDI because this increases the already existing instability of operation of foreign capital conditions in countries in transition.

Ceteris paribus, foreign direct investment (FDI) incentive policies can drive an investor's decision if investment attractiveness given by macroeconomic and political stability or other disincentives for investment is reaching certain parameters, which can be documented by numerous examples.⁴⁾ This of course is the case when, in the long term, investors expect growth and stability in the economy and the political system of the country. Stable economic and political situation is the most important factor enabling to reveal natural comparative advantages of the country. Thus maintenance of an environment conducive to sustained economic growth is the first condition sine qua non of FDI policy.

4) According to Handelsblatt American concern "Advanced Micro Devices" will invest 2.8 bn DEM in the Dresden region (Eastern part of Germany). Out of this sum, AMD acquired the subsidy from the state budget of 0.5 bn DEM (from the fund for Eastern support), and 0.2 bn DEM interest allowance, 0.1 bn DEM contribution for the creation of R&D centre and credit guarantees for 0.4 bn DEM from the regional government and for 0.6 bn DEM from the state regional government. The attraction of complimentary or other high technology enterprises is expected as an effect of such a supportive policy.

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